

RE-ACCREDITATION REPORT

NIRMALA NIKETAN COLLEGE OF HOME SCIENCE (2009-2014)

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COMMITTEES FOR THE NAAC

Steering Committee

Dr. Perpetua Machado
Dr. Geeta Ibrahim
Dr. Anuradha Bakshi
Dr. Nirmala Almeida
Dr. Ela Dedhia
Ms. Sunita Jaiswal
Dr. Vishaka Karnad
Dr. Subhadra Mandalika
Ms. Payal Maheshwari
Dr. Subhadra Prabhu
Dr. Kamini Rege

Sub-Committee

Ms. Mary Varghese
Ms. Nina Dias
Dr. Malathi Sivaramakrishnan
Ms. Anuradha Mitra
Ms. Jacqueline Colaco
Ms. Pratima Goyal
Dr. Veena Yardi
Ms. Rhonda Divecha
Ms. Vibha Hasija
Dr. Ritu Madhan
Ms. Roopa Rao
Ms. Sanam Khan
Ms. Neha Mulchandani
Ms. Vrinda Udiaver

Assistance Committee

Ms. Patsy Khan (Administrator) and Non-Teaching Staff
Ms. Tasneem Katniwala
Ms. Ritu Kunte
Ms. Sujata Shigwan
Ms. Nalini Naik and Accounts Office Staff
Ms. Benedicta Saldanha and the Support Staff

A. (i) PREFACE

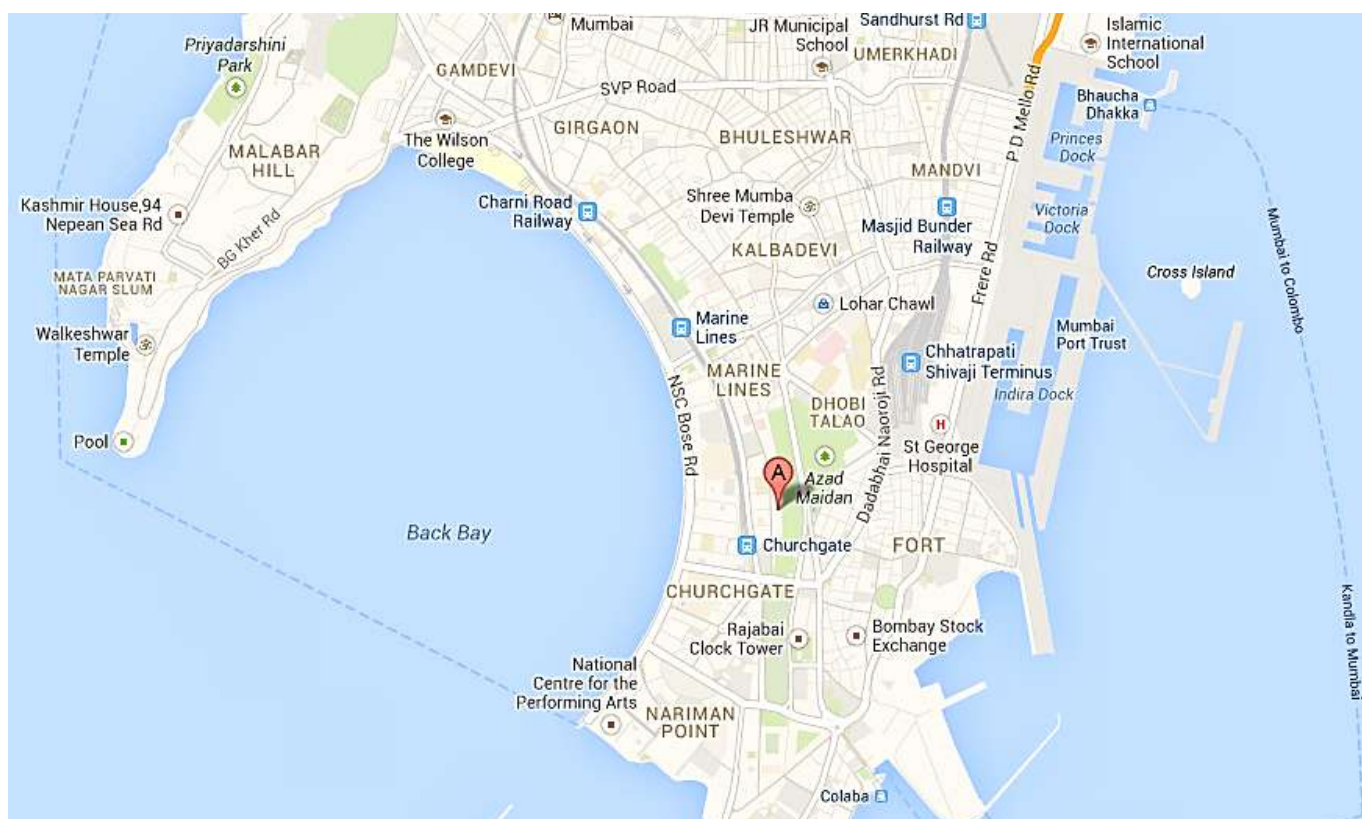
This Re-Accreditation Report containing information about the Nirmala Niketan College of Home Science has been prepared with utmost authenticity and transparency.

The Nirmala Niketan College of Home Science, an institution of 58 years, is one of the premier Home Science Colleges in India, having the unique distinction of being the only Home Science College affiliated to the University of Mumbai. A grant-in-aid Institute, it is primarily aimed at empowering women to face personal and professional challenges of a changing modern world. It offers an education that ranges from the Junior College to the Doctoral Programme with specialization at the undergraduate level in one of four disciplines; as well as an array of Value-Added and Certificate Courses to enrich the personal and professional development of the students.

The College is located in South Mumbai, the heart of the Mumbai city, and is therefore easily accessible from both the Western and Central railway terminals. South Mumbai is well-known for the city's main business zones, distinctive hotels, some of the best schools in the city and is also home to several of the city's sports grounds. This added advantage promotes networking within the vicinity itself.

The college stands for both academic excellence through the curricula which is revised from time to time, as well as for a socially relevant education that awakens the students' sense of social responsibility to reach out and share their knowledge and skills with more vulnerable sections of society.

The NAAC has developed certain procedures for continuous progress in the quality of higher education. The following report indicates how the college is committed to the core values of NAAC.



A: Nirmala Niketan College of Home Science

A. (ii) PRINCIPAL'S MESSAGE

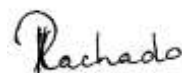
The Nirmala Niketan College of Home Science is not just an impressive edifice but a temple of learning with students at the centre of our philosophy and curriculum.

Continuing its living legacy, the College offers students holistic quality education that fosters global competency and life skills, and inculcates a value system that inspires them to contribute to nation-building even while they aspire to excellence.

The College nurtures Public, Private and Stakeholder partnerships as it embraces change and innovation that ensure academic vibrancy and growth.

“The Highest law of Love is Service” is the College motto guiding students to be women of conviction, values, and academic brilliance.

Together with our Faculty, students, and other stakeholders, we are engaged in continually reinventing ourselves as an exceptional centre of higher learning and of quality research, making noteworthy contributions to the emerging knowledge society of our 21st century.



Dr. (Ms.) Perpetua Machado
Principal

LIST OF ABBREVIATIONS

AAILSG:	All India Institute of Local Self Government
AC:	Air Conditioner
ACBI:	Association of Clinical Biochemists of India
ACBICON:	Annual Conference of the Association of Clinical Biochemists of India
ACTREC:	Advanced Centre for Treatment, Research and Education in Cancer
AD:	Alzheimer's disease
AFSTI:	Association of Food Scientists & Technologists, India
AICTE:	All India Council for Technical Education
AKESI:	Aga Khan Education Services India
AKYSBI:	Aga Khan Youth and Sports Board India .
ALERT India:	Association for Leprosy Education, Rehabilitation and Treatment— India
ARAHE:	Asian Regional Association of Home Economics
ATKT:	Allowed To Keep Term
AYJNIHH:	Ali Yavar Jung National Institute for the Hearing Handicapped
BARC:	Bhabha Atomic Research Centre
B.Ed.:	Bachelor of Education
B.L.I.Sc.:	Bachelor of Library and Information Science
BOS:	Board of Studies
BPA:	Bombay Psychological Association
BUCTU:	Bombay University and College Teachers' Union
CAD:	Computer Aided Designing
CAP:	Central Assessment Programme
CAS:	Career Advancement Scheme
CASP:	Counselling and Suicide Prevention Centre
CBSGS:	Credit Based Semester and Grading System
CFL:	Compact Fluorescent Lamp
CFTRI:	Central Food Technological Research Institute
CGPA:	Cumulative Grade Point Average
CGSI:	Consumer Guidance Society of India
CHIRAG:	Community Health Initiative & Research Action Group
CIRCOT:	Central Institute for Research in Cotton Technology
COM-DEALL:	Communication DEALL program
CRI:	Coping Resources Inventory
CRM:	Community Resource Management
DHM:	Daughters of the Heart of Mary
DJ:	Disc Jockey
DLLE:	Department of Lifelong Learning and Extension
ECA:	Early Childhood Association
EPC:	Employment Placement Cell
FIP:	Faculty Improvement Programme
FND:	Foods, Nutrition & Dietetics
FPP:	Food Processing and Preservation
FY / FY BSc:	First year Bachelor's in Home Science
GC/MS:	Gas Chromatography - Mass Spectrometry
GFATMR7:	Global Funds to Fight AIDS, Tuberculosis and Malaria, Round 7
GO:	Government Organization
HD:	Human Development
HOS:	Head of Specialization

HPLC:	High-Performance Liquid Chromatography
HPTLC:	High Performance Thin Layer Chromatography
HRD:	Human Resource Development
H.S.C.:	Higher Secondary School Certificate
IACLP:	Indian Association for Career and Livelihood Planning
IAEVG:	International Association for Educational and Vocational Guidance
IAPA:	International Alliance for the Prevention of AIDS
IATBS:	Institute of Applied Theology and Behavioral Science
ICDS	Integrated Child Development Services
ICFOST:	Indian Convention of Food Scientist and Technologists
ICMR:	Indian Council of Medical Research
ICOR:	Institute of Community Organization Research
ICT:	Information and Communication Technology
ICT:	Institute of Chemical Technology
ICTA:	Institute of Counselling and Transactional Analysis
ICTC:	Integrated Counselling and Testing Centre
IDA:	Indian Dietetic Association
IFHE:	International Federation for home Economics
IIG:	International Institute for Girls
IJCLP:	Indian Journal of Career and Livelihood planning
ILO:	International Labour Organisation
ILO:	Intended Learning Outcomes
INCOSAN:	International Conference on Sports and Nutrition
IPAT:	Institute for Personality and Ability Testing
IRSHA:	Interactive Research School for Health Affairs
ISBN:	International Standard Book Number
ISSN:	International Standard Serial Number
IQAC:	Internal Quality Assurance Cell
JPIP:	Jnana Prabodhini's Institute of Psychology
KMS:	Knowledge Management System
LCD:	Liquid Crystal Display
LEC:	Local Executive Committee
LMC:	Local Managing Committee
LPG:	Liquefied Petroleum Gas
M.L.I.Sc.:	Masters of Library and Information Science
MOU:	Memorandum of Understanding
MSACS:	Maharashtra State Aids Control Society
M.Sc.:	Masters in Home Science
MSoOffice:	Microsoft Office
NAAC:	National Assessment and Accreditation Council
NACO:	National Aids Control Organization
NAEYC:	National Association for the Education of Young Children
NDA:	National Defense Academy
NEEF:	National Ecology and Environment Foundation
NET:	National Eligibility Test
NFB:	National Federation of the Blind
NGO:	Non-Governmental Organization
NITIE:	National Institute of Industrial Engineering
NME-ICT:	National Mission on Education through Information and Communication Technology
NPTEL:	National Programme on Technology Enhanced Learning

NT:	Nomadic Tribes
OBC:	Other Backward Classes
OBT:	Other Backward Tribes
OER:	Open Educational Resources
OPAC:	On-line Public Access Catalogue
OPCNS:	Older Persons Counseling Needs Survey
PATU:	Parents' Association Thalassemic Unit Trust
PBAS:	Performance Based Appraisal System
PCOS:	Polycystic Ovarian Syndrome
PFNDAI:	Protein Foods and Nutrition Development Association of India
PG:	Post Graduation
Ph.D.:	Doctor of Philosophy
PPT:	Power Point Presentation
QOL:	Quality of Life
RBO:	Rice bran oil (RBO)
RD:	Registered Dietician
REAP:	Rural Education Action Program
REBT:	Rational Emotive Behaviour Therapy
RRC:	Research and Recognition Committee
SASMIRA:	Synthetic & Art Silk Mills' Research Association
SC:	Scheduled Castes
SDC:	Society of Dyers and Colorists
SET:	State Eligibility Test
SFO:	Sunflower oil (SFO)
SN:	Sports Nutrition
SNDT:	Shreemati Nathibai Damodar Thackersey
SPSS:	Statistical Package for the Social Sciences
ST:	Scheduled Tribes
STP:	Speciality Textile Products
SVT:	Sir Vithaldas Thackersey
SWOC:	Strengths, Weaknesses, Opportunities, and Challenges
SY/ SY BSc:	Second Year Bachelor's in Home Science
TAQ:	Teacher Assessment Questionnaire
TBHQ:	Tertiary ButylHydroQuinone
TDM:	Therapeutic Drug Monitoring
TFT:	Textile and Fashion Technology
TIFR –CCCA:	Tata Institute of Fundamental Research – Child Care Centre Association
TLC:	Thin layer chromatography
TMNP:	Tribal Mensa Nurturing Programme
TPF:	The Promise Foundation (TPF)
TRADC:	Textile Research Application Development Centre
TTCT:	Torrance Tests for Creative Thinking
TUV:	Technischer Uberwachungsverein
TY/ TY BSc:	Third Year Bachelor's in Home Science
USP:	Unique Selling Proposition or Unique Selling Point
U.V.:	Ultra Violet rays
VJTI:	Veermata Jijabai Technological Institute
VLCC:	Vandana Luthra's Care Clinic
Y.B. Chavan:	Yashwantrao Balwantrao Chavan

LIST OF ANNEXURES

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B: EXECUTIVE SUMMARY

The Nirmala Niketan College of Home Science, a Christian Minority Institute, is the first and only College in the University of Mumbai dedicated to the empowerment of women through Home Science education. It is one of the pioneering women's education institutes of the country. It is registered under the Society Registration Act 1860 and a Public Trust Act 1950.

Through our motto, "THE GREATEST LAW OF LOVE IS SERVICE", the staff and students promote academic excellence while also reaching out to the less fortunate through sharing of their knowledge and skill expertise with them.

The college has as its vision statement "the total development of the Indian woman by providing learning opportunities to empower her with the knowledge, skills and attitudes to face personal and professional challenges with confidence, inculcating values of respect, commitment and concern for the service of others, thereby enabling her to make a positive contribution to society in the 21st century."

CORE VALUES

Contributing to National Development

The college addresses the gender inequity in (higher) education in the country and world through its dedicated women's education programme. The college is unique in its empowerment of women through an education that is life-, career- and community-oriented. Building strong independent women with a deep sense of national loyalty and commitment to nation building has always been the thrust of our college. Collaboration with the "Department of Lifelong Learning and Extension" of the University of Mumbai has further enhanced its contribution to society. Moreover, the DHM has several outreach centres in rural and tribal areas of multiple states, including Maharashtra. The college also serves the beneficiaries of these outreach centres through its extension activities.

Fostering Global Competencies among Students

Our educational standards are acknowledged globally, allowing students to enroll overseas for higher education in reputed universities. Recognising their excellence in teaching and research, our alumnae occupy eminent positions in foreign universities. Hosting an international conference, designing exchange programmes with foreign universities, welcoming renowned foreign academician guest speakers have strengthened our international linkages and placed our college on the global map.

Inculcating a Value System among Students.

Values of respect, acceptance, honesty, nonviolence, hard work, service, are woven into the syllabus guiding both teachers and students. The celebration of national, multicultural and multi-religious festivals promotes unity in diversity. Socially-relevant contemporary issues such as rape, terrorism, communal riots are analysed and the values inherent in their preventive measures emphasised. Ongoing extension work provides space for students to share knowledge and skills with the marginalized in urban/rural/tribal areas.

Promoting the Use of Technology

The use of ICT in the teaching-learning process as well as administration has enhanced our quality of teaching and ensured durability of records in administrative-related work (attendance, fees, examination papers, report cards, internal marks, salaries). The college has an interactive website, a cybercafé with 39 computers, LCD projection facilities in all classrooms, and computers in all staffrooms. ICT facilities have been upgraded in the college

library with SLIM 21 with 5 important models - a)Acquisition, b) Serials control, c) Circulation, d) Cataloguing, e) OPAC. Excel, Microsoft pro plus, MS windows professional, Corel draw X5, Adobe Photoshop extended C55, 3D Max 2011, Anti CADLT 2011, have been installed. Specialised software is being used at multiple levels (e.g., Clarity English Language software, SPSS, Richpeace).

Quest for Excellence

As the only Home Science college affiliated to the University of Mumbai, the college has stood the test of time since our quest for excellence is relentless. Research papers are presented at both national and international conferences. The College has hosted an international conference with outstanding success. Our receptivity to feedback helps us achieve higher standards of excellence.

Criterion I: Curricular Aspects

As the only college of Home Science affiliated to the University of Mumbai, the College enjoys default academic autonomy with regard to curriculum design and development, and has contributed the Home Science curricula for levels ranging from FY BSc to PhD as well as certificate. While placing the highest value on comprehensive, professional, and socially-relevant education for women, the Nirmala Niketan College of Home Science stands for academic excellence.

Whereas the Home Science curriculum itself includes considerable skill development, several short-term value-added courses have been designed and introduced by the college.

Self-financing postgraduate and certificate courses, approved by the University of Mumbai, have also been introduced. The first batch of the two New M.Sc. courses in Food Processing Preservation (FPP) and Sports Nutrition (SN) and Research Methods and Statistics Course for Doctoral Students in Home Science were brought to successful completion. These courses, the first of their kind in India, will go a long way in sustaining the interest of students in postgraduate studies.

Criterion II: Teaching-Learning and Evaluation

The Faculty places best efforts towards effective translation of the curriculum and improvement of teaching practices. The college has provided the infrastructural, library, and ICT support. We outstandingly use learner-centred, participatory, innovative teaching-learning methods. We also provide special learning opportunities through study tours, visits, sessions by resource persons, workshops/seminars/conferences, personality development camps, and extra-curricular activities.

Oral and written feedback is obtained from students periodically for each subject in order to ascertain the quality of curriculum delivery and incorporate workable suggestions of students. The Teacher's Diary and the TAQ are also important quality assurance mechanisms.

Criterion III: Research, Consultancy and Extension

The Research Centre has initiated contact with Industry; simultaneously Industry has also solicited the expertise of the Research Centre for extensive, multi-site, national studies. Recently the research findings of a breakfast study undertaken by our Centre received media coverage in 150 leading newspapers across the country. The Research Centre is exemplary of the excellent Institute-Industry interface in the college as it engages in sponsored research and consultation work through collaboration with prestigious local, regional, national, and

international organizations. The Research Centre also publishes issues of a peer-reviewed journal—Research Reach: Journal of Home Science (ISSN No. 0974-617X).

Our staff and students have participated in local/regional/national/international seminars and conferences; obtaining research grants; writing and publishing scientific papers/chapters/books winning prizes and awards for their outstanding contributions. The University of Mumbai has recognized all 22 out of 27 teaching faculty members for postgraduate teaching/research guidance; and approved 10 as Ph.D. guides.

Students acquire a hands-on experience of their social responsibility by actively conducting social awareness programs with neighbourhood urban communities and skill sharing camps with tribal communities.

Criterion IV: Infrastructure and Learning Resources

Over the last five years the Infrastructure and learning resources have been enhanced with facilities such as a Research Centre, laboratories, scientific equipment, psychological testing material, library, ICT/specialised software such as SPSS, and audio-visual equipment. The college has availed of the UGC Special Assistance Grant of 25 lakhs utilised for purchase of specialised equipment, specialised software, and e-journals. Several sections of the college have been remodelled.

Criterion V: Student Support and Progression

We optimise our location in Mumbai and supplement our student's educational experiences through networking/linkages with a host of academic, research, industry, and other organisations. Recognising that higher education is not only about academics, but must be aimed at holistic development, the college promotes learning opportunities through participation in intramural and extramural competitions/events, whether academic, co-curricular or extra-curricular.

The college has set up an Employment Placement Committee (EPC) which liaises between Industry (employers) and students (potential employees) and organises various enrichment programmes for students on resumé writing, preparing for an interview, development of soft skills, and computer skills.

An open and cordial rapport exists between the staff and students. Teachers strive for excellence by providing additional assistance to academically weak students through personal coaching and remedial teaching. Financial need is met through freeships/scholarships and option to pay fees in installments.

A professional counsellor is on the premises to guide students on academic or personal matters. Personal counseling is also provided to students by the mentors, coordinators, HOSs, and teachers.

Criterion VI: Governance, Leadership and Management

The College of Home Science was privileged to be the lead organiser and host for a three-day International Conference 2013 on a very contemporary and socially-relevant theme—“**Enhancing Health, Well-being and Sustainability- Opportunities, Challenges and Future Directions**”. It brought together renowned national and international experts in their respective fields to address this vital issue.

The decision-making processes are considerably decentralised with teachers participating in one or more (rotational) leadership roles in the college (as convenors, coordinators/HOSs). Student-Staff committees provide space for students' participation in decision-making processes as well as groom student leadership. Cultural activities organized throughout the academic year and '*Nirmal Utsav*' the Annual college festival, foster a sense of belonging and camaraderie among students, teaching and non-teaching staff. The creative writing skills of staff and students are showcased in the annual college magazine, "EXPRESSIONS".

The Governing Body of the Nirmala Niketan Institute constitutes the human face of the Management whose unflinching support can always be counted on. Their expectations for all-round excellence spur the faculty and students to give their best.

Criterion VII: Innovations and Best Practices

The College has signed two Memorandums of Understanding (MOU). One with Y.B. Chavan Pratishthan Mumbai (Maharashtra Mahila Vyaspeeth) for the Home Management Course for less privileged women and the other MOU with Fu Jen Catholic University, Taiwan, regarding cooperation to promote academic exchange between the University and the Nirmala Niketan College of Home Science. MOUs have also been signed with Industries for conducting research projects. Cultural Exchange programmes have been organised between the Nirmala Niketan College of Home Science and students from France and Belgium enabling the students to bond with their counterparts overseas. Students from Italy, Iraq, Iran, Mauritius, and Tanzania have benefitted from and enriched our curriculum.

Sessions are also regularly conducted to enable parents to successfully meet the challenges of parenting today. Information regarding career options arising from each of the specialisations is given to parents at the time of orientation at both F.Y. and S.Y. levels.

Our best practices include regular use of participatory and innovative teaching-learning methods, and participatory governance for capacity-building.

Conclusion

The entire curriculum is oriented to enabling each student to imbibe skills that are necessary for negotiating life's challenges whether personal, familial, community/societal, or professional. The well-planned and implemented education is a blend of contemporary and traditional values interwoven to depict the fabric of our own *Nirmala Niketan Home Science* brand which echoes the college vision, goals, mission, motto, and emblem.

C. PROFILE OF THE AFFILIATED /CONSTITUENT COLLEGE

1. Name and address of the college:

Name: Nirmala Niketan College of Home Science
Address: 49, New Marine Lines, Mumbai – 400 020.
City: Mumbai Pin: 400020 State: Maharashtra
Website: www.nirmalaniketan.com

2. For communication:

Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. Perpetua Machado	O: 022-22007544 R: 022-22017370	9892368916	022-22003217	principal@nirmalaniketan.com
Vice Principal	---	O: R:			
Steering Committee Co-ordinator	Dr. Geeta Ibrahim	O: 022-22076503 R: --	9820153902	022-22003217	teekay7@rediffmail.com

3. Status of the of Institution :

Affiliated College

Constituent College

Any other (specify)

<input checked="" type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

4. Type of Institution:

a. By Gender

i. For Men

ii. For Women

iii. Co-education

b. By shift

i. Regular

ii. Day

iii. Evening

5. Is it a recognized minority institution?

Yes

No

<input checked="" type="checkbox"/>
<input type="checkbox"/>

If yes specify the minority status (Religious/linguistic/ any other) and provide documentary evidence.

Religious (Christian minority)

6. Source of funding:

Government

Grant-in-aid

Self-financing

Any other

<input type="checkbox"/>
<input checked="" type="checkbox"/>
<input type="checkbox"/>

7. a. Date of establishment of the college: 28/08/1969 (dd/mm/yyyy)

b. University to which the college is affiliated /or which governs the college (If it is a constituent college)

University of Mumbai

c. Details of UGC recognition:

Under Section	Date, Month & Year (dd-mm-yyyy)	Remarks (If any)
i. 2 (f)	31/03/1971	--
ii. 12 (B)	31/03/2006	--

(Enclose the Certificate of recognition u/s 2 (f) and 12 (B) of the UGC Act)

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section/clause	Recognition/Approval details Institution/Department/ Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
i.	---	---	---	---
ii.	---	---	---	---
iii.	---	---	---	---
iv.	---	---	---	---

8. Does the affiliating university Act provide for conferment of autonomy (as recognized by the UGC), on its affiliated colleges?

Yes No

If yes, has the College applied for availing the autonomous status?

Yes No

9. Is the college recognized

a. By UGC as a College with Potential for Excellence (CPE)?

Yes No

b. For its performance by any other governmental agency?

Yes No

10. Location of the campus and area in sq.mts:

Location *	Urban
Campus area in sq. mts.	1335.5 sq m

(* Urban, Semi-urban, Rural, Tribal, Hilly Area, Any others specify)

11. Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

- Auditorium/seminar complex with infrastructural facilities
- Sports facilities
 - * play ground
 - * swimming pool
 - * gymnasium
- Hostel
 - * Boys' hostel
 - i. Number of hostels
 - ii. Number of inmates
 - iii. Facilities (mention available facilities)
 - * Girls' hostel
 - i. Number of hostels: 01
 - ii. Number of inmates: 62
 - iii. Facilities (mention available facilities)
 - Residential facility
 - Security
 - Recreational facility
 - Cafeteria
 - Hostel Warden
 - * Working women's hostel
 - i. Number of inmates
 - ii. Facilities (mention available facilities)
- Residential facilities for teaching and non-teaching staff (give numbers available -- cadre wise)
- Cafeteria --
- Health centre –
 First aid, Inpatient, Outpatient, Emergency care facility, Ambulance.....
 Health centre staff –

Qualified doctor	Full time	<input type="checkbox"/>	Part-time	<input type="checkbox"/>
Qualified Nurse	Full time	<input checked="" type="checkbox"/>	Part-time	<input type="checkbox"/>
- Facilities like banking, post office, book shops
- Transport facilities to cater to the needs of students and staff
- Animal house
- Biological waste disposal
- Generator or other facility for management/regulation of electricity and voltage
- Solid waste management facility
- Waste water management
- Water harvesting

12. Details of programmes offered by the college (Give data for current academic year)

Sl. No.	Programme Level	Name of the Programme/ Course	Duration	Entry Qualification	Medium of instruction	Sanctioned/ approved Student strength	No. of students admitted
1	Under-Graduate	B.Sc. (Home Science)	3 years	XII Science	English	200	FY-179 SY-145 TY-108
2	Post-Graduate	M.Sc. (Home Science)	2 years	B.Sc./ B.A.	English	80	MSc I-62 MSc II-63
3	Integrated Programmes P G	--	--	--	--	--	--
4	Ph.D.	Ph.D(Science) in Home Science	--	M.Sc., PET	English	30	10
5	M.Phil.	--	--	--	--	--	--
6	Ph. D.	--	--	--	--	--	--
7	Certificate courses	-Visual Merchandising	--	HSC	English	30	20
		-Entrepreneurship in Textile Crafts		HSC		30	15
		-Workstation Design and Applied Ergonomics		TYCRM students		30	15
		-Food Processing and Preservation		Passed/regular student: B.Sc./M.Sc. TY/P.G. Dip student		30	--
		-Nutrition and Exercise of Fitness		TY/M.Sc.& Parents		30	24
		-Creative Parenting		Doctoral students		30	17
		- Research Methods and Statistics		Any student of college		Contingent on applicants	--
		-Indian Sign Language Course				30	--
						15	16
8	UG Diploma	--	--	--	--	--	--
9	PG Diploma	P.G. Diploma in Dietetics & Applied Nutrition	1 year	B.Sc.	English	20	12
10	Any Other (specify and provide details)	--	--	--	--	--	--

13. Does the college offer self-financed Programmes?

Yes No
If yes, how many?

14. New programmes introduced in the college during the last five years if any?

Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>	Number	6
-----	-------------------------------------	----	--------------------------	--------	---

15. List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments offering common compulsory subjects for all the programmes like English, regional languages etc.)

Particulars	UG	PG	Research
Science (Home Science)	✓	✓	✓
Arts	--	--	--
Commerce	--	--	--
Any Other not covered above	--	--	--

16. Number of Programmes offered under (Programme means a degree course like BA, BSc, MA, and M.Com...)

a. annual system	01
b. semester system	03
c. trimester system	--

17. Number of Programmes with

a. Choice Based Credit System	00
b. Inter/Multidisciplinary Approach	00
c. Any other (specify and provide details)	--

18. Does the college offer UG and/or PG programmes in Teacher Education?

Yes No

19. Does the college offer UG or PG programme in Physical Education?

Yes No

20. Number of teaching and non-teaching positions in the Institution

Positions	Teaching faculty						Non-teaching staff		Technical staff	
	Professor		Associate Professor		Assistant Professor		*M	*F	*M	*F
	*M	*F	*M	*F	*M	*F				
Sanctioned by the UGC / University / State Government	00	00	00	13	00	15	29		00	00
<i>Recruited</i>	00	00	00	13	00	15	16	07	00	00
<i>Yet to recruit</i>	00	00	00	00	00	00	06		00	00
Sanctioned by the Management/ society or other authorized bodies										
<i>Recruited</i>								04	01	
<i>Yet to recruit</i>										

21. Qualifications of the teaching staff:

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							28
D.Sc./D.Litt.	--	--	--	--	--	--	
Ph.D.	--	--	--	07	--	05	12
M.Phil.	--	--	--	--	--	01	01
PG	--	--	--	06	--	09	15
Temporary teachers							
Ph.D.	--	--	--	--	--	--	--
M.Phil.	--	--	--	--	--	--	--

PG	--	--	--	--	--	--	--
Part-time teachers							
Ph.D.	--	--	--	--	--	--	--
M.Phil.	--	--	--	--	--	--	--
PG	--	--	--	--	--	--	--

(28 teaching staff includes 1 Principal & 1 Librarian)

22. Number of Visiting Faculty /Guest Faculty engaged with the College. 23

23. Furnish the number of the students admitted to the college during the last four academic years.

Categories	Year 1 2009-10		Year 2 2010-11		Year 3 2011-12		Year 4 2012-13	
	Male	Female	Male	Female	Male	Female	Male	Female
SC	00	04	00	03	00	04	00	10
ST	00	03	00	00	00	00	00	00
OBC	00	14	01	06	00	13	00	15
General	00	486	00	500	00	507	00	535
Others	00	01	00	00	00	00	00	00

24. Details on students enrollment in the college during the current academic year:

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	427	125	--	10	562
Students from other states of India	01	12	--	00	13
NRI students	00	00	--	00	00
Foreign students	01	00	--	00	00
Total	429	137	--	10	575

25. Dropout rate in UG and PG (average of the last two batches)

UG 4.21%

PG 2.46%

26. Unit Cost of Education

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

- (a) including the salary component
(b) excluding the salary component

Rs. 85656.00
Rs. 5334.00

27. Does the college offer any programme/s in distance education mode (DEP)?

Yes No

28. Provide Teacher-student ratio for each of the programme/course offered

B.Sc. (Home Science) – 1 : 16

M.Sc. (Home Science) – 1 : 2.5

PhD (Science) in Home Science – 1:2.1

29. Is the college applying for

Accreditation : Cycle 1 Cycle 2 Cycle 3 Cycle 4
Re-Assessment:

30. Date of accreditation* (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)
Cycle 1: 21/03/2003 (dd/mm/yyyy) Accreditation Outcome/Result: B+
Cycle 2: 15/06/2009 (dd/mm/yyyy) Accreditation Outcome/Result: B, 2.90

*** Kindly enclose copy of accreditation certificate(s) and peer team report(s) as an annexure.**

31. Number of working days during the last academic year.

32. Number of teaching days during the last academic year
(Teaching days means days on which lectures were engaged excluding the examination days)

33. Date of establishment of Internal Quality Assurance Cell (IQAC)

IQAC 28/02/2005 (dd/mm/yyyy)

34. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC.

AQAR (i) 10/11/2011

AQAR (ii) 10/11/2011

AQAR (iii) 27/09/2012

AQAR (iv)

35. Any other relevant data (not covered above) the college would like to include. (Do not include explanatory/descriptive information) :

The College is managed by the Daughters of the Heart of Mary (DHM)

D. CRITERIA WISE ANALYTICAL REPORTS

CRITERION I: CURRICULAR ASPECTS

1.1 (Curriculum Planning & Implementation)

1.1.1 State the vision, mission and objectives of the institution and describe how these are communicated to the students, teachers, staff and other stakeholders

Vision of the Nirmala Niketan College of Home Science: The college aims at the total development of the Indian woman by providing learning opportunities to empower her with the knowledge, skills and attitudes to face personal and professional challenges with confidence, inculcating values of respect, commitment and concern for the service of others, thereby enabling her to make a positive contribution to society in the 21st century.

Goals of the Nirmala Niketan College of Home Science: The college aims at the development of women through an education that is:

- (a) Life-oriented
- (b) Career-oriented
- (c) Community-oriented

Mission of the Nirmala Niketan College of Home Science:

- To work dedicatedly towards women's empowerment through socially-relevant, holistic, interdisciplinary education.
- To sensitize students to the needs of others, especially of those less advantaged, and foster a service orientation.
- To respect egalitarian justice, use participatory governance, and build capacity among students and staff.
- To continually innovate and deliver a curriculum that is globally valuable, locally relevant, and responsive to changing times and needs.
- To forge and enhance linkages with communities and organisations at multiple levels (e.g., local, regional, national, and international).
- To contribute to the national and international knowledge base in Home Science and allied fields.

The motto of the college is to “kindle the lamp of love with thy life”; and the emblem of the college is “the highest law of love is service”.

The Vision, Goals, and Mission of the college are communicated to the students, teachers, staff, and other stakeholders in the following ways:

- The vision and goals are included in the prospectus and in the student handbook.
- The vision, goals, mission, motto, and emblem of the college feature on the college website.
- All of these are displayed in the reception areas of the ground floor and the third floor.
- These are also communicated to students during student orientations.
- These are communicated to parents at the parent orientation meetings held for various groups of students each year.
- In the first all-teacher meetings each term, inspirational PPTs used by the Principal include slides on the vision, goals etc. such that we can continue to align our activities with these intentions.

- When the Principal addresses the audience (e.g., Annual Day, International Conference, National Seminar) she includes slides on the vision, goals etc. of the college.

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific example(s).

The curriculum delivery covers regular teaching-learning transactions in scheduled classes for theory and practicum subjects; special learning opportunities through study tours, visits, sessions by resource persons, workshops/seminars/conferences organized by the college, student participation in other workshops/seminars/conferences/competitions, international exchange programs, internships; holistic learning through arranging for picnics, personality development camps, extra-curricular activities, sports activities; service and extension-related learning through rural/tribal camps, and organizing events for underprivileged children and street hawkers etc.

Development and deployment of action plans for effective implementation of the curriculum

- **Detailed syllabi**: As the only college of Home Science affiliated to the University of Mumbai, the Nirmala Niketan College of Home Science enjoys default academic autonomy with regard to curriculum design and development. The teachers of the college through the Chairperson of the Ad Hoc Board of Studies of Home Science, have designed a detailed, unitized syllabus with clear topics and subtopics for each of the levels of Home Science ranging from FY BSc Home Science Semester I to PhD in Home Science:
 - Semesters I to IV of the core curriculum of Home Science (first two years of the BSc degree)
 - Semesters V and VI for each of four specializations/branches (Foods, Nutrition, and Dietetics; Human Development; Textile and Fashion Technology; Community Resource Management)
 - Semesters I and II of the P.G. Diploma in Dietetics and Applied Nutrition
 - Semesters I to IV for an MSc in each of five specializations in Home Science (Foods, Nutrition, and Dietetics; Food Processing and Preservation; Sports Nutrition; Human Development; Textile & Fashion Technology)
 - PhD coursework & research work in Home Science

By virtue of having designed the curriculum (keeping in mind knowledge advancements in each relevant field; feedback of students, alumnae, industry and employers of alumnae; consultation with experts), the teachers of the college have high ownership and comprehension of the syllabus of the subjects to be taught.

New teachers are oriented by the Principal and the HOS.

The detail and clarity present in the designed syllabus permits effective implementation. Action plans related to the curriculum delivery (e.g., teacher work plans) reflect the outstanding clarity of our designed syllabus.

- Role of **Staff Workload, Workplans, and Teacher Diary** in the Effective Implementation of Curriculum
 - **Staff workloads** (assignment of subjects to each teacher) are carefully worked out at the end of each year for the forthcoming year and finalized at the start of the new academic year. Requests of teachers, expertise of teachers, and some rotation of subjects across teachers are the main features kept in mind whilst the Principal, assisted by HOSs, finalizes the staff workload.

On receiving her assigned workload, each teacher orients herself to the syllabus, units/topics, and reference books in the library and begins to make her work plan for each subject.

- On receiving the workload and the timetable, **work plans** are carefully made by each teacher for each subject and for each term, detailing how the syllabus for the subject will be taught across the 15 weeks of the semester—time allotment for each unit, teaching-learning methods, reference material, learning resources (e.g., handouts). The Principal reviews the work plans and makes suggestions if necessary.

The teacher shares relevant details of her work plan with the students in the first class she takes.

- The **Teacher Diary** is an important monitoring tool for effective implementation of regular teaching-learning transactions in scheduled classes for theory and practicum subjects. Teachers record each class taken for each subject/class-group, topic and subtopics covered, teaching-learning methods used, and any feedback and evaluation. Classes exchanged, made-up; leave record—are also included. The Teacher Diary is a self-monitoring and self-assessment tool used by teachers for effective curriculum implementation. The Principal also reviews the Teacher Diary and monitors progress in curriculum implementation especially vis-à-vis the work plans.

- **Timetabling/Scheduling classes**

- The **time table (schedule of regular classes)** is made carefully for each of the many class-groups.
- A **room chart** is also simultaneously made so that the location of the scheduled class is clear to all, and times at which a room is available for other use is also clear such that bookings/reservation of the room can be made.
- At periodic intervals (at least twice a term) the Academic Coordinators and HOSs inquire whether any teacher requires extra classes. An **extra-class schedule** is then drawn up along with the allocated rooms for each class-group as needed by either the Academic Coordinator (FY or SY) or the HOS (for TY, MSc1, and MSc2).
- The **Timetable Committee** meets to make changes when necessary in the regular schedule of classes if there is a change in teacher appointment or other exigency.
- The timetables and extra-extra class schedules are displayed on teacher noticeboards and classroom bulletin boards.

- Demarcation into **four specializations**, appointment of **Heads of specializations (HOSs)**, **Academic Co-ordinators** for FY and SY levels, **committees** (including the **IQAC**):

- Each of the specializations has a year-end meeting to evaluate the activities of the academic year in April, followed with planning for the next academic year. In June, the plans for the new academic year are once again examined and confirmed. Activities conducted are reviewed as they are completed; at the semester-end, once again there is a review and a restating or adjusting of the plan for the second term.
- The IQAC draws up an action plan for the year and meets at least once a term to review progress.
- In the Local Managing Committee (LMC) meetings each term, the achievements of each specialization, the teaching-learning methods used, and the plans for the next term as well as longer-term plans, are reviewed. The LMC makes constructive suggestions for quality enhancement.

- The Examination Committee draws up a plan for the semester in compliance with university regulations and dates, and after obtaining consensus from the Principal, the HOSs, and the Academic Coordinators, posts the details of the plan on the teacher noticeboards and sends periodic reminders with regard to important deadlines.
- Each of the other committees draws up an action plan for the year and conducts/monitors/evaluates their planned activities.
- The Academic Coordinators also make an action plan for the year, split into Semester 1 and Semester 2 activities/targets.
- The Principal meets the IQAC Head, HOSs, Academic Coordinators, Committees and their Convenors periodically to monitor and make suggestions with regard to conducting regular (e.g., classes) and special (e.g., Annual Day) activities through the year.
- The plans related to infrastructural development and upgradation of laboratory, specialized equipment, library and ICT resources are also very important to the effective delivery of the curriculum. Each specialization, the IQAC, the LMC, the Criterion IV IQAC Subcommittee, and the Grant Committee forward requests and plans for infrastructural development and upgradation of equipment, and purchase of new specialized equipment, books, tests, software etc.
- **College Calendar:** Based on inputs of each specialization and each committee (both of which include student ideas and suggestions), a college calendar is drawn up and distributed to students and teachers. This college calendar has the starting and ending dates of each term, and dates/months in which particular co-curricular and extra-curricular activities and events are planned.
- **Co-ordination** with the **Chairperson of the Ad Hoc Board of Studies of Home Science** and compliance with University of Mumbai directives. The Chairperson of the Ad Hoc Board of Studies of Home Science, who is one of the teachers of the college, liaises between the Academic Council of the University of Mumbai/Board of Studies of Science and the teachers of the college to ensure effective implementation of curriculum and examination procedures.
- **Deployment of feedback mechanisms:** Oral and written feedback is obtained from students periodically for each subject and overall in order to ascertain the quality of curriculum delivery and incorporate workable suggestions of students.
- **Other relevant policies** enabling effective curriculum implementation:
 - Student orientation programmes at each level.
 - Parent orientation programmes.
 - Doctoral students submit a summary of the progress they have made on their research each year.
 - ICT-enabled classrooms.
 - Student access and teacher access to the Internet in the college (in the library, staffrooms, and the computer-laboratory-cum-cybercafé).
 - Excellent maintenance and upgradation of infrastructure—classrooms and laboratories.
 - Innovative learning opportunities through setting up international exchange programmes with foreign universities (i.e., Fu Jen Catholic University, New Taipei City, Taiwan; Ghent University, Ghent, Belgium).
 - Ongoing professional development of teachers through refresher courses, arrangement of special sessions, encouragement for participation in regional/national/international conferences and seminars, and publications.

- Tie-ups with research organizations, academic organizations, industry, GOs and NGOs for facilitating high quality student research, student internships, study tours etc.

1.1.3 What type of support (procedural and practical) do the teachers receive (from the university and/or institution) for effective translating the curriculum and improving teaching practices?

Examples of Procedural Support from the University of Mumbai:

- Specification of academic terms
- Rules/regulations/guidelines for:
 - Designing of curriculum
 - Internal assessment and examinations
 - Attendance
 - Teacher recruitment

Examples of Practical Support from the University of Mumbai:

- Conduction of the TY, MSc, PhD Entrance, PhD viva voce Examinations
- Relevant support of the Academic Council of the University, Ad Hoc Board of Studies of Home Science, Board of Studies of Science, Controller of Examinations, Registrar etc. through the Chairperson of the Ad Hoc Board of Studies of Home Science and the Principal.
- The Book Bank scheme which the college has utilised each year.

Faculty development contributes towards effective translation of the curriculum and improvement of teaching practices. (Note that the number of teaching faculty members in the college has ranged from 25 to 28 in the assessment period.)

In this regard, the University of Mumbai and the UGC have extended support in the following ways:

- UGC Orientation and Refresher Programmes/Courses: Teachers have completed UGC Orientation (6) and Refresher Courses (7) in the assessment period (up till December 2013); 3 more teachers will complete a refresher course in February 2014.
- UGC Faculty Improvement Programme (FIP) which 2 teachers of the college utilised during this assessment period.
- University and UGC minor and major research grants: The University of Mumbai minor research grants scheme was utilised for 17 research projects by teachers in the assessment period, the UGC minor research grants scheme was utilised by 2 teachers in the assessment period.
- UGC Travel Grant for presenting scientific papers at international conferences: 7 teachers utilised the UGC Travel Grant for presenting papers at international conferences in the assessment period.

The college and the Management have supported faculty development in the following ways:

- Through the use of participatory governance which permits capacity-building.
- Leadership opportunities through appointment as one or more of the following: HOS, Academic Coordinator, Assistant Academic Coordinator, convenor of a committee etc.
- Faculty development programs organized by the college. Experts invited to conduct sessions with teachers, or with both students and teachers.
- Encouragement for participating in local/regional/national/international seminars and conferences; obtaining research grants; writing and publishing scientific papers/chapters/books.

- Organizing an international conference in January 2013.
- A Research Centre with a specially appointed Research Director who extends support for writing research grants and collaborating with organizations for research and consultation.
- Strong encouragement for using student-centric, participatory, and innovative teaching-learning methods.
- Initiation of new learning opportunities through collaborations/exchange programs with foreign universities (i.e., Fu Jen Catholic University, Taiwan; Ghent University, Belgium).

The college has provided the following **infrastructural, library, and ICT support** for the effective translation of the curriculum and use of innovative teaching-learning methods:

- Well-lit, well-ventilated classrooms.
- All classrooms are ICT-enabled, permitting the routine and regular use of PPTs.
- 12 laboratories with a designated room (Chemistry Laboratories, Food Laboratories, Clothing Laboratories, Interior Design Laboratory, Computer Laboratory, Multi-purpose Laboratories).
- Regular upgradation of the college infrastructure. In this assessment period, there has been substantial remodeling of sections of the college which is helping improve functioning. For example:
 - A new computer-laboratory-cum-cybercafé
 - Two laboratories remodeled into multi-purpose laboratories based on teacher request
 - Newly modeled multi-purpose hall
 - Newly modeled classrooms
- There is access to the Internet in the 5th floor staffroom and in the HOS room which is greatly assisting in preparation for classes (e.g., downloading relevant images/videos) and in maintaining professional communication. The faculty has access to computers with internet in the staffrooms, library, and cybercafé (without charge).
- Library resources have been enhanced. There are a number of national and international research/academic/industry journals including various reputed e-journals, textbooks, and recent editions of reference books that are pertinent to advanced study/research. The library also stocks research reports (dissertations, theses, research project reports). There is a wide collection of movies (CDs) in the library to assist teachers in using relevant examples of social issues through movies.

Availability of **specialized equipment, psychological tests, specialized software** is necessary for effectively translating the curriculum and using relevant teaching-learning methods:

- The college has availed of the UGC Special Assistance Grant and 25 lakhs was sanctioned and utilised for purchase of specialized equipment, specialized software, e-journals etc. A second Special Assistance Grant of 25 lakhs has been promised.
- The college has used the laboratory fees each year to make purchases such as psychological tests, Early Childhood Care and Education (ECCE) laboratory equipment/material, dress forms, pH meter, nonstick cookware, pressure cookers, microwave ovens, Lux Meter, stethoscope, stopwatch, vacuum cleaner (for practical on household appliances), and weighing scale.
- The college has extensive specialized equipment that is needed for teaching the many varied areas of Home Science.

- The college also has specialized software such as SPSS, Richpeace, and Clarity English software.

Support from the college is also in the form of **quality policies** such as:

- Clarity in role allocation (e.g., demarcation into specializations; appointments as an member/convenor of a committee)
- Work plans, Teacher Diary, timetables, room chart, college calendar
- TAQs which also provide feedback to the teachers
- Tie-ups with research organizations, academic organizations, industry, GOs and NGOs for facilitating high quality student research, student internships, study tours etc.

1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the curriculum provided by affiliating, university or other statutory agency.

Firstly, we would like to once again clarify that we are delivering and transacting a curriculum that has been designed by us. We have default academic autonomy with regard to matters such as curriculum content and design (within the structure decided by the Academic Council and the Board of Studies of Science, and presented through the Chairperson of the Ad Hoc Board of Studies of Home Science). In effect, the Nirmala Niketan College of Home Science has provided the University of Mumbai with the Home Science curriculum for the core curriculum of FY and SY, the TY curricula for each of four specializations, the PG Diploma curriculum in Dietetics and Applied Nutrition, the MSc curricula for each of five branches, and the PhD curricula for each of three specializations.

As already specified in response to Ques. Nos. 1.1.2 and 1.1.3, the college has taken multiple, outstanding initiatives to enable and ensure effective curriculum delivery. Examples:

- Work plans for each subject; the Teacher Diary as a monitoring mechanism; plans for the year/term of each specialization and each committee, which are carefully executed, monitored, and evaluated.
- Feedback mechanisms such as oral and written feedback (including TAQs) obtained from students periodically for each subject and overall in order to ascertain the quality of curriculum delivery and incorporate workable suggestions of students.
- Mentoring system with a mentor assigned to each group of students.
- Conduction of faculty development sessions related to teaching-learning. For example, Credit Based Semester and Grading System workshops have been conducted.
- Professional development of teachers through encouraging:
 - Participation in regional/national/international conferences and seminars
 - Writing and publications
 - Availing of research grants
- Infrastructural development (classrooms and laboratories), enhancement of library resources, purchase of specialized equipment.
 - All classrooms are ICT-enabled.
 - Access to computers with internet in the staffrooms (5th floor & HOS room), library, and cybercafé (without charge for faculty; low cost for students).
 - Print journals, e-journals, and online journals available in the varied areas of Home Science in the library.
 - Extensive specialized equipment for each specialization.

- Remodeling of classrooms, laboratories, the multi-purpose hall.
- Organizing an international conference in January 2013.
- Novel learning opportunities through setting up international exchange programmes with universities abroad (i.e., Fu Jen Catholic University, New Taipei City, Taiwan; Ghent University, Ghent, Belgium).
- Tie-ups with research organizations, academic organizations, industry, GOs and NGOs for facilitating high quality student research, student internships, study tours etc.
- Availability of a Research Centre and a Research Director on campus.

1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and the university in effective operationalisation of the curriculum?

One of the strengths of the college is the range of tie-ups and linkages/networking with other organizations in order to effectively operationalise the curriculum. Exposure visits, study tours, extension work, student placements, student internships, partnership/sponsorship for events/programs, access to research facilities, access to/sharing of expertise, research collaborations, and cultural and educational exchange programs are the outcomes of these linkages. The types of organizations we have linkages with and a few examples of each are listed as follows:

- **Academic organizations** (e.g., preschools, schools, colleges, universities).
 - Linkages with preschools and schools: For example, the master's students of the Human Development specialization have been placed for their Early Childhood Care and Education Practicum in schools such as Children's Academy, Kandivali.
 - Linkages with colleges of the University of Mumbai/University Departments:
 - For example, MSc/PhD students use advanced research laboratories such as the Therapeutic Drug Monitoring (TDM) Laboratory of Ramnarain Ruia College and the Institute of Chemical Technology (ICT).
 - Collaboration with the Department of Lifelong Learning of the University of Mumbai for the Community Services Practical of the TY Community Resource Management students.
 - Linkages with universities in Mumbai:
 - Visits to Research Centres: For example, master's students in Human Development have visited multiple research centres at the Tata Institute of Social Sciences (TISS), and the Research Centre for Women's Studies at SNDT University.
 - Participation in co-curricular activities of each other's colleges/universities: For example, Nutrition postgraduate students have participated in competitions and other events organized by the Nutrition Department of SNDT University; likewise their students and staff participate in the co-curricular activities and events organized by our college.
 - Collaborations with universities in other parts of India:
 - An exchange program with Martin Luther Christian University, Shillong, is under discussion.
 - Collaborations with universities abroad:
 - A cultural-and-academic exchange programme was conducted with a college in Blois, France, in 2010-2011: *Lycée Privé La Providence Blois*.

- An exchange program has been initiated with Ghent University, Belgium. Ten students and two teachers visited Belgium and participated in the first leg of this exchange programme in November 2013.
 - In November 2013, an MOU has been signed with the Fu Jen Catholic University, Taiwan which promises a partnership in the areas of teaching and research.
- **Research organizations**
 - MSc and PhD students of the Foods, Nutrition and Dietetics specializations use advanced research facilities at organizations such as *Haffkine Institute, Advanced Centre for Treatment, Research and Education in Cancer (ACTREC)*.
 - MSc and PhD students of the Textile and Fashion Technology specialisation use advanced research facilities at organisations such as *Wool Research Association*.
- **Industry** (e.g., fitness industry—gyms, weight loss clinics; health care industry or medical industry—hospitals, doctor’s clinics; food industry; textile industry; hospitality industry—hotels)
 - Utilization of research facilities of the food industry (e.g., *Kamani Oils*) and the textile industry (e.g., *DyStar, Texan lab Laboratories, Rossari Biotech Ltd.*).
 - Sponsorship for researches
 - The food industry has sponsored research in the college: *Marico’s* in 2011-2012 sponsored the research on “Effect of nutrition education on the nutritional status and dietary practices of HIV+ children and adolescents, *Kellogg*, in 2012-2013 sponsored the research on “Standardization of rotis” and *Kamani Oils*, in 2013-2014 sponsored the research on “Nutritional education program for ICDS trainees”.
 - The textile industry sponsorship for research has been obtained from *Vrijesh Corporation, Saroj Texfab (India) Pvt. Ltd., Keshavlal Mohanlal & Co. Textiles Pvt. Ltd., DyStar Pvt. Ltd., and Biotech Testing Services*.
 - Research collaborations
 - For example, faculty and MSc students have collaborated with doctors and dieticians at hospitals such as Shushrusha Hospital and Hinduja Hospital for MSc researches.
 - The Research Centre has executed several turnkey research projects for the food industry in India and one from France. These research projects too have contributed to student education and training, and faculty development. For example, for the multi-centric breakfast study completed for *Kellogg India Pvt. Ltd.* (2007-2013) for Rs 18,21,155—TY BSc students of the Community Resource Management Specialisation, PG Diploma students of Applied Nutrition and Dietetics, and MSc Food Processing and Preservation students got opportunities for hands-on research learning through involvement on this project.
- **GOs:**
 - Collaborative research activities have been carried out for MSc/PhD researches with GOs such as the *Bhabha Atomic Research Centre (BARC)* and *Central Institute of Research on Cotton (CIRCOT)*. Linkages for doctoral research were established with other GOs such as *National Aids Control*

Organization (NACO) and *Maharashtra State Aids Control Society* (MSACS).

- Linkages for extension work have been established with GOs such as the ICDS.
- TY Community Resource Management students have been placed at the Consumer Guidance Society of India (CGSI)
- **NGOs**
 - Students have been placed for internship in NGOs such as the Aga Khan Youth and Sports Board India (AKYSBI).
 - Tie-up with NGO Muktangan for extension work.
 - Tie-ups with NGOs for MSc/PhD research work (e.g., International Alliance for the Prevention of AIDS [IAPA], Community Health Initiative & Research Action Group [CHIRAG]).
 - Coordination/tie-up with the rural and tribal community centres of the Nirmala Niketan Institute/DHM Management for extension work.

1.1.6 What are the contributions of the institutions and/or its staff members to the development of the curriculum by the university? (Number of staff members/departments represented on Board of Studies, student feedback, teacher feedback, and stakeholder's feedback provided, specific suggestions etc.)

As specified in response to Questions 1.1.2 and 1.1.4, we have default academic autonomy with regard to matters such as curriculum content and design. That is, the overall structure of the curriculum is decided by the Academic Council of the University of Mumbai, and specifically the Faculty of Science, and the Ad Hoc Board of Studies of Home Science. Home Science in the University of Mumbai is under the Faculty of Science. Three of the teachers of the college are serving their current term on the Ad Hoc Board of Studies of Home Science; one as a chairperson, two as members. These three teachers are from different specializations. The Principal is a special invitee on the Ad Hoc BOS of Home Science. The Joint Director of Higher Education and a senior faculty member from a Home Science college of SNDT University are the two other members of the Ad Hoc BOS of Home Science.

The structure of the curriculum is negotiated by the faculty of the college through the Chairperson of the Ad Hoc Board of Studies of Home Science, approved by the BOS, presented at the Faculty of Science meeting by the Chairperson of the Ad Hoc BOS of Home Science, and recommended to the Academic Council by the Dean of the Faculty of Science. When the structure of the curriculum has been finalised by the Academic Council, the syllabus is formulated by the teachers of the college.

The type of theory and practical subjects and the content within each subject is decided and formulated by the faculty of the college. Subcommittees for each specialization are formed to design the curriculum for subjects related to the specialization across levels; all teachers participate in curriculum development. Faculty members review each other's draft syllabi; and senior faculty in the specialization review all the draft syllabi for the specialization. External experts, the Chairperson of the Ad Hoc BOS of Home Science, the Principal, and the Management Council (DHM Management) also review the drafted syllabi.

The proposed syllabi is then reviewed by the Ad Hoc BOS of Home Science; on approval by the BOS, it is duly presented by the Chairperson at the Faculty of Science meeting, where it is further scrutinized and suggestions are made. Relevant changes are made by the faculty of

the college if necessary. Next, the designed curriculum is recommended to the Academic Council of the University of Mumbai by the Dean of the Faculty of Science and approval is sought; following which, the approval is obtained at other higher levels. After getting the required clearances, the curriculum is implemented in the forthcoming academic year.

In effect, the Nirmala Niketan College of Home Science has provided the University of Mumbai with the Home Science curricula as follows:

- Core curriculum of FY and SY BSc in Home Science
- TY curricula for each of four specializations/branches:
 - Foods, Nutrition, and Dietetics
 - Human Development
 - Textile and Fashion Technology
 - Community Resource Management
- The curriculum for the P.G. Diploma in Dietetics and Applied Nutrition (self-financed)
- MSc curricula for each of six branches
 - Foods, Nutrition, and Dietetics
 - Food Processing and Preservation (self-financed, 2011-2012 onward)
 - Sports Nutrition (self-financed, 2011-2012 onward)
 - Human Development
 - Textile and Fashion Technology
 - Ergonomics and Management (self-financed, 2014-2015 onward)
- PhD curricula for each of three specializations:
 - Foods, Nutrition, and Dietetics
 - Human Development
 - Textile and Fashion Technology
- University-recognized value-added certificate courses:
 - Food Preservation and Processing
 - Nutrition and Exercise for Fitness
 - Entrepreneurship in Textile Crafts
 - Visual Merchandising

Importantly, the curriculum has been designed and formulated keeping in mind the following:

- The vision, goals, mission, motto, and emblem of the college.
 - Life-orientation: The curriculum addresses the knowledge, skills, and attitudes for successfully meeting varied human needs such as those related to human relationships, food, clothing, and resource management.
 - Career orientation: careful link with multiple career options after exiting each of the degree levels in Home Science, from BSc to PhD, for each of the multiple branches. Linkages with the industry, NGOs, GOs, academic organizations, research organizations in curriculum implementation strengthen the career orientation of our curriculum.
 - A curriculum with many applied components, which teaches practical skills. There is a balance of theory and practicum subjects. Practicum subjects are offered in a variety of areas even within a specialization.
 - A curriculum that enables development of competencies which are globally valuable, locally relevant: The curriculum includes cutting-edge ideas in different fields, and is of international quality. There is inclusion of specifically Indian content. Moreover, students have many opportunities to

- apply their learning to local/regional settings through research, extension, and placements/internships.
- Service component/community orientation: therefore, the curriculum includes extension and service activities.
- Women's empowerment/leadership: The Home Science education, in content and method, extends beyond textbooks into the lived world. The use of participatory, hands-on, minds-on teaching-learning methods empowers our learners.
- Knowledge advancements in Home Science and allied fields: Advancements made in each of the specializations and the many areas addressed in each of the specializations. This has been ascertained through examining latest editions of textbooks, consultation with experts in the field/senior faculty from other colleges or universities, faculty involvement in research and publication, faculty involvement in conferences/seminars.
- Types of placements/jobs of alumnae, feedback of alumnae, feedback of employers of alumnae.
- Feedback of students, feedback of faculty.
 - The subject teacher carries out an internal review each year, mainly based on oral and written feedback received from students.
 - The Criterion 1 IQAC Subcommittee (or NAAC Committee) has also periodically collected feedback from students on the curriculum.
 - Graduating students' exit questionnaires have been reviewed by HOSs and suggestions noted.
- Demand for courses, trends in the job market, recent developments in the industry
- Newer issues/relevancies emerging at the regional, national, and global levels

Some of the teachers in the college are also on the Boards of Studies of other colleges (SVT Autonomous College, SNDT Women's University, Mumbai; International Institute for Girls, Jaipur) and universities (Goa University, SNDT Women's University at Pune, SNDT Women's University at Mumbai, Maharaja Sayaji Rao University of Baroda) and are contributing to curriculum development in other colleges/universities as well.

1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it? If 'yes', give details on the process (Needs Assessment, design, development and planning) and the courses for which the curriculum has been developed.

In line with our vision and service orientation, we are collaborating with the *Maharashtra Mahila Vyaspeeth* under the sponsorship of Yashwantrao Chavan Pratishthan and have signed an MOU in 2011: We have extended our knowledge expertise to benefit the underprivileged/less privileged women who are obtaining a certificate in Home Management from this organization. We have developed the curriculum for this Home Management course; plus, our faculty is also teaching this course.

The aim of this Course is 'complete development of a woman's personality'. Theory and practical classes are conducted for the enrolled women on various types of cookery styles, home décor, finance management, laws for women, building one's own self-esteem, caregiving for the elderly as well as various other subjects with regard to efficient home management. As stated in the course details, this course prepares the trainee to undertake various services such as 'home manager' at a respectable family, 'tiffin service' from home, 'catering' for 15 to 20 persons etc.

Needs Assessment, design, development and planning for the Home Management Certificate Course offered in collaboration with the *Maharashtra Mahila Vyaspeeth* under the sponsorship of Yashwantrao Chavan Pratishthan:

- The Yashwantrao Chavan Pratishthan, Mumbai, was established to commemorate the memory of the Late Shri. Yashwantrao Chavan, the first Chief Minister of Maharashtra State. For the upliftment and empowerment of women through various activities, a wing called the Maharashtra Mahila Vyaspeeth has been established in the Pratishthan. This wing arranges various programmes for highlighting the problems of women in the field of employment, health care, social welfare, education and prevention of atrocities on women.
- The Nirmala Niketan College of Home Science aims at the total development of Indian Women by providing empowering learning opportunities which benefit personal and professional lives of women.
- In mutuality of vision, the two organizations decided to collaborate together and design a certificate course for upliftment and welfare of women. The primary objective of the course is to make underprivileged women aware, sensitized, and skilled with regard to various aspects of Home Management, to enhance their Home Science knowledge, and to enable them to expand their scope in entrepreneurship.
- The idea for collaboration was proposed by the Maharashtra Mahila Vyaspeeth. After having done an assessment of needs to be fulfilled for women and society at their end, the Pratishthan approached our college faculty and Principal to work in collaboration. There were several meetings conducted at the YB Chavan Center and at our college with different experts and faculty from the different specializations in our college.
- The course structure and content was then finalized and is reviewed for every batch. Feedback is taken at the end of the course with each group of students so as to better align the course with the needs of the target group. The syllabus of the course, the faculty, the timings, number of batches to be conducted, number of participants per batch, eligibility of candidates, total number of sessions, course fees, resource persons, course expenses, maintenance of accounts, course publicity and registration process, nature of the course, medium of instruction, course assessment and evaluation, attendance, course certificates, inaugural and valedictory function and other relevant details are specified clearly (in an MOU that was signed on 24th March 2011 by the Trustees of the two organizations). The course has completed its seventh batch (4th December, 2012 and 23rd March 2013).

1.1.8 How does institution analyze/ensure that the stated objectives of curriculum are achieved in the course of implementation?

Quality Assurance Policies/Monitoring and Feedback Mechanisms

- **Work plans** of each teacher for each subject/class-group; **Teacher Diary:** The Teacher Diary is a self-monitoring and self-assessment tool for teachers; moreover, the Teacher Diary is reviewed by the Principal at the end of each month in the academic term.
- Use of **participatory teaching-learning methods** in which the student learning can be gauged.
- **Ongoing evaluation information** obtained by teachers in class by asking students questions, encouraging discussions, holding quizzes, mock tests, short exercises.

- **Evaluation of practical work** at every step, to check whether the students have understood the skills involved in making the product. Rechecking after the student has made the necessary corrections.
- Teachers collect written **feedback** from each group of students they are teaching at least once a year. Later in the academic year, students also complete a subject-specific TAQ, the results of which are communicated to the teacher by the Principal.
- The Principal periodically (once a term) meets each group of students and obtains feedback and solicits suggestions; HOSs and the Academic Coordinators at FY/SY levels, likewise, meet designated groups of students and invite students to share feedback. Mentors meet their student mentees at least once a term.
- Regular specialization-specific meetings in which teachers share about the achievements/success in their teaching of particular subjects and concerns if any.
- Doctoral students submit a **summary of the progress** they have made on their research each year.
- Students give feedback on the curriculum especially when they finish one phase such as the core curriculum in FY and SY.
- Graduating students complete an exit questionnaire that solicits their feedback on the curriculum and other aspects.

Student Evaluation

- Performance of students on unit tests, assignments, projects, and the final examinations also provides valuable data to teachers on quality of student learning.

Long-term Evaluation

- The successful careers of our alumnae; the feedback from our alumnae, and employers of alumnae.

1.2 ACADEMIC FLEXIBILITY

1.2.1 Specify the goals and objectives give details of the certificate/ diploma/ skill development courses etc. offered by the institution.

Whereas the Home Science curriculum itself includes considerable skill development, several short-term value-added courses have been designed and introduced by the college. Although each of these value-added courses is conducted under the purview of one of the four specializations, a unique strength of these courses is that students can opt for any value-added course and not just the one(s) in their own specialization. A few students have opted for such academic flexibility. For example, Human Development students have opted for Work Station Design and Applied Ergonomics.

The short-term, value-added courses also meet the goal of instilling entrepreneurial skills in the students.

Each of these courses is coordinated by a faculty member who is a specialist in the related field; this coordinator looks into day-to-day logistics of the course. In-house faculty, experts in the field, as well as resource people from relevant industries are invited to conduct workshops/sessions.

Whereas each specialization offers at least one of the value-added courses relevant to that specialization each academic year, the total number of value-added courses implemented differs from year to year.

Table 1.1. Value-added Courses in the College.

Course	Objectives	Eligibility
Computer Applications	<ul style="list-style-type: none"> • To build students' proficiency in the use of multiple software (e.g., MS Office, Photoshop, Corel Draw) and the Internet. 	Compulsory for all F.Y. & S.Y.B.Sc. students
English Language	<ul style="list-style-type: none"> • To assist students in coping with English as a medium of instruction. • To help students enhance their English language skills. 	All F.Y.B.Sc. students
Visual Merchandising (University of Mumbai recognized certificate course) No. of seats: 30	<ul style="list-style-type: none"> • To impart skills of Visual Merchandising. • To help students to independently set up merchandise in optimal and creative ways to face competition and achieve best market shares. 	H.S.C. or equivalent.
Entrepreneurship in Textile Crafts (University of Mumbai recognized certificate course) No. of seats: 30	<p>This course is designed to help students start their own small business.</p> <ul style="list-style-type: none"> • To impart skills for designing and developing products through techniques of surface ornamentation. • To give students knowledge to help them enter and sustain market competition in the trade of their product. 	H.S.C. or equivalent.
Work Station Design and Applied Ergonomics No. of seats: 30	<ul style="list-style-type: none"> • To facilitate the application of ergonomics data and principles to the design and evaluation of systems. • To understand human limitations and capabilities and how they affect the design of controls, displays, and related devices. • To enable students to describe an expanded view of ergonomics, which encompasses ergonomically-related injuries, assuring that the workplace fits the worker. • To equip students with the capability of initiating evaluations of ergonomic issues and working with an ergonomist. 	Student of T.Y .B. Sc CRM and related fields.
Food Processing & Preservation (University of Mumbai recognized certificate course) No. of seats: 30	<ul style="list-style-type: none"> • To introduce the learners to causes and methods of control of food spoilage. • To understand the principles and techniques of food preservation, processing, and packaging. • To understand the application of preservation and processing technology to different foods. • To understand the role of quality 	<ul style="list-style-type: none"> • Enrolled oneself with the University of Mumbai and taken admission to any of the undergraduate or postgraduate courses under faculty of Science in the constituent/affiliated colleges/recognized institution of the

	<p>factors of foods and means of controlling food quality.</p> <ul style="list-style-type: none"> • To develop basic skills in determining quality of foods. • To develop basic skills in food processing and preservation. 	<p>University of Mumbai.</p> <ul style="list-style-type: none"> • Passed the BSc or MSc degree of this university or equivalent. • A regular student of the college shall pursue such certificate courses simultaneously while she/he is studying for her or his BSc or MSc degree of the University of Mumbai.
<p>Nutrition & Exercise for Fitness</p> <p>(University of Mumbai recognized certificate course)</p> <p>No. of seats: 30</p>	<ul style="list-style-type: none"> • To introduce a career-oriented and skillenhancing course on nutrition for fitness. • To impart knowledge regarding the importance of nutrition and exercise for physical, psychological, social and spiritual fitness of an individual. • To impart and develop intellectual as well as physical skills among the students in planning and execution of exercise and nutritional principles for fitness management. • To understand the importance of alternative therapies in the overall fitness of an individual. • To enable the students to develop entrepreneurial abilities in the field of fitness. 	<p>Students of PG Diploma in Applied Nutrition & Dietetics; TY BSc students of the college.</p>
<p>Creative Parenting</p> <p>No. of seats: Contingent on applicants</p>	<ul style="list-style-type: none"> • To understand what is expected of children at different stages of development. • To learn about the issues and concerns that parents may have at each stage of development and ways to cope to with these challenges in creative and healthy ways. 	<p>Students of the college (TYBSc and MSc) and Parents</p>
<p>The Indian Sign Language (ISL) Course in collaboration with the Ali Yavar Jung National Institute for the Hearing Handicapped (AYJNIHH), Mumbai.</p> <p>No. of seats: 15</p>	<p>On completion of this course the students will:</p> <ul style="list-style-type: none"> • Understand the basic nature of sign language, i.e., the myths about sign language, features and characteristics of sign language, and its interpretations. • Be able to sign a basic vocabulary of about 400+ words. • Be able to make simple sentences/questions from the words. <p>An 80-hour curriculum and maximum 15 students as the teaching method is highly</p>	<p>Any student of the college.</p>

	interactive. The AYJNIHH teacher is deaf.	
Research Methods & Statistics Course No. of seats: 30	<ul style="list-style-type: none"> To provide doctoral students with an overview of quantitative research methods, statistics, SPSS, and qualitative methods. 	Doctoral students of the University of Mumbai

Duration of the courses affiliated to the University of Mumbai is 3 months (24 sessions of 3 hours each), and the fees are Rs. 3,500.

The duration of value-added courses, *Indian Sign Language* and *Creative Parenting*, is 80 hours, and the fees are Rs. 3000.

The duration of the Research Methods and Statistics Course was one year. This course may be replaced with the new PhD coursework curriculum for Home Science which is under consideration.

At the completion of the course, certificates are awarded at a Valedictory Function conducted in the college.

1.2.2 Does the institution offer programmes that facilitate twinning/ dual degree? If yes. Give details.

The college does not offer programmes that facilitate twinning/dual degree.

1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skill development, academic mobility, progression to higher studies and improved potential for employability.

- Range of core/elective options offered by the University and those opted by the college.
- Choice based credit system and range of subject's options.
- Courses offered in Modular form.
- Credit transfer and accumulation facility.
- Lateral and vertical mobility within and across programmes and courses.
- Enrichment courses.

As is evident in the name, Nirmala Niketan College of Home Science is a *Home Science* college. Thus, all programmes and courses of study in the college are related to the varied areas of Home Science. This is the dedicated mission of the college.

With regard to Home Science, one of the special strengths of the college is that the college is comprehensive in offering Home Science education from Junior College (i.e., 11th standard) right through a PhD in Home Science. All academic levels in Home Science are available in the college. Vertical mobility provision, therefore, is complete.

Home Science is an interdisciplinary and a multidisciplinary field. The Home Science curriculum covers wide-ranging areas and academic disciplines, reflected in the four specializations offered in our BSc Home Science degree programme:

- Foods, Nutrition & Dietetics
- Human Development
- Textile and Fashion Technology
- Community Resource Management

Moreover, each specialization itself is interdisciplinary. For example, the Human Development curriculum in Nirmala Niketan College of Home Science brings together

disciplines such as: Developmental Psychology, Counseling Psychology, Human Exceptionality, Family Studies, Child and Family Welfare, and Early/School/Higher/Special Education.

Table 1.2 provides a snapshot of the BSc Home Science Curriculum Structure.

Table 1.2: A Snapshot of the BSc Home Science Curriculum

Areas of Focus	Core Curriculum Theory	Core Curriculum Practicum	Specialized Curriculum Theory	Specialized Curriculum Practicum
General	Foundation Course	Computer Application I, II		
Foods, Nutrition & Dietetics	<ol style="list-style-type: none"> 1. Basic Nutrition 2. Food Science 3. Meal Planning 4. Community Health 	<ol style="list-style-type: none"> 1. Food Science 2. Nutrition & Meal Planning 	<ol style="list-style-type: none"> 1. Nutritional Biochemistry 2. Clinical Nutrition & Diet Therapy 3. Food Microbiology & Preservation 4. Community Nutrition 5. Human Nutrition 6. Food Service Management 	<ol style="list-style-type: none"> 1. Diet Therapy 2. Community Nutrition 3. Food Analysis & Clinical Biochemistry 4. Food Service Management <p><u>Also:</u> Placement/ Internship at a hospital/NGO/ industry</p>
Human Development	<ol style="list-style-type: none"> 1. Child Development 2. Adolescent Development 3. Development in Adulthood 4. Methods of Child, Adolescent, & Adult Study 	<ol style="list-style-type: none"> 1. Developmentally Appropriate Practice I & II 	<ol style="list-style-type: none"> 1. Counseling & Psychological Testing 2. Curriculum Planning for Preschools 3. Human Exceptionality 4. Administration of Schools and Other Human Development Agencies 5. Family Relations and Family Welfare 6. Social Psychology 7. Theories of Human Behaviour and Development 	<ol style="list-style-type: none"> 1. Exceptional Children 2. Administration of Schools and Other Human Development Agencies 3. Developmentally Appropriate Practice III & IV
Textile and Fashion Technology	<ol style="list-style-type: none"> 1. Fibre to Fabric 2. Psychology of Clothing 3. Textile Technology 4. Traditional Indian Textiles & Costumes 	<ol style="list-style-type: none"> 1. Children's Clothing 2. Textile Science & Women's Clothing 	<ol style="list-style-type: none"> 1. Dyeing & Printing 2. Textile Testing & Quality Control 3. Fabric Structure & Construction 4. Marketing & Merchandising 5. Historic Textiles and Costumes 	<ol style="list-style-type: none"> 1. Dyeing & Printing 2. Fabric Structure & Construction 3. Fashion Illustration & Pattern Drafting 4. Garment Construction & Draping 5. Design Concepts & CAD

				6. Fieldwork/ Project/Seminar
Community Resource Management	<ol style="list-style-type: none"> 1. Principles of Design 2. Consumer Education 3. Principles of Resource Management 4. Applied Economics & Personal Finance 	1. Principles of Design	<ol style="list-style-type: none"> 1. Residential Interior Design 2. Hotel Front Office & Housekeeping Operations 3. Marketing Management & Entrepreneurship 4. Introduction to Ergonomics 5. Household Appliances 6. Human Resource Management 7. Extension Education & Communication for Development 	<ol style="list-style-type: none"> 1. Community Services Practical 2. Elective Practical: <ul style="list-style-type: none"> • Residential Interiors • Hotel Front Office & Housekeeping

Table 1.2 provides an overview of the multiple areas of learning available in the BSc Home Science curriculum in the college. The curriculum is designed to reflect 5 areas of focus: general, and the four specializations. The core curriculum in Home Science is offered in the first two years of the B.Sc. programme: that is, in Semesters I to IV. The core curriculum covers all five areas of focus. To our credit, and to the students' benefit, the core curriculum:

- Covers an excellent combination of Applied Science subjects and Social Science subjects.
- All subjects are life-oriented and community-oriented: For example, Foundation Course, Meal Planning, Community Health, Child Development, Adolescent Development, Psychology of Clothing, Traditional Indian Textiles & Costumes, Consumer Education, Applied Economics & Personal Finance.
- Focuses on both theoretical knowledge and skill development. There are practicals for each of the five areas of focus.
- Lays the base for specialized career-related knowledge and skill-building.
- The number of subjects for each of the four specializations in the core curriculum is adequate such that students can identify their longer-term interests (personal and career-related) and opt for one of the four specializations in the third year.

In the third year (TY) of the BSc Home Science curricula, students have to state their preferences for the four specializations of Home Science and are selected into one of the specializations. The third year curricula, while remaining life-oriented and community-oriented, is also clearly aligned to build career-related competencies in students. The third year curriculum for any specialization has been designed to allow for:

- Direct entry into the job market, if that is the choice of the student on graduation.
- Academic progression into advanced degree programmes in Home Science and allied fields.
- Of course, if a student wishes to focus on the family and community and not engage in either higher studies or paid work, she has been provided with a well-rounded, useful education. (However, almost all the alumnae are either engaging in paid work or are studying further after graduating from the B. Sc. programme.)

The TY BSc curriculum for each specialization has been designed keeping in mind the higher education and career life paths of the BSc alumnae. For example, most of our BSc Human Development alumnae are choosing to study further and their choices have been: Master's in Human Development through a Home Science college, M.A. or P.G. Diploma in Counseling, M.A. or P.G. Diploma in Special Education, MSW, MBA, and master's in Media Studies/Children's Media and Entertainment. Direct entry into the job market has been as a preschool teacher, primary school teacher, employment at an NGO, healthcare product counselor, and entrepreneurial opportunities such as activity classes for children, puppetry for children etc. Therefore, in the third year (Human Development specialization) we offer a range of courses that allow for such academic progression and/or career entry: Counseling and Psychological Testing, Human Exceptionality, Curriculum Planning for Preschools, Children's Literature, Administration of Schools and Other Human Development Agencies, Developmentally-Appropriate Practices etc.

To give another example, the TY BSc Home Science curriculum in Community and Resource Management is designed such that a graduating student can obtain a job in the Hospitality Industry (e.g., as a Hotel Front Office manager) or a beginning management position in a company. The student can also opt for higher studies in fields such as Ergonomics, Business Management, Hospitality Management, and Interior Designing.

Once again, to our credit, the TY BSc curriculum for each specialization offers multiple areas of learning within the specialization, and a mix of theory and practicum subjects.

At the TY level, with regard to academic flexibility, it is also important to note that value-added courses offered by each specialization are open to students of any specialization.

At the postgraduate Home Science level, we have increased the choices offered to students to **seven instead of four**. (Note that one of these seven will be implemented in 2014-2015.) Students can progress into one of these seven programmes. It is important to note that students from other programmes of study can seek admission into these postgraduate courses. Thus, there is academic flexibility such that these courses are not restricted to only those with a Home Science education from our college (i.e., University of Mumbai) or other colleges in Mumbai or the country (i.e., from other universities). There is also academic flexibility such that our students have the option to switch specializations if they so desire. (For example, a student from the BSc Community Resource Management specialization switched successfully to an MSc in Foods, Nutrition, and Dietetics.)

- P.G. Diploma in Dietetics and Applied Nutrition (self-financed)
- MSc in one of six branches:
 - Foods, Nutrition, and Dietetics
 - Food Processing and Preservation (self-financed, 2011-2012 onward)
 - Sports Nutrition (self-financed, 2011-2012 onward)
 - Human Development
 - Textile and Fashion Technology
 - Ergonomics and Management (self-financed, 2014-2015 onward)

The options related to the Nutrition field are more because we have noted that there is a very high demand for this field both among students in the college and among those who transfer into our postgraduate programmes from other colleges or universities.

Once again, each of the six MSc curricula already implemented offers a range of subjects, and a useful combination of theory and practicum subjects. At an advanced level students can build knowledge and skills relevant to their specialization, and identify which areas within their specialization are of enduring interest to them. (For example, in the Foods,

Nutrition and Dietetics branch (IA), students learn advanced knowledge related to Food Science and Processing, Clinical Nutrition, Therapeutic Dietetics, Human Nutrition, and Public Health Nutrition.) These interests may be explored in more individualistic ways through internships, the group research project in Semesters I and II, and the individual dissertation in Semesters III and IV.

Competencies with regard to research are also emphasized in the M.Sc curriculum; exposure to and use of SPSS, for example, helps our students have globally-valuable competencies. The students who graduate from the M.Sc programmes enter the job market with ease and have reported a strong link between their learning in the college and job competence. MSc alumnae have also, after some work experience, successfully enrolled in PhD programmes (either in the college or at universities abroad) and have graduated from leading doctoral programmes.

The PhD in Home Science has coursework and research (thesis). There is ample academic flexibility that is offered through our doctoral programme. The candidate can select one of the following three specializations:

- Foods, Nutrition & Dietetics
- Human Development
- Textile and Fashion Technology

The PhD coursework is in the process of being approved. The proposed coursework includes (a) Research Methodology and Computer Applications, (b) Active Participation and Academic Development (e.g., conference presentations, teaching undergraduate students, helping organise seminars/conferences, specialised training), and (c) Core/Specialized Component. For the 6-credit course on the Core/Specialised Component, the doctoral student has to select one of 6 modules. For example, students doing their doctorate in the TFT specialisation have to select one of the following 6 modules for the Core/Specialized Component:

- Polymer Science
- Textile Processing and Finishing
- Garment Production Technology
- Design and Product Development
- Marketing and Merchandising
- Management of Textile and Fashion Industry.

After completion of coursework, the doctoral student exercises choice through selection of a research topic for the doctoral thesis.

Range of core/elective options offered by the University and those opted by the college:

As specified in previous questions (e.g., 1.1.2, 1.1.4, 1.1.6), the Home Science curriculum for the BSc through PhD levels for the University of Mumbai has been developed by the Nirmala Niketan College of Home Science. Therefore, we offer all the options offered by the University of Mumbai for Home Science.

Choice-based credit system and range of subject's options:

In compliance with the directives of the University of Mumbai, and in order to meet global standards, we have altered our curriculum from an annual pattern to the Credit Based Semester and Grading System (CBSGS) for all levels ranging from F.Y. B. Sc Home Science to PhD. We started in 2011 with F.Y .B. Sc Home Science Semesters I and II, and M.Sc Home Science Semesters I and II. In this academic year (2013-2014), all levels from B. Sc to M.Sc are converted to CBSGS. This is the first year of implementation of the CBSGS

curriculum for T.Y. B.Sc. Home Science. The PhD curriculum will go into effect for all new PhD candidates who register.

The CBSGS is also student-friendly as students are allowed to keep term despite having failed in a few subjects in multiple semesters and have multiple opportunities to reappear.

The range of options at each level has been specified in earlier parts of the answer to this question (i.e., Ques.1.2.3).

Courses offered in Modular form:

In compliance with the directives of the University of Mumbai and our own quality policies, each of subject syllabi is **unitized** with specification of number of lecture or practical periods, and subtopics.

Credit transfer and accumulation facility:

Whereas the University of Mumbai does not offer transfer of credits across different programmes of study except with regard to eligibility requirements of each programme of study, credits can transfer from one college to another for a programme in the same field and level. Thus, for example, students can transfer into our TY BSc having completed the first two years at another college/university as special cases. Students of our college can transfer mid-degree (e.g., from SY to TY) into Home Science programs offered by colleges affiliated to other universities if such a need arises.

Lateral and vertical mobility within and across programmes and courses:

Please refer to earlier parts of the answer to this question (i.e., Ques.1.2.3).

Enrichment courses:

- Value-added courses
 - Computer Applications: F.Y. and S.Y.
 - English: F.Y.
 - Other:
 - Food Preservation and Processing
 - Nutrition & Exercise for Fitness
 - Entrepreneurship in Textile Crafts
 - Visual Merchandising
 - Creative Parenting
 - Indian Sign Language
 - Work Station Design and Applied Ergonomics
- Personality development camp
 - For all TYs
- Rural/tribal exposure and extension activity camp
 - For TYs, MSc1s, MSc2s
- Study Tours
 - For TYs, MSc1s, MSc2s
- Workshops organized by each specialization as well as committees such as the Cultural Committee
- Leadership training camp for all Student Council members
- Soft skills, managerial skills, and leadership skills are also developed among students who are in the Student Council or student members in the many committees in the college (e.g., Interfaith Committee, Magazine Committee, Cultural Committee, Social Service Committee, IQAC Subcommittees or the NAAC Committees) as they plan,

execute, monitor, and evaluate the events/activities of the Student Council or a committee.

1.2.4 Does the institution offer self- financed programmes? If ‘yes’ list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

The college offers several self-financed programmes:

- P.G. Diploma in Dietetics and Applied Nutrition
- MSc in three branches:
 - Food Processing and Preservation (2011-2012 onward)
 - Sports Nutrition (2011-2012 onward)
 - Ergonomics and Management (2014-2015 onward)
- Value-added courses
 - Food Processing and Preservation
 - Nutrition & Exercise for Fitness
 - Visual Merchandising
 - Entrepreneurship in Textile Crafts
 - Creative Parenting
 - Indian Sign Language
 - Work Station Design and Applied Ergonomics

Differences in the Aided and Unaided M.Sc programmes:

- The fees are higher in the Unaided M.Sc programmes
- Admission into the Unaided M.Sc programmes
 - Merit-based
 - Reservations norms followed for aided courses are not considered
 - Maximum number of students per branch is double that of the aided MSc courses (i.e., class size of 20)
- Curriculum structure, design, and development is the same across aided and unaided M.Sc programmes (refer to our response to Ques. 1.1.4)
- Experienced faculty from the college and faculty from other institutions, industries, research centres, hospitals etc. are invited to conduct theory and practical classes on a Visiting Lecturer basis. Remuneration is calculated on a clock hour basis and was raised to Rs 500 per hour in order to attract high-quality faculty.

1.2.5 Does the college provide additional skill oriented programmes, relevant to regional and global employment market? If ‘yes’ provide details of such programmes and the beneficiaries.

The Home Science education we offer itself includes numerous skill-oriented subjects. There are many practical subjects for the core curriculum (see Table 1.2 in Ques. 1.2.3) as well as for each of the subsequent specialization-specific levels. The slant in the theory subjects is also applied.

Furthermore, we also offer skill-oriented value-added courses which have been listed in response to Ques. 1.2.1.

We also address skill development through the following enrichment activities/opportunities (as specified in response to Ques. 1.2.3):

- Personality development camp

- Rural/tribal exposure and extension activity camp
- Workshops organized by each specialization as well as committees such as the Cultural Committee
- Leadership training camp for all Student Council members
- Soft skills, managerial skills, and leadership skills are also developed among students who are in the Student Council or student members in the many committees in the college (e.g., Interfaith Committee, Magazine Committee, Cultural Committee, Social Service Committee, IQAC Subcommittees or the NAAC Committees) as they plan, execute, monitor, and evaluate the events/activities of the Student Council or a committee.

The Home Science curriculum along with its enrichment activities equips our students very well for regional and global employment markets.

1.2.6 Does the university provide for the flexibility of combining the conventional face-to face and Distance Mode of Education for students to choose the courses/combination of their choice “if yes’ how does the institution take advantage of such provision for the benefits of students?

Distance education is less suitable for Home Science education which is oriented clearly to skill development. However, given new trends (e.g., online education), the possibility of having a Distance Education along with contact days is being explored.

1.3 CURRICULUM ENRICHMENT

1.3.1 Describe the efforts made by the institution to supplement the University’s Curriculum to ensure that the academic programmes and Institution’s goals and objectives are integrated?

As specified, the University of Mumbai curricula for Home Science at all levels has been designed and formulated by the faculty of the college and approved by the university through the Ad Hoc BOS of Home Science, Faculty of Science, and the Academic Council of the University of Mumbai (respectively). The syllabi at all levels have been formulated keeping in mind the vision, goals, mission, motto, and emblem of the college. Please also refer to our response to Ques. 1.1.6.

The Nirmala Niketan College of Home Science places the highest value on comprehensive, professional and socially-relevant education. The entire curriculum is directed to enable each student to imbibe skills that are necessary for negotiating life’s challenges whether personal, familial, community/societal, or professional. The well-planned and implemented education is a blend of contemporary and traditional values interwoven to depict the fabric of our own *Nirmala Niketan Home Science* brand which echoes the college vision, goals, mission, motto, and emblem.

Examples of our efforts to supplement the syllabi approved by the University of Mumbai include the following:

Women's Empowerment/Leadership

- We use participatory, hands-on, minds-on teaching-learning methods which empowers our students.
- We use participatory governance and have student members in almost all our committees. Students learn soft skills, event management skills, and leadership skills through planning, executing, monitoring, and evaluating the activities/events of their committee (e.g., Social Service Committee, Magazine Committee, Women's Cell).
- Personality development camps for students
- Leadership training for all members of the Student Council

Career-Orientation; Globally Valuable and Locally Relevant Education

- Linkages/tie-ups/collaborations with the industry, NGOs, GOs, academic organisations, and research organizations in curriculum implementation strengthen the career orientation of our curriculum.
 - Exposure visits
 - Study tours
 - Placements/Internships
 - Research collaborations
 - Talks/sessions/workshops with experts from the industry/NGOs etc.
- Talks/sessions with our alumnae are arranged periodically. The career successes of our alumnae help the students visualize and plan for their own careers and identify the types of jobs and settings that interest them.
- Organization of regional/national/international seminars or conferences in/by the college provides exceptional opportunities to students to build event management skills, participate as young scientists, and learn from/interact with leading experts from various fields.
- Grooming/mentoring advanced students (doctoral students, also MSc/alumnae from MSc programs) in their young scientist role through supporting them in making presentations at national and international conferences.
- The college has set up an Employment Placement Committee (EPC) which not only liaises between industry (employers) and students (potential employees) but also organizes various enrichment programmes for the students like C.V writing, how to face a job interview, development of soft skills, computer skills etc. It has been observed that almost 100% of the students specialising in Community Resource Management have been employed through the EPC. However, most students of other specializations like FND, HD, and TF have preferred to go in for higher education although job opportunities are plenty.
- Exchange programmes initiated with foreign universities.

Community-Orientation/Service Component

- Extension and service activities:
 - Rural/tribal exposure and extension activity camps
 - Tie-ups with NGOs and GOs for extension activities

1.3.2 What are the efforts made by the institutions to modify, enrich and organize the curriculum to explicitly reflect the experiences of the students and cater to the dynamic employment market?

Modifications of the Curriculum to Reflect the Experiences of Students and Cater to the Dynamic Employment Market

Examples:

- With the fitness industry expanding, the demand for Sports Nutritionists is on the increase. Therefore, first a value-added course recognized by the University of

Mumbai was designed and implemented (Nutrition & Exercise for Fitness). However, an advanced degree was considered the felt need as many enquired about a degree course. So, an MSc Home Science in *Sports Nutrition* was formulated and university sanction was sought. In the academic year 2011-2012, the M.Sc in Sports Nutrition was implemented.

- We noticed the growth and the success of the food industry. There are increasing job opportunities in the food industry, especially related to food product development/food processing and preservation. Therefore, first a value-added course recognized by the University of Mumbai was designed and implemented (Food Processing and Preservation). Students graduating from our BSc course stated that they would like to have a master's course in *Food Processing and Preservation* (FPP); students from other colleges also showed a lot of interest. An MSc Home Science in Foods, Nutrition and Dietetics was formulated and university sanction was sought. In the academic year 2011-2012, the M.Sc in FPP was implemented.
- Both the MSc in FPP and MSc in Sports Nutrition are also designed and implemented because at the postgraduate level the demand has been exceptionally higher for the MSc in Foods, Nutrition and Dietetics than for the other MSc courses.
- Students graduating from our TY BSc Community Resource Management (CRM) course have made requests for an M.Sc programme related to their specialization. A review of CRM-related M.Sc programmes available in other colleges in Mumbai (SNDT University) helped us identify that *Ergonomics and Management* was a novel contribution which matched the trends in the industry. Therefore, the MSc in Ergonomics and Management has been formulated and is to be introduced in the coming academic year. (To be implemented: 2013-2014.)
- In the previous syllabus of the TY BSc Home Science in Human Development, we had a subject called *Counseling and School Administration*. This had been introduced when we noticed that many of our alumnae were working in schools as counselors or as academic coordinators. Next, we observed that our students and alumnae were strongly interested in the Counseling field, that the Counseling field in India is growing, and that there is a need for educational programmes in Counseling. We also noticed that our alumnae were choosing employment in a broader range of human development agencies, not just schools. Therefore, in the new syllabus we split this subject into two subjects, increasing their weightage: (a) *Counseling and Psychological Testing*, and (b) *Administration of Schools and Other Human Development Agencies*. We also introduced a practicum for Administration of Schools and Other Human Development Agencies so that student learn skills such as how to plan school policies, youth services, services for the elderly, start an NGO etc. (implemented 2011-2012).

As each of the subjects in our curriculum has been chosen with careful attention to student experiences and the dynamic employment market, there are numerous other examples.

- As the job market is dynamic, we also stress a lot on transferable skills and values in our curriculum such as interpersonal competence, teamwork, problem-solving skills, communication skills, computer skills, positive self-concept, confidence, character, sensitivity to others, service, and excellence.

Enrichment of the Curriculum to Reflect the Experiences of Students and Cater to the Dynamic Employment Market

Examples have been specified in response to Ques. 1.2.3 and 1.3.1.

Organization of the Curriculum to Reflect the Experiences of Students and Cater to the Dynamic Employment Market

Subjects have been combined carefully for the core curriculum of BSc Home Science (FY and SY), and the curriculum for each of the specializations at TY, M.Sc., and Ph.D. levels, to reflect the experiences of students, alumnae, and the changing job market/industry/fields of study related to Home Science. Within a degree programme, care has been taken to ensure that across the semesters the students engage in an education in alignment with our vision, goals, and mission. Examples have been provided in response to Ques. 1.2.3.

1.3.3 Enumerate the efforts made by the institution to integrate the cross-cutting issues such as Gender, Climate Change, Environmental Education, Human Rights, ICT etc., into the curriculum?

Examples

Gender, Human Rights, Environmental Education

- Subjects in the core curriculum such as Adolescent Development have units on **Gender** Development, **Sexuality**. Gender discrimination, androgyny as an optimal choice, sexuality and women's status in Indian, preventive means for addressing sexual crimes against women in India are all addressed.
- **Environmental concerns** are addressed in multiple subjects: Eco Certification, eco-friendly fibres and dyes, waste management in the textile industry, waste management in the food industry are integral parts of the curriculum. Students' research topics for the MSc dissertation reflect their value orientation and sensitivity to environmental concerns. Examples from the Textile and Fashion Technology specialization include:
 - Waste management of home furnishing and weaving industries through designer, quilted bed linens.
 - Sensitizing college students towards environment concern through product development based on scrap utilization.
 - Design development of accessories using fabric waste of garment/home furnishing/accessory units through applique technique.
 - A study of eco-friendly garments, their current status together with an awareness generating programme for young consumers
- Students learn to develop **sensitivity and commitment to vulnerable groups**. Subjects like Community Nutrition, Public Health Nutrition, Family Relations and Family Welfare, Community Services Practical, Extension Education & Communication for Development are important in building a community-orientation, sense of service as a budding professional. Many students' MSc dissertation topics reflect that they have incorporated such values in relation to their specialized fields of education and practice. For example:
 - Effect of nutrition education intervention on the nutritional status and dietary practices of HIV+ children and adolescents
 - Assessment of the nutritional status of children with intellectual disability
 - Nutritional status of and prevalence of iron deficiency anaemia in adolescent girls (11-21 years) residing in urban slum areas of Dharavi, Mumbai
 - Perceptions of parents of children (6-15yrs) with intellectual disability: Needs and satisfaction with the services provided
 - Quality of life, coping strategies and coping effectiveness of counselors working with people living with HIV
 - Quality of life, coping strategies and coping effectiveness of caregivers of individuals with Alzheimer's Disease (AD)

- Perceptions of parents of children (6-15yrs)with intellectual disability: Needs and satisfaction with the services provided
 - Designing trendy adaptive clothing for people with spastic cerebral palsy
- Students also participate in rural/tribal exposure and extension activity camps. Participation in the activities of the Social Service Committee is also helpful in building a service orientation in students.
- **Human rights** are addressed in the Foundation Course and in specialization-specific subjects such as Human Exceptionality and the Exceptional Children Practical.
 - Respect and knowledge about **Indian Cultural Heritage** balanced with counterpart knowledge about cultures outside India is also part of the curriculum.
 - In the Foods, Nutrition and Dietetics specialisation, students learn about the eating habits and cuisines of various Indian states. To give them exposure to international cuisine, they are also taught Italian, continental, and Chinese recipes.
 - Students learn about the various textiles and costumes of different states of India. The students are also acquainted with the international textiles and costumes.
 - Students of the Community Resource Management specialization learn Interior Design and learn about Indian, Egyptian, Roman, and English architecture.

ICT

- Computer Applications are part of the core curriculum (FY and SY BSc Home Science)
- Students at senior levels (TY and postgraduate) learn to use software specific to their specializations.
- Master's and doctoral students learn to use the Statistical Package for the Social Sciences (SPSS).
- Students are encouraged to use computers/internet for their assignments and projects.
- Student and staff access to the internet in the college has been provided in the library and the cybercafé. Staff also has access to multiple computers in the staffrooms; a computer with internet facility in the 5th floor staffroom, and three computers with internet facility in the HOS room.
- All classrooms are ICT-enabled. The use of PPTs by teachers and students is regular and routine.
- MSc students have even selected ICT-related dissertation topics on their own:
 - Opinions and awareness of never married adults (20-35 years) regarding searching for a spouse through matrimonial websites
 - Use of ICTs in the teaching-learning process by university teachers and students in Mumbai

In line with our vision, goals, and mission the education we offer is replete with issues that are of importance in everyday life at individual, family, community, national, and global levels.

In January 2013 we organized a successful international conference on *Enhancing Health, Wellbeing and Sustainability: Opportunities, Challenges and Future Directions*.

1.3.4 What are the various value added courses/ enrichment programmes offered to ensure holistic development of students?

- **Moral and ethical values**
- **Employable and life skills**
- **Better career options**

- **Community orientation**

Value-Addition and Enrichment Programmes to Ensure Holistic Development of Students

This has also been answered in response to Ques 1.3.1 & 3.6.1.

- Value-added courses, which have been listed in response to Ques. 1.2.1 & 1.2.3.
- Extension work in rural/tribal areas of all senior students (TY BSc and MSc) each year.

The DHM Management has numerous rural and tribal outreach programs and centres. Senior college students plan and implement extension activities through these centres. Students build a service orientation and are able to translate theoretical knowledge into practical use with varied target groups in rural and tribal areas.

Students have also got opportunities to interact informally with children, youth, and/or adults in rural or tribal areas and share a sense of connection despite differences in lifestyles and life circumstances.

- Activities of the Social Service Committee which has student members, and which plans and executes multiple social service activities through the year. Student members play a key role in planning and implementing these activities. Other students benefit from participating in these activities. Examples include:
 - Elders' Day Out: Elders from old age homes were brought to the college on a holiday for an outing entailing a recreational and cultural programme and lunch. The program was organised by students with guidance from teachers of the committee.
 - Beach cleaning after the Ganesh Festival immersions (each year)
 - Blood donation camp
- Fieldwork of students
 - Foods, Nutrition and Dietetics students under supervision have conducted nutrition education programs with Anganwadi workers, Dharavi slum residents etc. in their Community Nutrition fieldwork. Faculty members are networking with ICDS and the Ministry of Family and Child Welfare.
- Breastfeeding Week activities
 - Building awareness about hygiene among street food vendors
- Collaboration with the Department of Lifelong Learning and Extension of the University of Mumbai. The college unit of The Department of Lifelong Learning and Extension, in 2013-2014 has enrolled 29 students in the program (TY BSc students specialising in Community and Resource Management) and has selected the Industrial Orientation Project.
- Bal-Utsavs for underprivileged children and youth, organised by the faculty and students of the Human Development specialisation, have afforded an excellent platform to HD students to extend their knowledge and services to underprivileged urban children and youth, and experience the joy of contributing to others.
- Other activities organized by TY students of other specializations like Christmas Bonanza, Market Day, and Best out of Waste.
- Sensitisation visits to agencies have been arranged for various groups of students.
- Encouragement of research topics which exemplify a service orientation is another strategy; for research work and extension work, faculty/research guides and students tie-up with NGOs (e.g., IAPA, CHIRAG) and GOs (e.g., NACO, ICDS) serving vulnerable groups.
- Selected college students have participated in the parliament visits organised for the youth of South Mumbai constituency by Member of the Lok Sabha, Milind Deora.

- Student participation in committees such as Interfaith Committee, Cultural Committee, Magazine Committee and/or their activities through the year.
- Student Council activities (e.g., celebration of Independence Day).
- Participation of students in intercollegiate events.
- Student involvement in planning and conducting co-curricular events such as seminars and conferences.
- Study Tours for TYs, PG Diploma students, MSc1s, MSc2s.
- Workshops organised by each specialisation as well as committees such as the Cultural Committee.
- Leadership training camp for all Student Council members
- Linkages/tie-ups/collaborations with the industry, NGOs, GOs, academic organisations, and research organisations in curriculum implementation strengthen the career orientation of our curriculum.
 - Exposure visits
 - Study tours
 - Placements/Internships
 - Research collaborations
 - Talks/sessions/workshops with experts from the industry/NGOs etc.
- Talks/sessions with our alumnae are arranged periodically. The career successes of our alumnae help the students visualise and plan for their own careers and identify the types of jobs and settings that interest them.
- The TFT students get a hands-on experience of a Fashion Show: they showcase the garments they have designed in a Fashion Show during the Annual Day of the college.
- Grooming/mentoring advanced students (doctoral students, also MSc/alumnae from MSc programs) in their young scientist role through supporting them in making presentations at national and international conferences.
- The college has set up an Employment Placement Committee (EPC) which not only liaises between industry (employers) and students (potential employees) but also organises various enrichment programmes for the students like C.V writing, how to face a job interview, development of soft skills, computer skills etc.
- Innovative learning opportunities through setting up international exchange programmes with foreign universities (i.e., Fu Jen Catholic University, New Taipei City, Taiwan; Ghent University, Ghent, Belgium).

1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?

Feedback from the DHM Management, the Principal, students, teachers, other experts, and the industry is used to a very large extent in enriching the curriculum.

- For example, even when teachers have enquired whether a rural/tribal camp is needed given time constraints, the DHM Management and the Principal have been firm with regard to the organization and conduction of rural/tribal exposure and extension work camps for TY and MSc students.
- Study tours in the Human Development specialization have been planned based on student requests. Students also have participated in identifying the agencies/institutes they would like to visit during their study tour.
- Value-added courses have been introduced in response to feedback from students, potential students, alumnae, and industry.

- Students and faculty have expressed an interest in international exchange programmes. Students and faculty who participated in the exchange programme with a college in Blois, France, in 2010-2011, shared very positive feedback. Therefore, two new exchange programmes have been initiated this year, as noted in response to Ques. 1.1.5:
 - Ten students and two teachers visited Belgium and participated in the first leg of the exchange programme with Ghent University in November 2013.
 - In November 2013, an MOU has been signed with the Fu Jen Catholic University.
- Students have shared about the benefits they experience through talks/sessions/workshops with experts from the industry/NGOs/GOs/other universities etc. Therefore, we have been arranging these periodically.
- Students and teachers have shared the benefits they have experienced when they have organized co-curricular activities such as a regional or national seminar/conference. Therefore this year in January, with the primary initiative of the Principal, an international conference was successfully organized by the college.
- Student and teacher feedback is used to select and tailor the activities/events of particular committees (e.g., the Cultural Committee, the Social Service Committee) through each term/academic year.

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

There are teachers in-charge of each of the enrichment programmes and students and other staff who work with them to plan, conduct, monitor, and evaluate the programmes. This process is overseen by the Principal and when relevant, the HOS. The report of the achievements and suggestions is generated by the team that planned and executed the programme. This report is shared with the Principal and with other teachers at the weekly all-teachers meeting. Appreciation and constructive feedback is obtained and used for quality enhancement.

Feedback is obtained from the different participants/beneficiaries of the programme: For example, if a group of students with guidance have conducted an extension activity in a tribal area, feedback is obtained from the community centre staff, the tribal participants, the teachers, and the students who conducted the activity. Care is taken that benefits are experienced as intended by the tribal participants and the students.

1.4 Feedback System

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

Please see our response to Ques. 1.1.6

1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes/new programmes?

Yes, there are formal mechanisms to obtain feedback from students and stakeholders on the curriculum:

- Feedback on curriculum collected by the Criterion1 IQAC Subcommittee (also known as a NAAC Committee) from students as they finish one phase of their

curriculum (e.g., the core curriculum).

- Exit Questionnaires completed by graduating students and analyses by the respective HOSs.
- Feedback is obtained from the subject teachers who are implementing the syllabus for a particular subject.
- Feedback is obtained occasionally from other stakeholders such as alumnae and employers of alumnae, the industry.

Feedback is communicated to the University through the Chairperson of the Ad Hoc BOS of Home Science.

As the Home Science curriculum is designed and formulated by the college and approved and sanctioned by the University of Mumbai (through appropriate channels starting with the Ad Hoc BOS of Home Science, the Faculty of Science, and the Academic Council of the University), we use the feedback for altering and/or enriching our curriculum:

- Whatever is possible to include in the current curriculum is included: for example, particular enrichment programmes.
- The feedback is also used to introduce new value-added and/or degree courses as explained in response to other questions (e.g., see our response to Ques. 1.3.2, 1.3.5, &1.4.3).

1.4.3 How many new programmes/courses were introduced by the institution during the last four years? What was the rationale for introducing new courses/programmes?)

- In 2009-2010, we began implementing a new curriculum designed by the college, and approved and sanctioned by the University of Mumbai. The implementation, as always, was phase-wise:
 - FY BSc Home Science and MSc I Home Science (3 branches/specialisations): 2009-2010.
 - SY BSc Home Science and MSc II Home Science (3 branches/specialisations): 2010-2011.
 - TY BSc Home Science (4 branches/specialisations): 2011-2012.

This new Home Science curriculum reflects **substantial revisions in the subjects and organisation of the curriculum**. For example:

- In the core curriculum (FY and SY) previously there were only practicum subjects related to the specialisation of Foods, Nutrition, and Dietetics and Textile and Fashion Technology. As the core curriculum lays the foundation and helps students identify in which field they would like to specialise, the core curriculum was altered to include practicum subjects related to all four specialisations. Thus, two new practicum subjects introduced were: Principles of Design & Developmentally Appropriate Practices I.
- From the perspective of the Human Development specialisation, it was also felt that the core curriculum must cover all the developmental stages. Whereas, Child Development and Adolescent Development were already in the core curriculum, it was necessary to move the subject on Adult Development from the TY HD specialisation into the core curriculum. Parenting, sensitivity to the elderly/caregiving for the elderly, health in adulthood etc. were topics that needed to be included in the core curriculum. Thus, Development in Adulthood was a theory subject introduced into the SY curriculum.

- Based on student feedback and observations of the areas in which our alumnae were choosing employment, the single fieldwork of TY Human Development was reconstituted into four new practicum subjects: Children’s Literature, Developmentally Appropriate Practices II, Administration of Schools and Other Human Development Agencies, and Exceptional Children. These practicum subjects dovetail with relevant theory subjects.
- Other examples of new theory subjects introduced include:
 - A cookery practical for FY BSc was changed into a Food Science practical as it was felt that the emphasis in the curriculum must be on scientific knowledge and related skills rather than on skills which can be learnt through hobby classes.
 - Theories of Human Behaviour and Development (TY Human Development specialisation): This subject was introduced so that in the master’s programme we could focus on an advanced study of theories.
 - Advanced Family Studies (MSc2 Human Development): This subject was introduced based on student feedback, relevance to Human Development, and knowledge advancements in the field.
 - Research Practicum was introduced for all specialisations in M.Sc I. This provides students an opportunity to complete a group research project in the first year before their individual dissertation in the second year.
- Examples of modifying/revamping subjects:
 - Exceptional Children (Theory) was changed to Human Exceptionality (Theory) (TY Human Development): Student feedback informed us that students were interested in the entire life span and not just in children.
 - Social Welfare to Family Relations and Family Welfare (TY Human Development): To be able to include salient topics relevant to Human Development such as diverse families, dysfunctional families, media-family interface, work-family interface, child and family welfare.
 - Theories of Human Behaviour and Development was revamped into Advanced Study of Theories of Human Behaviour and Development (MSc I Human Development) and based on knowledge advancements and the need to develop globally-valuable competencies, seven new theories were added.

See the following table for a list of all new subjects introduced in the new curriculum implemented, starting June 2009.

Table: Introduction of New Subjects in the New Curriculum (implementation began in June 2009).

Level/Class	New Subjects
FY B.Sc.	<ul style="list-style-type: none"> ● Food Science (Practical) ● Psychology of Clothing ● Consumer Education ● Principles of Design (Practical)
SY B.Sc.	<ul style="list-style-type: none"> ● Community Health ● Methods of Child, Adolescent & Adult Study ● Developmentally Appropriate Practice I (Practical) ● Principles of Resource Management ● Applied Economics & Personal Finance ● Computer Application II (Practical)
TY B.Sc. Branch I: Foods, Nutrition & Dietetics	<ul style="list-style-type: none"> ● Placement/Internship (in a Hospital, Industry or NGO)

Level/Class	New Subjects
TY B.Sc. Branch II: Human Development	<ul style="list-style-type: none"> • Counseling and Psychological Testing • Human Exceptionality • Exceptional Children (Practical) • Administration of Schools and Other Human Development Agencies • Family Relations and Family Welfare • Theories of Human Behavior & Development • Curriculum Planning for Preschools • Children's Literature (Practical) • Developmentally-Appropriate Practice II (Practical)
TY B.Sc. Branch III: Textile & Fashion Technology	<ul style="list-style-type: none"> • Fieldwork/project/seminar
TY B.Sc. Branch IV: Community Resource Management	<ul style="list-style-type: none"> • Hotel Front Office & Housekeeping Operations • Extension Education & Communication for Development • Community Services Practical (change in nomenclature)
M.Sc. I Branch I: Foods, Nutrition & Dietetics	<ul style="list-style-type: none"> • Nutrition Through the Life Cycle • Food Science (Practical) • Practicum in Research Methods
M.Sc. I Branch II: Human Development	<ul style="list-style-type: none"> • Organizational Behavior & Assessment • Counselling Practicum (moved into the first year) • Practicum in Research Methods
M.Sc. I Branch III: Textile & Fashion Technology	<ul style="list-style-type: none"> • Practicum in Research Methods
M.Sc. II Branch I: Foods, Nutrition & Dietetics	<ul style="list-style-type: none"> • Clinical Nutrition & Therapeutic Dietetics—Paper II • Public Health Nutrition • Management—Manpower & Marketing • Therapeutic Dietetics (Practical)
M.Sc. II Branch II: Human Development	<ul style="list-style-type: none"> • Human Exceptionality and Psychological Disorders • Advanced Family Studies
M.Sc. II Branch III: Textile & Fashion Technology	--

- In compliance with the directives of the University of Mumbai, the Credit Based Semester and Grading System (CBSGS) has been designed and implemented at all levels successfully.
 - At the close of the 2010-2011 academic year (March to May), the annual pattern was revised and adapted to the CBSGS. Through multiple negotiations between the faculty of the college and the Faculty of Science through the Chairperson of the Ad Hoc BOS of Home Science, an overall structure was approved and sanctioned by the BOS, the Faculty of Science, and the Academic Council of the University of Mumbai in turn.
 - The CBSGS has been finalised and implemented in the following phases; each time the faculty of the college has finalised the curriculum guided about structure by the Chairperson of the Ad Hoc BOS of Home Science (who is one of the teachers of the college). The Chairperson has presented this in a BOS meeting and on obtaining approval of the BOS; the curriculum has been approved in the Faculty of Science meeting, and thereafter by the Academic Council of the university.

- The F.Y.B.Sc Home Science CBSGS curriculum was finalised by June 2011 and implemented in 2011-2012.
 - The S.Y.B.Sc Home Science and the MSc I Home Science (five branches) CBSGS curricula were finalised by April 2012 and implemented in 2012-2013.
 - The TY BSc Home Science (four branches) and the M.Sc II Home Science CBSGS (five branches) curricula were finalised by April 2013 and implemented in 2013-2014.
- In converting to the CBSGS, teachers of the college got an opportunity to update and reorganise the content of subjects(within certain limits) and update the reference lists.
- Several new courses have been introduced which help diversify the choices available to students at various levels. These new courses also help students build a wider repertoire of knowledge and skills, useful for their personal and professional lives:
 - PhD *coursework* (e.g., in Research Methods and Statistics) for those enrolled in the doctoral program in Home Science. (To be presented at the Academic Council of the University of Mumbai.)
 - An MSc in Home Science with a specialisation in *Food Processing and Preservation* (recognised by the University of Mumbai; self-financed; implemented 2011-2012).
 - An MSc in Home Science with a specialization in *Sports Nutrition* (recognised by the University of Mumbai; self-financed; implemented 2011-2012).
 - Certificate courses recognised by the University of Mumbai: *Visual Merchandising, Entrepreneurship in Textile Crafts, Nutrition and Exercise for Fitness, and Food Processing and Preservation.*
 - New value-added courses such as *The Indian Sign Language* and *Creative Parenting.*

A new MSc program in Home Science with a specialization in *Ergonomics and Management* (self-financed) has been approved by the Academic Council of the University and is pending final sanction; to be introduced in 2014-2015.

Rationale for introducing many of these new courses has also been explained in response to Ques. 1.3.2. What is kept in mind in formulating the curriculum has been explained in response to Ques. 1.1.6.

The implementation of the new CBSGS syllabi will be completed this academic year (2013-2014). Therefore, we have begun working towards our next cycle of curricular revisions by:

- Collecting feedback from students.
- Subject teachers are noting down what they would like to alter and why.
- Latest editions of textbooks are being scrutinised.

Any other relevant information regarding curricular aspects which the college would like to include.

We would like to highlight some of the best practices which have been planned and implemented by the institute.

- ✓ Each teacher has a work plan for each subject and a teacher's diary which helps to monitor the quality of delivery of curriculum throughout the year.
- ✓ The teacher assessment questionnaire (TAQ) provides quality assurance feedback.
- ✓ Periodic meetings of teachers and principal to review curriculum and teaching, as well as regular meetings with parents helps to monitor progress and identify needs.

- ✓ The curriculum so designed is in adherence to the core values and goals of the college and has a thrust towards being life-oriented, career-oriented and community-oriented.
- ✓ Workshops and training programmes keep staff and students updated about their recent advancements in their field.
- ✓ Establishment of IQAC and regular meetings to share academic concerns helps to monitor growth.
- ✓ Mandatory participation in urban and rural extension activities sensitizes both staff and students towards the underprivileged and vulnerable sections of the society.

Keeping in view the changes that are taking place with knowledge explosion, continuous improvement of the curriculum needs to be made; thus newer programmes inspired by knowledge advancements, changing industry, changing job market, have been introduced. There is value consideration, ethical meaning and social relevance in every academic endeavour of the college.

An educational endeavor to be purposeful must lead to the ultimate goals and aspirations of the graduates. This is more relevant in the Indian scenario where millions of students graduate without adequate competence to meet the demands of the socioeconomic and technological environment.

The career progression of students from Nirmala Niketan has improved significantly. Many organizations have given placements to the students at the time of placement interview organized by Employment Placement Cell of the college and later absorbed them with high salaries. Students have developed multi-skills through the field experiences, workshops, lectures by expert faculty etc. They are able to apply theoretical knowledge in practical situations through their problem-solving competencies and analytical skills. Current global trends demand ICT knowledge; all students have become computer proficient to meet this technological demand. Thus, the education imparted at Nirmala Niketan College of Home Science is not just theoretical but is effective and applicable in the different challenging situations of life.

CRITERION II: TEACHING LEARNING AND EVALUATION

2.1. Student Profile and Enrolment

2.1.1 How does the college ensure publicity and transparency in the admission process?

The college undertakes the following measures to **promote/publicise** the various courses offered in each of the four specializations:

- Conducting sessions in local schools that allow prospective students to learn about the college.
- Distribution of informative pamphlets/handbills in local schools during the declaration of tenth standard exams results.
- Regularly updating the college website to accurately reflect the admission procedures and the courses offered.
- Staff participation in seminars, conferences, radio and television broadcasts, and panel discussions where they represent the college.
- Student participation in seminars, conferences, and intercollegiate competitive/cultural programmes, where they represent the college.
- Media (newspaper) coverage of important events in the college such as the international conference (January 2013).
- Information on our courses is displayed in the reception area of the ground floor of the college. Prospective students who visit the college also are able to purchase the prospectus with complete information on the courses.
- Eligible students in the college are informed about value-added courses through the value-added course coordinators.

Our alumnae also promote the courses in the college among their families, communities, and workplaces.

Transparency in the Admission Process

Admission into the Nirmala Niketan College of Home Science is generally at the following key junctures:

- Admission into the Junior College—that is, the 11th standard—is a key juncture. The Junior College provides us with the major pool of students who are admitted into the F.Y B. Sc Home Science. Therefore, in compliance with government regulations the Principal (along with Junior College teachers) works diligently to admit students into the Junior College. The admission process which is merit-based among girl students (as we are a women's college for the Junior College and B. Sc Home Science) is transparent as per the government rules.
- For the Senior College:
 - Admission into F.Y .B. Sc
 - Selection into a TY BSc specialisation
 - Admission into the PG Diploma
 - Admission into one of the five MSc branches/specialisations
 - Admission into the PhD programme

In general, the following transparent procedures characterize the admission process in the Senior College:

- **Notices for those seeking admission** describing the eligibility, number of seats, minority and other reservations, relevant deadlines, and admission procedures/admission criteria for each course are posted in the ground floor reception area and the college website well in time. The admission forms are available in the college and are downloadable from the college website.

- Norms of the University of Mumbai are followed.
- Prospective students can clarify or make inquiries.
- There are **Admission Committees** in the college. Each committee documents the process of admission. The tabulated admission data records relevant details such as whether or not the applicant is a minority or an SC/ST/NT/ OBC candidate, the academic performance in the previous qualifying examinations etc. Merit is calculated within categories (e.g., minority, SC/ST/NT/OBC/OBT, open). The Principal monitors the process.
- The **Admitted Candidates List** by merit in each category and a list of wait-listed candidates is put up in the ground floor reception area and on the college website.
- Once again, admitted candidates or those not admitted can seek clarifications.

2.1.2 Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.

Continuing the description of the admission procedures from Ques. 2.1.2:

University circulars regarding the fee structure, free-ship schemes, need-based scholarships etc. are displayed on the notice board at various times during the academic year.

In accordance with the Credit Based Semester and Grading System (CBSGS), orientation sessions and meetings are conducted with students and parents to ensure collective comprehension and optimal implementation of the system. During the orientation sessions, the students and their parents are informed about the admission process at the subsequent key junctures (e.g., selection into a TY BSc specialisation; admission into one of the MSc programmes). The criteria for selection into the different specializations at TY BSc and postgraduate courses are clearly spelt out to maintain transparency in the admission process.

The admission criteria and admission process adopted for the various key junctures in the educational paths available in the college:

FY BSc Home Science

- These criteria include governmental and university-regulated reservations; for example, given that the college is registered as a Christian Minority college, 50% of the seats are reserved for Christians.
- There is a vigilant inclusion of the SC/ST/OBC/OBT/NT reservation for admission at Junior College.
- Within each category (e.g., Christian, SC/ST/OBC, open), the admission is based on merit (i.e., past academic performance).
- At FY BSc, the college students who have passed SY JC are all accommodated.
- In compliance with state-government directives, first preference for admission into FY BSc Home Science is given to students from the Junior College of Nirmala Niketan.
- The other students from the science stream are admitted on merit.
- The FY Admission Committee conducts the admission process.
- The demand for admission into FY BSc has been increasing. The number of students admitted into FY BSc has ranged from 133 to 186 over the past years.

TY BSc Home Science

- On completion of Semester IV of the BSc Home Science course, and declaration of results, a list of students who are eligible to progress into the TY is made, based on

University of Mumbai regulations with regard to pass, ATKT, and fail. These eligible students have to state their preference for the four specialisations. Each specialization can accommodate 32-38 candidates per year.

- A TY Specialisation Preference Form (along with an instruction sheet) is made available in the college and is downloadable from the college website. Students are informed of the deadline for submission of this form in the college, through a phone messaging class network, and through notices posted in the ground floor reception area and on the website.

Students rank order their preferences for the four specializations based on personal interest.

They also include the marks/grades obtained in all subjects in the previous four semesters and attach the transcripts that they already have. The students list their order of preference based on personal interest.

- The TY BSc Home Science Admission Committee with representatives from each specialization conducts the admission process, monitored by the Principal.
- There are carefully articulated criteria for admission into the different specializations of TY BSc Home Science:
 - i. Preference of the student
 - ii. Past performance in the subjects of the specialization preferred by the student
 - iii. Overall performance in the previous four semesters.
- In keeping with student-centric education, the preference of the student is given the most importance; merit criteria apply when the number of first-preference students for a specialization exceeds the number of seats available.
- Students can meet the respective HOSs for seeking clarification.

PG Diploma in Dietetics and Applied Nutrition and MSc Home Science in Five Branches/Specialisations

- Intake capacity
 - PG Diploma in Dietetics and Applied Nutrition: 20 students
 - MSc Home Science aided: 10 students each
 - MSc Home Science self-financed: 20 students each
- For the aided MSc Home Science courses, eligible applicants are admitted based on merit within the following categories: 50% Minority candidates, 20% SC/ST/NT/OBC/OBT (with Maharashtra State certification), and 30% open category. Thus for each of the three specialisations, 7 seats are reserved (5 minority and 2 SC/ST/NT/OBC/OBT) and 3 are open. If there is no candidate or fewer candidates in either of the reserved categories, the seats are converted into open category seats. For the self-financed courses, there are no reserved categories.
- Merit is judged based on:
 - A written test in the area of specialisation
 - Individual interviews with a panel comprising faculty from the specialisation
 - Academic performance in previous qualifying examinations
- As already specified, an MSc Admission Committee in each specialisation conducts the admission process, overseen by the Principal. Admission-related notices are put up in the college and on the college website. This includes the list of admitted candidates.
- Applicants can seek clarification about their admission from the respective HOS.
- The fee structure and other related details are posted on notice boards in the college to facilitate closure on admissions and commencement of the course.

PhD Home Science

Selection of candidates for the doctoral programme in Home Science (in the specializations of FND, HD and TFT) follows a systematic procedure:

- The University of Mumbai conducts the PhD Entrance Test (PET) for each of the doctoral programmes of the university. The dates of application and examination are posted on the University website and applicants can also inquire in the college administrative office.
- The results of the PET are posted on the university website.
- Applicants who have passed the PET are then required to submit a written research proposal to the college.
- The Principal appoints a panel of experts in the relevant specialisation who interview the applicant. The applicant is informed of this interview and presents the research proposal using a PPT.
- On clearing the interview, the applicant is assigned a PhD guide recognized by the University of Mumbai who is one of the teachers in the college. The applicant modifies the research proposal if required and submits it to the University for approval.
- Once the proposal is approved by the Research Recognition Committee of the University of Mumbai the candidate registers for the doctoral programme.

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the college and provide a comparison with other colleges of the affiliating university within the city/district.

The minimum percentage of marks has been 35% and the maximum percentage of marks 89% for admission at FY BSc level.

The minimum percentage of marks varies across specialisations and categories (e.g., minority vs. SC/ST/OBC vs. open) at the MSc level. It ranges from second class to a high distinction. For example, in the assessment period, in the MSc Human Development programme we have admitted the gold medallists from the BSc Home Science programmes of SNDT Women's University in Mumbai.

The Nirmala Niketan College of Home Science is the only Home Science college affiliated to the University of Mumbai offering BSc, MSc and PhD Degrees in Home Science and a PG Diploma under the Faculty of Science. Therefore, a comparison to other colleges is not currently possible. We have noted that in the recent years the demand for our course has been increasing at the FY BSc level raising the minimum percentage of marks at entry level. This can be explained by:

- The college at the BSc level is a women's institute.
- The focus is on holistic, life-oriented and community-oriented education which families view as beneficial for their daughters.
- The focus on career-orientation in the curriculum especially nutrition-related careers, human-development-related careers such as a counsellor, textile-related (e.g., designing), and CRM-related (e.g., in the hospitality industry) also draws students to our college.
- Our alumnae help create a positive and attractive reputation of the college.

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If 'Yes' what is the outcome of such an effort and how has it contributed to the improvement of the process?

The admission process is reviewed both prior to the process of admission, on completion of admissions for that academic year, and at the end of the academic year. At the end of every academic year, the different specialisations meet to review the admission process of the previous year and earlier years, and make necessary modifications if required. In the past five years, the admission process review for the F.Y.B.Sc led to development of strategies (e.g., talks in schools) to increase the number of applicants. In the last two years, the review has been very positive as the number of applicants at both the Junior College entry level (who will progress into the F.Y.B.Sc) and the F.Y.B.Sc level (i.e., applicants not from our Junior College) is very high and is increasing.

The college maintains a comprehensive database of the number of students admitted at entry level, their attendance, performance records, and contact details. Records are maintained both as hard copy in registers, as well as soft copies on institutional computers. These records include information obtained from initial application forms, a form in the student handbook, and ongoing class records. These are used to inform students and their parents about the student's performance and attendance, and these are also one of the success indicators for the college. These are also used to see which students need extra support such as remedial support and/or the counsellor's support.

2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion

- * **SC/ST**
- * **OBC**
- * **Women**
- * **Differently-abled**
- * **Economically weaker sections**
- * **Minority community**
- * **Any other**

SC/ST/OBC

In order to maintain a required level of competence and comprehension in students, the eligibility criteria are clearly set down in the prospectus. However, in keeping with the spirit of equity and social justice, the minimum percentage requirement is lowered for SC/ST/OBC candidates and candidates belonging to minority groups. The college has admitted on average 11 to 17 candidates per year belonging to OBC and SC categories during the years 2009-2012 (see Table 2.1). The quota for reserved candidates is clearly delineated in the admission-related notices.

Women

Herein lies one of our outstanding strengths: We are committed to providing a life-oriented, community-oriented, and career-oriented education which empowers women. **Women's education is our USP.** Nirmala Niketan College of Home Science is one of the pioneering women's education institutes in India. The outstanding contribution of the college is in addressing the gender inequity in enrollment rates in higher education in India and the world. As a (primarily) women's college, we offer academic programs that are understood by families to be especially relevant to women. These programs simultaneously permit women to be successful in their careers.

As the only Home Science College affiliated to the University of Mumbai, the emphasis is not only on providing basic education to our women students but also enhancing intellectual

and emotional competence to help them attain a healthy work-life balance even after they have obtained their degrees. At the college, we have successfully created a safe and intellectually-rich environment for students, especially women, who come from diverse socioeconomic backgrounds. We have designed our curriculum to include an improved understanding of human psychology, behaviour, living standards, lifestyles, and cultures as they apply to the development of women. Our curriculum focuses on improving technical, artistic and entrepreneurial skills that enhance women's competence and their ability to effectively interact with society. The college also has a Women's Development Cell comprising staff and student representatives that addresses gender sensitive issues.

Although it is mainly a college for women, male students are eligible for admission to postgraduate-level programmes.

Differently-abled and economically weak

The college keeps its admissions open to all different sections of people including the differently-abled and economically weak. The college supports economically weak students by implementing strategies such as granting scholarships and awards and creating academic conditions that are balanced to support students from various socio-economic situations.

With respect to the differently-abled we have a record of successful handling of students with Learning Disabilities via strong mentoring, provision of necessary concessions and the needed career guidance. We have also started a sign language value-added course, which sensitises our students to the needs of the hearing-impaired and other differently-abled students and dovetails with theory subjects in the curriculum (e.g., Human Exceptionality).

Minority

The institution ensures due representation from different strata of the society. Since the college is a Minority college, 50% of the seats are reserved for Christian minorities.

There are large numbers of Muslim students from orthodox families who seek admission into the Home Science courses in our college. This is an opportunity to increase their access to education which may otherwise have been denied to them. It also equips them with the knowledge and skills to embark on a career and develop independence. (Refer to Table 2.1)

Table 2.1 Categories of Students in the College

Courses	Year 2009-2010			Year 2012-2013			Ratio of students in 2012-2013 to 2009-2010
	BSc	M.Sc. & PG	Total	BSc	M.Sc. & PG	Total	
Open Categories	389	51	440	384	130	514	1.17
Christian Minority	37	17	54	29	22	51	0.94
SC/ST	11	0	11	33	17	50	4.55
Muslim	107	12	119	130	17	147	1.24
Total	544	80	624	576	186	762	1.22

As can be viewed in Table 2.1, in the assessment period we have increased our SC/ST representation as also our representation of Muslim students which is aligned with the National commitment to diversity and inclusion; this is even more so, given that we are a women's educational institution.

2.1.6 Provide the following details for various programmes offered by the institution during the last four years and comment on the trends. i.e. reasons for increase / decrease and actions initiated for improvement.

FY BSc Home Science; MSc Home Science; PG Diploma in Dietetics & Applied Nutrition

Data	FY BSc				MSc				PG Dip.			
	2009-2010	2010-2011	2011-2012	2012-2013	2009-2010	2010-2011	2011-2012	2012-2013	2009-2010	2010-2011	2011-2012	2012-2013
No. of applications	243	209	174	257	183	164	159	139	112	99	100	40
No. of students admitted	161	164	139	186	29	30	29	28	20	21	21	20
Demand Ratio	1:1.51:	1:1.3	1:1.38	1:1.4	1:6	1:5	1:5	1:5	1:6	1:5	1:5	1:2

- The number of applications received for entry into FY BSc level had fallen in the academic years 2010-2011 and 2011-2012. As we get our pool of students at FY level mainly from our Junior College, teachers from both the Junior College and Senior College visited more schools in Mumbai and talked about the courses in the college and possible careers. PPT presentations included visuals/pictures of the college, students, and activities/events in the college. Informative pamphlets/handbills were also distributed in local schools during the declaration of tenth standard exams results.
- This strategy has paid off. The number of applications at F.Y.B.Sc have increased 1.5 times from 2011-2012 to 2012-2013. We also increased the number of admissions into F.Y.B.Sc simultaneously. As some students take admission and then withdraw when they obtain admission into medical colleges, we have decided to admit a larger number of students into F.Y B.Sc.
- The number of applications received for the MSc courses in the college has decreased over the years; however, the demand ratio has not been appreciably affected. Teachers plan to visit colleges to talk about the relevant courses to students; some of our current MSc students who have graduated from other colleges are also planning to talk to the students in these colleges.
- The number of applications has fallen considerably for the P.G Diploma in Dietetics and Applied Nutrition after the introduction of two additional nutrition-related postgraduate courses: namely, M.Sc in Food Processing and Preservation and M.Sc in Sports Nutrition. We are retaining the PG Diploma because there are some students who have communicated that their families are permitting them to study only for a year after graduation. The PG Diploma is continuing to meet the needs of such students. Those who were joining the PG Diploma because they could not get into our MSc in Foods, Nutrition and Dietetics, now prefer to do an MSc in Food Processing and Preservation or Sports Nutrition.

Ph.D. in Home Science

In period from 2009 to 2013, 21 applications were received for the doctoral programme in Home Science. Of these, 10 students have been admitted after due procedures. The demand ratio therefore is 1:2.

Value-Added Courses

	Nutrition and Exercise for Fitness				Food Craft				Creative Parenting			
	2009-2010	2010-2011	2011-2012	2012-2013	2009-2010	2009-2010	2010-2011	2011-2012	2012-2013	2010-2011	2011-2012	2012-2013
No. of applications	36	37	33	38	12	--	06	--	21	9	--	--
No. of students admitted	36	37	33	38	12	--	06	--	21	9	--	--
Demand Ratio	1:1	1:1	1:1	1:1	1:1	--	1:1	--	1:1	1:1	--	--

	Visual Merchandising				Entrepreneurship in Textile Crafts				Workstation Design and Applied Ergonomics			
	2009-2010	2010-2011	2011-2012	2012-2013	2009-2010	2010-2011	2011-2012	2012-2013	2009-2010	2010-2011	2011-2012	2012-2013
No. of applications	--	5	--	30	33	20	--	21	--	10	16	27
No. of students admitted	--	5	--	30	33	20	--	21	--	10	16	27
Demand Ratio	--	1:1	--	1:1	1:1	1:1	--	1:1	--	1:1	1:1	1:1

The demand for various value-added courses varies from year to year. Although, the number of seats for some of these value-added courses is 30, if more students apply for the course, they are accommodated especially if they are in their TY BSc. Similarly, we also run the value-added courses with fewer students than the maximum capacity so that we can accommodate the interests of even those few students.

Value-added Course Coordinators, HOS, and teachers describe the value-added courses to students and motivate them to join. Information on value-added courses is also available on the website and in the prospectus.

2.2 Catering to Student Diversity

2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

When students who are differently-abled are identified we provide them with an environment conducive to learning. For the students with learning difficulties, strategies followed include bridge sessions, peer learning/peer tutoring, and remedial classes for the academically weak students. Students who have been certified as learning disabled also receive extra time during examinations as per government regulations (30 minutes). They are also allocated additional time for coaching and counselling.

Students with other special needs are provided special infrastructural considerations including access to elevators, wheel chairs, and a ramp. Examples of academic accommodations include provision of a writer if needed, provision of hand sewing machines for students who cannot operate foot pedals, and suitable furniture (chairs/desks) for left-handed students. They are also allocated additional time for coaching and counselling.

Apart from this, students who are sick are provided special seating and are given additional time of half an hour during examinations on request. For students from schools where the medium of instruction is not English we allocate extra time and resources in the form of staff and peer support to facilitate their transition to an environment where the medium of instruction is English.

The scholarship committee is entrusted with the task of identifying students who need financial support, identifying different sources and facilitating disbursement of financial support to them. There are nine categories of scholarships provided to the students including need-based and merit-based schemes as listed below:

- Need-based scholarship (12 degree students).
- Children of class IV employees (1 student).
- Merit-based scholarship for 8 students (1 junior college and 7 degree college students).
- Reserved category (6 degree college students).
- Minority community scholarship (6 degree college students and 1 junior college student).
- Open merit scholarship (5 degree college students).
- Lotus Foundation Scholarship (1 degree college student).
- AMMADA Trust (1 diploma and 6 degree college students).
- PFNDAI (1 degree college student).

Regular notices regarding the scholarships for students are displayed on the notice boards. Students from lower socio-economic backgrounds can avail of the scholarships on application and submission of family income certificates. The scholarship committee carefully scrutinizes the applications and grants scholarships after having evaluated each case and ascertaining the need or merit of the applicants.

Students are financially supported not only with academic scholarships but also by full or partial sponsorships for certain co-curricular and extracurricular activities like picnics, extension visits and industrial visits. These facilities and a caring atmosphere encourage the economically weak students to seek admission and gain higher education which would otherwise have been impossible.

For students from outside the city/country accommodation in our 2 hostels (one at Churchgate and the other at Goregaon) is made available at affordable rates. Both the hostels are well-maintained with good safety and security measures.

2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

T. Y. and M.Sc. admission lists are prepared on the basis of merit and the marks scored by the applicants are indicators of the students' competence. Information from students' application forms, their entrance examination results, and face-to-face interviews provide information about their backgrounds and their level of competence with regard to knowledge and skills. In addition, at the commencement of teaching for each semester, teachers have intensive interactions with the students in the classroom, which enables them to gauge the academic level of the class and individual students. This contributes to the process of identifying students with diverse needs that the teachers can cater to during their teaching learning process.

2.2.3 What are the strategies drawn and deployed by the institution to bridge the knowledge gap of the enrolled students to enable them to cope with the programme of their choice? (Bridge/Remedial/Add-on/Enrichment Courses, etc.

Bridging the Knowledge Gap of Enrolled Students to enable them to cope with the Programme they have Chosen:

The use of participatory teaching-learning methods allows the teacher to identify starting levels of knowledge and skills in students with regard to a particular subject or topic. Especially in senior classes, class exercises and readings are then assigned accordingly. Books are recommended and short assignments requested which help the learner to build the minimum levels of competence for success in the course.

Bridging sessions are organized for students from non-home science backgrounds, especially at the postgraduate level wherein the students attend relevant classes at the undergraduate level to learn basic skills and knowledge required for the advanced home science courses. Occasionally, special classes are conducted for students from non-home science backgrounds to bring them up to the level required. A bridge course was conducted in the year 2011-2012 by the Foods, Nutrition, and Dietetics specialisation for which 13 students had enrolled.

Slow and advanced learners are identified by the concerned teachers/ mentors/ coordinators/ HOSs. The students are encouraged to meet individual teachers to learn how to deal with certain learning difficulties and clear doubts outside the class. Peer tutoring is encouraged by pairing advanced learners with students who need academic tutoring. Students are also encouraged to work in small teams made up of students at different academic levels.

Remedial classes are conducted for students who are underperforming academically. Remedial classes are organized in subjects such as Children's Clothing, Basic Nutrition, Adolescent Development, Child Development, Psychology of Clothing and Basic English. Students solve archived question papers and teachers evaluate them and provide feedback to students.

In addition to the regular courses we also offer various value-added courses many of which are affiliated to the University of Mumbai, namely *Food Processing and Preservation*, *Nutrition and Exercise for Fitness*, *Visual Merchandizing*, *Entrepreneurship in Textile Crafts*, *Creative Parenting*, *Indian Sign Language*, and *Work Station Design and Applied Ergonomics*. Most of these courses are open to all highly motivated and capable students after regular college hours.

2.2.4 How does the college sensitize its staff and students on issues such as gender, inclusion, environment etc.?

Social inclusion theories, moral values, professional ethics, corporate social responsibility, environment and gender issues are integral to the curriculum. Several sessions include discussions on these relevant issues during and outside class. Projects, assignments and research work also revolve around these themes.

Activities organized by the different college committees including Social Service Committee, Cultural Committee, Magazine Committee, Women's Development Cell, Employment Placement Cell, Interfaith Committee, focus on these pertinent issues over the course of every academic year.

The Interfaith Committee is proactive in promoting secular values through activities such as celebrating different religions and by holding a variety of religious functions throughout the year. The Women's Development Cell addresses women's issues through the programmes organized by the team of staff and students.

The teachers belong to different cultural and religious backgrounds. They can effectively understand, respect and explain the various concepts of science, religion, culture, geographical, psychological and social aspects of society to their students who belong to diverse backgrounds.

2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?

The special educational/learning needs of advanced learners are identified through the use of participatory teaching-learning methods. At the MSc level, the student's performance in the entrance examination and the individual interview also indicate whether the student is an advanced learner or likely to be one. The use of mock tests, quizzes, question and answer sessions also allow the teacher to identify advanced learners and their needs.

The faculty adopts appropriate strategies for advanced learners and highly-motivated students. For advanced learners, teachers provide many opportunities for independent study and extra reading. They are given extra and challenging assignments like collecting journal/newspaper articles and sharing the information with others students in the class. They are asked to summarize and explain concepts that have been taught in the class. At the master's level they are assigned more challenging topics for research that can sharpen their scientific potential and they are encouraged to take on more complex internship programs.

In addition to the regular courses we also offer various value-added courses many of which are affiliated to the University of Mumbai, namely *Food Processing and Preservation, Nutrition and Exercise for Fitness, Visual Merchandizing, Entrepreneurship in Textile Crafts, Creative Parenting, Indian Sign Language, and Work Station Design and Applied Ergonomics*. These courses are undertaken by the highly motivated and capable students after regular college hours.

For students who wish to explore more than just their academic interests, there are a number of interesting committees that they could be a part of such as the Cultural Committee, Sports Committee, Magazine Committee, Interfaith Committee, Social Service Committee, and other committees. Committee membership provides them with opportunities to undertake co-curricular activities and organize events—in the process learning event management, leadership skills, teamwork etc. Students also get opportunities to participate in the activities/events organised by other committees and develop and showcase their creativity and talent.

Each specialization/college organizes conferences/seminars/other scientific meetings and students join various committees for organizing these conferences (e.g., the International Conference organized by the college in January 2013). The work in these committees also provides advanced learners with multiple opportunities to extend their capacity. It gives them a hands-on experience of being a professional.

2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc.)?

Teachers use interactive, participatory teaching-learning methods that help them to identify which students are at risk of drop-out because of not being able to cope with course. Peer tutoring, effective study strategies, and other support is then arranged by the teacher.

The unit tests and assignments at the UG level, internal assessment assignments/ projects at the PG level also provide data to the teacher and help her identify which students need more support in learning.

Semester-end examination results also indicate which students are at risk of dropping out and appropriate support and encouragement is provided in the next term.

As noted already, remedial classes are conducted for the academically weak students to help them cope with their studies. Remedial classes are organized in certain subjects for example Children's Clothing, Basic Nutrition, Adolescent Development, Child Development, Psychology of Clothing and Basic English. Students solve question papers of the past years and teachers evaluate them providing feedback to students towards to help them better their performance.

A mentoring system has been established wherein each faculty member is assigned one group of student mentees (group size: 8-27 students). Mentors are assigned for all levels (F. Y. to M.Sc.). The mentor meets the student mentees as a group at least once a month, and individually as requested. Individual and group mentoring is undertaken to build rapport with the students and to help students solve various problems academic or personal. It also contributes to understanding student behaviour and culture. Some issues that faculty mentors regularly handle include:

- Helping students from vernacular schools who face problems comprehending English as a medium of instruction
- Helping students develop positive coping strategies, effective study habits
- Helping students cope with interpersonal problems involving peers and/or family relationships.

The mentor listens to the problem and provides support while guiding the student to make healthy choices. If required, the mentor refers the student to the counsellor in college for professional help.

The college counselor also conducts group sessions and individual counseling sessions which support students who are at risk for dropping out.

In all the four fields of specialization, for other activities like picnics, field trips, educational tours, seminars, rural and urban extension activities etc. students are accompanied by staff, bringing a close contact between students and teachers, promoting interaction giving opportunities for advice/ guidance and mentoring.

2.3. Teaching-learning process

2.3.1 How does the college plan and organise the teaching, learning and evaluation schedules? (Academic calendar, teaching plan , evaluation blue print, etc.)

A detailed Academic Calendar is formulated by the staff collectively every year that lists the various activities that the college undertakes during the year. Each specialisation and each committee identifies the events/activities for each term in the academic year: students' ideas for each specialisation are solicited by the respective HOS; student members of committees

contribute their ideas as well. These plans across specialisations and committees are then consolidated into one academic calendar.

The staff and students are actively involved in organizing and conducting the planned programmes.

The calendar features dates for major events such as:

- reopening and closure of the academic terms
- admissions
- orientation programmes for F. Y., S.Y., T.Y., M.Sc. and postgraduate students and their parents
- activities including seminars, conferences, workshops, educational tours, extension work, exhibitions, submission dates for dissertations
- internship programmes for the postgraduate students
- examinations
- programmes undertaken by the cultural and sports committees to celebrate the Independence Day, Teachers' Day, Institute Day, Christmas Party, College Week, Annual College Day, Sports Day, Social Service activities and Picnics with students, and staff
- exchange programmes

Examinations are held regularly throughout the year including mid-terms, semester-end examinations, and ATKT examinations. Care is taken to adhere to the norm of 180 teaching days. Each semester has 15 teaching weeks besides the days of examination and assessment. Examinations are conducted as per university prescribed schedules. The Centralised Assessment Programme is followed in college for the F.Y and S.Y levels followed by moderation by the external faculty.

The college calendar is made available to staff and students to help them plan their work and yearly activities on an individual basis. A general calendar is also displayed on the notice board for the students. This is also followed up at annual parent-teacher meeting.

Keeping in mind individual staff workload within and across the specializations and looking into room availability, timetables are prepared by a special committee comprising faculty members, Co-ordinators, Heads of Specialization, and the Principal.

A detailed tentative plan of teaching (Work Plan) for the academic year is prepared by the individual staff for their respective subjects (theory and practical) and is submitted to the Principal. It includes details about topics, subtopics, experiments/journal work/tasks to be completed, number of lectures/classes allotted, teaching methodology, aids to be used, reference books/journals etc. The work plan is reviewed by the individual faculty members at the end of every month.

Each staff member maintains a Teacher's Diary which helps to coordinate actual teaching with the work plan. The Teachers' Diary is used to record the details of each class and is reviewed by the Principal at the end of each month and also functions as a means of an ongoing academic audit.

Submission dates for internal tests assignments/projects/dissertation chapters etc. by students are decided and communicated to students at the beginning of the year. Fieldwork activities,

talks/sessions by resource persons and visits pertaining to relevant topics in the syllabus are planned in advance.

The teaching learning process is strengthened by the involvement of the staff in the regular activities of the college. Faculty members serve as Coordinators or Convenors of various college committees which also have student members. Apart from regular teaching and committee work, faculty members are also actively involved in executing academic duties such as Syllabus Revision, NAAC Accreditation, and the Cultural Exchange programme. The teaching-learning process at the college is thus co-created by the faculty and students with strong support from the Principal and other staff. It involves a clear agenda that is planned in advance and executed in accordance with the vision of the college, bearing in mind the regulations laid down by the University of Mumbai.

2.3.2. How does IQAC contribute to improve the teaching –learning process?

The IQAC is an important body of the college. Organizing of curricular, co-curricular and extracurricular activities and policy decisions are routed through the faculty who are active members of the IQAC. The IQAC expands into the 7 subcommittees, each representing a criterion (also called the NAAC Committees). In this way, all teachers and student representatives engage in quality assurance procedures.

The members of the IQAC represent their specializations and the particular criterion assigned to them, and discuss pertinent needs or areas for growth of each specialization. According to the requirement the IQAC makes decisions about workshops, seminars, training programmes, industrial visits at local, national and international levels to facilitate the teaching-learning process and ensures that students and staff are exposed to innovative and novel multidisciplinary activities.

The IQAC also helps the college in maintaining and improving academic performance by generating standards for good academic practices, ideas for enhancing performance, planning relevant activities, implementing planned activities and evaluating the outcome of these activities on the overall performance of the institute. It assists in developing realistic quality benchmarks for academic activities. It facilitates quality sustenance by organizing seminars/workshops/lectures/group discussions on relevant topics for different specializations. It also organizes multidisciplinary and multi-institutional activities leading to the holistic development of students.

The IQAC is involved in developing an action plan for the academic year. It gives relevant suggestions from time to time for improvement of infrastructural facilities to promote the teaching-learning process. It assists in revising the TAQ and modifying evaluation techniques. It informs staff about innovative teaching methods/aids/ICT used by other educational institutes. It updates staff about UGC/University major research and minor research projects, available funding agencies, and encourages them to apply for these.

The IQAC is thus actively involved in guiding the direction of various activities in the college and ensuring that curricular and other activities occur in a planned and organized manner, reflecting principles of excellence that match our vision, goals, and mission.

2.3.3. How is learning made more student-centric? Give details on the support structures and systems available for teachers to develop skills like interactive learning, collaborative learning and independent learning among the students?

The teaching-learning process is conceived as a student-centric participatory process. The first step towards participatory learning is to make the subject interesting, easy to understand, and relevant to contemporary situations. To ensure this, applied aspects of the subject are discussed by the teacher with the students in the class to create and sustain interest.

Teachers in the college outstandingly use a variety of teaching-learning methods that engage the learner in hands-on and minds-on activities, enabling powerful learning. Examples across teachers are:

- Use of images, video clippings, PPT slides, documentaries, movies, songs
- Use of relevant/inspirational stories, books, news events
- Readings and guided discussions of extracts from textbooks/reference books/scientific journals
- Discussion, debates, buzz sessions
- Games, dumb charades, crosswords, short exercises, small group exercises, brainstorming, problem-solving activities
- Use of anecdotes and illustrations
- Role plays, dramatization, puppet shows
- Workshops
- Case histories
- Demonstrations and experiments
- Mock lessons, simulation

The participatory methods used ensure that the learner is active and that the learner constructs and takes ownership of knowledge as opposed to being a passive recipient of the teacher's lectures. The teaching-learning methods used in the college also respect the role of peers in learning/cooperative learning. Small group exercises, exercises in pairs, buzz sessions with bench partners allow students to articulate ideas, present ideas to small and large groups, and build confidence in themselves.

Students attend workshops and seminars; students (especially doctoral students) are also supported in making scientific poster or paper presentations in national and international conferences. Talks are organized with resource persons and experts of national and international renown. Students assist teachers in organising exhibitions, displays, seminars and conferences in the college. The college also organises the following for students:

- Visits to exhibitions
- Field visits to industries, hotels, hospitals, research laboratories, schools, community centres, NGOs
- Sensitisation visits to old-age homes, orphanages, homes for the destitute women
- Rural/tribal camps, community projects
- Study tours
- Internship programmes (e.g., at food/textile/hospitality industries)

Student assignments and projects are also thought-provoking and frequently require the student to conduct brief surveys/interview/reflect on key concerns. Many of the projects are completed in pairs or small groups which promotes collaborative learning.

With the Credit Based Semester and Grading System, Internal Assessment accounts for 40% of the final grade, encouraging faculty and students to undertake interactive assignments and tasks for learning. Overall conduct and active participation in class is also continuously

evaluated. Individual and group assignments are accomplished by students under the guidance and supervision of the staff. Teachers continue to advise and mentor students outside of class hours. To reiterate, the faculty believes that students are active participants rather than passive recipients in the teaching learning process and are thus engaged in co-constructing knowledge. The teacher is thus not only a subject expert but a facilitator. The teachers make use of innovative methods in the classroom and outside classroom including those mentioned above to make the process of teaching and learning process participatory.

2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

The Home Science curriculum blends theory and practicum to create a well-balanced education. This balance is made possible by the creation and maintenance of well-equipped laboratories for conducting the various practicals. In the laboratories, staff and students make efficient use of the available equipment/material which helps to translate theoretical aspects of the subject to hands-on practical training. Students have access to the machines for sewing, various testing instruments like flame photo-meter, colorimeter, textile testing instruments, flexi-curve, heart rate monitoring, step stools, anthropometry kits, microwave ovens, computers with Rich peace pattern drafting software, CorelDraw, Photoshop, MSOffice, communication aids, psychological testing material (intelligence, aptitude, interest, personality) as well as communication aids. Demonstrations on the use and maintenance of equipment are also arranged in the practical classes. If equipment is not available in the college, visits to external laboratories and research institutes are organized.

Some examples of activities that foster creative thinking in the Textile and Fashion Technology specialization include preparation of samples (clothing, dyed/printed, crochet, knitted, etc.) and designing garments/accessories/other textile products. Activities in the specialization of Foods, Nutrition and Dietetics include planning and cooking regional and international cuisine, meal planning and recipe development for various clinical conditions, running of canteen by students, and planning and organizing nutrition education programmes. Activities in the Community Resource Management specialisation include organizing market displays to build entrepreneurial skills, worksheets, interior/textile/fashion designing and drawing sheets, making of models, and sculpture technique and postures to express feelings and concerns. In the Human Development specialization, students guided by teachers, have design and execute workshops in urban and rural/tribal settings, plan and conduct educational sessions in schools and preschools, make creative teaching aids for use with young children/youth/elderly, make teaching aids using “best out of waste”, learn creative storytelling techniques.

Fieldwork and extension programmes are organized within each specialization to reach out to the underprivileged sections of the society and to sensitize students. The extension programmes include demonstration of low-cost nutritious recipes, conducting group discussions/role-play/puppet shows to pass on relevant messages to community, conducting workshops, conducting dietary surveys, anthropometric measurements etc. Students learn to teach varied target groups how to make self-made musical instruments, bead jewellery, paper bags, greeting cards. Flower-making, glass painting, calligraphy, embroidery, macramé, tie-dyeing, stencilling, dyeing and printing, sewing skills and other art and craft has also been taught by students to beneficiaries in urban/rural/tribal areas. They teach beneficiaries how to enhance self-esteem, how to plan lessons as an Anganwadi worker etc.

TY and Postgraduate students from all branches go for a rural/tribal camp accompanied by experienced staff for up to 3-4 days. Each day's work is summed up with meaningful reflection sessions. The enriching experience not only exposes them to a rural/tribal setting but also gives them an opportunity to put theory into practice and builds an emotional bond between our students and the target group. Extension programmes are organized at Vaijapur, Kharasgaon, Kolad, Roha, Bharuch through the DHM community centres, and repeated visits to the same places contributes to an ongoing relationship that promotes the welfare of the community.

Educational tours have been organized by the TFT staff to different parts of India that are centres of textile arts and crafts and industries to enhance learning about processing methods, quality management and scope of implementation of theoretical principles. Students and staff get the opportunity to study the rich cultural heritage of the relevant places, to apply theoretical knowledge and actually see the working of different units in the places visited. A detailed report is prepared by the students about the tour. The other specialisations also take their students on short tours or visits of relevant organisations (e.g., hospitals, gyms, NGOs, schools, preschools, toy libraries).

Research is one of the key focus points in the Home Science curriculum for all postgraduate students. MSc1 and MSc2 students have a substantial research component in their curriculum which includes the dissertation in MSc2. The research work develops scientific temper and analytical skills. Our faculty members have undertaken research guidance in varied topics over the years, giving them a depth of experience and breadth of knowledge that makes for optimal research guidance. The outcomes have been published in peer reviewed journals, presented orally or displayed as posters at seminars/conferences held at national and international levels. Faculty have undertaken and availed of the Grants for Minor Research Projects of the University of Mumbai/UGC.

The college also celebrates Breast Feeding Week and Nutrition Week whereby staff and students through their activities create more awareness and address relevant issues.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? E.g.: Virtual laboratories, e-learning - resources from National Programme on Technology Enhanced Learning (NPTEL) and National Mission on Education through Information and Communication Technology (NME-ICT), open educational resources, mobile education, etc.

All classrooms have ceiling mounted LCD projectors connected to computers, sound system, and pull-down screens. Laptops and projectors are also available on demand. Infrastructural facilities include use of microphone for large classes, LCD projectors in all classrooms, OHP on demand, Epidiascope, slides and slide projector, movie screening facilities, and up-to-date computer facilities that includes access to the Internet. Students and teachers use class mailing lists and class e-groups.

Internet is free for staff and offered at concessional rates for the students. Staffrooms, cybercafé, library, and the conference room all have Internet access. All our teachers have undergone training in the basics of computer usage. Lecture-rooms and laboratories are equipped to facilitate the use of modern gadgets and instruments. Due to the ease of access to the facilities, staff and students make optimal use of the resources, thereby augmenting the teaching-learning process.

There are e-journals in the library along with print journals.

2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc.)?

The students and faculty are encouraged to participate in, attend, and organize events that contribute to advanced level of knowledge enrichment and skill development. These include lectures, talks, demonstrations, workshops, visits, seminars, conferences (national and international), and undertaking research projects. The curriculum is interdisciplinary by nature and requires integration of various disciplines while keeping students and faculty abreast of national and global advancements in research and technology.

Also see our response to Ques. 2.3.3.

List of activities organized/arranged for enhanced teaching-learning:

- Orientation programs and interactive sessions for students at different levels and for their parents.
- Annual events by the different specializations: Breast Feeding Week, Nutrition Week, Texfest, Feb Fiesta, Bal Utsav or Children's Mela, Christmas Bazar, the CRM Market etc.
- Participation of students in extra-mural, inter-collegiate competitions: Essay writing, poster making, recipes, quizzes, design competitions, research competitions: Nutraceutical challenges and opportunities in good health, Vastra 2010 at VJTI, Design competition by SDC, Genesis 2010, PFNDAL, No TV DAY by Children Toy Foundation, Avishkar Student Research Competition.
- Arranging for students to attend local, national and international seminars and conferences. Encouraging faculty to attend local, national and international seminars and conferences. Teachers supporting students in presenting their surveys and researches at scientific meets such as national and international seminars and conferences. Encouraging teachers to make scientific paper and poster presentations at national and international conferences as well.
- Faculty organising workshops, seminars and conferences in the college (e.g., our International Conference in January 2013 on Enhancing Health, Wellbeing and Sustainability—Opportunities and Future Challenges) with student assistance.
- Commemorating International Women's Day, World Consumer Day, Independence Day
- Sessions by illustrious alumnae (e.g., Dr. Anjali Sadhwani, Ms. Sweta Parmeswaran, Dr. Puneeta Gandhi, Ms. Amrita Verma).
- Sessions (including talks and demonstrations on relevant themes and varied topics):
 - SPSS
 - Creative parenting
 - Interactive session with Mr. Milind Deora
 - Respect your body-a sexuality education program
 - Challenges faced by working mothers
 - Fashion styling, Jewellery designing, Brand management, Fashion accessories
 - High priority areas in human development and ethics and research
 - O2: Overcoming obstacles,
 - Jagrut Mumbai by Mumbai Police
 - Group counselling sessions
 - Cybercrime
 - Youth Services Agha Khan Foundation

- Interview facing skills and CV writing
- Consumer awareness and malpractices
- Money matters
- Ergonomic related equipment by Central Labour Institute
- Inspirational talk on Late Y B Chavan—An architect of Maharashtra
- Applying knowledge for gain but not for profile: Role of NGOs
- Best out of waste
- Prevention of iron deficiency anaemia
- Dietary instructions for anxiety, nervousness, memory and concentration
- Nutrition for optimal health
- Understanding human development through Freud’s Point of View
- Consumer and recent developments in telecom industry
- Recording pulse rate and blood pressure
- Kitchen design
- Accounting and book keeping
- Peer counselling (for learning to relate anthropometric data for diet planning and ergonomic designing)
- Personality and Leadership development camps
- Anaemia and Thalassemia Detection Camp
- Workshops on puppet making, songs, music, movements for young children, art and craft activities, professional model making, fruit and vegetable carving, napkin folding, kinds of lessons that can be planned for children/how to plan lessons for children, training techniques adopted in the corporate world, group cohesiveness, disaster management, fabric painting using Pebeo, team building, rendering techniques, communication and entrepreneurial skills, effective communication skills.
- Volunteering for exhibitions organized by other professional bodies (such as TAI and SDC) and organizing exhibitions and markets within college
- Fashion shows to showcase students skills and talents
- Visits (e.g, one-day Parliament visit; Textile committee and other testing laboratories; Textile industries in Bhiwandi, Raymonds mills Pvt. Ltd.; art and craft exhibitions by Paramparik Karigars and Katha Collections; Social Fabric by Dauji Bhau Lad Museum; Egyptian Mummies at Chhatrapati Shivaji Vastu Sanghralaya; Mahendra and Mahendra Ltd; Cotton Green; Asian Paints Colour Store; Larsen & Toubro Limited; Food Service Department of P. D. Hinduja National Hospital and Research Centre; Shangi sauce making factory; Food Ingredient Exhibition; ICDS Centre – Dharavi, Anganwadis at Dharavi; Industrial visits at Goa; Modern Bakeries; West End Hotel; Hinduja Hospital; KEM Hospital; C. B. Patel Research Centre for demonstration of latest techniques in Hematology; Department of Biochemistry; Seth G.S. Medical College for demonstration of Newer Chromatographic Procedures & Electrophoresis, Bioanalytical Laboratory; TDM Laboratory at Ramnarian Ruia College where the students were shown the working of 2D Electrophoresis, HPTLC, Double beam spectrometer, flame emission spectrometer, atomic absorption spectrometer, and tablet dissolution tester; Kamani Oil Mills; Parle G; GO Cheese; Modern chocolates; Kamdhenu Pickles; St. Catherine’s Home Orphanage crèche & adoption service, Orphanage & school for girl students, HIV+ children & adoption service, Rescue Home for girls; St John Universal Preschool; Udayachal Preprimary school; Punarvas Special school; Podar Happy Kids; Shishuvan School; Inodai (Waldorf) School; Don Bosco Youth Services).
- Educational tours to visit industries, laboratories and centres (Surat, Silvassa, Ahmedabad, Madhya Pradesh, Bangalore, Kerala, Hyderabad).

- Extension education and initiatives in fieldwork settings, rural/tribal camps (Kolad, Kharasgaon, Karjat), Bal Utsav/Mela for underprivileged children, Om Creations school for mentally retarded, Collaboration with an NGO Vidya, Rotary club Partnership named Bhavisha Yann, Nutrition counseling with NGO SNEHA, MCFI, St. John Universal School, Garodia's academy, Witty International School, Shishuvan school, preschool section of Children's Academy, Elders day out, Baretto High School, Holy Name High School, St. Teresa High School and Sebastian High School, Shepherd's Widows Home and Salvation Army Home for the Aged, Ashadaan home orphans/ destitutes, mentally and physically challenged and ill elderly people, Organisation for street children - Hamara Foundation, St. Catherine of Siena Home for the Destitute Children, St. Antony's School, Extension activities recognized by the Department of Lifelong Learning and Extension [DLLE] University of Mumbai involving extension work at CGSI, Medical shops, Offices, Travel agencies, Private clinics, Interior designing establishments and participation in the Udaan Festival)
- Internship programs in industries, hotels and centres: Jay International, Sreepriya Exports, Creative Garments, Technocraft Industries, Vrijesh Corporation, Nandini Fashions, Arvind Fashion Ltd., Texport Syndicate (India) Ltd., Wonder Weaves Systems, Wings Apparel Pvt. Ltd., Texan Laboratory, Hotel West End, Hotel Intercontinental, Hotel Krishna Palace, Hotel Sahara Star, Hotel Taj Land's End, The Lalit International, The Grand Hyatt, Hotel Ramada Palm, Hotel Meluha the Fern, Fariyas, Hotel Marine Plaza, Hotel Bawa International
- Campus interviews (eg: prospective employers including companies and organizations like Hexagon Nutrition Pvt. Ltd., Vrijesh Export House, Avalon Heights International School, Vira Enterprises/ Mann Creations, I- Leap, TIFR – CCCA, Garodia Academy, Muktangan Paragon Charitable Trust, Edvance Pre-School Pvt. Ltd, Gladioli School).
- Tree plantation, beach cleaning, blood donation drives and CGSI campaigns against Milk Adulteration, organising Elder's Day Out.
- Recreational activities and programmes (e.g., Picnics, Friendship day celebration, Teacher's day, Fresher's and Farewell party, Christmas party, Cultural programmes and Nirmal Utsav, DJ and Dandiya evening, Sports day activities organized by the different extracurricular committees within the college).
- Academic exchange programmes have been set up with Ghent University, Ghent, Belgium, and Fu-Jen Catholic University, Taiwan. Students and staff participated in a cultural/educational exchange programme with a college in France—l'Ecole de la Providence, Blois.

The students actively participate in these activities organized within and outside college. They learn to relate theory with practice, review industrial practices and functioning of different organizations, explore work environment opportunities in rural and urban settings. They learn skills of event management, address social and environmental issues proactively and extend their knowledge and skills to other sections of the society. At these events they are able to showcase their talents and skills and expand career-related skills.

2.3.7 Detail (process and the number of students benefitted) on the academic, personal and psycho-social support and guidance services (professional counselling/mentoring/academic advise) provided to students?

Professional Counselling Services:

A professionally-trained counsellor in the college is available thrice a week from midmorning to late afternoon such that students can access her after classes. The number of students who accessed the counsellor for individual counselling each academic year is stated in the

following table. The college counsellor has conducted group sessions with students at all levels, BSc and MSc, on topics such as effective study habits, self-esteem, coping strategies etc. Therefore, 100% of the students have been recipients of the services provided by the professional counsellor in the college.

Number of Students Who Have Accessed Individual Counselling Services of the College Counsellor

Academic year	Number of students who have accessed individual counselling services of the college counsellor
2009-2010	34
2010-2011	47
2011-2012	73
2012-2013	69

Mentoring: Each student in the college is part of a mentee-group with a teacher who is the assigned mentor. Mentors have a mentoring group of 8 to 27 students. Thus, 100% of the students are covered through our mentoring programme.

Academic Coordinators & HOSs: At the FY and SY levels, the students have Coordinators and Assistant Coordinators; at the TY and MSc levels, the students have HOSs. Academic Coordinators/Assistant Coordinators/HOSs reach out to students and address their concerns. They meet students on a regular basis to solicit feedback on their progress and to address pertinent issues with regard to curricular, co-curricular and extracurricular activities.

Committee Convenors: The teachers who are convenors of their committees reach out to the student members of their committee, address their concerns, and scaffold their leadership training.

Teachers: Teachers build high quality relationships with students and support them in learning as well as for personal and interpersonal concerns if needed. Teachers are approachable, warm, understanding and helpful.

The group sessions organised by the professional counsellor, the regular interactions with Coordinators/HOSs, the scaffolding by Committee Convenors, and the high-quality relationships with the teachers ensure that we have multiple safety nets and support structures in place for all our students.

2.3.8 Provide details of innovative teaching approaches/methods adopted by the faculty during the last four years? What are the efforts made by the institution to encourage the faculty to adopt new and innovative approaches and the impact of such innovative practices on student learning?

Innovative approaches in teaching are continually being tried out by the faculty in various subjects. The college provides the infrastructural facilities for implementing the innovative approaches and methods for effective teaching learning. These include LCD projectors in every classroom, microphones and speakers, overhead projector, audio visual tools, bulletin boards, etc.

The curriculum design lends itself to the use of creative and interesting methods for teaching. Different innovative methods are implemented to make the teaching learning process student-

centred and participatory. These have been listed in response to Ques. 2.3.3. Some specific examples of innovative teaching-learning methods used in the assessment period include the following:

- Students are shown advertisements in class through the FLV/VLC player, and are guided in analysing whether the advertisement is misleading consumers with special reference to the Consumer Protection Act, Drugs and Magic Remedies Act, Monopolies and Restrictive Trade Practices Act etc. (Subject: Consumer Education FY BSc).
- Student role-plays to illustrate ideas introduced/explained by the teacher (Subject: Psychology of Clothing; FY BSc).
- Virtual tours of schools of excellence in various parts of the world to learn about school policies/best practices in education (Subject: Administration of Schools and Other Human Development Agencies; TY BSc Human Development).
- Students guided by teachers visit Research Centres in Mumbai (Research Practicum; all MSc1s).

2.3.9 How are library resources used to augment the teaching-learning process?

We have a well-stocked library which is one of the main sources of knowledge for faculty and students of all the specialisations. As of 2012-2013, the library stocks approximately 13,500 different books, national and international journals, dissertations and other reference materials. Reference lists are provided by the staff to encourage students to refer to advanced reading material in their areas of specialization. Assignments and projects also encourage students to use the library resources. Orientation sessions are conducted by the librarian for new students on the best way to use the library and its resources.

The library replenishes its stock periodically and adds the latest books recommended by the faculty. The library also subscribes to relevant journals (both print and electronic) that enhance student access to relevant and current information.

The faculty keeps copies of handouts for their respective subjects and other resource material in the library. Question papers of the past years are bound and can be used by students as a form of practice.

The librarian provides necessary guidance on the use of Slim21, OPAC (On-line Public Access Catalogue) that helps users to locate books, journals and other information. CDs, DVDs and other online resources with Internet access are made available in the library for students and faculty. There is also an area allocated for student guidance and for conducting brief small group discussions.

Our faculty and our students also make use of library facilities of other institutes in Mumbai such as ICT, VJTI, CIRCOT, SASMIRA, S.N.D.T. University, BARC, Tata Memorial Hospital, TISS, University of Mumbai, IIT Bombay etc. Students and faculty from other institutes refer to our library for resources that their facilities do not yet have. To facilitate maximum use, the library remains open throughout the year except on Sundays and bank holidays. The timings are 8.30 am to 6.30 pm, which maximizes student and faculty access. Incentives are given to students who make the maximum use of the library (e.g., award/recognition to students who have issued the maximum number of books; spent the most time in the library). A book exhibition and sale is organized annually to increase awareness of latest textbooks, journals, magazines which are sold at reasonable cost.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If 'yes', elaborate on the challenges encountered and the institutional approaches to overcome these.

The college does face limitations of space and time; however, keeping in mind individual staff workload within and across the specializations and looking into room availability, timetables are prepared by a special committee comprising faculty members, Coordinators, Heads of Specialization and the Principal.

The teachers and students abide by the stipulated number of classes for the units in the courses as laid out in the syllabus and in the plan of work. Sometimes extra classes are taken to complete the syllabus. Classes are also planned for make-up and revision.

All activities (curricular, co-curricular, and extracurricular) are carried out in a well-coordinated and smooth fashion as a result of meticulous and advanced planning. Thus the challenges of limitations in space and time are overcome by efficient planning, effective scheduling and expert delegation of authority and responsibility to students and faculty members.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

- Teachers collect written **feedback** from each group of students they are teaching at least once a year. The principal reminds teachers to collect this feedback by placing a notice on the staff notice board. Teachers incorporate workable suggestions made by students.
- Later in the academic year, students also complete a subject-specific **TAQ**, the results of which are communicated to the teacher by the Principal. This is also a very important monitoring and quality assurance mechanism.
- The Principal periodically (once a term) meets each group of students and obtains feedback and solicits suggestions; HOSs and the Academic Coordinators at FY/SY levels, likewise, meet designated groups of students and invite students to share feedback. Mentors meet their student mentees at least once a term.
- **Workplans** of each teacher for each subject/class-group along with the **Teacher Diary** also are important mechanisms for ensuring high quality teaching-learning in the college. The Teacher Diary is a self-monitoring and self-assessment tool for teachers; moreover, the Teacher Diary is reviewed by the Principal at the end of each month in the academic term.
- The use of **participatory teaching-learning methods** helps teachers gauge the quality of student learning and make relevant adjustments if necessary.
- The teachers also fill up a detailed self-appraisal form, the CAS and the PBAS at the end of the academic year. These forms are reviewed and commented on by the Principal and they are then endorsed. These forms also require the teacher to reflect on and describe the innovative/effective teaching-learning methods that she has used.

The college uses self-appraisal reports of teachers on a yearly basis along with informal student feedback taken by the Head of the Specialization and the Principal from time to time to provide constructive suggestions to the faculty in order to improve their teaching and to implement best practices. Similarly teachers provide feedback to the Principal at the end of the year. The purpose of teaching evaluation is to give an opportunity to introspect thereby enhancing work satisfaction.

Student Evaluation

- The performance and level of participation of students in unit tests, examinations, assignments, projects, activities and events is also taken as an indicator of evaluating the teaching-learning process. Feedback forms and reports are also filled in and presented by the students for individual activities that reflect their comprehension of and the benefits from the activities undertaken.

Long-term Evaluation

- The successful careers of our alumnae; the feedback from our alumnae, and employers of alumnae.

2.4. Teacher Quality

2.4.1 Provide the following details and elaborate on the strategies adopted by the college in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing requirements of the curriculum

The college faculty comprises the required number of qualified, competent and experienced staff. Many of our faculty are leaders in their field of specialization.

The college appoints teaching faculty using the following steps:

1. Advertising in the newspapers according to the mandate and specifying the eligibility criteria.
2. Setting up an interview panel set-up comprising two subject experts, the Principal and management representatives and conducting the selection interviews
3. Obtaining the recommendations of the committee who evaluate the applicant's performance during the interview, academic records, merit and past experience.
4. Selecting the faculty member based on the rules laid down by the UGC, University and the State Government.

In the past five years staff have retired, or resigned to fulfil personal commitments. In December 2013, we have filled three vacancies for teachers who had resigned/retired. Substitute appointments on clock-hour basis are made on leave vacancy posts as per the University rules when teachers go on Faculty Improvement Programme (FIP) or are sanctioned leave on application.

External experts including alumnae are occasionally invited to supplement certain topics and share experiences from the field. Industry personnel and experts constitute the faculty members for the various value-added courses. Timetables are framed or altered to suit the timings of the visiting faculty.

Faculty development sessions are organised. Faculty members participate in the UGC orientation and refresher courses. The faculty is encouraged to attend and organise seminars/conferences and workshops to enhance their knowledge and update themselves in their respective fields, as well as make contributions as scholars. They are also encouraged to apply for research grants, and are supported in their professional growth. The Home Science curricula, which we have designed and the University of Mumbai has sanctioned, reflects current issues and topics relevant to the local, regional, national, and global scenarios. Library and other infrastructural resources (e.g., specialised equipment and laboratories) are regularly augmented to support the faculty in implementing the curricula. Welfare measures

such as advancing of the salary by the Management on the first of every month (as the government payment is delayed) have also helped to retain staff.

Faculty Profile

Name of staff (Permanent)	Designation	Ph.D.	M.Phil.	M.Sc./ M.A.	NET/ SET
Dr. Ms. P. Machado	Principal; Associate Professor	✓	✓	✓	N. A.
Ms. Mary Varghese	Associate Professor			✓	N. A.
Dr. Nirmala Almeida	Associate Professor	✓		✓	N. A.
Dr. Geeta Ibrahim	Associate Professor	✓	✓	✓	N. A.
Ms. Nina Dias	Associate Professor			✓	N. A.
Dr. Ela Dedhia	Associate Professor	✓		✓	N. A.
Ms. Anuradha Mitra	Associate Professor			✓	N. A.
Ms. Jacqueline Colaco	Associate Professor			✓	N. A.
Ms. Pratima Goyal	Associate Professor	(PhD viva awaited)		✓	N. A.
Dr. Veena Yardi	Associate Professor	✓	✓	✓	N. A.
Ms. Sunita Jaiswal	Associate Professor			✓	SET
Dr. Anuradha Bakshi	Associate Professor	✓		✓	N. A.
Ms. Rhonda Divecha	Assistant Professor			✓	SET
Dr. Subhadra M.	Associate Professor	✓		✓	N. A.
Ms. Payal Maheshwari	Assistant Professor		✓	✓	SET
Ms. Vibha Hasija	Assistant Professor			✓	SET
Dr. Vishaka Karnad	Assistant Professor	✓		✓	NET
Dr. Ritu Madhan	Assistant Professor	✓		✓	NET
Dr. Kamini Rege	Assistant Professor	✓		✓	SET
Dr. Subhadra Prabhu	Assistant Professor	✓	✓	✓	SET
Ms. Roopa Rao	Assistant Professor			✓	SET
Ms. Prajakta Mhaprolkar	Librarian			✓	N. A.
Ms. Vrinda Udiaver	Assistant Professor			✓	NET
Ms. Sanam Khan	Assistant Professor			✓	NET
Ms. Neha Mulchandani	Assistant Professor			✓	NET
Dr. Anjali Srivastava (Probation)	Assistant Professor	✓		✓	NET
Ms. Sanghmitra Navalgund (Probation)	Assistant Professor			✓	NET
Ms. Vibhuti Barve (Probation)	Assistant Professor			✓	SET /NET

Of the 28 teachers for the aided senior college section, 12 teachers (43%) have obtained their PhDs whereas one teacher is awaiting her PhD viva. Thirteen of the teachers are Associate Professors (46%).

For the self-financed courses, the college has appointed course coordinators: one for the PG Diploma in Dietetics and Applied Nutrition and another for the MSc courses in Food Processing and Preservation, and Sports Nutrition. The principal, the FND HOS, and other experienced faculty of the FND specialisation also monitor the quality functioning of the self-financed diploma and degree courses. Visiting faculty teach the various courses of the self-

financed courses. The Research Centre and the Research Director also provides learning opportunities to the students of the self-financed courses (and other students).

Visiting Faculty for the Self-Financed Diploma and Degree Courses (Total 24)	
Ph.D.	4
M.Phil.	--
PG	20

20% of the visiting faculty who teach the self-financed diploma and degree courses have completed a PhD. Other visiting faculty are practitioners and industry experts who have completed their postgraduation in relevant subjects. They provide rich practical input to the students of the self-financing courses. The hourly rate for the visiting faculty of the self-financed MSc courses has been increased to Rs. 500 per month in order to attract and retain excellent faculty.

2.4.2 How does the institution cope with the growing demand/ scarcity of qualified senior faculty to teach new programmes/ modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.

The college attracts competent and qualified faculty to teach the various courses for the different programmes owing to its reputation, goodwill and contacts with experts from academia, industry, and other professionals. Rates of remuneration have been increased, and resource persons and visiting faculty are frequently invited. At times students are sent to other institutes/organizations to enhance their learning for new programmes and for incorporating emerging areas of knowledge.

The competence of our faculty is indirectly gauged by the regard with which our students are held by external agencies that they are placed in or employed by. Teachers ensure this continuing satisfaction with our student performance by updating themselves in the field. The teaching (and non-teaching) staff undergo training programmes to keep themselves updated and their knowledge current. Rotation of some subjects in each teacher's workload is practised (e.g., every three years) so that teachers master new courses, and several teachers are equipped to take over a given subject.

2.4.3. Providing details on staff development programmes during the last four years elaborate on the strategies adopted by the institution in enhancing the teacher quality.

The college/Management believes that human resources are the foundation of its growth. Programmes are initiated keeping in view the needs of the employees and the organization. The faculty participates in the following to keep abreast of knowledge and technological advancements in relevant fields:

- Staff development workshops/sessions arranged in the college/by the college
- Local/regional/national/international workshops/seminars/conferences
- UGC orientation and refresher courses
- Linkages with industry/NGOs/research organisations/academic organisation
- Self-directed learning using library resources

The knowledge and skills gained through these avenues finds immediate application in the teaching-learning process.

a) Nomination to staff development programmes

Academic Staff Development Programmes	Number of faculty Who Have Completed Programmes
Orientation courses	6
Refresher courses	6 (10 courses by Feb 2014)
HRD programmes	0
Staff training conducted by the university	0
Staff training conducted by other institutions	4
Summer / winter schools, workshops, etc.	28

b) Faculty Training programmes organized by the institution to empower and enable the use of various tools and technology for improved teaching-learning

- ❖ **Teaching learning methods/approaches**
- ❖ **Handling new curriculum**
- ❖ **Content/knowledge management**
- ❖ **Selection, development and use of enrichment materials**
- ❖ **Assessment**
- ❖ **Cross cutting issues**
- ❖ **Audio Visual Aids/multimedia**
- ❖ **OER's**
- ❖ **Teaching learning material development, selection and use**

The college and faculty are adequately equipped and are well-trained to make use of modern technological teaching learning methods and approaches. They are deputed for orientation and refresher courses to keep themselves abreast of new knowledge and skills.

Workshops were conducted for comprehending the Credit Based Semester and Grading System and teaching the courses. All staff meetings are held on a weekly basis for staff to interact and share their expertise and experiences of participating in seminars, conferences and other programmes.

c) Percentage of faculty

Faculty have been invited/participated/presented papers	Percentage %
Invited as resource persons in Workshops / Seminars / Conferences organized by external professional agencies	96
Participated in external Workshops / Seminars / Conferences recognized by national/ international professional bodies	100
Presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies	83

Over the last 4 years there has been a significant increase in the percentage of faculty who have participated and presented papers in national and international seminars and conferences and who have been invited as resource persons or experts by external professional agencies.

Our faculty have high visibility in relevant national and international conferences:

- 14 poster/paper presentations in local, regional, or state conferences

- 75 poster/paper presentations in national conferences
- 190 poster/paper presentations in international conferences

Total: 279 poster/paper presentations (calculated based on the period 2009-2010 academic year to October 2013).

Six of the faculty members have been plenary team participants/keynote presenters at various national or international conferences.

2.4.4 What policies/systems are in place to recharge teachers? (e.g.: providing research grants, study leave, support for research and academic publications teaching experience in other national institutions and specialized programmes industrial engagement etc.)

The Management encourages faculty to:

- attend, participate in, and organize various academic and co-curricular development programmes (related to effective teaching learning techniques, use of technology, management skills, team building, health and fitness, legal and social issues, investment planning, etc.) at local, state, national, and international levels that include talks, lectures, workshops, seminars, and conferences.
- write/publish papers for various periodicals and scholarly publications including the national journal “Research Reach—A Journal of Home Science” published by the Research Centre of the college, which has an ISSN Number.
- make presentations of review and research papers and posters at interuniversity, local, state, national, international levels
- apply for minor and major research project grants and travel grants
- attend training programmes and refresher courses
- organize interdepartmental seminar/conference and more recently the international conference.

University circulars regarding educational schemes (book bank, leave benefits, refresher courses, research grants, exchange and collaborative programmes, research consultancy, etc) are regularly displayed on the notice boards. Information regarding the various programmes being organized at different institutions/organizations is also displayed on notice boards. The Management also deposes staff to relevant programmes and sanctions specific budgets (e.g., registration fees for seminars and for staff development programmes) to facilitate participation. All staff members are encouraged to avail of these benefits. Advanced instrumentation and laboratory skills are enhanced through training and demonstration sessions attended by faculty either on campus or in other organizations.

Through these programmes the staff gains, updates and shares knowledge and expertise with the other participants during the programmes. The information/knowledge gained is then shared with colleagues and students, thereby enhancing the teaching learning process. These development programmes establish linkages with other organizations/institutions. It also provides a platform for individual interactions and opportunities to present ideas relevant to the fields of specialization. Proficient staff also make significant contributions to the field and are as invited speakers in seminars, conferences and other programmes. Many have received awards and have won prizes. Prize winners or awardees are also appreciated in college for the contributions made. Over the recent past our faculty have presented papers at international conferences held in different parts of the world including, Australia, New Zealand, U.K., U.S.A., Canada, Germany, Malaysia, Hong Kong, Singapore, Mauritius, South Africa, and Swaziland. These experiences also enhance the teaching learning process

when the faculty share their experiences with students and staff. International exchange programmes sponsored by the college also give a much needed global exposure to the faculty.

Various committees and the individual specialisations undertake planning and organization of several programmes within the college for the development of faculty and students. These are executed under the guidance of the Head of the Specialisation and the Principal. Several training programmes like computer literacy, laboratory techniques for use of new instruments and equipment and their maintenance, sessions on health and hygiene, are also organized for the non-teaching and support staff to keep them abreast of the latest in their fields.

Teaching and non-teaching/support staff are encouraged to pursue higher studies which would in turn upgrade their own profile. Faculty Improvement Programme (FIP) is made available to pursue M.Phil/Ph.D programmes. The Principal, members of the Management and Vice-Chancellor's nominee after conducting an interview, recommend the faculty eligible for the scheme. In the last three years, two staff have availed the benefit of FIP scheme. Staff is encouraged to submit their applications for Minor and Major research projects under UGC sponsorship and the University of Mumbai that are forwarded through the Principal. Responsibility for the completion of the projects is fully delegated to the faculty member.

2.4.5 Give the number of faculty who received awards / recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.

Thirteen faculty members have received awards or recognitions at the state, national and international level for excellence in teaching during the last four years.

Recognition is also received by faculty when they are invited as resource persons by other organizations. Members of the faculty are invited to various educational institutes/governmental/non-governmental organizations, to seminars/conferences as resource persons and consultants and as chief guests and judges for various functions organised by different organizations. Members of the faculty are appointed to different bodies like Boards of Studies to revise syllabus and courses, Evaluation Panels of M.Sc. and Ph.D. thesis, Examination Panels of various colleges and universities to conduct examinations at the college level and at the national level namely, NET/SET, Registered Dietician (RD) etc. They are also appointed to interview panels for recruitment of teaching staff in other college.

The faculty holds membership as well as key positions in various associations, academic and professional bodies thereby fostering relationships with external organizations. Through the role they play as members and in strategic positions of renowned associations there is generation of knowledge and development of relevant skills, the teacher quality and thereby leading to the growth of the institute.

The college culture, with its goals of providing an education that is life-oriented, career-oriented, and community-oriented, nurtures teachers towards personal and professional growth. There is a constant quest for knowledge leading to generation and dissemination knowledge and skills to our students and to the community through all the activities organized by college and by other professional agencies in which the staff participate.

2.4.6 Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?

Students fill in a structured Teaching Evaluation Questionnaire (TAQ) administered by the Principal as a measure to enhance the teaching learning process. The teaching is evaluated on predetermined criteria including content being taught, method of teaching, clarity of voice, class discipline etc. The feedback is analysed in detail and given to the concerned teacher. The identity of individual students is not disclosed. This ensures objectivity in evaluation.

Examples of how the feedback has been useful are as follows:

- Microphone speaker systems were installed in classrooms on student feedback for teachers to increase audibility.
- Hand-outs or brief notes were circulated to students when the subject content was perceived to be vast.
- The use of individual/group demonstrations, exercises, assignments, etc. have been planned to break monotony in lectures and make teaching learning participatory. Computer proficient faculty give tips to other colleagues in preparing more effective PPT presentations and on improving presentation skills.

The teachers also fill up a detailed self-appraisal form and the CAS and PBAS at the end of the academic year. These forms are reviewed first by the Principal, who writes remarks about the validity of information reported, and they are then endorsed.

All the teachers maintain a Teacher's Dairy on a daily basis wherein the details about the classes taken are entered. It is submitted to the Principal at the end of every month. The Principal evaluates the content in the Teacher's Diary in the light of the work plan submitted by the individual teacher earlier. Maintenance of teacher's diary helps teachers in meeting the subject's learning objectives in an effective way and gives an overview of the teaching-learning process. The teachers aim at achieving the specific objectives clearly framed for each of the subjects and accordingly plan the teaching-learning process and their classes.

The college uses self-appraisal reports of teachers on a yearly basis along with informal student feedback taken by the Head of the Specialization and the Principal from time to time to provide constructive suggestions to the faculty. Similarly teachers provide feedback to the Principal at the end of the year.

2.5. Evaluation Process and Reforms

2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

The evaluation process is transparent and the rules are clearly stated in the college handbook and on the college website. The college has appointed an Examination Committee comprising senior faculty members and the Central Assessment Programme (CAP) committee that looks into organizing the evaluation of students' performance for each semester and for all the courses. Ordinances and regulations of the University are available on the University of Mumbai website and they are communicated to the students and their parents during orientation programmes. Special queries and cases are addressed by the college office. The teachers are acquainted with the evaluation processes and policy decisions are made during the all-teacher meetings where evaluation and assessment issues are discussed at length. Notices regarding the examination schedules, lists of candidates with

roll numbers are displayed on the notice boards promptly. Relevant updated copies of revised syllabus with scheme of examination in grid format are provided to each student to ensure that the student is aware of internal/external marking scheme. Also changes if any, when made in the syllabus are explained to the concerned group. The information is also uploaded on the college/university website that is updated regularly. Thus it is ensured that all stakeholders of students, their parents and the faculty are aware of the evaluation processes.

2.5.2 What are the major evaluation reforms of the university that the institution has adopted and what are the reforms initiated by the institution on its own?

In accordance with the directives from the University with regard to evaluation, the college conducts mid-term and semester end evaluations. The college implemented the Credit Based Semester and Grading System (CBSGS) at the F. Y. in the year 2011-2012 and at the S.Y. and at the M.Sc. I in the year 2012-2013. The annual pattern was being followed for the T. Y. B. Sc., M.Sc. II and PG Diploma for the year 2012-2013 which is converted to the CBSGS in 2013-2014.

The college has appointed an Examination Committee, CAP Committee and committee for vigilance of unfair means that looks into conducting examinations ensuring the implementation of University guidelines regarding examinations and also deals with any examination related issues. The pattern for evaluation and the scheme of examination is followed as outlined in the University Guidelines on a mandatory basis.

The faculty is actively involved in paper-setting, constructing model answers, conducting and supervising theory and practical examinations. With the CBSGS external and internal component (60% and 40% weightage) is followed as laid in the University Guidelines. Of the 40% internal component, 10% of marks are allotted for overall conduct of students/ participation in class and attendance each. This ensures a continuous monitoring of the students' work progress throughout the year. The remaining 60% weightage is allocated for Semester End Examinations. The question paper pattern for number of questions and marks to be assigned for the each of the questions is mentioned in the scheme of examination in the respective syllabus.

Semester End Examinations (theory and practical for all semesters of F. Y. and S. Y.) are conducted in the college on behalf of the University with one of the staff being appointed as Senior Supervisor under the guidance of the Chief Conductor (Principal). Assessment and moderation of theory papers is done under the Centralized Assessment Programme. Internal faculty work as examiners and external moderators are appointed for moderating the papers. Moderation is done as per the university guidelines. External examiners or moderators have stated that there is objectivity in the assessment and their appreciation of the students' performance especially during practical examinations and viva, which indicates the effectiveness of the evaluation process (and the teaching-learning).

For practical subjects there is no internal assessment in accordance with University guidelines. Evaluation is done collectively by two or more staff for different practicals as per the prescribed syllabus. This is done to maintain objectivity in evaluation. The marking scheme for the courses is prescribed in the respective syllabus.

Examinations for T. Y. Semesters V and VI, M.Sc. Semesters I-IV both theory and practical (with the exception of T. Y. B. Sc. Semester V Practical) are conducted by the University of Mumbai. This includes approving the examination panel, issuing appointment letters, joint paper-setting with submission of question paper manuscripts along with model answers,

printing of question papers, centralised assessment (jointly done by the examiners and moderators), remuneration for all examiners, moderators, laboratory staff etc. The Examination Committee, college office staff, the Principal and the Chairperson of the Ad-hoc Board of Studies in Home Science work in coordination with the university to facilitate all of the above. However, this role is efficiently played by the Examination and CAP committees for the examinations conducted by the college on behalf of the University at F. Y. B. Sc., S. Y. B. Sc. for theory and practical and for T.Y. B. Sc. Semester V Practical. Additional and ATKT examinations are also organized for students who need to reappear as prescribed by the University ordinances.

Constituting of Examination and CAP committees by the college has facilitated the conduct of the examinations. It is headed by the convener and 2-3 senior faculty members, who work in coordination with the administrative office.

Planning of examinations, generation of timetables, lists of students with unique code numbers, making of attendance sheets, preparing and displaying examination related notices (for example the question paper pattern as prescribed in the syllabus, giving dates for submission of question paper manuscripts, etc.) is done promptly. The examination schedule for the year is announced in the college calendar. Exam timetables are displayed well in advance before the scheduled examinations. Students are also informed about filling in required application forms in cases of being allowed to keep terms (ATKT) or for additional examinations. In this regard the University ordinances are strictly followed. A detailed seating accommodation for every session of the examination for each class is displayed on the college notice board before the examination. An invigilation schedule for the staff is also prepared before the examination and mailed to the supervisors to intimate them about their supervision duty.

The Examination Committee also oversees the logistics of conducting the different examinations with respect to getting the question papers organized for each day of the examination, being available during the examination to attend to problems that may arise for example cheating cases or errors in question papers), collecting answer sheets at the end of examination and handing them to the custodians at the CAP Centre.

A special area 'CAP Centre' is earmarked for centralised assessment and moderation of the FY/SY examinations. A time period is allotted for the entire assessment to be completed so as to ensure that results are declared on time and retest can also be conducted as per the University of Mumbai guidelines. A meeting is held for the settlement of marks conducted by the examination committee with the concerned examiner and Principal.

Mark-lists are prepared, collated and signed by individual examiners, moderators, chairpersons of the subjects. The mark-lists are computerised and the job of preparing and printing grade cards is outsourced. Utmost care and precision is taken to execute these time-bound functions. All logistic decisions with regards to timetables, seating arrangements, supervision of examinations, centralised assessment, and declaration of results is planned and implemented by the Examination Committee that is constituted at the college level.

For the University Semester End Examinations and assessment for all senior students (TY BSc onwards), many of the above procedures are completely routed through the Chairperson Ad-hoc Board of Studies in Home Science and Principal. The results are prepared and declared by the University. Since the college is the only Home Science college affiliated to the University of Mumbai and as many of the members of the Board of Studies in Home Science are teaching faculty of the same college all decisions regarding examination reforms

that the college has adopted have also been represented and recommended by the University of Mumbai.

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the university and those initiated by the institution on its own?

Please see our response to Ques. 2.5.2.

The inter-coordinated efforts of multiple individuals and teams both at the University and College levels allows quality implementation of all evaluation reforms instituted by the university and the college. At the university level, this includes, for example, the Ad Hoc Board of Studies of Home Science (Chairperson and three other members are faculty from our college), the Board of Examiners, the Controller of Examinations, CAP Centre of the university, other examination-related sections of the university. At the college level, this includes, for example, the Principal, the Administrative Office staff, the Examination Committee, the college CAP and Unfair Means committee, and the teachers.

Clear, repeated, and multimodal (e.g., announcements on the public address system in the college, notices on student and teacher notice boards, information on university and college websites) communication to students and teachers about all evaluation reforms/procedures also goes a long way in ensuring quality implementation.

2.5.4 Provide details on the formative and summative evaluation approaches adopted to measure student achievement. Cite a few examples which have positively impacted the system.

The scheme of examination for every programme is clearly spelt out in the syllabus that is uploaded on the University of Mumbai website (see the example below). There is provision made for continuous evaluation and monitoring of student progress through the internal assessment in all subjects. In addition to marks that are assigned for attendance, class participation and overall conduct of students, periodic class tests, internal assessment, short presentations, preliminary and final exams for theory and practical, application of theoretical knowledge to real life situations especially during rural and urban extension education and field visits positively influences the level of learning and are means for continuous evaluation, which has made a major impact on the attitude of the students to take every unit of study seriously as they all add up to the CGPA.

At the Semester End Examination the question paper pattern outlined in the scheme of examination mentions that all sets of questions are compulsory (with a stipulated range for choice within each set of questions). The question paper pattern at all levels dovetails with the unitised syllabi. There is one set of questions on every unit and one set of questions covering the entire syllabus. This ensures that each learner studies every unit comprehensively without omitting any part of the syllabus completely. This is one of the evaluation reforms introduced by the University of Mumbai with the CBSGS. As already noted, we comply with these reforms.

The passing percentage for both Internal Assessment and Semester End Examination individually is 40% under the CBSGS necessitating that the learners study thoroughly for the continuous evaluation through formative internal assessment and for the summative semester end examination.

In case of students who have failed or have not appeared for any of the examinations/assessment due to unavoidable reasons, they are allowed to keep term (ATKT) or have to appear for additional examinations after having submitted a written application to

the Principal. The case is considered by the Examination Committee in consultation with the Principal with reference to the University ordinances. This improves the level of chances for the students to improve their performance and not lose an academic year. The need to pass separately on internal and external exams keeps students focussed on the quality of their performance throughout the term rather than memorising only at the end of the term.

An example of the scheme of examinations is provided in the Annexure.

2.5.5 Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the student's results/achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.

Regular assessment and evaluation of all projects, assignments, class tests, mid-term exams and semester-end examinations is done periodically and the results are submitted as internal marks to the University through the college office.

A careful check is kept on the student's performance. Parents of students failing in subjects are contacted and meet the Coordinator/Head of Specialization and the Principal. This is done to ensure that the parents are aware of poor academic performance and to work out strategies to help them cope with their studies. Causes for students' poor performance and low attendance are explored and discussed with the parents. Lists of students, failing to fulfil the required 75% attendance and with poor performance, are prepared by the concerned Coordinators/HOSs and displayed on the notice boards. The coordinator/HOS meets the students individually to find out their problems. Warning letters and subsequent talks with the student and her parents are undertaken to plan remedial strategies towards solving problem cases.

For theory papers, examination question papers are discussed with students indicating where the students could have answered a particular question in a better way giving them constructive feedback on improving their performance. For the practical subjects, journals, experiments, assignments and submissions made by the student weekly/monthly are evaluated and detailed feedback is provided.

Programme-wise Pass Percentage and Completion Rate for the Last Four Years

	2009-2010	2010-2011	2011-2012	2012-2013
FYBSc	77.50	67.09	Sem I- 35.25 Sem II- 57.25	Sem I- 57.71 Sem II- 55.11
SYBSc	88.19	93.28	91.23	Sem III- 76.85 Sem IV- 86.11
TYBSc.	98.32	100.00	90.77	91.74
MSc.I	92.86	100.00	73.44	Sem I- 100.00 Sem II- 95.31
MSc.II	90.00	100.00	100.00	84.48
PG Dip	95.00	90.48	85.71	80.00

Observations/Comparisons within the Four Years:

- The lowest pass percentage was obtained for the first semester of the introduction of the Credit Based Semester Grading System (CBSGS) at the FY BSc level. Students were clearly not well-prepared to cope with the multiple unit tests and assignments in

all the subjects, and the semester-end examinations. Teachers too were new to the system.

- All diagonals show the progress of the same group of students. The same group with a pass percentage of 35.25% did better in Semester II and even better in Semesters III and IV.

(The University of Mumbai revised the number of unit tests per subject and reduced it to one; at the college level, feedback was collected from students and implemented for the subsequent semesters—such as spacing out assignments.)

- Overall in the college, students are supported to develop into excellent learners and better achievers. Therefore, all diagonals especially from FY to SY show better pass percentages; MSc students also by and large perform better in the second rather than the first year.
- The pass percentage is high except for the few instances noted already.

Approximately 10-20% of the third year BSc and the postgraduate students graduate with a distinction, 40-50% graduate with a first class.

2.5.6 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioural aspects, independent learning, communication skills etc.

Under the Annual System (with effect till the academic year 2012-2013 for T.Y.B.Sc. and M.Sc. II) the internal assessment marks for all the submissions and assignments and the marks for unit tests, terminals and preliminary examinations (theory and practical) were declared to students. Students were shown their assessed answer-sheets and the students could approach the examiner to get a feedback on their performance. Examiners also wrote constructive remarks in the margins of the answer-sheet for students to take note of helping them prepare for the next examination.

The introduction of Credit Based Semester and Grading System by the University of Mumbai (w.e.f.2011-2012 at F. Y. B. Sc. 2012-2013 at S. Y. B. Sc and M.Sc. I., 2013-2014 at T. Y. B. Sc., M.Sc. II and PG) which has been implemented at all levels of higher education (F. Y. B. Sc. to M.Sc. II) has created a learning atmosphere through the year. This method of teaching learning and evaluation ensures that students do not learn by rote only to appear at the term end and year end examinations but are being continuously evaluated with internal assessment using different innovative student-friendly methods like presentations, assignments, field trips, written projects requiring critical thinking, application and creativity. The scheme of examinations is clearly outlined in the syllabus with 40% weightage of marks allotted to Internal Assessment.

Under the CBSGS, students are evaluated on overall conduct, attendance, and class participation which has significantly boosted the students in attending and participating in class and outside class for curricular, co-curricular and extracurricular activities. Responsible learner and class participation amount to 10% of the evaluation of the subject and 25% of the internal evaluation at all levels from FY BSc Home Science to MSc2 Home Science. Also, the change to the semester pattern has necessitated many more evaluations.

2.5.7 Does the institution and individual teachers use assessment/evaluation as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples.

The college and individual teachers critically analyse the performance of students in all the tests, assignments, projects and other tools for assessment. It is a strong indication of whether the learning objectives have been achieved. The teacher plans every class of how the content is to be taught to the students and aids that can help relate theory to practice. Application-based questions, cases, real life and hypothetical situations and experiments are given during examinations to gather and measure the understanding of the student. Citing a few examples as listed below:

- specific clinical conditions are given and the students are asked to plan a therapeutic diet, to plan low cost meals
- role plays are organized to communicate health issues to the community
- exercises in correlations of biochemical parameters and interpretation of results have helped students to interpret, guide people on their health problems
- lesson plans are prepared and different teaching learning aids are creatively made and used to teach and communicate with specific target groups, for example, in schools
- counselling sessions are conducted
- review of scholarly articles and books followed by open discussions
- organizing markets and exhibitions, fashion shows
- evaluating case studies
- writing of reports
- survey of ergonomic conditions in different set-ups, etc.

These exercises are undertaken by students supervised by the respective subject teachers. These are strategic ways of assigning task responsibilities to students enabling them to think laterally in hypothetical situations and deal with real life situations. It contributes to their personal growth and professional enrichment to manage themselves and their work environments effectively.

2.5.8 What are the mechanisms for redressal of grievances with reference to evaluation both at the college and University level?

Students' grievances regarding evaluation results both at the college and the University are addressed promptly. Time bound assessment and declaration of results within the specified period is ensured. The students work assignments such as worksheets, portfolios, journals, case reports are assessed and feedback is provided so that they can learn better and simultaneously improve their performance. As per University guidelines the Internal Assessment marks are not revealed to the students. However, the faculty guides students on how to improve their performance, and gives constructive feedback.

In case of grievances, at the college level the students always approach the concerned staff and if it is not settled they can go to the coordinator, then approach the Head of Specialization as per the protocol. They also have access to the Grievance Redressal Cell of the college. The Convenor of the Examination Committee in the college and the Principal can also be approached for examination-related grievances. For the final examinations, the students are provided with the facility of obtaining a photocopy of the assessed answer papers for verification and clarification thereof as per the rules of the University of Mumbai (both at the college and the university levels). They may apply for a re-evaluation if required. A fair and transparent evaluation system has developed a positive image for the college.

2.6. Student performance and learning outcomes

2.6.1 Does the college have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?

The teaching of all subjects is based on a set of clearly articulated and operationalised teaching-learning objectives. This is clearly written in the unitised CBSGS syllabus approved by the University of Mumbai for each subject. Every student is given a copy of this syllabus. Students are oriented at the beginning of the term, by each subject teacher to these objectives. Intended Learning Outcomes (ILOs) are articulated at the level of the Topic and Subtopic. Students are introduced to the set of ILOs tied to a Topic/Subtopic at the beginning of that Topic/Subtopic.

2.6.2 How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

Teaching-Learning:

The learning outcomes approach helps sharpen the coherence and transparency of a curriculum. Learning outcomes describe what a student will know and would be able to do at the end of a module or course. Hence students are first of all informed of what the ILOs are, at the beginning of the Term and beginning of each topic/subtopic. In addition to lectures, teaching learning methods such as discussions, role plays, student presentations, short exercises, debates, are employed, keeping “learning” rather than “teaching” as the primary objective of the transaction of the curriculum. It must also be noted that the curriculum has multiple practicum subjects. Students are expected to demonstrate skill in the transfer of theoretical information to the practical level. This is seen in the products they create and the experiments they conduct. The following further methods are employed to keep the focus on a learning outcomes orientation:

- Teachers are required to maintain a “Teacher Diary”. This helps them personally keep track of the manner in which student learning is progressing.
- Educational tours are arranged for all senior students in the college with a view to helping them see how the theory they are learning is implemented in the real world.
- Students engage in research under the supervision of their teachers.
- Linkages/Collaboration/Extension programmes are organised in which students play a significant role. This also gives students a chance to engage with scholars from other institutions around the country and different parts of the world.
- Academic exchange programmes have been set up various universities overseas such as the Ghent University, Belgium, and Fu-Jen Catholic University, Taiwan, l'Ecole de la Providence, France.
- Collaborations with programmes such the University of Mumbai’s Department of Lifelong Learning and Extension have helped students transfer their experiences and learning from the classroom to the community.

Through such methods, all teachers aim at keeping the learner actively engaged rather than passively receptive.

Assessment of the achievement of learning outcomes:

In compliance with the University of Mumbai’s requirements the college conducts assessment through unit tests, assignments, quality of student participation, evidence of “responsible learning” such as nature and quality student participation and engagement and semester end final examinations. At the postgraduate level students are also assessed for their projects.

In addition to these traditional methods of assessment such as tests and examinations, the following methods are also employed to assess the outcomes of students’ learning:

- Oral feedback from students.
- Question answer sessions.
- Mock tests.
- Quizzes.
- Independent student presentations.

The overall performance of students is used as a feedback mechanism for revision of syllabus and adaptation of teaching methods to suit student needs and requirements.

2.6.3 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (quality jobs, entrepreneurship, innovation and research aptitude) of the courses offered?

The interdisciplinary nature of the curriculum and the interactive and participatory teaching-learning process is designed first of all, to approach the acquisition of knowledge in an integrated, holistic manner rather than in a fragmented way.

All curricula are designed keeping employment prospects in mind. For example, when possible, professionals are invited to the lectures to share the employment dimensions of the content that the students are being taught.

The exercises undertaken in research practicum and dissertation at the Masters level requires students to interact with industrial and academic experts. This requires students to consider research topics that have social and industrial relevance. Such engagements also orient students to professional behaviour and etiquette. It contributes to building their analytical, professional and scientific writing skills. They are also encouraged to seek sponsorship from the industry and/or work with faculty on research projects sponsored by academic bodies such as the University of Mumbai and UGC such that they learn to optimise these resources.

All through their tenure in the college, students are provided opportunities to develop entrepreneurial skills through their experiences. Using their skills to organise the canteen in college is an example. Students put up stalls to sell their products during college events. Students plan and choreograph fashion shows to present garments and their collections, which provide a platform to showcase their creativity and talents. Such activities initiate their orientation to consumer-markets.

Issues of social relevance are addressed through the activities organized by the various committees including Social Service Committee, Women's Development Cell, through fieldwork, community surveys and projects. The college is also recognized as the Centre for Lifelong Extension Wing under the University of Mumbai. Subjects within the curriculum have direct relevance to societal welfare and economic significance.

Evidence of the success of these approaches is seen in quality of employment achieved by our alumnae. Many of our graduates are employed in different industries, academic organizations and NGOs, working as trainees, assistants, managers, teachers, professors, research associates, nutritionists, dieticians counsellors, designers, merchandisers, HR personnel, marketing professionals, entrepreneurs; and they are also appointed in significant positions in the corporate industry and other work places. Some of our alumnae are now renowned teaching and research faculty in universities in USA and research organisations such as Gallup Polls. Campus interviews also provide an opportunity to seek job placements in industries.

2.6.4 How does the institution collect and analyse data on student learning outcomes

and use it for planning and overcoming barriers of learning?

Examination results with the pass percentages and number of failures during the years is the obvious indicator of the extent to which intended learning outcomes are achieved. Through its various feedback mechanisms such as the TAQ, evaluation and assessments, formal and informal systems of communication, mentoring system, and teacher and student interactions, the college gathers opinions of students on the teaching learning process and the student learning outcomes. The feedback is statistically analysed wherever possible and the results are conveyed in a constructive manner to help teachers work together to remain learning-focused and student-centred.

2.6.5 How does the institution monitor and ensure the achievement of learning outcomes?

The college displays relevant information about learning outcomes in the form of syllabus handouts, updated website, sharing of relevant information during orientation programmes through its transparent and open communication systems. Teacher's Diaries, feedback forms, TAQs, examination results, introduction of innovative methods in teaching learning, adaptations and modifications in the content being taught are monitoring mechanisms used to achieve the learning outcomes. All activities are reported in the annual reports; representation is made to the Local Managing Committee and is reported in the college magazine. The final indication of success is feedback from employers. Feedback from industry, NGOs, schools, hospitals, hotels, garment industries, testing laboratories, etc shows that students of the college are respected for their knowledge, skills, and self-confidence.

2.6.6 What are the graduates attributes specified by the college/affiliating university? How does the college ensure the attainment of these by the students?

The central goals of the college are to provide education that is life-oriented, career-oriented and community-oriented. The college aims at moulding its students into holistic individuals adept at professional and creative skills and knowledge. A further objective is to ensure that women gain the skills to be job oriented, good home makers and efficient entrepreneurs.

The college aims at ensuring that students achieve these attributes through the following mechanisms:

- The manner in which the curriculum is designed aims at development of comprehension, skill and labour market viability.
- The manner in which the curriculum is transacted aims at fostering self-mediation amongst students and the promotion of independence through a process of empowerment.

Any other relevant information regarding Teaching-Learning and Evaluation which the college would like to include.

We wish to reiterate that we use innovative, student-friendly, student-centric, participatory teaching-learning methods.

CRITERION III: RESEARCH, CONSULTANCY & EXTENSION

3.1 Promotion of Research

3.1.1 Does the institution have recognized research center/s of the affiliating university or any other agency/organization?

Yes, the institution has a Research Centre, with a specially-appointed Research Director and two research assistants. (Other research staff is hired on an ad hoc basis for research projects.) The Research Centre is engaged in sponsored research and consultation work through collaboration with prestigious local, regional, national, and international organizations. At the national level, it has been invited by several sponsoring agencies, such as Marico Industries, Pepsico, and Kellogg's India to undertake many research projects some of which have involved multi-site data collection. At the international level, the Research Centre has carried out a project in collaboration with Fromageries Bel, France. The Research Centre publishes issues of a peer-reviewed journal—*Research Reach: Journal of Home Science* (ISSN No. 0974 617X) (see Question 3.4.2). The Research Centre also offers its expertise to the faculty (e.g., in applying for research grants).

The college as a whole has also been recognised as a research centre for doctoral research by the University of Mumbai.

3.1.2 Does the institution have a research committee to monitor and address the issues of research? If so, what is the composition? Mention a few recommendations made by the committee for implementation and their impact.

The college has research committees at various levels:

1. At the M.Sc. level, there are two levels of research committees. At the college level, the committee is constituted of all the MSc research guides of the college. This committee meets to make policy decisions regarding the MSc Dissertation. At the specialization level, there are specialization-specific research committees constituted of the MSc research guides (teachers with PG teaching recognition) of the specialisation. Other than the guidance provided by the assigned guide, this committee oversees the quality of research conducted by each MSc² student to fulfil the dissertation requirement. At the research proposal stage, this includes monitoring whether the topic selected is worthwhile, whether Indian and non-Indian literature has been adequately reviewed, clarity of objectives/hypotheses, and accuracy and soundness of selected methods. Later the specialization-specific committee monitors whether students have accurately analysed data, and accurately and meaningfully interpreted, reported, and discussed their findings. Students make PPT presentations and submit their proposal/results as chapters.

2. At the doctoral level, there are two levels of research committees. At the college level, a committee constituted of all the PhD guides of the college meets to deliberate over and make policy decisions with regard to the PhD program in compliance with the directives of the university. Also at the college level, there is an ad hoc research committee constituted for reviewing each aspirant's research proposal. Thus, (after successful completion of the PET), PhD aspirants have to present their research proposals before a college-level research committee comprising the Principal, the Research Director, invited subject experts (external), and university recognized PhD research guides of the college. The committee reviews the research proposal and provides constructive feedback; the aspirant then makes the needed changes and submits the proposal to the university.

The proposal is then scrutinised by the Research and Recognition Committee (RRC) at the university level. The RRC is constituted of the Pro VC (Chairperson of the RRC), the Dean of the Faculty of Science, the Chairperson of the Ad Hoc BOS of Home Science (a teacher

from the college), and two experts (one of whom is a teacher in the college). The committee may ask for modifications in the proposal or pass the proposal as worthy of a doctoral thesis. When the RRC has approved of the proposal, the student and guide are informed, and the student registers for the doctoral program.

3. The Research Centre plays a vital role with respect to the research projects of the faculty. Research projects designed by the faculty are routed through the Research Centre prior to their submission to various agencies for the purpose of sponsorship. Valuable inputs are provided by the Research Director. Proposals are fine-tuned and then submitted to relevant sponsors. Recommendations made include:

- If the research topic does not represent a high priority area, newer and emerging research themes are suggested.
- If the objectives are not framed accurately, suggestions are provided for reframing the objectives.
- If various constraints (e.g., time/finance/facilities) are not considered, then it is recommended that feasibility issues need to be addressed before finalizing the project.
- Sometimes the sample size is inadequate or/and the sampling technique is inappropriate. This is pointed out and modifications are suggested.
- When the assessment measures developed do not match the objectives, alternative assessment techniques are suggested.
- If the plan of analysis is incorrect, suggestions are provided for adopting better statistical analysis.

The Research Director also extends assistance to faculty, if needed, in publishing their work. The work of each of the research committees and the Research Centre ensures that students and faculty conduct high-quality researches. Teachers obtained funding for 26 research projects in the assessment period.

4. An Ethics Committee with internal and external members has been formulated to review and provide ethics clearance to students for their master's and doctoral researches.

3.1.3. What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/projects?

1. Autonomy to the principal investigator

For university minor research grants, principal investigators have complete autonomy. For other research grants, the principal investigators discuss their research designs with the Research Director. Once agreed upon, the principal investigators are given complete autonomy with respect to the implementation of their research projects.

2. Timely availability or release of resources

The application process for applying for research grants to any external agency is quickly processed by the Principal and the administrative office to avoid any delay in submission. Once the grant has been released to the college, payments are made directly to the investigator by the accounts department. A part of the grant has also been provided in advance by the college to the project coordinator towards project expenses, if required.

3. Adequate infrastructure and human resources

The institute has adequate infrastructural and human resources required to carry out research projects in the various specializations of Home Science. The college has a PhD program in Home Science of the University of Mumbai: a university team has inspected and judged the infrastructure and human resources in the college as adequate for supporting doctoral research. The various infrastructural facilities available in the college include a Research Centre, laboratories, scientific equipment, psychological testing material, library, ICT, and audio-visual equipment.

Research Centre:

Human resources:

- A specially-appointed Research Director, two Research Assistants, ad hoc research staff
- Subject experts, research methods and statistics experts from the college faculty
- Assistance from the Accounts and Administrative Departments of the college

Infrastructure:

- Designated rooms: one for the Research Director, one other room as the working area which has been remodelled
- Computers with Internet facility
- Licensed data management and analysis software: Statistical Package for the Social Sciences (SPSS)
- Laboratories and library facilities of the college

Laboratories:

The available space in the college has been meticulously utilised to construct 12 laboratories—4 chemistry laboratories, 2 food laboratories, 3 clothing laboratories, a computer laboratory, an Interior Design laboratory (shared with the Polytechnic), and a multipurpose laboratory. These laboratories, adequately equipped with relevant infrastructural facilities and well maintained, are not only used for practicals/classes but are also regularly utilized for research activities by the staff and students of various specializations. Laboratories are staffed by trained laboratory assistants who periodically upgrade their knowledge and skills by participating in relevant training programmes (sponsored by the Management).

Laboratories have been added/ remodelled in the last four years:

- A new computer-laboratory-cum-cybercafé (capacity: 34 computers; specialised licensed research software: SPSS; staffed with a computer-lab supervisor and a computer engineer)
- The biology laboratory and one of the food laboratories have been remodelled into multi-purpose laboratories

In addition to the existing equipment/material, in order to keep pace with the recent technology and to meet the increasing research demands, latest/state-of-the-art equipment/material has been purchased by the college in the past four years Examples include:

For the specialisation of Foods, Nutrition and Dietetics:

- Anthro kit (for anthropometrical assessment)
- Grip Dynamometer (for fitness testing)
- Semi-automatic Clinical Analyser
- Soxtec for fat analysis
- Kjeltex distillation unit

For the specialisation of Human Development:

- IPAT Depression Scale
- Older Persons Counseling Needs Survey (OPCNS)
- Coping Resources Inventory (CRI)
- Five Factor Wellness Inventory
- Dimensions of Self-Concept Form W(DOSC-W)(Self-concept Diagnostic for Workers in Business and Industry)
- Wechsler's Intelligence Scale for Children
- Torrance Tests for Creative Thinking (TTCT)

For the specialisation of Textile and Fashion Technology:

- Electronic Tensile Testing Machine
- Plotter
- Richpeace Software

For the specialisation of Community Resource Management:

- Flexi-curve (1m)
- Pedometer
- Goniometer (small and long joints)
- Sphygmomanometer

Library:

The library in the college is equipped with a number of national and international research/academic/industry journals including various reputed e-journals (e.g., Journal of Nutrition, International Dyer, International Journal of Sports Nutrition and Exercise Metabolism, Indian Journal of Career and Livelihood planning [IJCLP], Psychological Studies), textbooks, and recent editions of reference books that are pertinent to advanced study/research. In addition, the library also stocks research reports (dissertations, theses, research project reports). These are of great help to the current research aspirants in conceptualizing their research ideas and in understanding the various steps and facets of research. The library also offers soft versions of various reference books and films to facilitate the learning process. Ten computers, all with internet facility, allow students and staff to surf the Net for resources. Qualified library staff assists research scholars, students, and staff in locating desired print resources. A private room for faculty in the library is suitable for quiet writing/analysis using a laptop. Reprographic facilities on request are also available.

ICT facilities:

The college offers updated ICT facilities to the students and staff. The faculty have access to computers with internet in the staffrooms, library, and cybercafé (without charge). Students can access computers, internet, and printing facilities in the library and in the cybercafé (at a minimal cost). Based on student request, multiple plug units have been installed in the library, and the corridors adjoining the library for students who wish to work on their laptops. These facilities allow students and faculty to locate relevant literature, analyse, and write their research reports.

Research Expertise among the Faculty

The faculty across the various specializations in the college have special research expertise (knowledge and skills). This includes subject expertise as well as research methods expertise related to particular research areas (e.g., Clinical Nutrition, Community Nutrition, Food Technology, Biochemistry, Positive Psychology, Health Psychology, Education, Marriage and Family, Dyeing, Green Textile Processing, Textile Chemistry, Ergonomics, Consumer Economics). One of the teachers is also recognised for her special expertise in research methods, statistics, and SPSS. Almost all the faculty members involved in research guidance at the master's level with 10 teachers (out of 25¹; 40%) also being recognized as doctoral guides. Many of the faculty have completed at least minor research grants in the least four years or have these in progress (21 sponsored through UGC or the University of Mumbai minor research grant scheme).

4. Time off, reduced teaching load, special leave etc. to the teachers.

The project coordinators are permitted to make adjustments in their class schedules and are granted special leave (if required) for carrying out research-related activities, such as presentation of research proposals to sponsors, sharing of research findings at seminars/conferences, meetings of research teams etc. Since the UGC does not provide any remission in the teaching load to the teachers for carrying out research projects, the college cannot extend such remission to the faculty.

¹On December 16th 2013, three more teachers have been appointed taking the total number of teachers to 28.

5. Support in terms of technology and information needs

As noted, the library and ICT facilities in the college facilitate the research work of faculty and students. Access to specialised equipment and material such as psychological tests, haemoglobinometers, body composition analysers, skin callipers, bursting strength tester, Instron Tensile Strength Tester, laundrometer and grey scales, glycerine shaker bath, yarn-twist tester, crease-recovery tester, Martindale Abrasion Tester, Beasley Balance, padding mangle etc. has been useful for research at various levels.

6. Timely audit and submission of utilization certificate

The project coordinators are duly instructed by the college accounts staff regarding the systematic maintenance of project accounts and audit procedures. This has facilitated timely audit and submission of the utilization certificate. Staff at the university has also been very supportive.

7. Any other

The process of research has been more streamlined with the help of the **Research Centre** and the **IQAC**. The Principal has been instrumental in continuously encouraging faculty to upgrade their scientific skills and knowledge through deliberations and presentations at seminars and conferences. The QAC has been particularly effective in motivating the staff to apply for research grants. On recommendation of one of the external QAC members, the IQAC organised a special session in the college with an invited expert (Dr. G. Pawar, HOD of Biochemistry, SIES College) on “How to Apply for Research Grants”. The outcome of the motivational session of the QAC and the IQAC was that 10 teachers along with the Principal applied to the University of Mumbai for a minor research grant and all of them had their research grants sanctioned. Staff members who applied for and received such grants have motivated and helped other staff to also apply for grants.

The Ethics Committee is also a valuable addition to the college.

3.1.4. What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?

- First of all, the BSc to **PhD** programs in the college stand testimony to the commitment of the college to research programmes.
- At the doctoral level, aspirants have to present their research proposal to the research committee. The discussion that ensues during these presentations and the valuable feedback provided helps them to refine and shape the research proposal. Faculty members, recognized as PhD guides by the University of Mumbai, are then actively involved in helping the young researchers effectively plan and implement their research. A research methods and statistics course following the UGC guidelines has also been started for PhD aspirants in order to introduce them to advanced research methods and statistics. This course helps PhD scholars not only in the designing of the research but also in the analysis of the data using appropriate statistical techniques and interpretation. Doctoral students learn SPSS in this course.
- The master’s curriculum is designed to promote research competence in students. There is a heavy weightage on research: not only a theory subject in research methods but a practicum in research methods in Semesters I and II, and a dissertation in Semesters III and IV. This amounts to 150 out of 600 marks in each of the four semesters (25%). In credits, this amounts to 30 credits out of the 96 credits (Semesters I to IV) for the MSc programme (31%).
- MSc1 students do a group research project/other research exercises as part of their Research Methods Practicum and MSc2 students an independent research project as part of their Dissertation, closely supervised and guided by assigned research guides.
 - MSc1 students make (PPT) presentations of their review of literature at the close of the first term, and their findings at the end of the second term to

University Examiners. Through the two semesters, in groups they survey the research journals in the college library and on the Net, visit Research Centres in Mumbai, interview experts in the field, learn to identify priority areas of research in their specialisation, specify a research topic and research aim, locate and use relevant research literature, learn about plagiarism and the need to paraphrase and acknowledge source of ideas, design/identify tools under guidance, collect data, analyse data, and report key findings.

- In the semester system, MSc2 students make (PPT) presentations of their review of literature, research aim, and methods at the end of the first term, and their results and discussion at the end of the second term to University Examiners. Suggestions of university examiners are incorporated to enhance the quality of research work. Students also make presentations to their guides/research committee of the specialisation comprising of all research guides of the specialisation. Their research work at each stage is scrutinised and valuable suggestions are made. These brainstorming sessions enrich the student's research work and build research communication skills. Through the two semesters, MSc2 students as part of their dissertation individually identify priority topics in the field, interview experts in the field, initiate email communication with experts outside Mumbai, review the Indian and non-Indian literature, design the methods including designing/identifying tools, collect data, analyse data, interpret the findings, discuss the findings, and write all the chapters in the dissertation.
- MSc1 students are present when MSc2 students present their research work to the research committee of the specialisation. MSc1 students' interactions with their seniors (MSc2 and doctoral students) motivate and inspire them to begin to think about their own Dissertation topics.
- MSc1 students are introduced to SPSS and in MSc2 special sessions on SPSS are arranged for interested students. MSc1 students complete assignments on data entry using a paper mastersheet and codebook, as well as an SPSS data file.
- There is exposure to and discussion of research studies in other subjects at the master's level.
- Faculty share about their recent publications and inspire students at the master's and doctoral levels. Faculty also share about the latest researches/new research trends after attending and presenting at national and international conferences.
- Master's and doctoral students are encouraged to read dissertations and research journals. Many assignments require that students read dissertations and research papers.
- Excellence standards for research in the master's and PhD programs.
- Collaborations with various hospitals, industries, research institutes, academic institutes, government and non-government organizations for master's and doctoral research.
- Provision of infrastructural/technological support (e.g., licensed SPSS software).
- Institution of an Ethics Committee.
- Doctoral students are supported to make scientific paper and poster presentations at international conferences.
- Master's students have also been supported in making scientific poster presentations at local/regional/national and international conferences or research meets.
- Internship opportunities at the Research Centre for postgraduate students.
- Senior-level undergraduate students conduct short surveys as an assignment for some subjects. The base for research at postgraduate levels is laid in interesting ways. For example, Foods, Nutrition, and Dietetics students design new recipes, Human

Development students are introduced to psychological tests, Textile and Fashion Designing students design formal wear and learn printing and dyeing, Community Resource Management students learn how to make models for Interior Designing.

3.1.5 Give details of the faculty involvement in active research (Guiding student research, leading research projects, engaged in individual/collaborative research activity, etc.)

Faculty Involvement in Active Research: Guiding Student Research

Almost all the faculty (19 out of 25; 76%) is involved in active research, guiding student research at the master's level or both master's and doctoral levels.

Faculty Involvement in Active Research: Collaborative Research

Faculty from the Specialisation of Foods, Nutrition, and Dietetics have collaborated with researchers/doctors/academicians from the following institutes for the research work of master's or doctoral students:

- Researchers from research institutes such as the BARC, Haffkine Institute, ACTREC, and Institute of Chemical Technology for researches on Food Science and Technology such as *Synbiotic Food Products* and *Development of Functional Oils* etc.
- Doctors and dieticians at hospitals such as Shushrusha Hospital and Hinduja Hospital for research topics in the field of clinical nutrition. Examples: *Dietary Strategies for Epilepsy Patients*, *Risk for Metabolic Syndrome in Woman with Polycystic Ovarian Syndrome* etc.
- NGOs CHIRAG (Community Health Initiative & Research Action Group) and IAPA (International Alliance for the Prevention of AIDS) for a community nutrition research topic: *Effect of Nutrition Intervention on the Nutritional Status and Dietary Practices of HIV+ Children and Adolescents*.

Faculty from the Specialisation of Human Development have collaborated/are collaborating with renowned psychologists (Indian and non-Indian, of international repute) for research. For example:

- Dr Nirmala Almeida along with her master's student has collaborated with Dr Narayan Desai, a renowned psychologist and Mensa member, on a research entitled *Evaluation of the Quality of the Tribal Mensa Nurturing Programme for Gifted Children*.
- Dr Anuradha J. Bakshi is collaborating with Dr Gideon Arulmani (internationally acclaimed clinical psychologist; career guidance expert; ADB/WB/ILO Consultant; Founding Director of The Promise Foundation [NGO]; Visiting Senior Lecturer, Canterbury Christ Church University, U.K.) on multiple researches and writing assignments. Examples: Research on *Career Beliefs among Youth*, *Work-Based Learning*; for Jahnvee Joshi's doctoral research on *Career Development Interventions for Rural Disadvantaged Youth*. (This doctoral research is also in collaboration with the Aga Khan Youth and Sports Board [AKYSB] and the Aga Khan Education Services [AKES].)
- Dr. Anuradha J. Bakshi has collaborated with Dr. Silke Goebel, University of York, U.K, an international researcher on maths learning.
- Dr. Anuradha J. Bakshi is beginning collaborative research on older women's career development with Prof. Jenny Bimrose, Deputy Director, Institute for Employment Research, University of Warwick, UK.
- Many master's researches have been conducted, under the guidance of Dr Nirmala Almeida, based on requests from reputable organisations. For example, the Indian Society of Transplantation requested the study on *Awareness and Attitude of Religious Personnel and Physicians regarding Cadaver Kidney Donation*. The

Parkinson's Disease and Movement Disorder Society requested the study on *Quality of Life, Coping Strategies and Coping Effectiveness of Caregivers of Individuals with Parkinson's Disease*.

Faculty from the Specialisation of Textile and Fashion Technology also have collaborated/are collaborating with the industry and other organisations:

Ph.D. Scholars under Dr Ela Dedhia:

Name of PhD student	Topic	Collaboration with
Mittu Gupta	Study of Functional and Aesthetic Properties of Shirts	Shirt Industry
Muriel Sequera	Quality Standards in Children Apparel	Textile Committee, TexanLabs, Consumer Guidance Society of India (CGSI) & Weights & Standards
Pratima Goyal	Feasibility of using weft knitted lyocell and its Blended fabrics for apparel wear	Grasim Birla Cellulose, TRADC (Textile Research Application Development Centre, Kharach)
Jignasa Shah	Eco-friendly Printing techniques for fashion fabrics in small scale industry	Textile committee, Meghna Colours, Indian Dyes CSale Corporation B S, Dystar, Texan Lab, Pidilite, Piyutex, Graphica & small scale printers
Jinal Sanghani	Contemprarizing khadi and comparative case study of khadi gramudyog and fab india	Udyog Bharti Gondal Khadi Gramudyog Rajkot, Shishuvan School
Suman Mundkur	Sourcing and Reuse of Post-Consumer Clothing Waste for Technical Textiles	Canara Bank, Self Help Groups of Dharavi & Chembur, Kumar Wool Research Association, Bombay Textile Research Labs, PSG College & Kumaraguru College Coimbatore, Supreme Nonwovens Vapi, Balkan Panipat
Neera Baruah	Study on textiles of selected tribes residing in Assam	Fabric Plus, Assam & Mumbai & Tribal Weavers of Assam

Dr V. Karnad has collaborated with the industry for the following MSc student researches:

(2009-2010)	Designing and Developing Sportswear using Bamboo Knits	Nidhi Exports (Tirupur), Central Institute for Research on Cotton Technology, TexanLab (Mumbai)	(Industry Sponsored for raw materials, fabric, testing services)
(2010-2011)	Designing and Developing Innerwear using Cotton-Lycra Knits treated with EvoCare Vital™	DyStar Co. Ltd., Institute of Chemical Technology (Mumbai)	(Industry Sponsored for raw materials, fabric, testing services)

(2010-2011)	Designing and Developing Desktop Accessories using Goan Art and Craft	Goa Handicrafts Rural and Small Scale Industry Development (Goa) and Amol Paper Industries	(Industry Sponsored for raw materials, fabric, testing services)
2012-2013	Designing and Developing Caricatured Bean Bags using Fleece and Polystyrene Beads	R.R. Enterprise, Synthetic and Art Silk Mills Research Association Testing Services (Mumbai)	(Industry Sponsored for raw materials, fabric, testing services)

Faculty Involvement in Active Research: Leading Research Projects

Several teachers (26 projects) have been/are principal investigators of funded research projects (e.g., minor research grants) sponsored by the University of Mumbai, the UGC, and various industries.

Examples of these research projects for the Foods, Nutrition, and Dietetics specialisation:

- Effect of diet counselling and exercise on weight loss
- Nutritional awareness of HIV+ children and adolescents
- Dietary and lifestyle practices and its influence on ADHD
- Study of platelet indices in Type2 diabetic patients as indicators for CVD risk

Examples of these research projects for the Human Development specialisation:

- Parent involvement in higher education in Mumbai: Perceptions of the students and their parents
- Women entrepreneurship in Mumbai: Their role, role stress, evaluation of lifestyle, and constraints/challenges
- Emotional intelligence (EI) of parents of children with intellectual disability and its relationship with the level of stress in parents and their quality of life (QoL)
- Workplace spirituality: Employee perspectives and organisational policies
- Quality of counselling centres in selected colleges in Mumbai

Examples of these research projects for the Textile and Fashion Technology specialisation:

- Designing and developing desktop accessories using Goan art and craft
- Designing hand-painted Furoshiki silks with fused Indian mehendi and Japanese tattoo motifs for gift wrapping
- Designing and developing caricatured bean bags using fleece and polystyrene beads

3.1.6 Give details of workshops/training programmes /sensitization programmes conducted/organized by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and students.

Workshops/training programmes/sensitisation programmes for research-related capacity-building and imbibing a research culture among staff

- Faculty presented their own researches and participated in the plenary, paper, and poster sessions in which national and international speakers presented their researches during the international conference organised by the college, entitled *Enhancing Health, Well-being and Sustainability—Opportunities, Challenges and Future Directions* (10-12 January 2013).
- Session with Dr Veena Mistry, our QAC member, on NAAC and Excellence Policies in the College, who highlighted the need for teachers to apply for minor research grants (28-6-11).
- Session with Dr Ganesh Pawar (organised by the IQAC) on Research Grants and Patents (26-8-11).

- Faculty are encouraged to make scientific presentations in national and international conferences. Those who make presentations in international conferences (especially abroad) share their experiences in the weekly general teachers' meeting on return.

Workshops/training programmes/sensitisation programmes for research-related capacity-building and imbibing a research culture among students

All students:

- Students were exposed to the latest researches in all areas of Home Science and allied fields during the international conference organised by the college, entitled *Enhancing Health, Well-being and Sustainability—Opportunities, Challenges and Future Directions* (10-12 January 2013). For example, there were 175 scientific posters displayed during this conference. National and international speakers shared about their researches. For example, Prof. Dr. Ajit Mohanty (Research with tribal children in Odisha), and Ms. Farida Lambay (Literacy research by Pratham).
- Session of MSc1s with Dr Gideon Arulmani (internationally acclaimed clinical psychologist, career expert, researcher, ADB/WB/ILO consultant, and Senior Visiting Lecturer, Canterbury Christ Church University, UK) on selecting worthwhile research topics entitled *The Question is the Answer* (November 27, 2010).
- MSc1 students visit Research Centres as part of their Research Practicum in Semester1.
- MSc2 Human Development and Foods, Nutrition, and Dietetics students participate in intensive training sessions on using SPSS for data management and analysis (e.g., computing variables, recoding variables, reliability analysis, descriptive statistics, and advanced statistics). MSc Food Processing and Preservation and Sports Nutrition students too have sessions on SPSS.

Students of the CRM and Nutrition-Related Specialisations

- As seen in following table, students have been provided valuable research experience through their involvement as ad hoc Research Assistants in the major funded projects of the Research Centre.

Sr. No.	Name of the study	Name of the funding agency	Duration of the project	Student involved (numbers)
1	Multi-centric breakfast study	Kellogg India Pvt. Ltd.	2007 to 2013	P.G Diploma students of Applied Nutrition and Dietetics (18) TY BSc CRM internship students (2) M.Sc Food Processing & Preservation students (3)
2	Integration of international product into Indian recipes & product development	FROMAGERIES BEL, France	June 2012 to Aug 2012	T.Y BSc FND (3) MSc (FND) (3)
2	Nutrient profiling of recipes	Pepsi Foods Ltd.	March 2012- April 2012	MSc Food Processing & Preservation students (18)
4	Role of Diet, exercise in weight loss programs	Marico Ltd.	July 2012- Dec 2012	MSc Sports Nutrition students (3)

- **MSc Students of FND, FPP, SN & PG Diploma in Applied Nutrition & Dietetics:**The following workshops, seminars, training programmes, and sensitisation programmes were organised for the MSc students of Foods, Nutrition and Dietetics

(Branch IA), Food Processing and Preservation (Branch IB), Sports Nutrition (Branch IC), and Applied Nutrition and Dietetics (PG Diploma) that build their knowledge and skill base for research as well:

FND: 2010-11

Workshop/seminar/training program/sensitization program	Theme
Seminars	Anemia
	Breast feeding and Cancer
	Newer Ingredients For Healthy Foods: This was an Academia-Industry interaction
Workshops	Balanced Diet
	Food Adulteration
Training program	Nutrition Campaign

FND: 2011-12

Workshop/seminar/training program/sensitization program	Theme
Session	Healthy Eating habits
	World Heart Day
Seminars	Good Nutrition and Anemia
	Counseling Strategies
	Nutrition Paradox through the Ages
Workshop	Making Effective Counseling Aids,
Training programs	Newer advanced methods of analysis
	latest techniques in Hematology
	Blood Collection procedures
	Newer Chromatographic Procedures & Electrophoresis
	Modern equipment & working mechanism

FND & others: 2012-13

Sr.No.	Workshop/seminar/training program/sensitization program	Theme
1 (All Postgraduates)	session	Sustainability and women issues
2 (All Postgraduates)	International Conferences	Health, wellbeing & sustainability- Opportunities, Challenges and Future Directions
3		ICFOST 2012 at CFTRI (International Conference) Innovations in Food Technology

FND & Others: 2012-13

Sr. No.	Workshop/seminar/training program/sensitization program	Theme
1 (All MScs & PGD)	Seminar	Ayurveda & Nutrition Counselling
2		Lipids & CVD-Physiological & Nutritional aspects

SN & others: 2011-12

MSC-SN		
Sr.No.	Workshop/seminar/training program/sensitization program	Theme
1 (along with PG Dip.)	Seminars	IDA seminar: Current Trends in Nutrition Counseling
3 (all UG & Postgraduates)		National Level Seminar: <i>Entrepreneurship: Recent Trends and Opportunities</i>
2 (all Postgraduates)	Nutrition Week Activity	PFNDAI- <i>intercollegiate quiz competition, poster making competition on foods for a healthy lifestyle</i>
FPP (seminars and conferences)		
1	The 43rd National Conference of the Nutrition Society of India, held at the National Institute of Nutrition, Hyderabad, on 11th and 12th November 2011	Economic Transition in Nutrition – Life Style Diseases & Health and Nutrition Wellness.
2	International Conference	Carbohydrates for healthy future
3 (all Postgraduates)	Seminar organised by NN, NSI-Mumbai & Department of Science & Technology	The Nutrition Paradox
4	Seminar organized by Association of Food Scientists & Technologists, India (AFSTI), “XXI Indian Convention of Food Scientists and Technologists” 20-21 Jan, 2012 in Pune	Food Technology
5	Seminar organized by AAILSG	Innovations in Nutrition and food technology

SN & PGD: 2012-2013

Workshop/seminar/training program/sensitization program	Theme
Seminars	Ayurveda and Nutrition
	‘Lifestyles-Oriented Nutrition Counseling Using Motivational Interviewing’
	Seminar on World heart day, 5 th October, 2012 Cardiovascular Nutrition, Bombay Hospital, Mumbai

FPP: 2012-2013 (Seminars and Conferences)

6 th and 7 th December 2012- Conference attended at CFTRI campus, Mysore, arranged by the Association of Food Scientists & Technologists, India (AFSTI)	Safety assurance of Foods through Emerging Science and Technology
17 th December 2012- Seminar organised by the Nirmala Niketan College of Home Science and Nutritionist Republic which was supported by Tetra Pak	Good Nutrition and Quality of Milk: Issues and solution and Aseptic processing and Packaging, an integral to Food Safety’.

PG Diploma in Clinical Nutrition & Dietetics: 2012-2013

Workshop/seminar/training program/sensitization program	Theme
Seminar organised by the Indian Dietetic Association (IDA)& Nestlé India ltd (20 th July, 2012)	Cancer & Burns
Seminar by IDA (5 th October, 2012)	Age -group, gender in relation to CVD, bypass surgery, lifestyle changes to avoid obesity.
29 th November, 2012, IDA Conference, Hyderabad	Nutrition & Health

CRM: 2010-11

Workshop/seminar/training program/sensitization program	Theme
Workshop	Model Making
Training program	Best of Waste
Sensitization program	Industrial Visit

CRM: 2011-12

Workshop/seminar/training program/sensitization program	Theme
Seminar	Breastfeeding
	Consumer & Recent Development in Telecom Industry
Sensitization program	Milk Adulteration
Workshop	Rendering
Training program	Model Making

CRM: 2012-13

Workshop/seminar/training program/sensitization program	Theme
Workshop	Model Making
Sensitization program	Consumer Awareness -Malpractices

- FND MSc students have not gone on long educational tours. But each year in the assessment period they visited reputed laboratories, research institutes, food industries and hospitals to acquire knowledge on latest analytical techniques, product development etc. Following is a list of such visits:

- A Food Ingredients India Exhibition of new food products in India (FND & FPP students).
- Department of Biochemistry, Seth G.S. Medical College for demonstration of newer techniques in chromatography, Electrophoresis, and Common Instrumentation Centre.
- St Xavier's College, Ramnarain Ruia College for an exhibition on Appetisers, K.J.Somaiya College for demonstration of Flame Photometer, TLC, Electrophoresis
- Khalsa college NFB laboratory, a state of the art laboratory for demonstration of microbial, biochemical and chemical analyses.
- Nair hospital, Bombay Hospital,
- FND and FPP MSc students went on a short educational tour to Pune in February 2012 and saw the food processing at the following:
 - GO Cheese & Gowardhan milk products: overview of production, visit also to the farm
 - Chocolate factory: chocolate processing
 - Kamdhenu pickle factory
 - Parle G biscuits
 - Chikki factory of Lonavala.
 - Mc Donald's
- FPP students in 2011-2012 visited:
 - Sula Vineyards, Nashik & observed the wine processing procedures.
 - Institute of Chemical Technology (ICT) Food Technology department to understand the operation of equipments, such as HPLC, GC/MS, Spray driers, Extruding machine, Fermentators, Dehydration machine.
- FPP students in 2012-2013 visited:
 - Kamani Oils, Khopoli plant, to understand the oil plant operations and manufacturing of various products. Oct, 2012.
- SN students in 2011-2012 visited:
 - National Institute of Industrial Engineering (NITIE), Powai, to get an insight for role of ergonomics in the field of sports science (February 2012).
 - Asian Heart Hospital to gain practical knowledge of the cardiac rehabilitation programme.
- SN students in 2012-13 visited Pune for a short educational tour:
 - NDA
 - Balewadi, where the Commonwealth Games were held in 2008.
 - Army Sports Institute (fitness testing)
 - Armed Forces Sports Medicine Centre (fitness testing and a research and rehabilitation centre)
 - Sancheti Hospital (rehabilitation centre)
- SN students in 2012-13 also visited:
 - K11 Gym, Qi Gym
 - Taj Sats, Flight Kitchen
- PG Diploma students in 2011-12 visited
 - Hospitals such as Breach Candy Hospital, Kokilaben Dhirubhai Ambani Hospital.
- PG Diploma students in 2012-13 visited
 - Modern Bakery
 - Kitchen of IIT Bombay

- Aarey Milk Colony
- Students/recent alumnae in the Nutrition-related specialisations are given opportunities to co-author research papers which are presented in conferences and published in scientific journals.

Students of the Human Development Specialisation

- Visits to renowned agencies/institutes in India who are conducting research have been arranged for MSc students during their educational tours
 - MSc1 and MSc2 students visited the renowned the Research Centre at the Jnana Prabodhini Institute of Psychology (JPIP) in Pune during their study tour (12th to 13th April, 2013). Dr Sujala Watve, HOD of JPIP, organised an interactive session in which she and her colleagues shared about the research activities of JPIP.
 - MSc1 and MSc2 students, on their educational tour to Bangalore (4th to 10th October, 2010), visited the following agencies and were exposed to the researches being conducted by these agencies:
 - Azimji Premji Foundation
 - COM-DEALL Early Intervention Programme for Children with Autism (Dr Prathibha Karanth)
 - Sneha Care Home and School for Children Infected with HIV+
- Students' participation in workshops, seminars, and conferences has been organised.
 - A one-day national-level seminar entitled *Professional Counselling across the Life Span: Challenges, Innovations and Future Directions* was organised by the HD specialisation on 30-9-11. A keynote address and two special forums provided exposure to research- and practice-related challenges and innovations in the field of professional counselling.
 - MSc1 and MSc2 students participated in the thirty-seventh international annual conference on *A Holistic Approach to Health and Healing* organized by the Institute of Counselling and Transactional Analysis (ICTA) Cochin and the Counselling and Suicide Prevention Centre (CASP) Bombay, Mumbai, 15th to 18th August 2010.
 - MSc students and selected TY BSc students participated in the *National Workshop On Child Life Programs* (18th and 19th of July 2009) on Child Life Programs (a specialization within HD offered at selected universities—HD professionals in the healthcare setting) by internationally renowned child life specialist Dr. Priti Desai from USA. This workshop was sponsored by Operation Smile and AYJNIHH and participants came from multiple cities.
 - MSc1 and MSc2 students participated in the *IAEVG-Jiva International Conference on Career Guidance and Counselling* jointly organised by the International Association for Educational and Vocational Guidance (IAEVG) and The Promise Foundation (TPF), Bangalore, 8th to 10th October, 2010. The students and staff were sponsored by TPF. The faculty conducted short-term researches with groups of students; these researches were presented at this conference:
 - Survey of Influences on Career Choices as Perceived by Youth in Mumbai (Bakshi, A. [faculty]; Gandhi, H., Shah, R., & Maru, K [students]).
 - The Perceived Relevance of Career Guidance Services after Career Entry: A Survey in Mumbai, India (Bakshi, A. [faculty]; Shaikh, I., Kapadia, H., Padhya, R., Sarun, S., Vashum, S., & Gandhi, H [students]).

- Theories of Career Choice and Development: Critical Analysis in Light of Diverse Contexts in India (Bakshi, A. [faculty], & Shaikh, I [student]).
 - Personality and Early Career Development: Perceptions and Experiences of Youth (Bakshi, A. [faculty]; Shah, R., & Mazkoory, P [students]).
 - Youth Services in the Kutchi Community: Critical Evaluation with Regard to Career Guidance (Maru, K. [student], & Bakshi, A [faculty]).
 - Youth Services in the Zoroastrian Community: Critical Evaluation with Regard to Career Guidance (Mazkoory, P., Irani, B. [students]; & Bakshi, A [faculty]).
 - Perception of Work among Preschoolers (Divecha, R., Maheshwari, P. [faculty]; Bhatt, K. U., Gala, R., & Vora, U. [students])
 - Perception of Work among School-Age Children (Divecha, R., Maheshwari, P. [faculty]; Rathod, P., & Shah, H. [students])
 - Perception of Work among Adolescents (Divecha, R., Maheshwari, P. [faculty]; Dedhia, R. M., & Parekh, A. [students])
 - Perception of Work among Adults (Divecha, R., Maheshwari, P. [faculty]; Aggarwal, N., & Nair, S. [students])
- MSc1 students, who volunteered, participated in a research project on career beliefs of youth under the guidance of Dr Gideon Arulmani and Dr Anuradha J. Bakshi (2011-2012).
- Sessions have been organised with accomplished alumna of the department:
 - Dr Gandhi shared about her PhD research entitled *Spiritual Experiences in Counseling*, how the M.Sc. program in the department provided a bridge to the PhD in Counseling Psychology at Indiana University, Bloomington, USA; what did the PhD in Counseling Psychology in USA entail; and her experiences as a counsellor in a university setting in USA (28th July 2010).
 - Dr Anjali Sadhwani talked about *Career Life Paths of Human Development Alumnae* and *Child Clinical Psychology* on 23rd October 2009 (T.Y. B.Sc. HD and M.Sc.2 HD students). She described her PhD in child clinical psychology from the Illinois Institute of Technology, Chicago, USA, and work at the Children's Hospital in Boston, affiliated to the Harvard Medical School.
 - Ms Sweta Parmeswaran talked about *Career Life Paths of Human Development Alumnae* and *Early Childhood Education in New Zealand* on 9th January 2010 (T.Y. B.Sc. HD and M.Sc.2 HD). She described her work as a faculty member in the Early Childhood Education Department of New Zealand Tertiary College, NZ.
- Doctoral students have been supported in presenting scientific papers/posters of parts of their master's or doctoral research at multiple international conferences, in India and abroad:
 - Bombay Psychological Association's (BPA) International Conference, Mumbai, 1-3 December, 2013
 - Parents' Perceptions of Bullying among Preadolescent School Children (Dr Noellene Fialho [recently awarded doctoral degree] & Dr Anuradha J. Bakshi [guide]).
 - Parents' Perspectives about Young Children's Educational Software Usage at Home (Vidhya Satish [student] & Dr Anuradha J. Bakshi [guide]).

- Early Childhood Association's [ECA] International Conference on Ideas to Implementation for Early Childhood Education in India, Mumbai, 23-24 February 2013
 - Educational Software as a means for promoting Cognitive Skills in Children: An Application of Sternberg's WICS Model (Vidhya Satish [student] & Dr Anuradha J. Bakshi [guide]).
- International Conference on Enhancing Health, Wellbeing and Sustainability: Opportunities, Challenges and Future Directions organised by the Nirmala Niketan College of Home Science, University of Mumbai, Mumbai, 10-12 January 2013.
 - Enhancing Social Skills with Relation to Bullying in Preadolescent School Children: Using Vignettes as a Reflective Counselling Strategy (Noellene Fialho [student] & Dr Anuradha J. Bakshi [guide]).
 - What Attitudes should be Promoted in a Sexuality Education Program? Perspectives of Adolescents and their Parents (Jahnvee Joshi [student], Dr Anuradha J. Bakshi [guide], & Kiran Parab).
 - Goals of a Sexuality Education Program: Perspectives of Adolescents and their Parents (Kiran Parab, Dr Anuradha J. Bakshi [guide], & Jahnvee Joshi [student]).
 - Educational Software as a Vehicle for Equity in Education (Vidhya Satish [student] & Dr Anuradha J. Bakshi [guide]).
 - Transforming Preschool Teacher Education: The Role of Quality Assessment (Rachel Valles [student] & Dr Anuradha J. Bakshi [guide]).
- XXX International Congress of Psychology, Psychology Serving Humanity, July 22-27, 2012, Cape Town, South Africa
 - What questions do young people have about sexuality? Perspectives of urban Indian adolescents (Jahnvee Joshi [student], Dr Anuradha J. Bakshi [guide], & Kiran Parab).
 - Meaning of human sexuality and sexuality education: Perspectives of urban Indian adolescents and their parents (Kiran Parab, Dr Anuradha J. Bakshi [guide], & Jahnvee Joshi [student]).
- Language, Literacy and Cognitive Development. An International Symposium on Current Issues for a Science of Education: December 15th to 17th 2011, Bangalore, India. Organised by The Promise Foundation, Bangalore, India, & The University of York, Centre for Reading and Language, U.K.
 - Using educational software to facilitate language and mathematics learning in 4-to-7-year-old school children in Mumbai and Navi Mumbai region. (Vidhya Satish [student] & Dr Anuradha J. Bakshi [guide]).
 - How are preschool teachers trained to facilitate language skills in young children? A study of preschool teacher education programmes in Mumbai. (Rachel Valles [student] & Dr Anuradha J. Bakshi [guide]).
- Doctoral students have been given the opportunity to be co-authors on national and international publications by their guides.
 - Satish, V., & Bakshi, A. (2013). Educational software as a means for promoting cognitive skills in children: An application of Sternberg's WICS model. *Journal of the 2nd International Conference on Ideas to Implementation for Early Childhood Education in India* (23-24 February, 2013) (organised by Early Childhood Association, Mumbai, India), 29-31.
 - Bakshi, A. J., & Joshi, S. (2014). The interface between positive youth development and youth career development: New avenues for career guidance

practice. In G. Arulmani, A. J. Bakshi, F. T. L. Leong, & A. G. Watts (Eds.), *Handbook of career development: International perspectives*. New York, NY: Springer.

Students of the Textile and Fashion Technology Specialisation

- Students of the TFT specialisation have participated in workshops, which build their knowledge base and skills, and contributes to their research interests and related competencies.

TFT: 2010-2011

Workshop/seminar/training program/sensitization program	Theme
Workshops and Talks	Texfest 10 (23rd & 24th Sept 2010) Organised and Attended workshops and talks on: 1. Fashion Styling 2. Jewellery Designing 3. Brand Magic 4. Fashion Accessories
Talk	Talk by Prof J.R. Gomes on Coloured Nanoparticles for Ecological Dyeing of Cotton (7th December 2010)

TFT: 2011-2012

Workshop/seminar/training program/sensitization program	Theme
Sessions	Bhagru printing, Patola weaving, Leheriya, Bandhani (3rd, 7th, 9th, 10th September, 2011)

TFT: 2012-2013

Workshop/seminar/training program/sensitization program	Theme
Workshop	“Laheria”: Conducted by Badshah Miyya – “National award winner
Talks	By: Fashion Designers Mr. Lokesh Mahajan and Ms. Archana Kochar on 21 st January 2012

- TFT students on their educational tours have visited the research and development facilities of many institutes/organisations

Year	Place of visit	Institutes visited	Research facilities visited
2009-10	Vapi	Raymonds industry	Fabric production & testing
2010-11	Ahmedabad (TYBSC)	Arvind Mills, Reliance, Patan for Patola and Mashrus, Pethapur	block making for printing
	Madhya	Prathibha Syntex, (a	Manufacturing fiber to fabric,

	Pradesh (Pitampur, Ujjain, Dewas, Maheshwar and Indore (MSC)	vertical integrated plant from fibre to fabric), Tata International,	Manufacturing of leather from raw material to manufacturing despatching stage, dyeing and printing etc.
2011-12	Kerala - Ernakulum, Munnar, Alipuzzha	Various textile industries	Spinning , weaving, knitting, processing, dyeing, printing, embroidery, garment production units with a focus on natural fibres and natural dyes
2012-13	Sylvassa.	Alok Industries	Cotton processing, weaving, printing, garment making, computerized quilting, and textile testing and computerized embroidery.

3.1.7 Provide details of prioritized research areas and the expertise available with the institution.

Foods, Nutrition, and Dietetics Specialisation

Faculty	Areas of Expertise/Prioritised Research Areas
Dr Perpetua Machado	Clinical Nutrition Food Science and Technology Community Nutrition
Dr Geeta Ibrahim	Biochemistry Clinical Nutrition & Biochemistry Food Science and Technology Human Nutrition
Dr Subhadra Mandalika	Sports and Fitness Nutrition Clinical Nutrition Human Nutrition Community Nutrition Food Science and Technology
Ms Mary Varghese	Human Nutrition Food Science and Technology
Ms Nina Dias	Food Science and Technology
Ms Anuradha Mitra	Community Nutrition Clinical Nutrition Food Product Development
Dr Veena Yardi	Community Nutrition Public Health Nutrition Food Science and Technology Food Microbiology
Ms Vibha Hasija	Clinical Nutrition Sports and Fitness Nutrition Food Science and Technology

Human Development Specialisation

Faculty	Areas of Expertise/ Prioritised Research Areas
Dr Nirmala Almeida	Health Psychology Counselling
Dr Anuradha J Bakshi	Research Methods, Statistics, SPSS Mixed-methods Research

	Positive Psychology, Spirituality Career Guidance and Career Development Contemporary Theories of Human Development: Applications Early Childhood Education, School/Higher Education, Sexuality Education, Literacy
Dr Kamini Rege	Early Childhood Education, Home-School Partnerships Marriage and Family
Dr Subhadra Prabhu	Education Marriage and Family Human Exceptionality
Ms Rhonda Divecha	Media and Family Education Human Exceptionality
Ms Payal Maheshwari	Emotional Intelligence Human Exceptionality

Textile and Fashion Technology

Faculty	Areas of Expertise/ Prioritised Research Areas
Dr Ela Dedhia	Green Textiles
Dr Deepa Rathi (Rtd. July 2013)	Dyeing and Printing
Ms Pratima Goyal (PhD viva awaited)	Fibre Processing and Finishing; Fabric Finishes
Dr Vishaka Karnad	Designing Textile Products (e.g., designing apparel, accessories, household linen; contemporising traditional art forms/embellishments for modern textile products)
Dr Ritu Madhan	Consumer/Marketing Research for Textile Products

Community Resource Management

Faculty	Areas of Expertise
Ms Sunita Jaiswal	Consumer Education & Consumer Economics Entrepreneurship
Ms Roopa Rao	Ergonomics Hospitality Entrepreneurship, Management
Ms Sanam Khan	Entrepreneurship Ergonomics Hospitality

3.1.8: Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers & students.

Interactions of eminent scholars/researchers/experts with teachers and students have been made possible through the following two strategies:

- Eminent researchers/scientists/experts have been invited as resource persons/speakers for workshops, seminars, and conferences organised by the college.
- Researchers/scientists/experts have also been invited to hold sessions with students and/or faculty.

Examples from the Foods, Nutrition and Dietetics Specialisation

Dr B. Sesikeran (Former Director, National Institute of Nutrition, ICMR; eminent nutritional pathologist)

Dr V. Prakash (Former Director, Central Food Technological Research Institute)

Dr J. S. Pai (Executive Director of Protein Foods and Nutrition Development Association of India)

Dr. J. Louis (Assistant Director, PFNDAI)

Dr. G. Subbulakshmi (Former Director, Dept. of Post Graduate Studies & Research in Home Science, SNDT Women's University, Mumbai)

Dr. Srihatti (Marico Industries)
Dr. Halde (Vice President, Marico Industries)
Dr. Maritta (Deputy Director, Haffkine; Head, Department of Biochemistry)
Dr. Prakash Kondekar (Director, Naturopathy Institute)
Dr. Ashish Contractor (MD, Asian Heart Institute)
Dr. Shashank Joshi (Endocrinologist)
Dr. Yadav (Sr. Vice President, Kamani Oil Industries)
Dr. Julie Lovegrove (Deputy Director, Hugh Sinclair Unit of Human Nutrition & Institute for CVD & Metabolic Research, UK)
Mr. Madhukar Talwalkar (MD, Talwalkar institute of Fitness)
Mr. Kaizad Kapadia (MD, K-11 Gym)
Ms. Saloni Benjamin
Ms. Gauri Murthy
Prof. R.C. Moorjani
Dr. Jyoti Vora
Dr. Shruti Samant
Mr. Hoshang
Ms. Beena Chhedda
Prof. C.S. Purushottam
Ms. Sheryl Salis

Examples from the Human Development Specialisation

Dr Gideon Arulmani (Founder Director, The Promise Foundation; Visiting Senior Lecturer, Canterbury Christ Church University, UK; WB/ADB/ILO Consultant)
Dr Maurice Walgrave (Dean of the Faculty of Education, Health and Social Work, University College, Ghent, Belgium)
Mrs Elizabeth Mehta (Founder, Muktangan [NGO])
Dr Ajit Mohanty (Retired Professor, JNU, New Delhi and Ex-Fullbright Visiting Fellow, University of Columbia, New York)
Dr Anuradha Sovani (Associate Professor, University of Mumbai)
Dr Farookh Bucchia (Director of CASP)
Mrs Farida Lambay (Ex-Vice-Principal, Nirmala Niketan College of Social Work; Co-founder, Pratham)
Dr Tushar Guha (Founder and Managing Director, Nriyanjali Group)
Dr Shailendra Chaubey (Ayurveda and Panchkarma Consultant)
Dr K B Kushal (Director, DAV Public Schools)
Dr. Anjali Sadhwani (PhD in Clinical Psychology, Illinois Institute of Technology, Chicago, USA; Clinical Psychologist, Boston Children's Hospital, USA)
Dr Harish Shetty (reputed psychiatrist)
Dr Anjali Chhabria (reputed psychiatrist)
Ms. Sugandha Jain (NAEYC coordinator and Assistant Director, Kids 'R' Kids, learning centre in Northwest Austin, USA)
Dr. Coomie Vevaina (Professor of English Literature, Mumbai University)
Dr Swati Khanolkar (Therapist, REBT Practitioner, USA trained)
Ms. Jahnvee Joshi (Professor, Coordinator, Aga Khan Youth and Sports Board, India)
Ms. Aban Bana (Waldorf Education, India; Founder, Anthroposophy in India)
Ms. Dilnawaz Bana (Waldorf Education, India; Founder, Anthroposophy in India)

Examples from the Textile and Fashion Technology Specialisation

Dr Richards Straughan (President SDC [Society of Dyers and Colourists] & STP, UK)
Dr Elizabeth Straughan (Member, SDC&STP, UK)
Dr M D Teli (Dean, Institute of Chemical Technology [ICT])

Dr Adivarekar (Head of Department, Textiles Technology, ICT)
Dr Usha Sayed (Associate Professor, ICT)
Dr Shilpa Charankar (Principal, Dr B M N College, Matunga)
Ms Archana Kochhar (Fashion Designer)
Mr Navin Vasvani (NCS Brand of T-Shirts)
Mr. Anup Garg
Mr A B Joshi, Textile Commissioner
Mr Anil Mehra, Director, Auxichem
Mrs Geeta Castelino, Senior Designer, Auxichem
Ms. Susie Hargreaves
Dr. Vandana Punjabi
Mr. Harsh Gupta
Mr Devendra Layal
Mr. Navin Vasani
Ms. Anjali Dileep
Mr. Ram Babu Chippa, Artisan, National Awardee
Mr. Badshah Miyya, Artisan, National Awardee
Mr. Kanhayalal Salvi, Artisan, National Awardee
Mr. Naushad Khatri, Artisan, National Awardee
Dr. Anjani Prasad (Executive, Clariant, Singapore)
Dr. Mahapatra (Environment Head, Intertek Pvt. Ltd.)
Mr. Gauri Prasad Desai (Entrepreneur, Laxmi Silk Sarees)
Ms. Vandana Joshi (Canara Bank)
Mr. A.B. Joshi (Textile Commissioner, Ministry of Textiles, GOI)
Mr. Nimkar (CEO, Nimkartek)
Mr. Manohar Sameul (Executive, Birla Cellulose)
Ms. Neha Karnani (CEO, Cisons Knits)
Mr. Richard Straughan, President, SDC, UK
Ms. Nidhi Somani
Ms. Sai Vijaya Naidu
Dr Mrinal Choudhary

Examples from the Community Resource Management Specialisation

Mr Viren Shah (Manager, Occupational Health Services, Occupational Health and Environmental Safety Division, 3M-India, Bangalore)
Dr Deepak Sharan (Director, RECOUP, Neuromusculoskeletal Rehabilitation, Bangalore, India)
Mr Rohit Gaur (Joint General Manager, Quality Control Equinox Realty, Real Estate Division, Essar Group, Mumbai)
Mr Parag Shastri (Senior Manager, Marketing, Godrej Interiors, Mumbai)
Ms Mabel Abraham (Head, Corporate Social Initiatives Cell, Larsen & Toubro Ltd, Mumbai)
Ms Meeta Singh (Global Director, Sustainability, Unilever, Mumbai)
Dr. Sanjay Vasant Deshmukh (Professor of Life Sciences & Head, University Department of Life Sciences, University of Mumbai)
Mr. Rohit Heblekar (Owner, Butterfly Conservatory of Goa, India)
Dr. Madhuri Pejaver (Dean, Science Faculty, University of Mumbai, India)

3.1.9: What percentage of the faculty has used Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on campus?

Faculty have not used sabbatical leave.

Two teachers have used the Faculty Improvement Programme (FIP) for completing their doctoral researches:

Dr Veena Yardi

Title of thesis: Impact of nutrition intervention on nutritional status of women living with HIV/AIDS

Period of FIP: 14th Jan 2011 to 31st March 2012--(14½ Months)

Publications/Presentations during or post FIP leave

- *Knowledge, Attitude and practices of HIV/AIDS counselors regarding nutrition counseling of people living with HIV/AIDS regarding nutrition counseling of people living with HIV*, at an International conference on Millennium Development Goals related to reproductive health: Status, Challenges and Future directions, organized by: National Institute for Research in Reproductive Health (NIRH-ICMR) and UNDP/UNFPA/WHO/World Bank at Mumbai, 18th -21st March, 2012.
- **Food Habits and Nutritional status of HIV positive women on ART at the 5th** National conference of AIDS society of India, organized by AIDS Society of India, held at Bangalore, on 23rd -25th November, 2012
- **Nutritional status and dietary patterns of HIV positive women** at the International conference on “Enhancing Health, wellbeing and sustainability: Opportunities, Challenges and Future directions, organized by the Nirmala Niketan College of Home Science at Mumbai, 10-12 January 2013
- **Impact of Nutrition Intervention on Nutritional status of HIV positive women**, At 1st International Conference on HIV/AIDS, STDs & STIs, Organized by Omics Group and University of Florida held at Orlando, FL, USA, 24th -25th October, 2013
- Paper accepted for publication in the proceedings to be published jointly by National Institute for Research in Reproductive health, ICMR, UNDP, UNFPA, WHO and World Bank: Knowledge, Attitude and practices of HIV/AIDS counselors regarding nutrition counseling of people living with HIV/AIDS regarding nutrition counseling of people living with HIV

Dr Ritu Madhan

Title of the thesis: “Commercial Laundries: A Study of Environment Impact Assessment”

Period of FIP: from September 2011 to 31st March 2013

Presentations

- Environment sustenance through water quality management in hospitality industry at the International Conference titled “Enhancing Health, Wellbeing, and Sustainability – Opportunities and Challenges” organized by Nirmala Niketan College of Home Science, Mumbai, January 2013
- Dhobi-ghats and their role in environmental degradation at the International Conference titled “Environment & its Impact on the Society” organized by J D Birla Institute, Kolkatta, 18th – 20th August 2013

Publications

- Madhan R., Rathi D (2013) Environment Substance Through Water Quality Management In Hospitality Industry, International Journal of Scholarly Research Articles, VOL-I/VI MAY-JUNE, 2013, ISSN 2278-8808

- Madhan R., Rathi D (2013). Role of Dhobi-ghats in Environmental Degradation, Book of papers and Conference Proceedings, J D Birla Institute, ISBN No. 978-93-5126-892-5, pg no. 97 – 102.

Examples of Benefits to the teacher:

- Data collection of research project was possible only because time was available.
- Expenses could be borne to prepare supplements, conduct analysis, development of tools etc. because of leave with salary.
- Could concentrate on the project completely.
- Could attend relevant conferences and present data.
- Gained deeper knowledge of the subject (e.g., HIV/AIDS and Nutrition); got opportunity to improve counseling techniques.

Examples of Benefits to the College:

- Various NGOs, Research bodies and organizers of conferences were made aware about the Role of Dept. of Foods, Nutrition and Dietetics of Nirmala Niketan College of Home Science of Nutrition in Care and Support of people living with HIV/AIDS, delaying progression of disease and improving overall health of PLHA.
- As a part of the study relevant material was developed in form of a pamphlet and was given to PLHAs, Counselors and NGOs working in the field of HIV/AIDS which was found useful and was appreciated.
- Future collaborative projects/programmes are possible with GOs and NGOs in the area of HIV/AIDS.

The utilisation of FIP has allowed these teachers to complete their doctoral researches and submit their theses. As noted, these teachers have made scientific presentations and have published after their FIP; the FIP has contributed significantly to the professional development of these teachers.

3.1.10: Initiatives taken by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land)

The research done by teachers and students of the college feeds directly into the teaching process and content in the college. For example, the master's dissertation/doctoral thesis researches on school bullying, academic stress, emotional intelligence, and sexuality education of adolescents have been used for teaching Adolescent Development to FY BSc students. As many textbooks are published abroad and largely report content based on research conducted in Western countries, the inclusion of findings from our researches provides a culturally-relevant knowledge base to our students. As students are informed that these are findings from master's/doctoral researches of the college, they are inspired to complete advanced studies themselves and conduct such studies.

Faculty and students involved in research have been encouraged to share their research findings with fellow scientists by presenting their research findings at various seminars and conferences and also by publishing their work in research journals.

The college is not only interested in having students complete their course requirements in research but also emphasizes the need to reach out to the community and investigate issues of concern. Thus many of the researches are action-oriented and have had practical applications in diverse fields and disciplines such as medicine, health, sports, fitness, education, media, the textile industry, economics, environment etc.

After completion of the projects, several staff members have also shared the product of their research or their findings with the beneficiaries by conducting workshops/awareness sessions/interactive sessions for them or by creating and distributing pamphlets/handouts directly to the beneficiaries and through relevant NGOs. In some cases, the research findings were reported in the press and thus were accessible to the public.

Examples from the Foods, Nutrition and Dietetics Specialisation: Community Nutrition and Public Health Nutrition Research Findings Communicated to Relevant GOs, NGOs and/or Participants

Research projects have been conducted to identify the causes of nutritional problems and ascertain the nutritional awareness of various community groups. Findings have been communicated to the participants of the study through nutrition education sessions.

- Need for iron folate supplementation for adolescent girls of low socioeconomic group (Meeta Ajgaonkar [student] & Anuradha Mitra [guide], 2010).
Beneficiaries were adolescent girls from the Dharavi slum area. The information obtained from the study has been transmitted to the ICDS for consideration of an extension of the anaemia control program to adolescent girls in this area.
- Prevalence of anaemia and the impact of diet counselling and nutrition education program on the dietary iron intake of adolescent girls in the age group of 13-15 years. (Monalisa Chettiar [student] & Mary Varghese [guide], 2011).
The participants in this study were educated on different ways of enriching the diet with iron along with other anaemia-preventing nutrients.
- Management of PCOS among young adult women (Amzu Jamal [student]&Dr. Geeta Ibrahim [guide], 2010).
The outcome of the study was the provision of counselling sessions for the participants of the study.
- Prevention of metabolic syndrome among children and adolescents (Shirin Janoos [student]&Dr M. Subhadra [guide] (2010).
Nutrition education modules have been developed and conducted in the schools from where the data was collected. Sessions focused on creating awareness among the teachers, children, adolescents, and also their parents with respect to a healthy lifestyle.
- Good dietary practices to be followed during Ramzan fast (Nida Khan [student]&Vibha Hasija [guide], 2012).
The student has communicated the findings of this study to members of her community.
- Nutritional status and school performance of girls—A case study series (Hetal Rathod [student]&Vibha Hasija [guide], 2011).
This study was an applied study in which the participating students of a school were educated/ counseled about the importance of a good diet for enhancing academic performance.
- Creating nutritional awareness among HIV+ children and adolescents (Rachael Alphonso Rachael [student] & Dr M. Subhadra [guide] (2012).
Creating nutritional awareness among HIV+ women (Veena Yardi [doctoral student and faculty]&Dr M. Subhadra [guide], 2012).
The two action-researches with HIV+ children, adolescents and women have generated very valuable data that has been extensively used to educate the patients and their family members in the management of HIV. The information has also been used to enrich the knowledge, attitudes, and practices of HIV counsellors. Booklets were published with information on nutritional practices for HIV patients along with

low-cost nutritious recipes that were distributed to the participants of the studies and were also provided to the NGOs for further use.

Examples from the Human Development Specialisation: Awareness (Press Reports)

- Parents, schools need to forge a dynamic bond. *Hindustan Times*, Mumbai edition, 9-2-2011. (Report of Dr Kamini Rege's doctoral research; Dr. Nirmala Almeida [guide])
The study focuses on the need for and importance of parents' involvement in the school for producing a beneficial effect on student learning, achievement, attitudes, homework, and aspirations.
- A Story a Day Keeps the Troubles at Bay entitled "On Eco-friendly Pigs and Wise Wolves", *Times of India*, Mumbai edition, 4-3-2012. (Report of Rhonda Divecha's [faculty] work on bibliotherapy)
This article elaborates on the therapeutic value of stories.
- Counselling Centres in City Colleges Not Up to Mark, *Hindustan Times*, Mumbai edition, 12-1-2013. (Report of a master's research: Benaaz Irani [student] & Dr. Nirmala Almeida [guide])
This study highlights that college counselling centres in Mumbai are not functioning in an optimal manner.
- City's young adolescents ill-equipped to deal with emotions, *Hindustan Times*, Mumbai edition, 21-1-2013. (Report of a master's research: Zainab Bhinderwalla [student] & Payal Maheshwari [guide]).
This article elucidates the inadequate emotional skills and competencies in the Indian youth.
- Mumbai unaware about LGBT issues: Survey, *Sunday Midday*, Mumbai edition, 15-12-13. (Report of an ongoing master's research: Namrata Madholkar [student] & Dr Kamini Rege [guide]).

Examples from the Human Development Specialisation: Transfer of findings to Professionals in Medicine

- Cadaver kidney donation: Awareness and attitude of family physicians and religious leaders (Shaili Sanghvi [student] & Dr Nirmala Almeida [guide], 2013).
This study was presented to nephrologists at a conference organised by the Indian Society of Nephrology.
- Evaluation of the quality of life, coping strategies and coping effectiveness of women (18-30 years) with Polycystic Ovarian Syndrome (PCOS) (Christina Tellis [student] & Dr Nirmala Almeida [guide], 2010).
This study was presented at the 37th Annual Conference of the Association of Clinical Biochemists of India (ACBICON, 2010). Intervention strategies to cope with PCOS were proposed.

Examples from the Human Development Specialisation: Transfer of findings to Study Participants, Policymakers, Students, Parents etc.

- Teacher's perception of applicability of the B.Ed.course for teaching science in SSC secondary schools in Mumbai (Sonal Coutinho [student] & Rhonda Divecha [guide], 2013).
Feedback was given to the implementers of the B.Ed. course.
- Evaluation of the quality of the Tribal Mensa Nurturing Programme (TMNP) for gifted children (Amruta Limaye [student] & Dr Nirmala Almeida [guide], 2009).
The recommendations of experts to enhance the TMNP program were provided to the developer of the program, Dr. Narayan Desai.
- Quality of employee counselling services provided in selected organizations in

Mumbai (Riddhi Padhya [student] & Dr Nirmala Almeida [guide], 2012).

The need for providing more comprehensive counselling by trained professionals was communicated to the in-charge, HRD department.

- Evaluation of the quality of career guidance centres in Mumbai (Aziel Marques [student] & Dr Nirmala Almeida [guide], 2010).

General recommendations to enhance the quality of career guidance centres in Mumbai were provided to the participants of the study (Directors of the centres).

- The role of emotional intelligence and its interrelationship with organizational role stress, role efficacy and perceived level of job performance in customer service representatives (Riddhi Shah [student] & Payal Maheshwari [guide], 2012).

The need to enhance the emotional intelligence of employees was communicated to the Head, Customer Department of various companies.

- Quality of life, coping strategies and coping effectiveness of caregivers of individuals with Alzheimer's Disease (Payal Rathod & Dr Nirmala Almeida [guide], 2011).

The caregivers of the study experiencing stress were given suggestions on how to cope with their family member with Alzheimer's Disease. Those who showed effective coping were encouraged to reach out and help those who were facing challenges.

- Perceptions of father's involvement, benefits, challenges and support with regard to fathering their child with autism (Paranosh Mazkoory [student] & Dr Subhadra Prabhu [guide], 2012).

Booklets providing guidelines to help fathers interact and work with their children with autism were provided to the participants of the study.

- Efficacy of a workshop based on the education package developed by Shah and Divecha (2004) for parents of children with learning disabilities (R Vidyalaxmi [student] & Rhonda Divecha [guide], 2010).

This program has been used to help parents work more effectively with their child who has a learning disability.

- Role of mothers in their child's transition from preschool to first standard (Dhruti Maru [student] & Dr Kamini Rege [guide], 2009).

Sessions were held in schools to enlighten school personnel as well as mothers regarding the role and importance of mothers in children's transition from preschool to the primary school.

- Life paths of Human Development alumnae of the College of Home Science, Nirmala Niketan: Tracking those who completed a B.Sc. Degree during 1997-2009 (Shweta Lakhwara [student] & Dr Anuradha J. Bakshi [guide], 2010).

Life paths of Human Development alumnae of the College of Home Science, Nirmala Niketan: Tracking those who completed an M.Sc. Degree during 1997-2009 (Akshada Chitre [student] & Dr Anuradha J. Bakshi [guide], 2010).

The findings of these studies were shared with HD specialisation students and their parents during a parent meeting (21st Aug 2010).

Examples from the Textile and Fashion Technology Specialisation: Benefits to Caregivers of People with Special Needs, College Students etc.

- Designing trendy adaptive clothing for people with spastic cerebral palsy (Prachi Savla [student] & Dr Ela Dedhia [guide], 2011).

Based on the findings of the study, workshops were conducted for caregivers of people with cerebral palsy on clothing needs and adaptability in patterns.

- Sensitizing college students towards environmental concerns through product development based on scrap utilization (S. Goyal [student] & Dr Deepa Rathi [guide], 2010).

This study helped to create awareness among students about how to make the best out of waste.

Examples of the Lab-to-Land Efforts of the Research Centre

Findings of the Multi-centric Breakfast Study (sponsored by Kellogg India; Rs. 18,21,155; 2007-2013) have been shared periodically with academic community (6 oral presentations, 2 poster presentations, 3 publications); general public through media (7 press meets, 150 newspaper write-ups, & dieticians through community nutrition education programs).

3.2 Resource mobilization for research

3.2.1: Percentage of total budget earmarked for research by the college

i. Purchase of equipment

ii. Purchase of reference books & Research journals

Sr. No.	Academic year	Purchase of equipment	Purchase of reference books & research journals
1	2009-2010	759307.00	267412/-
2	2010-2011	6011481.00	374725/-
3	2011-2012	3079922.00	358585/-
4	2012-2013	5428918.00	583254/-
5	2013-2014	2410019.00	(ongoing)

3.2.2: Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years.

Yes. The institute has a provision to provide seed money, if required, to the research investigators. However, as staff generally avail of the grants provided by various sponsors for research, for example, the UGC and the University of Mumbai, they have not experienced the need for utilizing this facility so far.

3.2.3: What are the financial provisions made available to support student research projects?

- The institute provides laboratory facilities, relevant equipment and material (e.g., chemical reagents) required by the students for their research free of cost.
- When students are completing their research work on funded projects of teachers, their research-related expenses are met.
- Some of the student research projects (for MSc dissertations or PhD theses) are collaborative ventures wherein the faculty and the student collaborate with a doctor or dietician (for example) at a hospital. In which case, hospital/industry/research institute provides the needed resources such as laboratory, equipment, chemicals etc.
- Students are also informed and encouraged to apply for financial support to certain NGOs, philanthropic organizations, or the religious community to which they belong for part or full funding of their research.
- In the previous four years, an MSc student and a PhD scholar have been awarded scholarships by the Graduate Women's Union for pursuing research.
- Also one master's student in the specialization of Textile and Fashion Technology is awarded the Ms D'Souza's scholarship for good quality research each year.

3.2.4: How do the various departments/units/staff of the institute interact in undertaking inter disciplinary research? Cite examples of successful endeavours and challenges faced in organizing interdisciplinary research.

Home Science is in of itself a multidisciplinary and interdisciplinary field. The four different specialisations represent distinct disciplines. Moreover, within each of these specialisations there is a clear interdisciplinary focus. Studying Foods, Nutrition and Dietetics, for example, requires a focus also on microbiology, biochemistry, diseases, sports physiology, public health, to name a few. Human Development, an eclectic discipline, brings together developmental psychology, counselling psychology, organisational psychology, human exceptionality/special needs, education, and welfare, for example. Textile and Fashion Technology covers a range of areas such as chemistry, designing, marketing, and green initiatives. Community Resource Management, for example, addresses management, hospitality, consumer economics, consumer awareness, entrepreneurship, and interior design.

Not only is our curriculum interdisciplinary, one of the special strengths of the college is the clear interdisciplinary focus in the research conducted by students and faculty. A few examples are as follows:

- Nutritional status and cognitive abilities of children and adolescents(Community Nutrition & Developmental Psychology/Human Development)
- One week carbohydrate wash-out: An indicator of the efficacy of the ketogenic diet, modified Atkins diet for patients with intractable epilepsy (Dietetics and the Medical Field: student/faculty collaborated with a doctor at a hospital)
- Assessment of risk for metabolic syndrome in woman with Polycystic Ovarian Syndrome (Dietetics and the Medical Field: student/faculty collaborated with a doctor at a hospital)
- Development of symbiotic foods, microbiological analysis of developed food products to study shelf life(Food Product Development & Microbiology)
- Estimation of Arsenic levels in rice (Foods & Chemical Toxicology)
- Cadaver kidney donation: Awareness and attitudes of family practitioners and religious leaders (Health Psychology: HD faculty/student collaborated with/consulted nephrologists)
- Evaluation of quality of life, coping strategies and coping effectiveness of women (18-30 years) with Polycystic Ovarian Syndrome (PCOS) (Health Psychology: HD faculty/student collaborated with/consulted doctors)
- Workplace spirituality: Employee perspectives and organizational policies(Spirituality and Management Studies/Organisational Psychology)
- The role of emotional intelligence and its interrelationship with organizational role stress, role efficacy and perceived level of job performance in customer service representatives(Emotional Intelligence and Organisational Psychology)
- After school programs for 5th-7th standard children in Mumbai (Children & Care-giving Services for Children and Families)
- Developmental-appropriateness of educational software used in schools in the Greater Mumbai region for children between 4-7 years of age(Early Childhood Education and ICTs)
- Opinions and awareness of never married adults (20-35 years) regarding searching for a spouse through matrimonial websites(Marriage and Family & Technology)
- Developing ergonomically designed school bags for the girl child (Designing, Textile Product Development & Ergonomics)
- Designing trendy adaptive clothing for people with spastic cerebral palsy (Designing, Textile Product Development & Human Exceptionality)

- The impact of the current global recession on the export garment industries in Mumbai (Textile and Fashion Technology & Economics)

The commitment of the college to multidisciplinary and interdisciplinary research was also brought to the fore in our successful organisation of an international conference on cross-cutting issues: Enhancing Health, Wellbeing and Sustainability: Opportunities, Challenges and Future Directions (10-12 January 2013).

Challenges faced in organizing interdisciplinary research:

- Seeking cooperation from doctors, dieticians, the textile industry etc. is a challenge which has been successfully met especially because of the longstanding, positive reputation of the college/faculty. Also, as some of the interdisciplinary research has been requested by doctors etc., they are willing to extend their cooperation.
- Some of the clinical research is expensive and unless the collaborating doctor is able to offer support in the form of resources or clinical analyses which are not charged to the student/faculty, monetary constraints become a challenge. Such challenges are sorted out by obtaining the necessary support or by changing the research design.

3.2.5 How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?

- In the various practicum classes of each specialisation, the students are taught to use the equipment that could be needed for research work by faculty.
- Trained laboratory attendants supervise and also offer assistance whenever needed.
- When the research proposals of students and faculty are being put together, the students and faculty keep in mind what facilities and equipment from the college they plan to use and whether any additional facilities/equipment (e.g., a pathology laboratory) is needed.
- Suggestions for use of college laboratories/equipment are provided, if necessary, by research guides and a relevant research committee.
- Some of the equipment/materials after permission are also taken to the field for data collection.

3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If yes, give details.

Funding which has helped develop research facilities in the college has been received from:

- Reputed food industries, namely, Maricos, Kellogg's, PepsiCo, and Fromageries Bel (Total Amount: Rs 39,59,013).
- The YB Chavan Institute (Rs 11,250).
- UGC (Equipment grant sanctioned of Rs 25,00,000, of which Rs 22,00,000 has been received; second grant of another Rs 25,00,000 has been promised).
- Mumbai University (part of the minor research grants have helped augment the research facilities of the college)
- Also, the funds raised from the international conference were used to remodel two laboratories into multi-purpose laboratories.

3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organizations. Provide details of ongoing and completed projects and grants received during the last four years

The faculty is constantly motivated by the QAC, IQAC, and the principal to apply for research grants from various sponsoring agencies. The process of application is quickly processed and advice is given to the investigators on the maintenance of accounts, issuing of the required equipment from the college, etc. As a result, several of the faculty could

undertake research projects sponsored by various organisations. In addition, the Research Centre also carried out several research projects sponsored by national and international industries.

Research projects of the staff: FND

Year	Principal Investigator	Title of Project	Type of project	Sponsoring Agent	Amount Sanctioned
2009-10	Dr.Geeta Ibrahim	Diet & Cr supplementation as a treatment approach in Women with PCOS	Minor Research Grant	UGC	Rs 1,54,900
2011-12	Dr.P Machado	Detection of Common Adulterants in Milk Commonly Consumed in Mumbai	Minor Research Grant	University of Mumbai	Rs 30,000
2011-12	Dr.Geeta Ibrahim	Study of Platelet Indices in Type II diabetic patients ,as indicators for CVD risk	Minor Research Grant	University of Mumbai	Rs 35,000
2011-12	Dr. M. Subhadra	Effect of Nutrition education on the nutritional status & dietary practices of HIV+VE children & adolescents	Minor Research Grant	University of Mumbai	Rs, 30,000
2012-2013	Dr.Geeta Ibrahim	Study of Bread Consumption and analysis of Fibre and Salt content.	Minor Research Grant	University of Mumbai	Rs 12,000
2012-2013	Anuradha Mitra	Standardisation of Rotis	Sponsorship for Research	Kellogg	Rs 25,000
2012-2013	Ms. Veena Yardi	Development of Vegetable Powders	Minor Research Grant	University of Mumbai	Rs 28,500
2012-2013	Ms. Vibha Hasiya	Dietary and Lifestyle practices and its influence on ADHD	Minor Research Grant	University of Mumbai	Rs 24,600

2012-2013	Dr.M. Subhadra Co-investigator	Effect of diet counseling and exercise on weight loss	Sponsorship for Research	Maricos	Rs 25, 000
2013-2014	Ms. Nina Dias (Sanctioned)	Sensory, chemical, microbial quality of gluten-free cooking using quinoa and Rajgira	Minor Research Grant	University of Mumbai	Rs 25,000
2013-2014	Ms.A.Mitra	Association of academic stress and eating habits in Std 12 th students of arts , commerce and Science of Mumbai and Thane city	Minor Research Grant	University of Mumbai	25,000/-
TOTAL					Rs 4,25,000

Research projects of the staff: HD

Year	Principal Investigator	Title of Project	Type of Grant	Sponsoring Agent	Amount Sanctioned
2011-12	Dr Anuradha J. Bakshi	Workplace Spirituality: Employee Perspectives and Organisational Policies.	Minor Research Grant	University of Mumbai	Rs 30,000
2011-2012	Dr Subhadra Narasimhan	Perceptions of Fathers: Involvement, Benefits and Challenges with regard to Fathering Their Child with Autism?	Minor Research Grant	University of Mumbai	Rs 30,000
2011-2012	Dr Nirmala Almeida	Quality of Counselling Centers in Selected Colleges in Mumbai	Minor Research Grant	University of Mumbai	Rs 15,000/-
2011-2012	Dr Kamini Rege	Women Entrepreneurship in Mumbai: Their Role, Role Stress, Evaluation of Lifestyle and Constraint/Challenges?.	Minor Research Grant	University of Mumbai	Rs, 30,000
2011-2012	Ms Rhonda Divecha	Parent Involvement in Higher Education in Mumbai: Perceptions of the Students and their Parents?.	Minor Research Grant	University of Mumbai	Rs, 15,000

2012-2013	Ms Payal Maheshwari	Emotional Intelligence (EI) of parents of children with Intellectual Disability and its relationship with the level of stress in parents and their Quality of Life (QOL).	Minor Research Grant	University Grants Commission	70,000
				TOTAL	Rs 1,90,000

Research projects of the staff: TFT

Year	Name of Faculty	Type of Grant	Title of the project	Total grant Sanctioned	Received
2011-2012	Dr. V. Karnad	Minor project Industry sponsored	Textile Material Properties: Bamboo, Cotton, Linen and Viscose Rayon	Rs. 20,000/- Vrijesh corporation, Saroj Texfab (India) Pvt. Ltd., Keshavlal and Mohanlal & Co. Textiles Pvt. Ltd., DyStar Pvt. Ltd. and Biotech Testing Services and Central Institute for Research on Cotton Technology (Mumbai)	Rs. 20,000
2011-2012	Dr. D. Rathi	Minor Research project	Modification of the Traditional Costume- Dhara of Meghalaya	Rs. 30000 under the Minor Research Grant by the University of Mumbai.	Rs. 30,000
2011-2012	Dr. V. Karnad	Minor Research project Textile material	Comparison of Bamboo, Cotton, Linen, and Viscose Rayon	Rs. 20000 under the Minor Research Grant by the University of Mumbai.	Rs. 20,000
2012-2013	Mrs. Ritu madhan	Minor Research project	"Development of bags using non-woven fabric"	Rs. 39000 under the Minor Research Grant by the University of Mumbai.	Rs. 39,000
2013-14	Mrs. Pratima Goyal	„	"Development of effective work wear using specialty finishes"	Minor Research Grant, University of Mumbai	Rs.25,000
				TOTAL	Rs 1,34,000

Research projects of the staff: TFT (continued)

Year	Name of Faculty	Type of Research	Title of Research Project	Sponsoring Agent	Type of Sponsorship
(2009-2010)	Dr. V. Karnad	Student's Masters research projects	Designing and Developing Sportswear using Bamboo Knits	Nidhi Exports (Tirupur), Central Institute for Research on Cotton Technology, TexanLab (Mumbai)	(Industry Sponsored for raw materials, fabric, testing services)
(2010-2011)	Dr. V. Karnad	Student's Masters research projects	Designing and Developing Innerwear using Cotton-Lycra Knits treated with EvoCare Vital™	DyStar Co. Ltd., Institute of Chemical Technology (Mumbai)	(Industry Sponsored for raw materials, fabric, testing services)
(2010-2011)	Dr. V. Karnad	Student's Masters research projects	Designing and Developing Desktop Accessories using Goan Art and Craft	Goa Handicrafts Rural and Small Scale Industry Development (Goa) and Amol Paper Industries	(Industry Sponsored for raw materials, fabric, testing services)
2012-2013	Dr. V. Karnad	Student's Masters research projects	Designing and Developing Caricatured Bean Bags using Fleece and Polystyrene Beads	R.R. Enterprise, Synthetic and Art Silk Mills Research Association Testing Services (Mumbai)	(Industry Sponsored for raw materials, fabric, testing services)

Research Center

Duration year from to	Title of the project	Name of the funding agency	Total grant	
			Sanctioned	Received
Nov 2009 to May 2010	Nutritional adequacy of breakfast: its relationship to day's intake and health among children, adolescents and adults in Delhi	Kellogg India Pvt. Ltd	Rs.2,64,000	Rs.2,64,000
June 2009- August 2009	Efficacy of different lunch options on subjective appetite ratings	Marico Ltd.	Rs. 3,32,200	Rs. 3,32,200
August 09- September 09	Scientific insights for iron related deficiencies	Kellogg India Pvt. Ltd	Rs. 50,000	Rs. 50,000
July 2010 to Oct 2010	Efficacy of different lunch options on subjective appetite ratings	Marico Ltd.	Rs.4,99,800	Rs.4,99,800
Jan 2011 to September 2011	Nutritional adequacy of breakfast: its relationship to day's intake and health among children, adolescents and adults in Chennai	Kellogg India Pvt. Ltd	Rs.4,11,120	Rs.2,87,784
July 2011 to August 2011	Integration of product into Indian recipes	Fromageries Bel , France	Rs.2,50,000	Rs. 2,50,000
Jan 2012 to March 2012	Food product development	Fromageries Bel, France	Rs. 2,25,000	Rs. 2,25,000
Oct 2012 to July 2012	Nutritional adequacy of breakfast: its relationship to day's intake and health among children, adolescents and adults in Kolkata	Kellogg India Pvt. Ltd	Rs. 5,71,200	Rs. 3,95,160
March 2012- April 2012	Nutrient profiling of recipes	Pepsi Foods Ltd.	Rs.1,00,000	Rs.1,00,000
July 2012 to December 2012	Feeding trial for weight loss	Marico Ltd.	Rs.5,28,000	Rs.5,28,000
October 2012- March 2013	Compilation of breakfast data of 4 cities	Kellogg India Pvt. Ltd	Rs. 3,72,000	3,72,000
GRAND TOTAL				33,03,944/-

3.3 Research Facilities

3.3.1 What are the research facilities available to the students and research scholars within the campus?

As described in Question 3.1.3 Adequate Infrastructure and Human Resources, the following research facilities are available to students and research scholars in the college:

- Infrastructural facilities in the form of a Research Centre, laboratories, scientific equipment, psychological testing material, library, ICT/specialised software such as SPSS, and audio-visual equipment.

- 12 laboratories—4 chemistry laboratories, 2 food laboratories, 3 clothing laboratories, a computer laboratory, an Interior Design laboratory (shared with the Polytechnic), and a multipurpose laboratory.
- Extensive scientific equipment for each of the specialisations (see below).
- 63 psychological tests.
- Library with research journals (print and e-journals/online journals), reference books, other books, and CDs.
- SPSS in the Research Centre and cybercafé.
- Internet access on library and cybercafé computers.
- Research Director, Research Methods/Statistics/SPSS expert, subject experts, PG recognised teachers, PhD guides of the University of Mumbai; trained laboratory attendants. The research-related expertise available in the college is an outstanding feature of the college.

Specialization-wise equipment available in the institution is present in Annexure attached.

3.3.3 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities? If yes, what are the instruments/facilities created during the last four years?

As mentioned in answer to Ques. 3.2.6, funding which has helped develop research facilities in the college has been received from:

- Reputed food industries, namely, Marico, Kellogg, PepsiCo, and Fromageries Bel
- The YB Chavan Institute
- UGC (Equipment grant sanctioned of Rs 25,00,000, of which Rs 22,00,000 has been received; second grant of another Rs 25,00,000 has been promised).
- Mumbai University minor research grants
- Also, funds raised from the international conference organised by the college

These funds have been used to:

- purchase new specialised equipment, instruments, chemicals, psychological tests
- subscribe to e-journals, purchase reference books
- remodel laboratories
- remodel the Research Centre
- build a new, spacious computer laboratory cum cybercafé

Examples of Equipment Procured in the Past Four Years is present in Annexure attached

3.3.4: What research facilities were made available to the students and research scholars outside the campus/other research laboratories?

The advantageous location of the college in Mumbai is optimised by the college. MSc students and PhD scholars along with their research guides have been able to access the research facilities of renowned research institutes such as:

- Bhabha Atomic Research Centre (BARC)
- Haffkine Institute
- Institute of Chemical Technology (ICT)
- Advanced Centre for Treatment, Research and Education in Cancer (ACTREC)
- Central Institute for Research in Cotton Technology (CIRCOT)
- Wool Research Association
- Texanlab Laboratories
- DyStar Laboratory

- IIT Bombay

Research facilities of IIT Bombay, Ramnarain Ruia College, Khalsa College, Jai Hind College were also used through collaborative work between researchers from these colleges and the student/guide.

3.3.5: Provide details on the library/Information resource centre or any other facilities available specially for the researchers

Special facilities for the researchers in the college include the Research Centre, the Laboratories, and the Specialised Equipment/Material.

Library as a Resource for Researchers: As described in Ques 3.1.3 Adequate Infrastructure and Human Resources for Research, the library has the following facilities for enabling high-quality research:

- Research/academic/industry print and e-journals; dissertations, theses, research project reports; reference books, textbooks; newspapers, magazines, and CDs. New journals have been added to the library.

Library Collection

Scientific journals	22
Dissertations/theses	921
Books	13630
Magazines	28
Newspapers	07
CDs	144

E-journals available in the library

Name of E-Journal	Type	Frequency	Annual Subscription Rate
The American Journal of Clinical Nutrition	Online	Monthly	Rs 24,432
Journal of Nutrition	Online	Monthly	Rs 17,840
Nutrition Reviews	Online	Monthly	Rs 36,450
International Journal of Sports Nutrition and Exercise Metabolism	Print+Online	Bimonthly	Rs 37,320
Indian Journal of Human Nutrition and Dietetics	Print+Online	Half-yearly	Rs 3000
Indian Journal of Nutrition and Food Science	Print+Online	3 issues/yr	Rs 38,000
Indian Journal of Career and Livelihood Planning (IJCLP)	Online	Annual	Rs 500
Psychological Studies	Print+Online	4 issues/yr	Rs 4050
International Dyer	Print+Online	Monthly	Rs 31,878

- The library cataloguing is available through the SLIM Library Software.
- Ten computers, all with internet facility, allow students and staff to surf the Net for resources.
- Qualified library staff assists research scholars, students, and staff in locating desired print resources.
- A private room for faculty in the library is suitable for quiet writing/analysis using a laptop.
- Reprographic facilities on request are also available.

3.3.6 What are the collaborative research facilities developed/created by the research institutes in the college, for ex. Laboratories, library, instruments, computers, new technologies etc.

As described in Ques. 3.2.6 and 3.3.3, collaborations with reputed food industries and the YB Chavan Pratishthan have benefited the research facilities in the college: scientific equipment/material (e.g., Body Composition Analysers, microwave ovens, skinfold callipers, chemicals), furniture (e.g., a demonstration table) have been purchased.

3.4 Research Publications and Awards

3.4.1 Highlight the major research achievements of the staff and students in terms of a. Patents obtained and filed

Nil

b. Original research contributing to product improvement

Examples of original research contributing to product development and improvement:

Foods, Nutrition, & Dietetics	<p><u>Food Product Development/Value-Addition</u></p> <ul style="list-style-type: none"> • Effect of radiation processing on antioxidant activity, nutritive value and sensory attributes of full-fat rice bran and defatted sesame meal • Development of iron-fortified flavoured yogurt. • Assessment of calcium status of women (15-30 years) and calcium fortification of flavoured milk. • Value-addition of food products using protein-dense safflower seed meal. • Anti-diabetic functional food product development using (syzygium-cumini) jamun whole fruit extract. • Development of phytosterol-fibre enriched whey beverage. • Development of a protein fortified chocolate. • Development of an omega-3 fortified chocolate using flaxseed oil and shelf-life studies. • Fortification of three low-cost cereal-based recipes (food products) with carrot powder • Development of nutritious cookies using whole wheat flour, peanut and garden cress seeds • Development of products using milk-soy milk combination • Development of mixed vegetable powder • Development of a trans-fat free nutritious eggless cake mix • Germination of Brown rice and its incorporation in recipes. • Analysis of Garcinia cambogia and incorporation in recipes.
Food Preservation & Processing	<p><u>Food Product Development/Value-Addition</u></p> <ul style="list-style-type: none"> • Development of cookies enriched with calcium and iron using Cauliflower greens • Development of cookies by incorporation of drumstick leaves (moringa oleifera) and its awareness among adolescents girls • Development of Gluten Free Bread Roll • Developing a bread fortified with germinated horse gram flour • Development, nutritive analysis, and shelf life study of sandwich spread using flaxseed oil • Development of probiotic and flavoured soya yoghurt. • Development of soy milk ice cream

	<ul style="list-style-type: none"> • Development of coconut apple bar • Development of iron fortified flavored paneer • Development of chocolates enriched with vitamin C using Amla
Human Development	<p><u>Development/Improvement of Educational Interventions and Products</u></p> <ul style="list-style-type: none"> • Development of a proactive school counseling initiative in the area of bullying for preadolescent children and related adults (doctoral research): An intervention program for preventing and addressing school bullying has been developed with components for school children, teachers, counsellors, and parents. • Assessment of preschool teacher education programs in Mumbai (doctoral research): Quality markers of preschool teacher education programs have been devised using a comprehensive conceptual framework. These can be used to set up preschool teacher education programs or assess/monitor existing ones. • Developmental-appropriateness of educational software used in schools in the Greater Mumbai region for children between 4-7 years of age (doctoral research): Criteria for assessing developmental-appropriateness of educational software for young children are being formulated. • Career development interventions for rural disadvantaged youth (doctoral research): Novel career development interventions are being designed. • Evaluation of the quality of the Tribal Mensa Nurturing Programme for gifted children by experts and the course instructors of the programme: Has led to product improvement. • Efficacy of a workshop based on the education package developed by Shah and Divecha (2004) for parents of children with learning disabilities.
Textile & Fashion Technology	<p><u>Apparel Design</u></p> <ul style="list-style-type: none"> • Traditional zardosi embroidery on denim western legwear (jeans and skirts) for college-going girls. • Designing and constructing kurtis using computerized plotting technology on the most suitable fabric. • Designing and product development of sportswear using bamboo knits. • Design and development of garments for youth using traditional fabrics-gamosa, phadaka, lungi fabrics. • Design development of burqa using checks and stripe fabric. • Value addition of Jainsem from Meghalaya with Indian embroidery. • Designing trendy adaptive clothing for people with spastic cerebral palsy. <p><u>Designing Apparel Accessories</u></p> <ul style="list-style-type: none"> • Design development based on fused kolam and peacock motifs for scarves and duppattas. • Designing and developing shopping bags, lunch bags and handbags using nonwoven fabric. <p><u>Designing Home Furnishings& Related Accessories</u></p> <ul style="list-style-type: none"> • A study of embellishment of bedspreads with candle-wicking embroidery technique using traditional floral motifs of kutchi, kashida and kantha embroidery. • Product development from spun silk/polyester union fabrics printed with geometric motifs and newsprints for home interiors • Designing tie and dye cushion covers using traditional vibrant colors with improved properties • Designing and developing desktop accessories using fibre mottled

	<p>handmade papers and embellishing it with art and craft.</p> <p><u>Other Designing</u></p> <ul style="list-style-type: none"> • A study of creating stylised designs for zodiac signs and embellishing them with embroidery
Textile & Fashion Technology	<p><u>New Technical Developments in Dyeing, Bleaching, Finishes</u></p> <ul style="list-style-type: none"> • Evaluation of dye uptake of cotton fabrics, using two bath and single bath wet preparatory processes. • Dyeing of silk with acid dye in presence of polyelectrolytes by using layer-by-layer deposition technique • Dyeing jute and cotton with Astrazon dyes and their evaluation. • Effects of dye-fixing agents on the reactive dyes used on cotton fabrics with different constructions. • Comparative study of dyeing and application of various finishes on silk fabrics using conventional and plasma method. • Comparative study of (conventionally and plasma-treated) dyed and finished woollen blanket. • Application of lava jean FO as alternative bleach to hypochlorite on denim. • A comparative study between exhaust and semi-continuous process in the bleaching of linen. • A comparative study of various value-added finishes applied on curtain fabrics. • Functional textile finish on cotton-lycra blend for innerwear. • Study of nano finishes on textile fabrics • Wet processing and ultraviolet finish application on different cellulosic fabrics used for apparel. • Wet processing of 100% linen for product development. • A comparative study of linen fabric and its blend for men's shirts.

c. Examples of research studies or surveys benefiting the community or improving the services:

Foods, Nutrition, & Dietetics	<p><u>Assessment with Clinical Populations</u></p> <ul style="list-style-type: none"> • Markers of metabolic syndrome among children and adolescents. • Assessment of risk for metabolic syndrome in woman with polycystic ovarian syndrome. • Determinants of thyroid dysfunction in women with polycystic ovary syndrome. • Eating behaviour of obese individuals and the effect of bariatric surgery on them • Nutritional status and food sensitivities of rheumatoid arthritis patients. • Changes in the nutritional status of alcoholics enrolled for the de-addiction program <p><u>Dietary Interventions with Clinical Populations</u></p> <ul style="list-style-type: none"> • To study the effect of diet modification and chromium supplementation in management of women with polycystic ovarian syndrome (PCOS) having insulin resistance. • One week carbohydrate wash-out : An indicator of the efficacy of the ketogenic diet or modified atkins diet for patients with intractable epilepsy • Prevalence of obesity and iron deficiency anaemia in youth (15-25 years)
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	<p>of urban Mumbai and the effect of dietary and supplementary intervention on anaemic individuals.</p> <p><u>Nutrition Education Interventions</u></p> <ul style="list-style-type: none"> • Nutrition education programme on nutrition knowledge, perception and practices of the hockey coaches and under-19 hockey players. • Prevalence of anemia and the impact of diet counseling and nutrition education program on the dietary iron intake of adolescent girls in the age group of 13-15 years. • Effect of nutrition education intervention on the nutritional status and dietary practices of HIV+ children and adolescents <p><u>Community Nutrition: Assessment of Nutritional Status, Dietary Habits</u></p> <ul style="list-style-type: none"> • Assessment of the nutritional status of children with intellectual disability. • Nutritional status of and prevalence of iron deficiency anaemia in adolescent girls (11-21 years) residing in urban slum areas of Dharavi, Mumbai. • Nutritional status and school performance of girls—a case study series. • Nutritional status, emotional intelligence and cognitive abilities of adolescents belonging to low socioeconomic group • Nutritional status of school children age 6-9 years covered by midday meal program in south Mumbai • Study of dietary habits, exercise schedule and health status of physical education teachers • Dietary pattern, nutrient intake of fasting Muslim girls during Ramadan and after Ramadan and its effect on body composition, physical activity and their perception of mental performance • Body composition and macronutrient intake among college going girls, age 18-25 years • Dietary and lifestyle patterns and its influence on attention deficit hyperactivity disorder • Dietary habits, physical activity and health status of bank employees in Mumbai <p><u>Common Foods: Consumption Patterns, Adulterants</u></p> <ul style="list-style-type: none"> • Bread: consumption pattern, analysis for sodium and fiber content, formulation of bread • Study of availability, pattern of consumption and proximate principles of ready-to-eat packaged diet and regular snacks, in the city of Mumbai • Detection of adulterants in milk commonly consumed in the city. <p><u>Other</u></p> <ul style="list-style-type: none"> • Knowledge, attitude and practice of physicians and dieticians in Mumbai city regarding dietary supplements and functional foods.
Sports Nutrition	<p><u>Interventions with Clinical Populations</u></p> <ul style="list-style-type: none"> • Effect of cardiac rehabilitation program on the modifiable risk factors of cardiac patients • Effect of breakfast consumption and exercise on total body fat content of adult obese women <p><u>Assessment of Nutritional Status, Dietary Habits</u></p> <ul style="list-style-type: none"> • Vitamin D status in Indian boxers and its effect on muscle strength

	<ul style="list-style-type: none"> • Assessment of nutritional status of cricketers • Knowledge, attitude and dietary practices and body composition of fitness trainers <p><u>Community Nutrition Interventions</u></p> <ul style="list-style-type: none"> • Effect of nutrition education program on eating behavior and physical activity pattern among high school girls in age group of 13-15yrs <p><u>Other</u></p> <ul style="list-style-type: none"> • Flexibility assessment in people doing aqua aerobics and land aerobics: a comparative study • Assessment of micro-nutrient supplement intake in exercising individuals • A survey on consumption of nutritional supplements by exercising individuals
Human Development	<p><u>Evaluation of Services/Programs</u></p> <ul style="list-style-type: none"> • Many evaluation studies have been carried out that can help improve the services that were evaluated: <ul style="list-style-type: none"> ○ Assessment of preschool teacher education programs in Mumbai ○ Quality of diploma and certificate training programmes in counselling in Mumbai. ○ Evaluation of the quality of career guidance centres in Mumbai. ○ Quality of counselling centres in selected colleges in Mumbai ○ Quality of selected mother-child (8months-28months) programs in Mumbai. ○ Quality of employee counselling services provided in selected organizations in Mumbai. ○ After school programs for 5th-7th standard children in Mumbai: Perceptions of children, parents and experts. ○ Perceptions of parents of children (6-15yrs)with intellectual disability: Needs and satisfaction with the services provided <p><u>Assessment of Quality of Life</u></p> <ul style="list-style-type: none"> • Evaluation of quality of life ,coping strategies and coping effectiveness of women (18-30 years) with Polycystic Ovarian Syndrome (PCOS) • Quality of life,coping strategies and coping effectiveness of counsellors working with people living with HIV • Quality of life, coping strategies and coping effectiveness of caregivers of individuals with Alzheimer’s disease (AD). • The perception of perimenopausal women (43-55yrs) regarding their awareness and quality of life in relation to perimenopause and menopause. <p><u>Career Development</u></p> <ul style="list-style-type: none"> • Youth and career choices: Perceived influences and career belief patterns • Emotional intelligence competencies: Their importance in making career choice in medicine, engineering and management. • Careers in Human Development and allied areas for those who graduate from various degree programs in Human Development: Perspective of Experts

Textile & Fashion Technology	<u>Green Textiles</u> <ul style="list-style-type: none"> • Waste management of home furnishing and weaving industries through designer, quilted bed linens. • Sensitizing college students towards environment concern through product development based on scrap utilization. • Design development of accessories using fabric waste of garment/home furnishing/accessory units through applique technique. • A study of eco-friendly garments, their current status together with an awareness generating programme for young consumers • Use of reactive dyes and eco-friendly softeners on linen and jute fabrics for product development
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d. Research inputs contributing to new initiatives and social development

Foods, Nutrition, & Dietetics	<u>New Initiatives (Examples)</u> <ul style="list-style-type: none"> • Effect of irradiation on antioxidant activity, nutritional value and sensory attributes of flaxseed meal and groundnut meal. • Effect of radiation processing on sorghum malt. • Extraction and in vitro evaluation of biological activity of crude polyphenolic extracts from Indian grapes on transformed and non-transformed stratified epithelial cells. • Effect of citrate TBHQ and a combination of citrate and TBHQ on the totox value of soybean oil stored at ambient temperatures in transparent polyethylene terephthalate bottles.
Food Processing & Preservation	<u>New Initiatives (Examples)</u> <ul style="list-style-type: none"> • Effect of different acidulants on Paneer manufacture • Study of brown rice and its nutritive significance • Analysis and incorporation of dehydrated Moringa Oleifera in food product and its awareness among women • Chemical analysis of Nelumbo Nucifera and nutritional awareness amongst diabetes • Nutritional importance and chemical analysis of blend of oils (SFO:RBO) (1:3) • Microbial analysis of street beverages
Sports Nutrition	<u>New Initiatives (Examples)</u> <ul style="list-style-type: none"> • Short term effect of yoga on weight loss and body composition
Human Development	<u>New Initiatives (Examples)</u> <ul style="list-style-type: none"> • Opinions and awareness of never married adults (20-35 years) regarding searching for a spouse through matrimonial websites. • Use of ICTs in the teaching-learning process by university teachers and students in Mumbai • Workplace spirituality: Employee perspectives and organizational policies • The practice of colour therapy among colour therapists, aroma therapists and crystal therapists. • Awareness, attitudes and use with regard to “hookah smoking” among adolescents (in hookah parlours) • Young men’s career development: Cross-generational similarities and dissimilarities • Young women’s career development: Cross-generational similarities and dissimilarities

	<ul style="list-style-type: none"> • Life-paths of Human Development alumnae of the College of Home Science, Nirmala Niketan: Tracking those who completed a B.Sc. degree during 1998-2009 <p><u>Contributions to Social Development (Examples)</u></p> <ul style="list-style-type: none"> • Development of a proactive school counseling initiative in the area of bullying for preadolescent children and related adults • Career development interventions for rural disadvantaged youth • Women entrepreneurs in Mumbai: Role, role stress, lifestyle and constraints/challenges • The role of emotional intelligence and its interrelationship with organizational role stress, role efficacy and perceived level of job performance among customer service representatives
Textile & Fashion Technology	<p><u>New Initiatives (Examples)</u></p> <ul style="list-style-type: none"> • Dyeing of silk with acid dye in presence of polyelectrolytes by using layer-by-layer deposition technique • Designing and constructing kurtis using computerized plotting technology on the most suitable fabric. • Design and development of lingerie (brassieres and panties) using micro-encapsulated fragrance. • Development of value-added finishes on home textiles (sheeting and towels) • Application of U.V. resistant finish on uniform fabrics for Mumbai traffic police. • Psychological and sociological aspects of clothing for physically and non-physically challenged young adults. <p><u>Green Textiles as New Initiatives (Examples)</u></p> <ul style="list-style-type: none"> • Comparison of organic cotton, bamboo and linen and product development for infant wear. • Design development of accessories using fabric waste of garment/home furnishing/accessory units through applique technique. • Waste management of home furnishing and weaving industries through designer, quilted bed linens. <p><u>Sensitivity to Developmental Economics, International Markets</u></p> <ul style="list-style-type: none"> • The impact of the current global recession on the export garment industries in Mumbai. • Indian traditional handloom textiles for Indian and international market

3.4.2 Does the institute publish or partner in publication of research journal(s)? If yes, indicate the composition of the editorial board, publication policies and whether such publication is listed in any international data base.

Yes. The institute publishes a peer-reviewed research journal, namely *Research Reach—Journal of Home Science*, through the Research Centre. It is a biannual journal and has on its editorial board a panel of experts, both national and international, to monitor the quality of the research articles. The journal has secured ISSN number and also been indexed in two websites. Details of the journal are given below. The Research Centre has brought out numerous publications over the years.

Journal name: *Research Reach—Journal of Home Science*
 ISSN No.: 0974 617X
 Publication frequency: Biannual (Jan & July)
 Editorial board: 16 members, covering all specialisations of Home Science
 Publication policies: 1) Preliminary screening by Chief Editor (who is the Research Director)
 2) Blind peer review by editorial board members
 3) Reviewers forms documented and filed
 4) Revision process by author via email, if required
 5) Formatting by Research Centre staff for printing

Journal Indexed in: 1) www.connectjournals.com
 2) www.journalseek.com

3.4.3: Give details of publications by the faculty and students:

- **Publication per faculty**
- **Number of papers published by faculty and students in peer reviewed journals (National & International)**
- **Number of publications listed in international data base (e.g. Web of science, Scopus, Humanities international complete, Dare data base-International social sciences Directory, EBSCO host, etc.)**
- **Monographs**
- **Chapters in books**
- **Books edited**
- **Books with ISBN/ISSN numbers with details of publishers**
- **Citation Index**
- **SNIP**
- **SJR**
- **Impact factor**
- **H-index**
- **Publication per faculty**

Name of Faculty	2009	2010	2011	2012	2013-2014	TOTAL
Ms. Anu Mitra	1	1				2
Dr Veena Yardi	2	1			1	4
Dr Subhadra Mandalika	3	3	2	3	8	19
Dr Nirmala Almeida	1		1	4	7	13
Dr Kamini Rege	1	3	1	5		10
Dr Ela Dedhia	3	2	1	4	6	16
Dr Muriel Mendes	1	2				3
Ms Hemalatha Jain		2	1			3
Dr Geeta Ibrahim				1		1
Dr Deepa Rathi					3	3
Dr Shubhadra Prabhu			1		1	2
Dr Anuradha J Bakshi			3	3	7	13
Dr Vishaka Karnad			2		1	3
Ms Rhonda Divecha				3		3
Ms Payal Maheshwari				3	1	4

Dr Perpetua Machado					2	2
Dr Ritu Madhan					3	3
Ms Pratima Goyal				1	2	2
Ms Roopa Rao					1	1
TOTAL	12	14	12	27	43	108

- **Number of papers published by faculty and students in peer reviewed journals (National): 27**
- **Number of papers published by faculty and students in peer reviewed journals (International): 18**
- **Total number of papers published by faculty and students in peer-reviewed journals: 45**

- **Number of publications listed in international data base (e.g. Web of science, Scopus, Humanities international complete, Dare data base-International social sciences Directory, EBSCO host, etc.)**
24 publications of the college staff have been listed in the international database.

- **Monographs as books--02**
 - Dr Subhadra Mandalika's book (co-author: alumna Priyanka Bhalja) entitled *Alfalfa Supplementation and Exercise Performance* published by LAP Lambert Academic Publishing in 2012
ISBN-10: 3659126284
ISBN-13: 978-3659126284
 - Dr Kamini Rege's book (co-author: alumna Mansi Mehta) entitled *Matrimonial Websites: An Emerging Mediator for New Generation* published by LAP Lambert Academic Publishing in 2012
ISBN-13: 978-3-659-21690-9
ISBN-10: 3659216909
- **Chapters in books: 7**
- **Books edited: 02**
- **Books with ISBN/ISSN numbers with details of publishers: 05**
 - Dr Subhadra Mandalika's book (co-author: alumna Priyanka Bhalja) entitled *Alfalfa Supplementation and Exercise Performance* published by LAP Lambert Academic Publishing (2012)
ISBN-10: 3659126284
ISBN-13: 978-3659126284
 - Dr Subhadra Mandalika is the co-author of a book entitled *Nutrition in Traditional Therapeutic Foods* published by Astral International (2012)
ISBN-10: 8170358671
ISBN-13: 978-8170358671
 - Dr Kamini Rege has authored a book (co-author: alumna Mansi Mehta) entitled *Matrimonial Websites: An Emerging Mediator for New Generation* published by LAP Lambert Academic Publishing (2012)
ISBN-13: 978-3-659-21690-9
ISBN-10: 3659216909
 - Dr Anuradha J Bakshi was invited to be part of an international team of editors for an advanced textbook/reference book on career development,

entitled *Handbook of Career Development: International Perspectives*. The book writing has been supported by the Jacobs Foundation and is a January 2014 publication of Springer, in their International and Cultural Psychology Series. Dr Bakshi is the second editor; Dr Gideon Arulmani is the Chief Editor; other editors are Prof F.T.L. Leong, Michigan State University, USA; Prof A. G. Watts, U.K. Dr Bakshi is also an author/co-author of four chapters in this book.

ISBN-10: 1461494591

ISBN-13: 978-1461494591

- Ms Hemalatha Jain is the first author of a book entitled *Techniques of Dyeing and Printing* published by Ane Books in 2010.

ISBN13: 9789380156170

ISBN10: 9380156170

- **Citation Index:**

24 publications of the faculty are on sources with a have citation index (10 out of 27 faculty)

- **Impact factor**

18 publications are in international journal with an impact factor (10 out of 27 faculty)

Journal	Citation Index	Impact factor
Asian Journal of Research in Social Sciences & Humanities	✓	0.315
International Journal for Educational and Vocational Guidance	✓	0.80
An International Scholarly Research Journal for social studies	✓	1.38
Nutrition & Dietetics	✓	0.671
Journal of Radiation Physics and Chemistry	✓	1.38
Journal of Food Chemistry	✓	4.072
Research & Reviews: A Journal of Neuroscience	✓	2.974
Indian Journal Public Health Research & Development, indexed with Index Copernicus (Poland)	✓	---
Manmade Textiles in India	✓	---
Journal of Food Chemistry	✓	3.334
Manmade Textile Journal	✓	
J. Human Ecology	✓	1.923
Indian Journal of Nephrology	✓	0.260
Transplantation Proceedings	✓	0.952
Psychological Studies	✓	---
International Scholarly Research Journal for Interdisciplinary Studies	✓	---
International Journal of Social Science and Humanity	✓	---
Handbook of Career Development: International Perspectives	✓	---

- **H-index -**

- Singhania, P.R., Mandalika, S. (2012). Holistic health assessment tool for patients on maintenance hemodialysis. *Ind. J. Nephrology*, 22(4), 269-274. ISSN: 09714065, 19983662, H Index: 3

The complete list of publications is part of the Annexures.

3.4.4 Provide details (if any) of

Research awards received by the faculty:

Several awards have been received by students (under the guidance of the faculty) and the faculty for their research work at various conferences and seminars.

Student awards (Students guided by faculty)

1. Ms Delnaaz Disawala won the **First Prize** for her the poster entitled *Effect of antioxidants on the Totox value of soybean oil* at the XX Indian Convention of Food Scientists and Technologists, Bangalore, 21-23 December, 2009. (Co-authors: Veena Yardi [guide], K.D. Yadav & S. Bagwe)

2. Ms Amzu Jamal won the **First Prize** for her research paper entitled *Diet and Chromium Supplementation in women with PCOS* at "AVISHKAR" in 2009 at the Research Convention, Mumbai University. (Dr Geeta Ibrahim: guide).

3. Ms Amzu Jamal won the **Second Prize** for her research paper entitled *Diet and Chromium Supplementation in women with PCOS* at "ANVESHAN" in 2009 at the Interuniversity Research Convention, Solapur. (Dr Geeta Ibrahim: guide).

3. Ms Shirin Janoo won the **Second Prize** for her research paper entitled *Risk of Metabolic Syndrome among children & adolescents* at "AVISHKAR" in 2011 at the Interuniversity Research Convention. (Dr Subhadra Mandalika: guide).

4. Ms Priyam Ahuja won the **Best Paper Award** for her paper entitled *Formulation of nutrition communication package and its impact on nutrition knowledge of Indian hockey coaches and players*, in 2012 at INCOSAN (International Conference on Sports and Nutrition), Coimbatore. (Ms. Mary Varghese: guide).

5. Ms Minelly Rodrigues won the Best Poster Award for her paper entitled *Influence of a ragi soyabean combination on the viability of probiotic organisms during storage and under simulated gastrointestinal conditions* at the International Conference and Exhibition on Food Processing Technology by OMICS group, 22nd- 24th November 2012, Hyderabad. (Co-authors: Subhadra Mandalika [guide] & J. Sahayog).

6. Ms Elizabeth Pereira won the **First Prize** for her paper entitled *Waste management of home furnishing and weaving industries through designer quilted bed linen* in the Design Category at the National Young Talent Search Competition organized by the Society of Dyers and Colourists (SDC) on 3rd January, 2009, at the Textiles Committee, GOI. (Dr Ela Dedhia: guide).

7. Ms Bijal Vora won the **Second Prize** at the SDC 2nd National Design Competition held at the Textile Committee on 6th April, 2009. She presented a paper on *Line development of women's knitted tops for a manufacturer catering to an organized retailer's brand*. Both student and guide were invited to participate at the International Design Competition to be

held during the International Conference of SDC, in Goa on 25th& 26th June 2009.(Dr Ela Dedhia: guide).

8. Ms. Bijal Vora was selected as the **National Winner** of the “SDC Design Competition, 2009. She received a **Trophy** on 20th August 2010 at the SDC programme. (Dr Ela Dedhia: guide).

9. Ms. Swaroopa Adusumallai was declared India Finalist in August 2010 and participated for Veronica Bell Award winning the first runner-up award in an International Design Competition on Sustainable Designs held in UK for her M.Sc. dissertation on ‘Management of silk waste in the rural areas of Hyderabad’ October 2010 organized by Society of Dyers and Colourists. (Dr Ela Dedhia: guide).

<http://sdc/colourblogspot.in/2010/08/sdc-desin-competition>

10. Ms.Amrita Verma received a **Trophy** as the **3rd Regional Winner** of the SDC Design Competition on 20th August 2010 at the SDC programme. (Dr Ela Dedhia: guide).

11. Ms Prachi Savla won the **Jury Award** at the SDC National Design Competition for her paper entitled “*Trendy adaptive clothing for people with spastic cerebral palsy.*” She received it during the International Conference on 3rd June 2011 in Mumbai. (Dr Ela Dedhia: guide).

12. Ms Awani Gogri won the **Regional Award** of the Society for Dyers and Colourists (SDC) Design Competition during the International Conference on 3rd June, 2012, Mumbai. She presented a paper on *Wet processing of 100% linen for product development.* (Dr Ela Dedhia: guide).

13. Ms Jignasa Shah received the **Best Oral Paper Award** for the paper entitled *Eco-friendly printing techniques for fashion fabrics in a small scale industry* at the Consortium of Green Fashion, Mumbai, on 5th April 2013 (Dr Ela Dedhia: guide).

14. Ms Jeenal Shah received the **Best Poster Paper Award** for her paper entitled *Khadi: a fabric for social justice and sustainability* at the Consortium of Green Fashion, Mumbai, on 5th April 2013. (Dr Ela Dedhia: guide).

15. Ms Jignasa Shah (PhD student) received the **Mid-Career Award** at the 30th Biennial Conference of the Home Science Association of India, on 21st December 2013 (Dr Ela Dedhia: guide).

16. Ms Sneha Luhera won the Best poster award for the poster entitled Stability of Omega-3 content in different forms of flaxseeds’ at the National Seminar on Food Safety – Concerns and Issues held at St Teresa’s College, Ernakulam, 1-3RD October, 2013 (P.Machado [guide]).

Faculty Awards

1. Dr Nirmala Almeida was awarded the **Best Paper Award (Oral Presentation)** for the paper entitled *Comparison of the quality of life (QOL) of donors prior to and subsequent to kidney donation* at the Indian Society of Nephrology West Zone Chapter Annual conference, organized by the Mumbai Nephrology Group, September 2009.
2. Ms Payal Maheshwari was awarded the **Best abstract (researcher) Award** for the paper entitled *Relationship between the level of emotional intelligence and the level of*

marital satisfaction in couples (21-35 years) who have been married for 3-5 years at the 2010 Joint World Conference on Social Work and Social Development: The Agenda, Hongkong, 10-14, June 2010.

3. Dr. Nirmala Almeida won the **First Prize** for the Paper on *Evaluation of the quality of life (QOL), coping strategies, and coping effectiveness of women with Polycystic Ovarian Syndrome (PCOS)* at the 37th Annual Conference of Association of Clinical Biochemists of India (ACBICON 2010) held in Mumbai, December 13-15, 2010
4. Dr Nirmala Almeida won the **Best Paper Award (Oral Presentation)** for the paper entitled *Assessment and comparison of the perceived quality of life (QOL) of kidney donors pre and post donation and in relation to the type of hospital attended* at the 22nd Annual Conference of the Indian Society of Organ Transplantation, New Delhi, 7- 9 October, 2011.
5. Ms Veena Yardi received the **Pragatisheel Mahila Award** for her research contributions to HIV+ women along with a cash prize of Rs 7,500 (2010-2011).
6. Ms Veena Yardi received an **Award cum Scholarship** from the Women's Graduate Union, Mumbai, for two consecutive years for her research work on HIV/AIDS (2010-12).
7. Dr Ela Dedhia received a **Bronze Medal** by Society for Dyers and Colourists SDC International at Bradford UK on 13th May 2011. Featured in *Colourage*, August 2011 issue, and *Colorist*, August 2011 issue.
8. Ms Veena Yardi received the **Times and Talent Club Diamond Jubilee Scholarship along with a cash prize of Rs 12,500** for her research contributions (2011-2012).
9. Ms Roopa Rao won the **Best Paper Award** for the paper entitled *Age-related ergonomic considerations* at the International Conference on Current Scenario of Ergonomics in Interiors organized by the Interior Design & Décor Department, Sri Kanyaka Parmeswari Arts & Science College for Women, Chennai, 15-16 February 2013.
10. Dr Nirmala Almeida won the **Best Paper Award (Poster Presentation)** for the research entitled *Cadaveric Kidney Donation: Perspective of Family Physicians* at the 24th Annual Conference of the Indian Society of Organ Transplantation, Bhubaneswar, 25 -27 October, 2013.

Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally

Plenary Team Members and Keynote Addresses

- Dr Anuradha J. Bakshi was invited to be a Plenary Team Member for the IAEVG-Jiva International Conference on Career Guidance and Counselling organized by the International Association for Educational and Vocational Guidance (IAEVG) and The Promise Foundation (TPF), Bangalore, 8th to 10th October, 2010. The international Plenary Team led by Dr Gideon Arulmani also had a member each from South Africa (Patricia Flederman) and UK (Prof. A. G. Watts); over 500 delegates from 32 countries participated in this conference.
- Dr Anuradha J. Bakshi was an invited and sponsored delegate of the International Association for Educational and Vocational Guidance IAEVG 2012 Conference

focused on the theme “Career Guidance for Social Justice, Prosperity and Sustainable Employment: Challenges for the 21st Century”. India representative for this conference hosted from 3rd to 6th October 2012 by the University of Applied Labour Studies (HdBA) of the Federal Employment Agency in Mannheim, Germany. Panel member of two of the plenary events.

- Dr Geeta Ibrahim: on Plenary Teams for national conferences
- Dr Nirmala Almeida: Key opinion leader for national conferences
- Dr Subhadra Mandalika: on Plenary Teams for national conferences
- Mrs Anuradha Mitra: Made a keynote presentation at a national conference

Leadership Positions in Professional Bodies

- Dr Perpetua Machado is a Peer Team Member, NAAC
- Dr Ela Dedhia:
 - Representative India Zone, Asian Regional Association of Home Economics (ARAHE)
 - Trustee, Society of Dyers & Colourists, India (SDC)
 - Member of Professional Awards Committee, Textile Association of India
 - Examiner & Expert for Curriculum Development for Universities in India: University of Goa; IIG, Jaipur
 - Expert for University Grants Commission (UGC), New Delhi
 - Expert for Curriculum development for Vocational courses for All India Council for Technical Education (AICTE)
- Dr Vishaka Karnadis a Fellow of the Textile Institute, Manchester, UK, and is entitled to practice being a chartered member of the Textile Institute.
- Dr Anuradha J. Bakshi is the Vice-President of the *Indian Association for Career and Livelihood Planning* (IACLP)
- Dr Kamini Rege is the Joint Secretary and an Advisory Board Member of ECA—India (Early Childhood Association—India)

Editors of National and International Journals

- Dr Anuradha J. Bakshi was the Guest Editor of a special issue of the *International Journal for Educational and Vocational Guidance* (IJEVG), 11(2), July 2011, entitled *East and West: Exploring New Concepts for Career Guidance*. She was invited to be part of an international team of editors: Dr Gideon Arulmani (Chief Editor); other editors: Patricia Flederman (South Africa & USA), Prof. A. G. Watts (UK). ISSN 0251-2513. The impact factor of the IJEVG for 2011 was 0.852.
- Dr Anuradha J. Bakshi is the Managing Editor of the *Indian Journal of Career and Livelihood Planning* (IJCLP) ISSN: 2319-2313
- Dr Nirmala Almeida is an Associate Editor of the *Indian Journal of Career and Livelihood Planning* (IJCLP) ISSN: 2319-2313
- Dr Anuradha J. Bakshi is an Associate Editor of *Research Reach—Journal of Home Science*
- Dr Ela Dedhia:
 - Editor: Fashion Practice Journal, UK (India issue 2016)
 - Editorial Advisor: Design and Art Journal, IIG Jaipur
 - Editorial Advisor: Journal of Innovative Media—Textile Value Chain
 - Associate Editor & Referee, *Research Reach—Journal of Home Science*
- Dr Deepa Rathi is a member of the editorial advisory board of *Colourage*
- Dr Geeta Ibrahim is an Associate Editor of *Research Reach—Journal of Home Science*

Editors/Authors of International Books

- Dr Subhadra Mandalika has authored a book (co-author: alumna Priyanka Bhalja) entitled *Alfalfa Supplementation and Exercise Performance* published by LAP Lambert Academic Publishing (2012)
ISBN-10: 3659126284
ISBN-13: 978-3659126284
- Dr Subhadra Mandalika is the co-author of a book entitled *Nutrition in Traditional Therapeutic Foods* published by Astral International (2012)
ISBN-10: 8170358671
ISBN-13: 978-8170358671
- Dr Kamini Rege has authored a book (co-author: alumna Mansi Mehta) entitled *Matrimonial Websites: An Emerging Mediator for New Generation* published by LAP Lambert Academic Publishing (2012)
ISBN-13: 978-3-659-21690-9
ISBN-10: 3659216909
- Dr Anuradha J Bakshi was invited to be part of an international team of editors for an advanced textbook/reference book on career development, entitled *Handbook of Career Development: International Perspectives*. The book writing has been supported by the Jacobs Foundation and is a February 2014 publication of Springer, in their International and Cultural Psychology Series. Dr Bakshi is the second editor; Dr Gideon Arulmani is the Chief Editor; other editors are Prof F.T.L. Leong, Michigan State University, USA; Prof A. G. Watts, U.K. Dr Bakshi is also an author/co-author of four chapters in this book.
ISBN-10: 1461494591
ISBN-13: 978-1461494591
- Dr Nirmala Almeida is an author of a chapter in the *Handbook of Career Development: International Perspectives*.

Editors/Authors of Indian Books/Chapters

- Dr Ela Dedhia was the Technical Editor of a book on ‘Saris’ written and published by Soham Shah in 2012.
- Ms Hemalatha Jain is the first author of a book entitled *Techniques of Dyeing and Printing* published by Ane Books in 2010.
 - ISBN13: 9789380156170
 - ISBN10: 9380156170
- Dr Nirmala Almeida has published a module *Psychological Management of Diabetes and Behavioural Change* (as a booklet) to be used in conjunction with medical modules for the National Diabetes Educator Program in 2011.
- Dr Subhadra Mandalika is co-editor of a book on Methodologies for Fitness Assessment, Ane Books in 2011.

Reviewers of International Journals

- Dr Ela Dedhia is one of the editors of the *Journal of Asian Regional Association of Home Economics*, published in Korea
- Dr Anuradha J. Bakshi is a reviewer for the *South African Journal of Psychology* (SAJP) published by Sage ISSN 0081-2463
- Dr Anuradha J. Bakshi is a reviewer for the *British Journal of Guidance and Counselling* (BJGC) published by Routledge, Taylor & Francis Group ISSN 0306-9885

- Ms Payal Maheshwari is a reviewer for *Global Education Review* published by Longbridge Publishing, Hong Kong ISSN2220-1599
- Ms Payal Maheshwari is a reviewer for *US-China Education Review A* published by David Publishing, USA ISSN 2161-623X
- Dr Subhadra Mandalika is a reviewer for the *International Journal of Food and Nutritional Sciences (IJFANS)*

Reviewers of National Journals

- Dr Ela Dedhia is a reviewer for the Journal of Textile Association.
- Dr Ela Dedhia is a reviewer for the Journal of Dr P N Doshi College of Home Science, affiliated to SNDT Women's University
- Dr Subhadra Mandalika is a reviewer for a Research Journal – Research Imprints, Published by Smt. P.N. Doshi Women's College, Ghatkopar (W), Mumbai

Examinership

- Faculty members are on the panel of external examiners of other universities and serve as referees for the evaluation of dissertations at the master's, MPhil or doctoral level.
 - Dr Ela Dedhia: PhD Referee for University of Delhi; Avinashilingam University, Coimbatore; PSG College Coimbatore
 - Dr Ela Dedhia: Examiner & Expert for Curriculum Development for Universities in India: University of Goa; IIG, Jaipur
- Dr Subhadra Mandalika has been selected as the External Supervisor for a PhD scholar from the *Queensland University of Technology, Australia*.

Members of Boards of Studies/University Research Committees

- Dr Vishaka Karnad is the Chairperson of the Ad Hoc BOS of Home Science, University of Mumbai.
- Dr Anuradha J. Bakshi and Ms Mary Varghese are members of the Ad Hoc BOS of Home Science, University of Mumbai.
- Dr Subhadra Prabhu has been a member of the Ad Hoc BOS of Home Science, University of Mumbai.
- Dr. Deepa Rathi: BOS of Studies in Clothing and Textiles, M.S. University of Baroda, Vadodara
- Dr Ela Dedhia: BOS of: Goa University, International Institute for Girls, Jaipur
- Dr. Geeta Ibrahim: BOS of Home Science, Goa University
- Dr. Subhadra Mandalika: BOS of:
 - Dr BMN College of Home Science, SNDT Women's University, Mumbai (2011-2014)
 - SVT College of Home Science(autonomous), Department of Nutrition (2009-2012)
- Ms Roopa Rao: BOS of:
 - SVT College of Home Science(autonomous), Dept. of Resource Management (2012-2015)
 - SNDTWU, Department of Resource Management (2009-2013)
- Ms Rhonda Divecha is a Member of the BOS of SVT College of Home Science (Autonomous), Juhu, Santacruz, and Mumbai.

- Dr Ela Dedhia is a member of the Research and Recognition Committee (RRC) of the University of Mumbai.

Other Recognition

- Many of our faculty have been invited to chair sessions in international conferences in India and abroad.
- Many of our faculties have also been invited as judges for academic competitions.
- Our faculty have high visibility in relevant national and international conferences
 - 14 poster/paper presentations in local, regional, or state conferences
 - 75 poster/paper presentations in national conferences
 - 190 poster/paper presentations in international conferences
 - Total: 279 poster/paper presentations (calculated based on the period 2009-2010 academic year to October 2013) (See the following table.)

Number of Paper/Poster Presentations of Faculty (2009-2010 to October 2013)

<i>Sr. No.</i>	<i>NAME of Faculty Member</i>	<i>Local/ Regional/ State</i>	<i>National</i>	<i>International</i>	<i>TOTAL</i>
1	<i>Ms. Mary Varghese</i>	1	3	3	07
2	<i>Dr. Nirmala Almeida</i>	2	16	25	43
3	<i>Dr Geeta Ibrahim</i>	--	5	5	10
4	<i>Dr Deepa Rathi</i>	--	1	2	03
5	<i>Ms Nina Dias</i>	--	2	1	03
6	<i>Dr Ela Dedhia</i>	3	7	31	41
7	<i>Ms A. Mitra</i>	--	1	1	02
8	<i>Dr P. Machado</i>	--	6	7	13
9	<i>Dr Veena Yardi</i>	--	3	4	07
10	<i>Ms Jacqueline Colaco</i>	--	--	--	--
11	<i>Ms Vibha Hasija</i>	2	2	2	06
12	<i>Dr.M.Subhadra</i>	--	12	9	21
13	<i>Dr. Anuradha Bakshi</i>	1	5	41	47
14	<i>Ms. Rhonda Divecha</i>	--	1	9	10
15	<i>Dr Kamini Rege</i>	--	3	17	20
16	<i>Ms Payal Maheshwari</i>	--	1	12	13
17	<i>Dr Subhadra Narasimhan</i>	1	2	2	05
18	<i>Dr. Vishaka Karnad</i>	1	--	3	04
19	<i>Dr.Ritu Madhan</i>	--	1	3	04
20	<i>Ms. Neha Mulchandani</i>	--	--	1	01
21	<i>Dr. M. Muriel</i>	1	1	3	05
22	<i>Ms. Sunita</i>	--	1	2	03

	<i>Jaiswal</i>				
23	<i>Ms. Roopa Rao</i>	2	2	5	09
24	<i>Ms. Sanam</i>	--	-	1	01
25	<i>Ms. H. Jain</i>	--	--	1	01
	TOTAL	14	75	190	279

Examples of Faculty as Experts

Dr Veena Yardi:

Details about consultancy (2011-12)/Serving as Expert in Nutrition

1	15 th Dec- 15 th Jan 2012	Expert in Nutrition (on line consultancy) For Trainers, counsellors of HIV/AIDS and PLHA	For: E-Forum "Ask an Expert"	Theme "Nutritional Issues in HIV"	Under the programs: GFATMR 7 (Global Funds to Fight AIDS, Tuberculosis and Malaria, Round 7)	<i>Saksham</i> , KMS (Knowledge Management System) team TISS, Mumbai
2	Oct 2011	Expert in Nutrition	For: Development of component of 'Nutrition Counselling' in a training module used for refresher course of ICTC Counsellors of HIV(Integrated Counselling and testing centre)	Theme: Nutrition Counselling	Under GFATMR 7	Care, Support & Treatment division, Dept. of AIDS Control, (NACO), Ministry of Health & Family Welfare, Govt. of India

Incentives given to faculty for receiving state, national and international recognitions for research contributions

The President of the Management, the Principal, and the Heads of Specialisation encourage teachers to present their researches in international/national conferences and publish their work. Faculty members are also intrinsically motivated to make scientific contributions. The faculty members are highly appreciated for their research contributions and achievements. Their achievements are displayed on a notice board, presented in the Local Managing Committee (LMC) meetings, they are congratulated by colleagues and the Principal, and at general staff meetings they are provided a platform to share their research experiences. Leave is granted for presenting research papers at seminars/conferences. Colleagues are supportive of each other's research endeavours and provide assistance in whatever way they can, such as adjusting their schedules, taking extra classes etc. In addition, the achievements of staff are regularly published in the college magazine. These incentives have helped to enrich the research enterprise and strengthen the research culture in the college.

3.5 CONSULTANCY

3.5.1 Give details of the systems and strategies for establishing institute-industry interface?

- The institution of a Research Centre and appointment of a renowned researcher as a Research Director is a key strategy and system for establishing institute-industry interface.

One of the chief functions of the Research Centre is to complete turnkey research projects for the industry. The Research Centre has initiated contact with the industry; simultaneously the industry has also solicited the research expertise offered by the Research Centre. Extensive, multi-site, national studies have been conducted for the industry by the Research Centre. The Research Centre, as envisioned, is exemplary of the excellent institute-industry interface in the college.

The Research Director carefully assesses the requirements of the industry to check whether it is aligned with the research goals of the Institute. Once she is convinced that the institute would like to invest resources (time, energy, and personnel) into such a project, then the feasibility issues are looked into. Next the contract is drawn, and after the contract is agreed upon by both parties, the institute signs an MOU with the industry. See our response to Ques. 3.7.1 for a list of such research projects taken up by the Research Centre.

- Another strategy of the college is to have faculty initiate and maintain/strengthen ties with the industry for facilitating/enabling:
 - partnership/sponsorship for national seminars, celebrations such as National Nutrition Week, international conference
 - industrial visits/educational tours
 - internship opportunities for students
 - research work of students
 - placement of students on graduation
 - feedback on curriculum/competence of graduates

Faculty from each of the specialisations is active in liaising with the industry for these purposes. The institute-industry interface is visible in each of these areas in the college.

- The college/faculty maintains relationships with students as they graduate as several of our alumnae are placed in the industry. The Alumni Association of the college is one of the strategies for promoting an institute-industry interface.
- A strategy of the college is to promote excellence among the faculty (e.g., through encouragement, organisation of training sessions, and provision of leadership opportunities) such that each faculty is recognised for her expertise. Thus, the faculty members are recognised by relevant industry (e.g., food industry, textile industry, education industry/schools/NGOs) for their expertise.

For example, the Textile and Fashion Technology specialisation provided consultancy to several companies such as *Vrijesh Corporation*, *Saroj Texfab India Pvt. Ltd.*, *Keshavlal Mohanlal & Co.*, *DyStar Pvt. Ltd.*, and *Biotech Testing Services* as well as to the *GO Central Institute for Research on Cotton Technology (CIRCOT)*.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

Stated policy of the institution to promote consultancy:

- For any consultancy project brought to the college (i.e., to one of Research Director, Principal, or Head of Specialisation), the college policy is to share the funds generated

through the consultancy with the individual teachers appointed as consultants on the project.

- Individual teachers are appreciated if they take on consultancy projects when approached directly.
- Participatory governance and leadership training for capacity-building among faculty also is a strategy that promotes consultancy.

The available expertise is advocated and publicised through:

- The names of each teacher by specialisation features on the college website.
- The alumnae advocate and publicise the expertise of the faculty at their workplaces. This is an outcome of the excellent relationships that teachers have built with students and their delivery of a curriculum of value.
- The Research Director and Principal communicate about the available expertise to interested parties.
- Teachers are encouraged to participate in local, regional, national and international seminars/conferences. Such participation publicises the expertise of the teachers.
- Organising co-curricular events in the college that simultaneously afford opportunities for publicity and showcasing of expertise (e.g., our international conference) is another strategy.
- Affiliation to the University of Mumbai itself draws attention to the expertise available among the faculty in the college. The institute is the only Home Science college affiliated to the University of Mumbai and also as one of the pioneering women's institutes in India, is very well-known.
- The liaisons of the faculty with the industry for enabling student internships, educational tours, research work etc. serve to publicise the faculty expertise as well. The research collaborations, linkages with academic institutes, and joint work during conferences and seminars have helped enhance the reputation of the college and the special expertise of the faculty.

3.5.3: How does the institution encourage the staff to utilise their expertise and available facilities for consultancy services?

- The Research Director and Principal invite faculty members to be consultants on sponsored research projects. These faculty members are remunerated for their services.
- Infrastructural facilities of the college are available for consultancy work.

As reaching out to the community selflessly is part of the mission of the college, the faculty members are also encouraged to provide consultancy on an honorary basis or minimal payment basis to various NGOs and non-profit organizations, as these agencies require the special expertise of the staff but are unable to afford the consultancy fees.

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

The research centre is the main consultancy service provider of the Institute. However, individual staff members have also provided consultancy to various companies and industries. The broad areas where consultancy has been provided are as follows: food product development, community nutrition, dietary practices for better weight management and healthy body composition, better methods of identifying and preventing nutritional deficiencies, fibre analysis etc. The amount that has been generated by the Research Centre is Rs 33,03,944/- and that of the individual staff is Rs 50,000 which amounts to Rs 33,53,944/-

3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: institution) and its use for institutional development?

Individual teachers when appointed as consultants on a sponsored research project of the Research Centre are remunerated as per their services.

The income generated through research consultancy services has been invested in the infrastructural development of the college, purchase of scientific equipment, books etc. Some amount of money has also been allotted as seed money for new and emerging research projects, if required.

3.6 Extension activities and Industrial Social Responsibility (ISR)

3.6.1 How does the institution promote institution-neighbourhood-community network and student engagement, contributing to a good citizenship, service orientation and holistic development of students?

In alignment with the vision and mission of the college, there are multiple ways in which the college promotes an institution-neighbourhood-community network and student engagement which contributes to good citizenry, a service orientation, and holistic development

- Extension work in rural/tribal areas of all senior students (TY BSc and MSc) each year.

The DHM Management has numerous rural and tribal outreach programs and centres. Senior college students plan and implement extension activities through these centres. Students build a service orientation and are able to translate theoretical knowledge into practical use with varied target groups in rural and tribal areas.

Students have also got opportunities to interact informally with children, youth, and/or adults in rural or tribal areas and share a sense of connection despite differences in lifestyles and life circumstances.

For example, the TY students of the Community Resource Management specialisation performed role plays, street plays, prepared flash cards for children and women in remote villages of Kolad (Raigad District) during rural/tribal camps to create awareness on various issues such as child marriages, health and hygiene, anti-dowry, and alcoholism. During these camps they also conducted workshops with women on skill-building activities, demonstrated making of articles from waste/recycled materials and conducted various games and craft/activity workshops for the children of these villages.

- Activities of the Social Service Committee which has student members, and which plans and executes multiple social service activities through the year. Student members play a key role in planning and implementing these activities. Other students benefit from participating in these activities. Examples include:
 - Elders' Day Out: Elders from old age homes were brought to the college on a holiday for an outing entailing a recreational and cultural programme and lunch. The program was organised by students with guidance from teachers of the committee.
 - Beach cleaning after the Ganesh Festival immersions (each year)
 - Blood donation camp
- Fieldwork/extension work/community nutrition research work of students
 - Foods, Nutrition and Dietetics students under supervision have conducted nutrition education programs with Anganwadi workers, Dharavi slum residents, in their Community Nutrition fieldwork. Faculty members are networking with ICDS and the Ministry of Family and Child Welfare.

As part of their community nutrition project, students are guided in the preparation for and presentation of skits and puppet shows as well as the use of demonstrations for the communication of nutrition and health-related information. This preparation helped the students while conducting nutrition education programmes for different groups locally and also in the rural and tribal areas.

A programme was organized for the support staff of the college (e.g., in December 2011) which included a skit on hygiene, a puppet show on the consequences of substance abuse and a talk on the importance of a balanced diet. An exhibition of low-cost dishes that could be included in a balanced meal plan evinced a lot of interest in the group. The students also demonstrated two nutritious recipes. The programme was well appreciated. Similar activities were conducted for rural and tribal communities during extension activities in the respective areas.

The tie-up of the FND specialisation with ICDS has been an ongoing venture for many years. The undergraduate as well as postgraduate students organised workshops/sessions on preparation of low-cost nutritious recipes, creating awareness of health and hygiene, and good dietary practices in the community for children, mothers and adolescent girls through various ICDS centres (Anganwadis) at Dharavi, and other slums in Mumbai.

In 2011-2012, the students interacted with the beneficiaries of ICDS scheme in order to find out the nutritional problems and problems faced by them (if any), in the implementation of the schemes and make necessary nutritional recommendations.

In 2012-2013, sessions were also conducted for the Anganwadi workers on nutrition for infants, children, pregnant and lactating women. In collaboration with ICDS, adolescent girls in urban slums of Mumbai were assessed for their anaemia status and the need for iron folic acid supplementation for this age group has been suggested to the concerned authorities which was highly appreciated and considered in the anaemia control programme.

- Community Resource Management students have a Community Services practical which helps students develop basic skills in making and using audio-visual aids, gives them an exposure to different community settings, and enables them to render service in these settings using various aids.
 1. Street play on gas safety, health and hygiene for food vendors near the college.
 2. Puppet show for breast-feeding awareness.
 3. Students have been placed with REAP and ICDS in different slum areas (Kandivali, Samtanagar, Kalwa) where along with the social workers they participated in conducting different types of awareness activities regarding health and hygiene.
- Collaboration with the Department of Lifelong Learning and Extension of the University of Mumbai. The college unit of The Department of Lifelong Learning and Extension has enrolled 29 students in the program and has selected the Industrial Orientation Project. In 2013-2014, students were placed in different work spheres including the Consumer Guidance Society of India (CGSI), chemists, offices, travel agencies, private clinics, Interior Designing establishments etc. Each of these

students presented their learning experiences in the form of street-play at an intercollegiate festival *Udaan*, organised by the University.

- Bal Utsavs for underprivileged children and youth, organised by the faculty and students of the Human Development specialisation, have afforded an excellent platform to HD students to extend their knowledge and services to underprivileged urban children and youth, and experience the joy of contributing to others.
- Sensitisation visits to agencies have been arranged for various groups of students.
- Encouragement of research topics which exemplify a service orientation is another strategy; for research work and extension work, faculty/research guides and students tie-up with NGOs (e.g., IAPA, CHIRAG) and GOs (e.g., NACO, ICDS) serving vulnerable groups.
- Selected college students have participated in the parliament visits organised for the youth of South Mumbai constituency by Member of the Lok Sabha, Milind Deora.

Holistic development of the students is also facilitated through:

- Student participation in committees such as Interfaith Committee, Cultural Committee, Magazine Committee and/or their activities through the year.
- Student Council activities (e.g., celebration of Independence Day).
- Participation of students in intercollegiate events.
- Student involvement in planning and conducting co-curricular events such as seminars and conferences.
- The curriculum in Home Science is itself oriented to holistic development. Students are introduced to and learn about socially relevant issues including gender issues, poverty and malnourishment etc.

The wholehearted involvement of the students in outreach activities has sensitized them towards their responsibility as young citizens of the country, and potential leaders of tomorrow. It has sharpened their intellect, deepened their empathy, facilitated relationships, and strengthened spirituality.

3.6.2: What is the institutional mechanism to track students' involvement in various social movements/activities which promote citizenship roles?

For each of the ways in which the students' good citizenry is supported, the college has tracking systems in place. For example:

- The non-negotiable Management policy is to provide senior students each year opportunities for service activities/extension work in rural or tribal areas. The extension activities are broadly overseen by the Principal, led and organised by assigned teachers, and planned and conducted by students under supervision of these teachers. A report of the extension trip (primarily written by students) acts as documentation for the college.
- Student participation in the activities of each committee (e.g., Social Service Committee, Cultural Committee, Magazine Committee) is monitored/evaluated by the committee. The committee shares its evaluation with the Principal, and at general teacher meetings. The written report of the committee serves as documentation.

Student participation in these activities is maximised by strategies such as:

- Students come up with ideas as their ownership for activities and events is then likely to be high.
- Student members take responsibility for planning and executing activities and events.

- The activity or event is publicised (e.g., beach cleaning) and students are motivated by the student members and teachers to join the activity/event.
- The participation in the well-planned activity itself is intrinsically rewarding.
- Student participation in fieldwork is monitored and guided by their fieldwork teacher supervisors.
- Student participation in community-oriented, service-oriented researches is tracked by their research guides.

3.6.3: How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

Students:

- The Principal periodically (once a term) meets each group of students and obtains feedback and solicits suggestions.
- The Heads of Specialization and the Academic Coordinators at FY/SY levels, likewise, meet designated groups of students and invite students to share any concerns or other feedback.
- All academic leaders are available on an ad hoc basis as well for students who wish to bring any concern to their attention.
- For the teaching-learning process, teachers collect written feedback from each group of students they are teaching. Later in the academic year, students also complete a subject-specific TAQ, the results of which are communicated to the teacher by the Principal.
- Other quality policies are:
 - Mentors meet their assigned group of students at least once a term.
 - Students give feedback on the curriculum especially when they finish one phase such as the core curriculum in FY and SY.
 - Graduating students complete an exit questionnaire that solicits their feedback on the curriculum and other aspects.
 - Student members of committees evaluate their committee's activities.

Teachers

- Teachers give or are requested for feedback during weekly all-teacher meetings, IQAC meetings, meetings of the specialisation teachers, committee meetings etc.
- Teachers provide feedback about the syllabus, examinations, student conduct, student performance, extra-curricular activities, events organised by the specialisation/committee etc.
- The specialisation-specific end-of-the-year evaluation meeting and planning meeting for the next academic year in April of each year is a very important mechanism for taking stock and moving ahead.

Principal and Other Members of the Management

- The Principal shares her feedback with the faculty on various issues either one-on-one, at a committee meeting, or all-teachers meeting etc. as suitable to the issue.
- She also addresses her feedback to students in their classes, or addresses student meetings.
- Other members of the Management share their feedback through avenues such as the Local Managing Committee meetings or specially arranged meetings.

Alumnae

- Feedback has been sought informally and formally from alumnae. Two MSc dissertation researches tracked the alumnae of the Human Development specialisation and obtained their feedback.

Parents

- Parent meetings organised each year provide a valuable space for sharing feedback.

Industry

- The convenor of the Employment Placement Cell obtains feedback from the industry who recruits our students after they graduate.

Beneficiaries of Extension Activities

- Beneficiaries of extension activities have provided positive feedback and made requests for more activities.

3.6.4: How does the institution plan and organise its extension and outreach programmes? Providing budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.

Budgetary Details of the Last Four Years

Each year the college spends on an average Rs 1,60,000 on extension activities. For the past four years the college has contributed Rs 6, 40,000 for its extension and outreach activities. The institution plans its extension activities with the help of staff members.

Planning and Organising Major Extension and Outreach Programmes

- As mentioned in answer to Ques. 3.6.1 and 3.6.2, the non-negotiable Management policy is to provide senior students each year opportunities for service activities/extension work in rural or tribal areas.
The Principal initiates the rural and tribal extension visits through the Heads of Specialisation. Teachers volunteer to guide and accompany students for these visits, and coordinate the students' planning with the requests/needs of one of the rural/tribal outreach centres of the DHM Management (e.g., the Karasgaon Community College). Students conduct the activities during their extension trip, supervised and guided by the accompanying teacher(s).
- The Social Service Committee, along with student and teacher members, plans their social service activities for the year at the beginning of each academic year. Next, the timely planning and execution of each of the activities is seen to by the committee.
- The fieldwork teachers or relevant Practicum teachers plan the sensitisation visits, extension work for each term. Student suggestions are also incorporated. Next, the students plan and conduct each of the activities under supervision.
- One of the teachers serves as the coordinator for the college wing of the University Department of Lifelong Learning. She oversees the activities of the college students who have joined this program.
- Service-oriented research topics relevant to each specialisation are encouraged by the research guides and research committees. Examples are provided in answer to Ques. 3.4.1 under "research studies or surveys benefiting the community" and "research inputs contributing to social development".

As a result of these extension and outreach activities:

- Students have become aware of and sensitized to various social issues and realize the need for public involvement in redressing these issues. Involvement of the students in such activities inculcates a spirit of community service. Students also get an opportunity to experience the fulfilment of serving the less privileged in their own capacity. Extension activities have contributed to broadening their horizons, deepening their sense of social justice, bringing to the surface their resources/competence, and enhancing their self-esteem.
- Students have learnt to put into operation theoretical learning. To make the knowledge they are learning in classrooms meaningful in the real world for varied

target groups. Furthermore, for target groups in life circumstances (rural/ tribal/ underprivileged) quite different from their own urban and relatively privileged lives.

- Students have experienced connecting with those different and unfamiliar from them. Also, some students have reported that it was their first-ever rural exposure. Others reported that it was their first-ever experience of teaching and supporting learning in Hindi/Marathi.
- Finally students are inspired with the resilience of the underprivileged. They learn to appreciate their own lives and to deal with their own challenges with strength and grace.

3.6.5 How does the institution promote participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/International agencies?

Ways in Which the Institution Promotes Participation of Students in Extension Activities

As mentioned in answer to Ques. 3.6.1 and 3.6.2, the institution promotes participation of students in extension activities through:

- Policy of having a rural/tribal extension trip for all senior students each year. All senior students are required to participate in this extension trip.
- Fieldwork and Practicum activities of various specialisations:
 - Fieldwork of Foods, Nutrition and Dietetics students at the TY level requires them to plan and conduct extension activities such as nutrition education programs in the Dharavi slum area.
 - Fieldwork of Community Resource Management students at the TY level requires them to plan and conduct...
 - Human Development TY students visit NGOs as part of their Practicum in Administration of School and Other Human Development Agencies.
 - Human Development TY students along with MSc2 student supervisors plan and execute learning activities for underprivileged children/youth as part of their Developmentally-Appropriate Practices Practicum.
- Collaboration with the Department of Lifelong Learning of the University of Mumbai.
- Policy of having a Social Service Committee with student and teacher members. Students get opportunities to participate in social service activities planned and executed by this committee.
- Celebration of Breastfeeding Week and National Nutrition Week with extension components.
- Specialisation-specific extension activities such as the Bal Utsav for underprivileged children/youth.
- Encouragement of service-oriented research topics for MSc and PhD researches.

Ways in Which the Institution Promotes Participation of Faculty in Extension Activities

- Faculty support, guide, and supervise students in the afore-mentioned extension activities.
- The collaboration of the college with the Y. B. Chavan Pratishthan is a nodal means of promoting participation of faculty in extension activities.
- Faculty are encouraged and appreciated for the extension work in which they are engaged (e.g., in areas such as counselling for people who are HIV+).

3.6.6: Give an account on social surveys, research or extension work (if any) undertaken by the college to ensure social justice and empower students from under privileged and vulnerable sections of the society?

Social Surveys and Research to Ensure Social Justice

Researches in the areas of community nutrition, public health nutrition, clinical nutrition, health psychology, human exceptionality, and career development have been conducted with vulnerable groups or with the less privileged. Many of these researches have included interventions or have led to suggestions for interventions. Examples are listed in answer to Ques. 3.4. under “research studies or surveys benefiting the community” and “research inputs contributing to social development”.

Extension work to empower students from the underprivileged and vulnerable sections of the society

The DHM Management has two major colleges in Mumbai and several outreach programs in their centres in rural/tribal areas in Maharashtra and other states such as Gujarat. These rural/tribal centres are dedicated to empowering youth from the underprivileged and vulnerable sections of society. For example, the DHM Management has a community college for youth in Karasgaon, Maharashtra. Students from our college visit this centre (as also centres such as the one in Kolad), and conduct extension activities for the youth of the community college. Workshops are planned which help the tribal youth build knowledge and skills related to Balwadi teaching, textile crafts entrepreneurship, low-cost nutritious recipes etc. Other topics addressed in the extension activities include sexuality, effective communication, self-esteem, puppet making, making art and craft items, and best-out-of-waste techniques for making utility items. Participatory activities with the tribal youth also helps build their self-confidence and self-presentation skills.

3.6.7: Reflecting on objectives and expected outcomes of the extension activities organised by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.

The vision, goals, mission, and emblem of the college all include a service orientation: “inculcating values of respect, commitment, and concern for the service of others” (vision), “to provide an education that is life-oriented, *community-oriented*, and career-oriented” (goals), “to sensitise students to the needs of others, especially of those less advantaged, and foster a service orientation” (mission), “the highest law of love is service” (emblem).

Thus besides academics, the college assigns a high weightage to value-building and service to others. Students are encouraged to identify the community needs and reach out to the vulnerable groups of population in tribal, rural as well as urban slum areas, through camps and awareness programmes. The various specialisations of Home Science lend themselves to community service through their curricula. The theoretical knowledge and practical skills acquired, particularly through subjects such as Community Health, Community Nutrition, Child Development, Adolescent Development, Development in Adulthood, Family Relations and Family Welfare, Consumer Education, Principles of Resource Management, Extension Education and Communication for Development, Marketing and Merchandising etc. equips students with both the knowledge, skills, and the sensitivity to reach out to the less privileged. In turn, these extension activities, as described also in response to Ques. 3.6.4, help solidify students' learning. Students consolidate their learning powerfully when they have to make applications of their theoretical knowledge and practicum skills for beneficiaries in the rural/tribal/urban slum areas. They have to articulate, communicate, engage, and teach their beneficiaries. In the process, they themselves learn better. They can see for themselves the applicability of their studies for people in different life circumstances. The subject matter becomes more real and widely-relevant.

They find the process of contributing to another fulfilling, and realise that they have the power to make a difference (even if it is to bring joy to another for a day). They also are pleasantly surprised that they can connect to others whose lives are on some levels very different from their own. They also learn to be grateful for the privileges that otherwise they may have taken for granted.

Some of the attitudes/skills acquired are as follows:

1. Sensitivity to the needs of the marginalized/ disadvantaged sections of society
2. Ability to communicate more effectively with individuals from diverse cultures (economic groups, religious communities etc.)
3. Ability to create innovative strategies to educate/ empower individuals who are less privileged
4. Ability to tap the resources of the disadvantaged for the disadvantaged

Some of the values inculcated are a) social justice b) acceptance and respect for all individuals, c) sense of responsibility towards the marginalized sections of society/ commitment to the cause of the disadvantaged, d) appreciation of one's own life.

3.6.8: How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in the activities?

- As noted in response to Ques. 3.6.9, the college has built constructive relationships with other institutions for its outreach activities. For example:
 - The MOU signed with the YB Chavan Pratishthan.
 - Coordination with the outreach programs of the DHM management in the tribal/rural/urban slum areas
 - Tie-up with ICDS (partnership with GOs and NGOs)The forging of these relationships help us in ensuring the involvement of the community in our outreach activities.
- The faculty member in-charge of a particular extension program/activity coordinates with the supervisor/person in-charge of the target group. Dates, timings, and possible areas of focus are mutually decided.
- We also ensure the involvement of the community by planning and conducting high-quality programs such that the beneficiaries experience value. Careful attention is paid to both the content of the programs and the modes of delivery. All efforts are directed towards using content that is relevant to the target group and accurate/sound. The content is delivered through innovative, participatory techniques such as workshops, role plays, small group activities, games etc. Street plays have also been used.
- We have built an excellent reputation among NGOs, GOs, and other agencies over the years through various levels of collaborative work and linkages. Certain NGOs (e.g., Mukangan), for example, are ready to partner with us for extension or other activities because of the value that they are experiencing from our alumnae whom they have employed.

3.6.9: Give details on the constructive relationships forged (if any) with other institutions in the locality for working on various outreach and extension activities.

The institute has built up constructive relationships with reputed organisations in order to implement its outreach programmes:

1. The YB Chavan Pratishthan (Maharashtra Mahila Vyaspeeth) has conscientiously worked to guide and support the marginalized women and promote their welfare and empowerment.

Imparting training in home management to these needy women is the effort that it has invested in that direction. The objective of this training is to help these women inculcate good professional skills and thereby have access to better job opportunities. Realizing that our college believes in a similar philosophy and has all the requisite resources, the Pratishtan representatives approached and requested our institute in April 2009 to conduct a Home Management course for domestic helpers. An MOU was signed in this respect. Under this program, two batches of women are trained per year. Theory subjects covering basic ideas and practicals involving simple demonstrations related to certain aspects of Home Management, Human Development, Textiles and Clothing, and Foods and Nutrition are taught at the Y.B. Centre, as well as in the college by faculty members from each of the specializations. All the sessions are conducted by the faculty in Hindi/Marathi.

2. The college organizes various medical camps (thalassaemia detection and blood donation) each year in collaboration with the C.B. Patel Research Institute and PATU (Parents' Association Thalassemic Unit Trust). The Lions Club of Bombay Queensway sponsors these camps.

3. Tie-up with ICDS

4. Through the Community Center, Nirmala Niketan Institute, various workshops and training sessions for youth, women and men are organized in five different localities around Kolad, Maharashtra. The women are taught art and craft items (bag stitching, stencil/vegetable printing, card making, diya decoration, flower making, paper jewellery and techniques of best out of waste for making utility items) that would enable them to start their own entrepreneurial ventures. They are also made aware of the importance of health and hygiene, as well as methods of diet improvisation within the available resources. Men are made aware of the ill effects of alcoholism, smoking and domestic violence through role plays. Adolescents are given sessions on themes, such as communicating effectively, building up self-esteem, understanding sexuality etc.

5. Extension activities of the college are also carried out at Karasgaon, Maharashtra, where there is a community college for tribal youth run by the DHM Management.

3.6.10 Give details of the awards received by the institution for extension activities and/contributions to the social/community development during the last four years.

1. The college has received a trophy consecutively for the past 4 years from ALERT India (Association for Leprosy Education, Rehabilitation and Treatment—India) for its contribution towards the cause of leprosy (enhancing awareness and collecting funds).

2. HiTech Family Enrichment Foundation is an NGO working for mentally challenged young adults in Mumbai. Sale of flags during Independence Day celebrations is one of the ways in which this NGO raises funds. The college has generated considerable funds by selling the highest number of flags for which the NGO has awarded the college with a certificate of appreciation for four consecutive years.

3. As noted in response to Ques. 3.4.4, Dr Veena Yardi, one of the faculty members, has been recognised for her contributions to women who are HIV+. Other than her action research, she has engaged in substantial extension work.

3.7 Collaborations

3.7.1 How does the institution collaborate and interact with research laboratories, institutes and industry for research activities. Cite examples and benefits accrued of the initiatives – collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.

Collaborative research, access to facilities, equipment, and expertise of the other Agency/Organisation:

1. Postgraduate research projects at MSc & PhD level

The various specialisations in the college and the Research Centre have developed collaborations with several organisations, including research organisations (BARC, Haffkine Institute, CIRCOT, Institute of Chemical Technology [ICT]), industries (Kellogg India Pvt. Ltd, Marico Industries, Nestlé, Vrijesh Corp Pvt. Ltd, Wonder Weave System, Cisons Exports Pvt. Ltd, DyStar India Pvt Ltd, Rossari Biotech Ltd, Juliet Apparels Ltd), NGOs (IAPA, CHIRAG, Lions club, Early Childhood Association [ECA], Muktangan, Parkinson's Disease and Movement Disorder Society, Indian Cancer Society etc.) hospitals/health care institutes (King Edward Memorial Hospital, Hinduja Hospital, Sion Hospital, Bombay Hospital, Asian Heart Institute), gyms (e.g., Qi gym, K-11 gym) and academic institutions (St Xavier's College, K.J.Somaiya College, Khalsa College, Ramnarain Ruia College) for the purpose of conducting research. Students receive support from these collaborative agencies in terms of infrastructural facilities, chemicals, expertise, access to patients etc. that help them to learn practical skills, obtain hands-on experience with various technologically advanced equipments and gain insights into the lives of individuals. Moreover, the students also get an opportunity to learn from the experts of other institutes/industry. This collaboration has also been a great learning experience to the research guides of the respective projects in terms of up-gradation of knowledge. The personnel of the various institutes have also benefited from the academic expertise of our faculty members, and therefore these collaborations have helped to enhance the reputation of the college. Moreover, the collaboration of the college with various NGOs such as IAPA, CHIRAG etc. has upheld and further strengthened the institute's reputation for community service.

2. Sponsored research projects

Several research projects by the faculty and the Research Centre have been sponsored by the industry. The textile industry sponsorship for research has been obtained from *Vrijesh Corporation, Saroj Texfab (India) Pvt. Ltd., Keshavlal Mohanlal & Co. Textiles Pvt. Ltd., DyStar Pvt. Ltd. and Biotech Testing Services*. The GO—CIRCOT—has also sponsored research in the college. The food industry has sponsored research in the college: *Maricos* in 2011-2012 sponsored the research on “Effect of nutrition education on the nutritional status and dietary practices of HIV+ children and adolescents, *Kellogg*, in 2012-2013 sponsored the research on “Standardization of rotis” and *Kamani Oils*, in 2013-2014 sponsored the research on “Nutritional education program for ICDS trainees”.

Please refer to the following table for details of collaborations between the Research Centre and various institutes. As is evident from the table there have been several research projects sponsored by the industry, two of which are internationally sponsored (Fromageries, Bel, France). The collaboration with Fromageries BEL, France, has helped to put the name of the college on the global map for research.

All these sponsored research projects bear testimony to the college being a centre of excellence for research. Moreover these sponsored research projects help raise funds which are used to improve the research-related, infrastructural and other facilities in the college.

Year & Duration	Title of the project	Name of the funding agency	Total grant	
			Sanctioned	Received
Nov 2009 to May 2010	Nutritional adequacy of breakfast: Its relationship to day's intake and health among children, adolescents and adults in Delhi	Kellogg India Pvt. Ltd	Rs.2,64,000	Rs.2,64,000
June 2009- August 2009	Efficacy of different lunch options on subjective appetite ratings	Marico Ltd.	Rs. 3,32,200	Rs. 3,32,200

August 09-September 09	Scientific insights for iron related deficiencies	Kellogg India Pvt. Ltd	Rs. 50,000	Rs. 50,000
July 2010 to Oct 2010	Efficacy of different lunch options on subjective appetite ratings	Marico Ltd.	Rs.4,99,800	Rs.4,99,800
Jan 2011 to September 2011	Nutritional adequacy of breakfast: Its relationship to day's intake and health among children, adolescents and adults in Chennai	Kellogg India Pvt. Ltd	Rs.4,11,120	Rs.2,87,784
July 2011 to August 2011	Integration of product into Indian recipes	Fromageries Bel , France	Rs.2,50,000	Rs. 2,50,000
Jan 2012 to March 2012	Food product development	Fromageries Bel, France	Rs. 2,25,000	Rs. 2,25,000
Oct 2012 to July 2012	Nutritional adequacy of breakfast: its relationship to day's intake and health among children, adolescents and adults in Kolkata	Kellogg India Pvt. Ltd	Rs. 5,71,200	Rs. 3,95,160
March 2012-April 2012	Nutrient profiling of recipes	Pepsi Foods Ltd.	Rs.1,00,000	Rs.1,00,000
July 2012 to December 2012	Feeding trial for weight loss	Marico Ltd.	Rs.5,28,000	Rs.5,28,000
October 2012-March 2013	Compilation of breakfast data of 4 cities	Kellogg India Pvt. Ltd	Rs. 3,72,000	3,72,000
GRAND TOTAL				33,03,944/-

3. Research Scholarships/Awards

Students have received research-related scholarships at the postgraduate level.

The Ms. N. D'Souza Scholarship for research for the deserving candidate in MSc I from the specialization of TFT has been awarded to Ms Hekh Marsoki (2009-10); Ms Goyal Sweta (2010-2011), Ms Prachi Savla (2011-2012); Ms. Richa Parasrampurua(2012-2013).

Ms Divya Achrekar has received a scholarship of Rs 10,000/- from the Women's Graduate Union for her research work at the MSc level in the years 2011-12 & 2012-13.

Ms Veena Yardi received a scholarship of Rs 12,000 & Rs 7,500/- for two consecutive years from the Women's Graduate Union towards her PhD project on HIV+ women.

A PhD Scholar (Ms. Minelly Rodrigues, FND specialisation) has been awarded the Junior Research Fellowship by the UGC.

Two of our staff members—Ms Veena Yardi, and Ms Ritu Madhan have availed of the FIP.

Several of our students and staff have won research awards and accolades as already mentioned in response to Ques. 3.4.4. These scholarships/ awards have boosted the research confidence of our students/ staff / and provided evidence of the high quality research conducted in the college

3.7.2 Provide details of MOUs/collaborative arrangements (if any) with institutions of national importance/other universities/industries/corporate (corporate entities) etc. and how they have contributed to the development of the institution.

MOUs with Industries

MOUs have been signed with several Indian industries, namely a) Kellogg India Pvt. Ltd b) Marico Ltd. c) Pepsi Foods Pvt. Ltd, and d) an International industry, Fromageries Bel, France.

Several industries have also entered into collaborative agreements with the college, namely, Vrijesh Corporation, Saroj Texfab (India) Pvt. Ltd., Keshavlal Mohanlal & Co. Textiles Pvt. Ltd., DyStar Pvt. Ltd. and Biotech Testing Services and Central Institute for Research on Cotton Technology (Mumbai) and Kamani Oils.

All these collaborations have helped the Institute to realize the powerful role it can play in conducting research and addressing needs, concerns and issues of the diverse industries thereby contributing to the growth and development of our country. Also, these collaborations have enriched the learning and professional growth of students and faculty. Moreover, these collaborations have helped us in upgrading our research-related infrastructural and other facilities.

MOUs/Collaborations with Universities Abroad

Recently an MOU was signed with the Fu Jen Catholic University, Taiwan which promises a partnership in the areas of teaching and research.

A cultural-and-academic exchange programme was conducted with a college in Blois, France, in 2010-2011: *Lycée Privé La Providence Blois*. Eighteen students and two teachers stayed with host families in Blois and visited the college and toured Paris; in turn, the students and teachers from Blois came to Mumbai and stayed with their Indian host families, visited the college, and toured Mumbai. Students and staff of both institutes learnt first-hand the differences in culture, education, teaching-learning methods, and research techniques. Students especially reported the warm relationships they built with their host families in Blois and the connection they shared with the Blois students who visited them and stayed with their own families.

An exchange program has been initiated with Ghent University, Belgium. Ten students and two teachers visited Belgium and participated in the first leg of this exchange programme in November 2013. The students stayed with host families/Ghent students and toured the Ghent University, Ghent, and nearby cities/regions with their hosts. Students have reported developing appreciation for each other's culture. They also appreciated the advanced technology in research facilities for master's students at Ghent University (e.g., a master's student with his own research laboratory with complex monitoring instruments).

3.7.3 Give details (if any) on the industry-institution-community interactions that have contributed to the establishment / creation/ up-gradation of academic facilities, student and staff support, infrastructure facilities of the institution viz. laboratories / library/ new technology /placement services etc.

The various specialisations in the college and the research center have developed collaborations with several organizations including academic institutions, research institutions, NGOs, industries, hospitals, gymnasiums etc. for the purpose of conducting research, developing research facilities in the college, facilitating the learning of newer technologies, creating opportunities for the students for their internship, job placement etc.

The specialisation of Foods, Nutrition and Dietetics has collaborated with research institutes such as BARC, Haffkine Institute and Institute of Chemical Technology for doctoral research and food industries such as Marico, Kellogg, PepsiCo etc. for research projects along with the research center. For one such project with Marico, the students specializing in MSc Sports Nutrition had a valuable research experience addressing the food and exercise intervention

trials for fitness of obese adult women. Equipment such as Body composition analysers and weighing scales were procured through the collaboration ventures with Kellogg and Marico industries that have been very useful in conducting research work as well as community activities involving nutritional assessment.

Research has also been undertaken keeping in mind several sections of the community. Teaching rural women entrepreneurial skills related to aspects of textiles and clothing has been one major thrust area. There has been collaboration with a number of textile industries and research organisations (Vrijesh Corp. Pvt. Ltd., Texan Lab., Wonder Weaves, and CIRCOT).

With respect to the Human Development specialisation, parents of special children have been the target group of research, where educational packages for parents of children with learning disabilities, for example, have been developed. This involved collaboration with special schools. A research evaluating a programme for nurturing tribal gifted children, the first of its kind, has been conducted. Here the collaboration was with the director of the Tribal Mensa Nurturing Program. Health psychology has been one of the major thrust areas and several researches involving patients as well as their caregivers have been conducted. Collaborative work in this sphere was with hospitals, clinics, and support groups. More recently, the corporate sector has been the focus of research on several themes—emotional intelligence, counseling, and workplace spirituality. There was collaboration with US Vitamins (USV Ltd.) for the purpose a developing a module on the psychological management of diabetes and behavioural change.

Research Collaborations of Specialisations with Various Institutes is present in annexure attached

3.7.4 Highlighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organized by the college during the last four years.

Please refer to our response to Ques. 3.1.8.

3.7.5 How many of the linkages/collaborations have actually resulted in formal MOUs and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated

- a) Curriculum development/enrichment
- b) Internship/ On-the-job training
- c) Summer placement
- d) Faculty exchange and professional development
- e) Research
- f) Consultancy
- g) Extension
- h) Publication
- i) Student Placement
- j) Twinning programmes
- k) Introduction of new courses
- l) Student exchange
- m) Any other

The Research Centre has signed 4 MOUs with various food industries (see Appendix 4, research projects): Kellogg India, Marico, PepsiCo, and Fromageries Bel, France. The

research projects conducted in collaboration with these industries benefited both the college and the industries. For the industries, the quality of research conducted and the expertise of the Research Director, other research staff, and the faculty were the major benefits. For the college, these sponsored research projects have allowed:

- Funds to be raised
- Procurement of specialised research equipment such as body composition analysers
- Faculty development opportunities through participation as consultants on the project
- Student placement/internship, hands-on learning on research projects
- Publications
- Media attention/visibility of the college/enhanced reputation

The college has also signed an MOU with the YB Chavan Pratishthan for a Home Management Certificate course for underprivileged/less privileged women. Through this programme the institute has extended its expertise to meet the objective of YB Chawan Pratistan of enhancing the skills and thereby career opportunities of these women.

The college has recently signed an MOU with Taiwan University towards academic sharing including teaching-learning, research activities, and student and staff exchange programmes.

a) Curriculum development/enrichment—Collaborations/Linkages with various research organizations/educational institutions have certainly helped in identifying the thrust areas and thereby designing the curriculum. Needs, issues concerns, challenges of the various organizations have been taken into account while framing the curriculum or updating it in order to make it more job-oriented.

b) Internship/On-the-job training:

FND: Kellogg's, Marico, Kamani Oils, SM Foods, K-11 gym, Talwalkar's Institute, Hospitals (Bombay Hospital, Nair Hospital, KEM etc.), BARC, ICDS

CRM: Several hotels such as The Lalit International, The Grand Hyatt, Hotel Ramada Palm Groove, Meluha, The Fariyas, CGSI, NITIE etc.

HD: Preschools (e.g., Tiny Tots), Schools (e.g. Shishuvan, Children's Academy), special schools(eg. Sadhana school), NGO (e.g. Muktangan, Jagori Grameen), HRD (e.g., Avenues Incorporated), Career Guidance Centers (e.g., Seva Niketan), other (e.g. Livewire Learning)

TFT: Corporate Industries such as Creative Garments, Raymonds, Vrijesh Company Pvt. Ltd., Texport Syndicate Ltd., Hakoba Industries; Shoppers Stop, Cottage Industries; research laboratories such as Texanlabs and CIRCOT, designers like Neeta Lulla, Nisha Sagar etc.)

c) Summer placement—MSc students of many specialisations are placed in an industry/NGO etc. of their choice for a brief internship after Semester II.

d) Faculty exchange and professional development—The recently signed MOU with Fu-Jen Catholic University, Taiwan, will facilitate student and staff exchange programmes. Student and staff exchange programmes have already been organised with La Providence, Blois, France, and in November 2013 with

Ghent University, Belgium.

- e) Research: The collaborations have certainly helped ensure high quality research learning, improved successful academic progression into advanced degrees (e.g., PhD), and also their career opportunities which is evident from their job placement in various organisations.
- f) Consultancy: The faculty members of various specialisations and also the Research Center have been actively involved in consultancy with various organisations including industries (Food & Textiles), schools, health clubs etc.
- g) Extension: Collaboration with organisations such as ICDS, CHIRAG, IAPA, ASHA has enabled the institute to organise various extension activities and thereby reach out to the community more effectively.
- h) Publication: Collaborations with reputed and well-equipped institutions such as BARC, Haffkine Institute, Institute of Chemical Technology, Kamani Oilsetc. have resulted in high quality research that has been presented in several national and international conferences and also has been published in peer-reviewed research journals.
For example, the multi-centric breakfast study sponsored by Kellogg India has been shared with the academic community (6 oral presentations, 2 poster presentations, 3 publications), and general public through media (7 press meets and dieticians through community nutrition education programs).
- i) Student Placement/Employment: Several students of the college have been selected for placement/obtained employment in reputed institutes such as food industries (Marico, Kamani Oilsetc.), nutraceutical industries (British Biologicals, Hexagon Nutrition etc.), health care institutes such as Talwalkars's Institute, gyms etc.), textile industries (Vrijesh Corp. Pvt. Ltd., CIRCOT, Dystar etc.), in schools as supervisors, coordinators, curriculum developers and counselors, (e.g., Garodia, Shishuvan, Christ Church, Anandilal and Ganesh Podar Society), in NGOs as teacher trainers and coordinators, research assistants (e.g., Muktangan, The Promise Foundation), as research assistants in research institutes (e.g., TISS), and in institutions, such as TIFR in the capacity of a daycare center supervisor.
- j) Twinning programmes—NIL
- k) Introduction of new courses—Three new self-financed courses are based on our interactions with the industry as also value-added courses:
- An MSc in Home Science with a specialisation in *Food Processing and Preservation* (recognised by the University of Mumbai; self-financed).
 - An MSc in Home Science with a specialization in *Sports Nutrition* (recognised by the University of Mumbai; self-financed).
 - A new MSc program in Home Science with a specialisation in *Ergonomics* (self-financed) has been approved by the University Academic Council and is pending final sanction.

- Certificate courses recognised by the University of Mumbai: *Visual Merchandising, Entrepreneurship in Textile Crafts, and Nutrition and Exercise for Fitness.*
- New value-added courses such as *Ergonomics and Work Station Design, The Indian Sign Language, and Creative Parenting.*

1) Student exchange:

- **Academic exchange programmes** have been set up with Ghent University, Ghent, Belgium, and Fu-Jen Catholic University, Taiwan. Students and staff of the college visited Belgium as part of the first leg of the exchange programme with Ghent University in November 2013.
- Students and staff participated in a cultural/educational exchange programme with a college in France—l'Ecole de la Providence, Blois.

3.76 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkage/ collaborations.

Linkages and collaborations with various organizations were established in two ways.

(1) Staff from each of the specialisations and the Research Centre were contacted by various organizations for the purpose of collaboration.

(2) The college took the initiative to contact various institutes for the purpose of collaboration.

The administrative process of collaboration has been highly facilitated by the institute. This includes formal communication, signing of MOUs, sharing of facilities (human & material resources), carrying out the collaborative ventures, and submission of reports (wherever applicable). The Research Centre, through its staff, facilitates the process of collaboration whenever necessary.

Any other relevant information regarding Research, Consultancy and Extension which the college would like to include.

RESEARCH

For the PhD aspirants, the college has conducted the PhD eligibility test for three consecutive years, and successfully organized a course in Research Methods and Statistics which is a partial requirement for these aspirants.

One faculty member has obtained her PhD degree, while two have submitted their thesis to the University.

The number of teachers eligible to guide Ph.D. scholars have increased from 6 to 10 with the inclusion of Dr. Geeta Ibrahim, Dr. Vishakha Karnad, Dr Kamini Rege and Dr Subha Prabu.

The number of publications has soared. More papers in international journals have been published. Some of the faculty are now editors and reviewers of journals, national and international.

The number of sponsored research projects carried out by the faculty and the Research Centre has stepped up from 11 to 28. Collaborations with research and academic institutes, industries, GOs and NGOs have increased manifold. The collaboration with an international agency, BEL-FRANCE is an achievement for the college.

From the organization of state level and national level seminars and conferences, the college has progressed to organizing and holding an International conference on “Enhancing Health, wellbeing and sustainability-Opportunities, Challenges and Future directions” on 10-12

January 2013 which was a huge success. The conference attracted around 600 delegates, (national and a few international) from various institutions.

Several staff members have presented research papers at national, but more importantly international conferences at USA, Canada, UK, Germany, Czech Republic, Australia, New Zealand, South Africa, Swaziland, Mauritius, Singapore, and Hong Kong, and have been awarded travel grants by the UGC.

Several post graduate students and PhD scholars, and staff have received awards for research paper presentations (poster and oral) at various conferences and competitions.

The total number of research journals in the library subscribed to has increased to 22 in the last four years which includes various online journals.

The infrastructure and the material and equipment of the research laboratories in the college have been upgraded to provide better research facilities to the students. Moreover, the institute has received a grant of Rs 25 lakhs from the UGC towards procurement of equipment and up-gradation of the research facilities, and has been promised another Rs 25 lakhs.

CONSULTANCY & EXTENSION ACTIVITIES:

The college has started a Women's Cell and a Social Service Committee wherein the students get involved in outreach activities that are not related to the fieldwork in the curriculum.

The faculty have identified their areas of expertise (Nutrition & Fitness, Health and Hygiene, Clinical Nutrition, Maternal & Child Nutrition, Parenting, Counselling, Early Childhood Education, Children with Special Needs, Marriage and Family, Health Psychology, Emotional Intelligence, Spirituality, Career Development, Fabric Construction, Pattern Drafting, Dyeing and Printing, Apparel Making and Textile Designing, House Keeping and Consumer issues) and some are providing consultancy services.

Extension activities related to the immediate neighbourhood (hawkers and slum children) have recently been extended to other beneficiaries such as domestic workers, institutionalized elderly etc. in the outreach programs of the Institute. The MOU signed with the YB Chavan Pratishtan is an achievement permitting us to extend our expertise to a less privileged and older group than our college students. The Management policy of a rural/tribal camp for senior students in which the students conduct extension activities is a best practice which is mutually beneficial for students, faculty, and the beneficiaries.

The college had organized a cultural and academic exchange programme with a college in France—*Lycée Privé La Providence Blois*, Blois (France) in 2010-2011 which was a wonderful opportunity for the students of both the institutes to understand and accept cultural differences, and observe and learn from the curricula and classes/laboratories in Blois vs. Nirmala Niketan. An MOU has been signed with Fu Jen Catholic University, Taiwan. A cultural cum educational program with the Ghent University, Belgium, was organized for two staff and 10 students between November 20 -26 2013. An exchange program with Martin Luther Christian University in Shillong is under process.

CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

The Management is committed to continually upgrading infrastructural facilities for guaranteeing excellence in teaching and learning:

- Monitoring mechanisms: There are multiple monitoring mechanisms in place in the college for maintaining high-quality infrastructure.
 - A fulltime Maintenance Supervisor has been appointed by the Management to gauge the need for repairs, get required permissions, and oversee the work.
 - The Criterion IV IQAC subcommittee in the college monitors the quality of the infrastructure periodically (at least once a term).
 - A maintenance/repairs register is kept on the third floor in the reception area. Requests for repairs can be noted in this register by students, teachers, and other staff. The Maintenance Supervisor responds to these requests.
- Maintenance contracts (ICT facilities, sewing machines, selected laboratory equipment) have been issued.
- The Management has appointed additional support staff to ensure excellence in upkeep of classrooms/laboratories.
- Improving/upgrading the infrastructure:

Management, through the principal, requests teaching staff to make recommendations for infrastructure needs/improvements/quality enhancements: laboratories, facilities for classrooms, staffrooms.

Students make their requests to the HOSs/Academic Coordinators; their requests are also solicited by the HOSs/Coordinators.

A Grant Committee has been formulated to identify infrastructural/equipment needs. The Criterion IV IQAC subcommittee in the college makes requests related to infrastructural requirements.

These requests are put forth/considered in specialization meetings, IQAC meetings, IQAC subcommittee meetings, Grant Committee meetings, faculty meetings, and LMC meetings. The matter is then taken up in the governing body meeting and the request is sanctioned.
- The Management encourages the college to raise funds (e.g., through the international conference, seminars, sales/markets of products made by students).
- The principal along with the Grant Committee identifies appropriate UGC grants for equipment/infrastructural needs. Two proposals for the UGC additional assistance grant were sent to the UGC. The first grant of 25 lakhs has been sanctioned and utilised. The second grant of another 25 lakhs is promised.
- The policy of the Management is to keep up with the advancements in the field and to make available to teachers and students the required ICT facilities:
 - The principal recognizes the need for using ICTs in the classroom and for preparing for classes and has equipped all classrooms and also staffrooms with ICT facilities.
 - A remodeled cybercafé.
 - ICT-enabled library facilities.
 - Computers have been increased in the staffrooms and some of these have been connected to the Internet.

4.1.2 Detail the facilities available for

- a) **Curricular and co-curricular activities – classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialized facilities and equipment for teaching, learning and research etc.**
- b) **Extra –curricular activities – sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, Public speaking, communication skills development, yoga, health and hygiene etc.**

Classrooms

- There are 3 large classrooms of capacity 80-100
- There are 8 medium-sized classrooms of capacity 30-60
- There are 3 small classrooms on seventh floor for postgraduate students with seating capacity of 10.

All the classrooms are well-lit mainly by natural light as well as by electric lighting if necessary. Windows also allow excellent ventilation. Fans have been increased in number or size in some classrooms on student request. There are curtains in all classrooms that are handy when the LCD projector is being used.

An additional facility in most of the classrooms is the storage space in the form of wall cabinets under the windows. In some senior classes (TY B.Sc. /M.Sc.) these are used as lockers by students.

Additional fixtures in all classrooms include chalk boards and bulletin boards; and projection screens in all classrooms. There are a number of electrical fittings in each classroom which permits the use of electrical and electronic equipment.

All classrooms have LCD projection systems permanently installed that are used for PowerPoint presentations, showing of movie clips etc. Large classrooms are equipped with collar microphones and the accompanying audio equipment. The college has also provided teachers with the use of wireless mouse in classrooms.

Other facilities for classroom use (available on request and advance booking) are the episcope projector, collar microphone, laptop, slide projector, speakers, and tape recorder/CD player and Over Head Projectors.

Technology-enabled learning spaces

- There is an air-conditioned audio-visual room (7th floor) which is used for staff meetings, sessions with resource persons, research presentations of postgraduate students etc. The open carpeted area in the room permits a variety of uses as well as sizes of groups ranging from a handful to 50. The room is equipped with a large white erase-board and a computer with an LCD projector. There is Internet access available in this room. There are stackable plastic moulded chairs available for use in this room. There are multiple tables; these tables allow a conference room arrangement whenever necessary. Portable bulletin boards and a lectern are frequently used in this room.
- As mentioned, all classrooms have fixed LCD projectors. Teaching-learning methods are supported through the use of PPT slides regularly and routinely.
- The college has a computer-lab-cum-cybercafé with 34 multicore desktop computers set for teaching computer-related programmes/courses and executing computational projects, all connected to the Internet. Advanced software such as Clarity English Software and SPSS are available in the cybercafé.
- Computer facility with Internet is also provided to students and staff in the library.
- The Principal uses a laptop with Internet connection; each of the three HOSs has her own desktop with Internet access and a shared printer. There are 5 computers available

for faculty in the staffrooms located on 5th floor, and one in the coordinators' staffroom on the 4th floor. The 4th floor and the 5th floor staffroom each have a printer; one of the computers in the 5th floor staffroom also has Internet facility.

- On student request, the library walls and the corridors outside the library have plug outlets for students who wish to charge their laptops.

Seminar halls

The college has a hall on the ground floor with a stage and a large rectangular open area which is used for conduction of seminars. The hall has a seating capacity of 250 and is fitted with an acoustic system (e.g., sound system, hanging mikes, speakers). Collar mikes, cordless mikes, and standing mikes are also available for use in the hall. There is a portable screen, an LCD projector and computer in the hall. Regional and national seminars have been conducted in hall. Also the hall has been used for conducting some of the parallel sessions of international conference organised by the college.

The hall is excellent for workshops. The use of stackable chairs makes the hall a versatile space, permitting adaptable and multiple types of seating (e.g., floor seating, rows, semicircle). College celebrations of Independence Day, Republic Day etc. are also held in the hall. Other uses of the college hall include: Classes requiring physical mobility exercise, examination hall, college exhibitions and fairs, college cultural events such as *Dandiya Raas*, college parties, medical camps, and indoor sports.

- Also the college can avail the facility of three halls (i.e. Patkar hall in SNTD campus; Birla Matoshree Sabhagriha & SP Jain Auditorium in Bombay Hospital) which are on the same road as the college and are within a 5-7 minute walk. The College Day Nirmal Utsav is held each year at the Birla Matoshree Sabhagriha which has a seating capacity of 800+.
- The Nirmala Niketan Institute also has an auditorium in Goregaon (Premankur campus) as well as classrooms and residential accommodation facilities.

Tutorial spaces

The college has two multipurpose laboratory rooms which are invariably used for conducting remedial and extra lectures/practicals. Also tutorials are planned/ incorporated in timetable when the laboratories/classrooms are free.

Laboratories

In line with the varied curriculum of Home Science, the college has the following designated laboratory areas:

- 3 Chemistry Laboratories
- 1 Research Laboratory (equipped for research work by FND and TFT students)
- 2 Food Laboratories
- 3 Clothing Laboratories
- 1 Instrument Room for FND and TFT
- 1 Interior-Designing Laboratory (shared with the Polytechnic)
- 1 Computer-Laboratory-cum-cybercafé
- Two multipurpose laboratories (one on 1st floor & the food laboratory on 4th floor) for
 1. Conducting Principles of Design Practicum
 2. Developmentally Appropriate Practices Practicum
 3. Residential Interior Designing Practicum
 4. Extra classes when needed

Moreover, multipurpose use of rooms allows for other laboratories in the college:

- 1 Psychological Testing Laboratory (situated in a room that also functions as an MSc classroom)
- 1 Counseling Laboratory (situated in a room that also functions as an MSc classroom)

There are fire extinguishers in each laboratory in the college where combustion is possible. There are First Aid Kits in each laboratory.

All laboratories are equipped appropriately such that general (e.g., ceiling fans, lighting, electrical outlets) and specific (e.g., sewing machines in a Clothing Laboratory; burners, exhaust fans etc. in a Chemistry Laboratory) requirements are met.

Equipment in all laboratories is periodically checked, updated, repaired and replaced.

Laboratory attendants assist students and teachers.

Also, it is important to note that the MSc and PhD students of the FND department use advanced food technology and other laboratories for their research work in organizations such as the Bhabha Atomic Research Centre (BARC), Haffkine Institute, Institute of Chemical Technology (ICT), Advanced Centre for Treatment, Research and Education in Cancer (ACTREC), Kamani Oils, and the Therapeutic Drug Monitoring (TDM) Laboratory of Ramnarain Ruia college.

Similarly, MSc and PhD students of the TFT department use advanced textile research laboratories for their research work in organizations such as DyStar, Texanlab Laboratories, Rossari Biotech Ltd., Central Institute of Research on Cotton (CIRCOT), and Wool Research Association.

Botanical garden

- There is a botanical garden at Kalina campus, University of Mumbai.
- The college has made concerted efforts to grow a diverse variety of plants in the front and backyard of the college building as well as the building in which the hostel and canteen are situated. Potted plants are another specialty in the college. Refer to Table A list of plants in the college garden is attached in the Annexure.

Animal house

- Students who have needed to conduct animal experiments have used the research facilities of Haffkine Institute.

Specialized facilities and equipment for teaching

- All classrooms have LCD projectors
- Study material available in the form of CDs, DVDs, software (RICHPEACE 3D Textile and Fashion Design Software, Clarity English software, SPSS)
- As noted below, the college has extensive, upgraded, specialised equipment for teaching the many practical components of the specialisations in Home Science.

Learning and research

- The college has a Research Centre on the fourth floor with a Research Director and two Research Assistants. This Centre stands testimony to the college's endorsement of the integral role of research in a place of learning. There are two designated rooms for the Research Centre: one for the Research Director, one other room as the working area which has been remodelled. The Research Centre has 3 computers with Internet facility and licensed data management and analysis software: Statistical Package for the Social Sciences (SPSS)
- There is one room available for PhD students on the fourth floor.

- Extensive, upgraded, specialised equipment for teaching the many practical components of the specialisations in Home Science College. Examples of recent purchases include:
 - FND Department: KEL PLUS Nitrogen Estimation System, Electrophoresis Unit, Contech Balance (Electronic Weighing Scale), semi-automatic biochemistry analyzer Autochem Nexgen, Bodystat 1500 MDD (dual frequency) Body Composition Monitor, Kjeltech distillation unit, Heart-Rate Monitor
 - HD Department: E-journals, ECCE material like CDs and storybooks, and psychological testing material.
 - TFT Department: Bursting strength tester, Tearing Tester, Water Bath (Thermostatic), Electronic Tensile Testing Machine, Design software and 6 dress forms.
 - CRM Department: Ergonomics equipment like Anthroman 16”, Anthrohand, Heart rate monitor, Flexi curve (1m), Metronome, Step stools (8”,6”,4”),Anthropometric kit, Anthro stool+4 slabs, Thermometer, sphygmomanometer BP apparatus, Harpenden Skinfold callipers, Grip dynamometer, Scientific Calculators, Pedometer, Goniometer (small joints) and Goniometer (large joints)

b) Extra-curricular activities:

Sports, outdoor and indoor games

Indoor games are organized periodically through the year either in the hall, classrooms (board games) and common room (board games). Various indoor games are available for use and can be accessed from a Sports Cupboard on giving the student Identity-Card. The Sports Committee regularly arranges for indoor games such as Carom, Chess, Badminton, Table Tennis etc. A net can be strung to make one indoor badminton court in the Hall.

The backyard is used for Outdoor Games such as throw ball or badminton occasionally. The University Sports Ground (Marine Lines) is used for the Annual Sports Day. We do not have our own open ground for sports given the cost of land in South Mumbai and the lack of availability of this land. We are using our existing (mainly indoor) space in flexible ways in order to address some needs of students related to sports.

Gymnasium

- A Gymnasium is available on the seventh floor of the college. There are two rooms in the gymnasium with an attached bathroom, toilet, and dressing room.
- The gymnasium is open for outsiders (thrice a week), students and staff. The timings of gym are from 11.30 to 3.30 on all 6 days except Sundays and public holidays. The gymnasium is also open during first 15 days of the summer break.
- On payment of a monthly/quarterly/yearly fee, students (and staff) can avail of the use of the college gym. This includes the use of some specialized gym equipment and the services of a gym instructor. Also students are offered free trial sessions for a specific period to encourage them to make use of the gym. The Sports Committee also encourages them to use the facility.
- The gymnasium is well equipped with machines like Treadmill, Cycle, Stepper, Flat Bench, Abs Exerciser, Dumbbells, Ankle Weights, 4 Pad Multigym, Elliptical Trainer, step board, digital weighing scale, 4 exercise mats, and 2 exercise sticks.

Auditorium

The Nirmala Niketan Institute also has a hall which has a seating capacity of 250 in Goregaon (Premankur, St Pius campus) which can be booked for an occasion. The St Pius Auditorium has a seating capacity of 1000.

As mentioned earlier, whenever the college needs an auditorium seating of 500 in close proximity to the college (e.g., each year for the Annual Day), the Birla Matushree Sabhagar or the Patkar Hall are booked. Both these auditoriums are on the same road as the college.

NSS, NCC

Students are encouraged to participate in extension work activities organized by the Department of Lifelong Learning and Extension, University of Mumbai. The student can take up any one project and is entitled to get a benefit of 10 marks.

The other extension activities of the college are numerous and involve coordination, for example, with the tribal outreach centres of the DHM Management, and GOs such as ICDS.

Students also participate in the activities/events of the Social Service Committee of the college.

Cultural Activities

The college has a hall on the ground floor with a stage and a large rectangular open area which can be variously used. Both the side walls are lined by windows which allows for an airy light-filled appearance. Heavy curtains are available for these windows and are used when needed. The open area can be sectioned into three rooms if needed as there are two pull-out screens. Toilets can be accessed from the rear of the hall. The hall has four doors: front, rear, and two side doors leading out into the backyard. This is important for fire safety as well as for strategic purposes.

The hall is maximally utilized. The hall has a seating capacity of 250 if chairs are used; substantially larger numbers can be accommodated when durries are used. College functions such as Teachers' Day, Independence Day etc. are held in the hall; it also serves as an examination hall. The open area has been especially conducive to workshops, college cultural events as well as college parties. The hall is fitted with (e.g., sound system, mikes, portable screen, LCD projector and computer) or is adaptable to the use of a variety of equipment.

The Nirmala Niketan Institute also has an auditorium in Goregaon (Premankur campus) as well as classrooms and residential accommodation facilities which have also been booked by the college on occasion.

Public speaking

- College has 3 collar mikes, 4 standing mikes, 2 cordless mikes for public speaking.
- There is a public address system with a mike on the 3rd floor which is used for important announcements and morning reflections.

Communication skills development

- English speaking software is available in the computer lab for improving communication skills
- There are English classes which are conducted for FY BSc Students.

Yoga

The Gymnasium on the seventh floor also provides facility of different workouts like yoga, aerobic exercises, stretching and weight training exercises.

Health and hygiene

Health:

- The college provides the facility of a Diet Counseling Center to solve problems related to diet and obesity. Students, teachers, parents, and others may access this center for nominal fees. Diet-related advice is provided by dietitians, namely, the teachers of the PG Diploma in Dietetics and Applied Nutrition. This center is open twice at convenient timings.
- There is provision of a first-aid kit on every floor to meet the needs in the event of small or other medical emergencies. There is separate sickroom for staff and students. The sickroom located on the 7th floor is only used by staff with a bed. The sickroom located on the ground floor is used by students with two beds.
- Medical camps are also organized by Social Service Committee from time to time. These camps are usually organized in the hall or in classrooms when available.
- There is a qualified nurse available in the college every day.
- The Bombay Hospital is in close proximity (on the same road as the college) and is useful for any major medical emergencies.

Hygiene: The college maintains cleanliness on each and every floor. Specific nonteaching staff members are given the responsibility of maintaining cleanliness in specific floor/area. Toilet facilities are provided on each floor and are cleaned/ washed regularly. Toilet area/wash room area of the ground, second, third and sixth floors have been completely remodeled. There is a separate toilet for staff on the fifth floor.

Other facilities

Staffroom: There is a common location of staffrooms on the fifth floor (teachers of each of FND, HD, TFT, and CRM specialisations). Being located in one place has contributed appreciably to team building and teamwork, within and across specialisations. There is a separate room on the third floor for all heads of the specialization across from the principal's office allowing for quick consultation between the principal and the three heads. The Maintenance Supervisor of the college who is also a qualified nurse has an office on the 3rd floor. The administrator of the college, and coordinators/assistant coordinators are located in their respective offices/staffrooms on the 4th floor.

Each teacher has her own desk area and can thus arrange and leave her teaching materials as desired on the desk or in the desk drawers. There are multiple computers with LAN facilities in the staffrooms, and one computer with Internet facility on the 5th floor; there are multiple intercom phones; one printer in each staffroom area. Other facilities for teachers in the staffroom area include personal lockers, department cupboards, an Aquaguard, a refrigerator, and a microwave oven.

The HOSs each have their own computer with internet facility and share a printer. They have a storage area for maintaining files/records of their specialisation.

4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution/ campus and indicate the existing physical infrastructure and the future planned expansions if any).

Changes in Infrastructure and Learning Resources in the Past Five Years

Many infrastructure and learning resource changes have been implemented in the last five years. These include:

• **Library**

- Renovation of library resulting in extension of reading area
- Purchase of 2 new cupboards, 2 racks and 3 tables
- Installation of six cameras in prominent locations inside the library to tackle the problem of theft of books and tearing of pages from reference books
- 6 new computers installed in library with internet facility. Presently 10 computers are available in the library.
- 2 deskjet printers made available in library.
- Purchase of new software for library operation (SLIM21)
- Purchase of automation system for the library (barcode printer, barcode scanner)

• **Laboratories**

- Biology laboratory remodeled into a multipurpose room/laboratory. Currently also used for conducting Principles of Design Practicum.
- Fourth Floor Foods Laboratory has been made into a multipurpose room/laboratory which caters to the needs of undergraduate and postgraduate students. Currently used for conducting Foods practicum, Principles of Design practicum, Developmentally Appropriate Practices practicum, and Hotel Front Office practicum.
- Old Dyeing and Printing Laboratory on the third floor has been renovated and remodeled to make a computer lab as well as cybercafé. Currently the Research Lab on the second floor is used for conducting Dyeing and printing practical which is well suited for the same.
- Purchase of new instruments (i.e., Tearing Strength Tester, Tensile Strength Tester, Bursting Strength Tester) for the instrument room on the first floor.
- Purchase of equipment (Autochem 2011, Bodystat 1500 MDD, KelPlus Automatic Micro mix, heart rate monitor & evaluation software, SPSS software) for research laboratories.
- Purchase of 5 Juki Sewing machines & 6 Dress forms for clothing laboratories.
- Purchase of 15 new computers for the computer lab/cybercafé.
- Purchase of equipment for ergonomics.

• **Classrooms**

- Remodeling of the classrooms on the 2nd and 6th floors.
- Availability of added rooms for lectures, meetings or for certain practicals.
- All classrooms now have the facility of fixed LCD projection systems (including a CPU, keyboard etc.).
- All large and few medium-sized classrooms (VIIA, VIIB, VA, IA, PG room), AV room and Hall are now equipped with wireless mouse for easy operation of computers and PPT presentations.

• **Other facilities for students**

- Installed a television with cable connection in the common room.

- Complete renovation of toilets/wash room area in ground, second, third & sixth floor).

● **Staffrooms**

- Installation of 5 new computers in the 5th floor staffroom with a black & white printer
- Reorganization of the staffroom with one room on the third floor (for Heads of specializations), second on the fourth floor for coordinators/assistant coordinators, and three rooms on fifth floor for rest of the teachers.
- Purchase of one Aquaguard for staff.
- Remodeling of the 5th floor staffrooms.
- New staffroom furniture (19 new chairs & desks) for each teacher.
- Installation of LAN facilities on the computers in the staffrooms and HOS room.
- Installation of Internet facilities on the computers in the HOS room and on one computer in the 5th floor staffroom.

● **Other infrastructural alterations**

- Both the lifts are new.
- The college multi-purpose hall has been remodeled.
- Newly modeled Research Centre.
- Purchase of new chairs, new mikes, and new stage curtains for the hall & classrooms.
- Purchase of new computers for the General Office and the Accounts Office.
- Renovation of Principal's office & passage to Principal's office.
- New phones purchased to provide intercom facility.
- 1 new Aquaguard and water cooler purchased.
- Equipment (Treadmill, Cycle, Stepper, Flat bench, Abs Exerciser, Dumbbells, Ankle Weights [2 Pairs], 4 Pad Multigym & Elliptical Trainer) purchased for gym.
- New biometric machine.

4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

Students with physical disabilities in the college have been very few: most of these have been temporary disability cases (leg fracture, other foot/leg injury). For contingencies and needs of students or staff in the future, the following facilities are available:

- There is a ramp for the physically disabled at the rear entrance of the college. The two lifts are available for mobility between floors.
- There is a wheelchair available for use when needed. Other provisions for physically-disabled students are hand-sewing machines and electric sewing machines in Clothing Laboratories.
- In classrooms that have individual chairs with palettes for writing there are palettes for both right-handed and left-handed writers. Students with hand/elbow injuries have been provided with writers during examinations.

4.1.5 Give details on the residential facility and various provisions available within them:

- **Hostel Facility – Accommodation available**

- **Recreational facilities, gymnasium, yoga center, etc.**
- **Computer facility including access to internet in hostel**
- **Facilities for medical emergencies**
- **Library facility in the hostels**
- **Internet and Wi-Fi facility**
- **Recreational facility-common room with audio-visual equipments**
- **Available residential facility for the staff and occupancy Constant supply of safe drinking water**
- **Security**

Hostel Facility/Accommodation available: The outstation college students have access to two well-run women's hostels that belong to the Nirmala Niketan Institute: one hostel is in the Institute building diagonally across from our college building located on the fourth and fifth floors of the Nirmala Niketan Social Work building, and the other is in Goregaon, at Premankur on St. Pius campus grounds.

The total number of students from our college who can be accommodated in the Institute Churchgate hostel is 30; each year this number has been maximally utilised. The number of hostel seats at the Goregaon hostel is 20.

A supportive atmosphere is fostered in both hostels: there is a hostel warden in each hostel who is a member of the management. The hostel facilities are shared by students from both the colleges of Home Science and Social Work, Nirmala Niketan; this affords students rich opportunities to interact with those outside their college as well.

- **Recreational facilities, gymnasium, yoga center, etc. in the hostel:**

- Both hostels are equipped with canteen facilities and common recreation rooms with a television having cable connection. Audio-visual equipment is also present with facilities for DVD & CDs.

- Students have access to landline telephones at both sites other than personal mobile phones.

- Hostel has space in the backyard which is used for playing badminton, and other outdoor games.

- There is gymnasium in the college which can be used by students of the hostel also.

- There is space for yoga in the college gymnasium and the qualified fitness instructor also teaches yoga exercises.

There is a chapel in the institute hostel where students of the hostel can be quiet and prayerful.

- TFT students have the facility of a sewing machine; personal sewing machines are also allowed in the hostel.

- **Facilities for medical emergencies**

- Bombay hospital is located within two blocks from college. If there is a medical emergency, students are taken there.

- Moreover, the warden is a nurse who treats ordinary illnesses.

- **Library facility in the hostels**

- Hostel is located diagonally across the college, so hostelites can avail the facility of the library of the college which is open from 8.30am to 6.30pm.

- **Internet and Wi-Fi facility-**

- Hostel is located diagonally across the college, students can avail the facility of internet in the cybercafé & library.

- Hostilities have also their own computer/laptops with internet facility.

- **Available residential facility for the staff and occupancy**
-There is no residential facility for staff except in emergency.
- **Constant supply of safe drinking water**
There is constant supply of safe drinking water. There is one water cooler on every two floors.
- **Security-**
 - Security guard is employed and is there 24/7.
 - Receptionist is also present from 7:30 am to 10:00 pm
 - There is sign out/sign in for all students which is followed strictly.
 - There is provision for late night uptill 10.00 pm only if guardian has given prior permission.
 - Night-out facility is allowed once a month with prior permission from the guardian.

4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

- There is a **Counselling Centre**(on the first floor) which has been set up for meeting the psychological health needs of students. The college has a professional counsellor whose role is to provide services to enhance the well-being of students.
Counselling Centre Timings:
Monday, Wednesday & Friday: 11.30 pm to 3.30 pm
Students can either walk into the counseling centre during these time slots or arrive for a previously-made appointment with the counselor.
- There is also a **Diet Counselling Centre** (on the first floor) which has been started as a service to help address obesity and other diet-related problems in urban cultures worldwide. Students, teachers, parents, and others may access this center for nominal fees. Diet-related advice is provided by dietitians, namely, the teachers of the PG Diploma in Dietetics. This center is open twice a week at convenient timings. Students are encouraged to make use of this center.
- There is also a **Gymnasium** located on the seventh floor of the college which includes the use of some specialized gym equipment and the services of a gym instructor.
- With regard to an **Infirmary**, there is a room for teachers on the seventh floor with a bed & for students on the ground floor with two beds to recuperate or rest because of an illness.
- The availability of **first-aid kits** on every floor is another excellent practice, important in the event of small or other medical emergencies. The qualified nurse in the college gives students first-aid (e.g., for cuts, scrapes).
- The proximity of Bombay Hospital to the college has served us well. Students have accessed the OPD in emergencies. The service of a doctor is availed as and when the need arises.

4.1.7 Give details of the Common Facilities available on the campus –spaces for special units like IQAC, Grievance Redressal unit, Women’s Cell, Counseling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

IQAC Unit -The College has an IQAC unit which expands into the seven IQAC subcommittees (also known as the 7 NAAC committees). Through the 7 subcommittees,

all teachers are involved and divided to work on quality assurance and documentation with regard to the different criteria. The meetings are held in multipurpose rooms, A V room, and the dining room (adjacent to the second floor Food Laboratory). There is a cupboard on the seventh floor to store all documents/materials related to IQAC unit.

Grievance Redressal Unit- Students and staff can request redressal through the grievance cell of the college. The grievance cell comprises a committee with staff (principal, management representative, a teaching, a non-teaching, and a support staff member, and a student member (General Secretary of the Student Council). The Committee meets on the 1st Monday at 12.30 pm on every second month or as and when required. A box is kept in the lobby to deposit the complaints, requests or suggestions anonymously.

Women's Development Cell- The women's cell of the college addresses to the issues related to women staff & students. The cell functions in the first floor thrice a week at different days in the same room which is also used as a counseling centre.

Counseling and Career Guidance-There is a counseling center on the first floor which has been set up for meeting the psychological health needs of students. The college has a professional counselor whose role is to provide services to enhance the well-being of students. The timings of counseling center are from Monday, Wednesday and Friday from 11.30 pm to 3.30 pm.

Placement Unit-The college has an Employment Placement Cell (EPC) that assists graduating students to get started in careers of their choice. The EPC liaises and builds contacts with different organizations, institutions and NGOs that provide career opportunities to our students on graduation. Interviews are arranged in the 7th floor classrooms. Every company gets a separate place for conducting interviews. The company/ organisation representatives are received in the Audio Visual room on the 7th floor.

Health Centre- There is also Diet Counseling Center (on the first floor) which has been started with regard to obesity and other diet-related problems in urban cultures worldwide. Students, teachers, parents, and others may access this centre for nominal fees. Diet-related advice is provided by dietitians, namely, the teachers of the PG Diploma in Dietetics. This centre is open twice a week at convenient timings. Students are encouraged to make use of this centre.

Canteen: There is an institute canteen in the adjacent building. We also have a best practice in the college of students bringing own home-cooked nutritious food (tiffins).

Recreational spaces for staff and students

Space for staff

- There is a dining room which is used informally by staff.
- The hall is also used for some occasions for recreation.

Space for students

- There is informal seating for students in the rear of corridors on multiple floors where they can talk informally or study.
- Students also make use of the backyard for hanging-out or at times for rehearsals or even studying.
- There is a **common room (CR)** on the ground floor for the use of students. The furniture in this room allows students to sit informally with friends or work at a table.

Drinking water (one WaterCooler) is available in this room. Electrical fittings ensure that students can use tape players/DVD players when needed. Students use their cell phones in the CR. There is a television set for recreation. Students also play chess or carom in the CR using the facilities available from the Sports Cupboard. There is also a toilet in the common room for students. There is a washbasin and drinking water as well.

Safe drinking water facility- The location of the college in South Mumbai also is advantageous because of the assurance of amenities--water and electricity. The supply of electricity has always been uninterrupted; water supply has been adequate with very rare instances of water shortage (but not absence) in the building.

AquaGuard water for drinking is available for students and staff on all eight floors of the building: this includes a water cooler on the ground floor in the common room, a water cooler on the 8th floor landing, a water cooler on the 3rd floor and drinking water taps in all washrooms located on each of the floors of the building.

Auditorium

The college has a multipurpose hall.

The Nirmala Niketan Institute has a hall which has a seating capacity of 250 in Goregaon (Premankur in St Pius campus) which can be booked for an occasion; the St. Pius auditorium has a seating capacity of 1000. Whenever the college needs an auditorium seating of 500 or more near to the college (e.g., each year for the Annual Day), the Birla Matushree Hall or the Patkar Hall are booked. Both these auditoriums are on the same road as the college.

(Other facility) Prayer Room

There is a prayer room for students and staff on the seventh floor who wish to choose moments of prayerful quietude and meditative calm. A prayer place has been especially arranged to facilitate group prayers (e.g., Muslim students' prayers) in the college on the rear 8th floor landing.

4.2 Library as a Learning Resource

4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student/user friendly?

There is a library advisory committee which includes the principal, the librarian, the accountant, and senior faculty members from each of the specializations (e.g., FND, HD, TFT, and CRM).

The committee meets at least twice a year; moreover, the principal meets the librarian, the accountant, heads of specialization, and library committee staff members separately for urgent ad hoc library matters.

Policy initiative of the committee for increasing library usage: Annual awards/recognition for students who have issued the maximum number of books.

Other policy initiatives of the library committee: Annual book exhibition in college.

4.2.2 Provide details of the following:

- * **Total area of the library (in Sq. Mts.):** 2864 square feet
- * **Total seating capacity:** 100
- * **Working hours (on working days, on holidays, before examination days, during examination days, during vacation):** 9 ½ hr/day
Library timings are 8.30am to 6pm from Monday to Saturday

- * **Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)**
- * **Bag counter** for students which is staffed by an attendant to ensure safety of library books as well as safety of personal belongings whilst using the library; students do carry their valuables (e.g., wallets) into the library.
- * **Catalogue systems: card catalogue and OPAC**
The library is equipped with both a card catalogue system and with SLIM Software. For example, one can locate the accession number of a book by looking up the surname of one of the authors in the alphabetically listed card catalogue system. Alternatively, one can use the SLIM software which is a computerized online catalogue of the materials held in the library, or library system. One can locate the accession number of a book and information on its availability (on shelf or issued) by author, title, subject etc. through the designated computers in the library.
- * **Workstations for individual or group work in the corridor**
- * **Newspaper stands in the corridor**
- * **Designated reading/studying areas on large tables inside** aligned next to windows with excellent natural reading light and ventilation.
- * **Quiet studying room** inside the library for PhD scholars or teachers.
- * **Current Periodicals section** with its own designated reading area.
- * **Reference section**
- * **Stacks:** Books, journals, and dissertations; a designated fiction section which has English, Hindi and Marathi fiction
The library provides open access facilities. Students and staff can go directly to the cupboards and select books.
- * **Book Issue Counter** which is staffed with two attendants during peak-usage daily hours and otherwise with one attendant.
In order to facilitate the use of reference books and yet safeguard these books from damage, the book issue counter fronts the reference section. This allows the issue clerk to monitor the reference books. In fact, the reference books have to be requested at the issue counter and issued for use in the library by students.
The Library allows the issue of books to all students. UG students are issued 2 books for home use, PG students are issued 4 books. A fine is charged for late-returns, damaged and/or lost books. Users are oriented to library policies which helps minimize such occurrences.
- * **IT Zone** with 10 computers for staff or student use (2 of these are used by library staff), 8 with Internet facility. The staff uses the Internet free of charge. Students are charged a nominal rate. Library e-resources are available through these computers.

4.2.3 **How does the library ensure purchase and use of current titles, print and e-journals and other reading materials?**

Purchase of current titles, print and e-journals, other reading materials: The librarian requests each teacher to give a priority list of books they would like the library to purchase for their specialization or for particular subjects each year; this list is approved by the principal and the purchase instructions are handled by the librarian in consultation with the accounts department.

Teachers and heads of specializations are also asked to recommend names of print or e-journals or data bases for consideration for purchase.

Use of current titles, print and e-journals, other reading materials: The librarian informs teachers as new books come into the library.

Print journals are prominently displayed in the current periodical section.

Specify the amount spent on procuring new books, journals and e-resources during the last four years:

Library holdings	Year -2009-2010		Year – 2010-2011		Year – 2011-2012		Year – 2012-2013	
	No.	Total Cost	No.	Total Cost	No.	Total Cost	No.	Total Cost
Textbooks	41	43736	69	118273	40	44313	56	38361
Reference Books	41	75715	38	84847	57	136566	87	265479
Journals/ Periodicals	40	137512	35	88386	36	106538	38	84419
e-resources	Nil	Nil	3	57759	3	66350	8	189420
Any other (specify)CDs	50	6699	1	80	5	1591	166	28245
Any other (specify) Newspapers	6		6		6		7	

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?

- * **OPAC:** Yes
- * **Electronic Resource Management package for e-journals:** Inflibnet N–List Program (In process)
- * **Federated searching tools to search articles in multiple databases:** No
- * **Library Website:** Library email id; university library website
- * **In-house/remote access to e-publications:** access in college to e-publications
- * **Library automation:** Completed (barcodes on all books, barcode scanner)
- * **Total number of computers for public access:** 8 + 2
- * **Total numbers of printers for public access:** 2
- * **Internet band width/ speed** √ 2mbps □ 10 mbps □ 1 gb (GB)
VPN broadband connection is available in library
- * **Institutional Repository:** No
- * **Content management system for e-learning:** No
- * **Participation in Resource sharing networks/consortia (like Inflibnet):** In process.

4.2.5 Provide details on the following items:

- * Average number of walk-ins: 60/day
- * Average number of books issued/returned: 26/day
- * Ratio of library books to students enrolled: 86
- * Average number of books added during last three years: 116
- * Average number of logins to OPAC: 22/day
- * Average number of login to e-resources: 5/day
- * Average number of e-resources downloaded/printed: --
- * Number of information literacy trainings organized: 1

- * Details of “weeding out” of books and other materials:
 - Damaged books are replaced.
 - Old books that have not been issued are displayed for teachers who help decide which books need to be retained for their classic value and which can be discarded. (once a year)

4.2.6 Give details of the specialized services provided by the library

- * Manuscripts: There are 921 dissertations/theses in the library.
- * Reference: The librarian and library assistants help the readers locate reference books or complete their reference work by locating the right e-journals or print-journals or books in the library. They also assist students in how to find information on the Net and how to use the SLIM Software.
- * Reprography: The library provides photocopying facility to its readers. The library possesses a good collection of reference books that cannot be given to the readers for home reading. Readers can get a part of those documents photocopied after making a written request.
- * ILL (Inter Library Loan Service)
The College Library provides inter library loan facility to its readers to cater to the extra reading needs of its readers.
Following are the institutions, which are interconnected with our college library.
 1. Nirmala Niketan College of Social Work, Mumbai
 2. SNDT University, Mumbai
- * Information deployment and notification (Information Deployment and Notification): All information for students and staff about any change in the library timings etc. is posted on the college website.
- * Download: With internet facility the college library also provides downloading facility. Staff or students download from the Net at their convenience.
- * Printing: The library provides printing facility to students at a nominal rate.
- * Reading list/ Bibliography compilation:
List of books is provided to the faculty as well as students if it is demanded by them (on a specific topic).
Also the list of new arrivals is given to respective departments.
- * In-house/remote access to e-resources: Access to e-resources is through library computers.
- * User Orientation and awareness:
The library orientation is conducted every year for newcomers in the college in small groups. The library staff takes the students to all relevant sections of the library and introduces them to the OPAC facility, arrangement of the collection of books, and other Library materials and services offered to them. Also they are made aware of the rules and regulations of the library. During the orientation, the library staff distributes the Library brochure to the students.
- * Assistance in searching Databases: Not applicable
- * INFLIBNET/IUC facilities: In process
- * The library also has e-journals.

4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of the college.

Library staff assists students and teachers in locating books and journals.

They assist students in using the SLIM software to identify a book.

Requests for book/journal purchases are forwarded through the librarian to the principal and on being sanctioned, the librarian sees to the speedy purchase of the book/journal.

4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons? Give details.

No special facilities for visually challenged persons. However, the library is suitable for use by a student who needs a wheelchair in the reading area.

4.2.9 Does the library get the feedback from its users? If yes, how is it analysed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analysed and used for further improvement of the library services?)

1) Consultation with Librarian: Students can consult with the librarian any problems related to the library and its services. The librarian tries to settle them in her capacity or otherwise forward them to the Principal of the college.

2) Suggestion Box: A suggestion box is kept in the library seeking valuable suggestions and recommendations from the readers of the library. The suggestions made by students or staff are taken up and discussed in the library committee meeting and healthy suggestions are implemented.

Healthy suggestions of staff members that have been implemented: Increase usage of library: Library period instituted; learning resources for undergraduate classes available from teachers as pdfs on the computers in the library.

4.3 IT Infrastructure

4.3.1. Give details on the computing facility available (hardware and software) at the institution.

- **Number of computers with Configuration (provide actual number with exact configuration of each available system):** see the following tables
- Computer-student ratio
 - Total No. of computers – 79 + 5 laptops = 84; total no. of computers that students have access to: 60
 - Total No. of students – 564 (December 23, 2013)
 - Overall computer-student ratio is: 1 computer to 6.71 students; student-access computer to student ratio is: 1 computer to 9.4 students.
- Stand alone facility is available in the following locations in the college:
 - 4th floor Coordinators' Room
 - Hall
 - Ground floor Reception
 - All Classrooms
- **LAN facility:** Available for computers in the staffroom, cybercafé, library, accounts office, general office.
- **Wi-Fi facility:** The Principal has asked the staff whether they would like Wi-Fi facility. However, the staff has not felt the need as there are ample computers with internet facility for staff and students in the college.
- **Licensed software:** Regular and specialised software in the college is licensed:

- MS Office 2007 and 2010
- Windows 7
- CorelDraw X5
- Adobe Photoshop CS5.1
- AutoCAD
- Study Skills (Clarity English software)
- 3DS Max
- Richpeace Garment CAD 8.0
- ReachCAD
- SPSS 21
- **Number of nodes/ computers with Internet facility:** Most computers in the college have internet facility:
 - Library – 8 out of 10 computers with internet
 - Cybercafé – all 34 computers with internet
 - Internet Room on the 3rd floor– 1 with internet
 - Accounts Office – all 3 computers with internet
 - HOS Room – all 3 computers with internet
 - 5th floor Staff Room – 1 out of 5 computers with internet
 - Research Centre – all 3 computers with internet
 - Principal’s laptop—with internet
- **Any other:** The ICT-enabled classrooms with LCD projection systems and wireless mouse allow excellence in teaching-learning methods.
 - Software for different subjects is made available to students which make learning simple and easy like English speaking software, design software, SPSS.
 - The college has its own website: www.nirmalaniketan.com. This website is updated whenever needed. Information on upcoming college events is also included on the website.
 - There are 7 e-mail addresses available for various types of enquiries/correspondence listed on the College of Home Science hyperlink on this website.

The details of the configuration of computers in college are present in the annexure attached.

4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?

Computer and internet facility has been made available on the campus for faculty and students.

The faculty have access to computers with internet in the staffrooms, library, and cybercafé (without charge). Students can access computers, internet, and printing facilities in the library and in the cybercafé (at a minimal cost). Based on student request, multiple plug units have been installed in the library, and the corridors adjoining the library for students who wish to work on their laptops.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

The college regularly updates the IT infrastructure and associated facilities even without requests. Moreover, the computer engineer is prompt in addressing any complaints/requests. As described earlier, requests are regularly sought from staff and students with regard to the infrastructure; this includes the IT infrastructure. The next plan is to provide internet facility in the classrooms.

4.3.4 Provide details on the provision made in the annual budget for procurement, upgradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years)

Please see the tables included as a response to Ques. 4.4.1

4.3.5 How does the institution facilitate extensive use of ICT resources including development and use of computer-aided teaching/ learning materials by its staff and students?

- All classrooms in the college are ICT-enabled with LCD projectors.
- The staff uses ICT as teaching aid for making the lessons and teaching understandable in a better way, for inviting discussion, showing images etc.
- Multiple computers in the staffroom; staff access to the Internet in the staffroom, library, and the cybercafé promote the use of ICT by staff.
- There is a computer laboratory-cum-cybercafé and library with computers with internet facility. Students are encouraged to use this facility. College has learning material in the form of CDs, DVDs and specialized software (e.g., Statistical Package for the Social Sciences [SPSS]).
- Computer applications are part of the value-added curricula at various levels ranging from undergraduate to postgraduate.
- Computer applications are part of the research curriculum at all applicable levels (MSc and PhD).
- Postgraduate students are encouraged and supported in making scientific PPT or poster presentations at conferences and seminars.

4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching - learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.

- **LCD Projectors-cum-Computers**
The availability of LCD Projectors-cum-computers for classroom instruction has been a very significant development for enhancing the quality of teaching-learning practices. Support staff have been specially trained to set up the LCD and related equipment at the requested times in the classrooms/hall/AV Room.
- In order to promote student-centric teaching/learning, emphasis is laid on participative learning and peer teaching. All classrooms in the college have LCD projector so that 'power point presentations' can be used routinely. Discussions are facilitated by the teacher through showing a key diagram, picture, sentence, or even cartoon on a PPT slide.
- Senior students are encouraged to make PPT presentations in some of their classes using ICT resources.

4.3.7 Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?

No.

4.4 Maintenance of Campus Facilities

4.4.1 How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?

2009-2010

Amount spent towards Improving Infrastructure

PARTICULARS	SENIOR COLLEGE	U G C	Self Financing courses Income	Total
Furniture			73920.00	73920.00
Laboratory Equipment	63549.00			63549.00
Office Equipment	565.00			565.00
Computers			48000.00	48000.00
Printers			12350.00	12350.00
H.D. Lab. Equipment	35000.00			35000.00
Food Lab. Equipment	36421.00			
Projectors			170000.00	170000.00
Air conditioner			25000.00	25000.00
Fans			14029.00	14029.00
Library Software			161200.00	161200.00
Awning			83194.00	83194.00
Gym Equipment			72500.00	72500.00
	135535.00	0.00	660193.00	759307.00

2009 - 2010 (1)

Item	Date of purchase	Sr. No.	Quantity	Rate	Total
<u>Clothing Lab Equipments</u>					
Female full body dummy with both sleeves (50 % Adv)	11-02-2010	452	1	4750	
Balance of 452	22-02-2010	468A		4750	
Pkg& forwarding	03-03-2010	485		1737	
Dye pots	29-03-2010	522	1	14062	
Elmendorf Tearing Strength Tester	29-03-2010	521	1	38250	63549
<u>Office Equipment</u>					
Calculators	21-10-2009	234	2	565	565
<u>HD Lab Equipments</u>					
Sony ES Projector (Maxtech)	20-10-2010	231	1	35000	35000
<u>Food Lab Equipment</u>					
Skinfold Caliper (ShubhChem)	17-03-2010	502	1	4781	
Digital Balance Type CY 220 (Rush Chem)	22-03-2010	515	1	31640	36421
Fund Awning	01-04-2009	1		35000	
Awning	22-04-2009	8		48194	83194
A.C	23-04-2009	69	1	25000	25000
<u>Library Software</u>					
Library Software	08/0/8/2009	169	1	120900	
Fee Package	14-09-2009	236	1	12500	
Library Software	15-12-2009	369	1	40300	173700
<u>Printer</u>					
Printer	12-10-2009	293	1	12350	12350
<u>Projectors</u>					
Projectors	20-10-2009	298	1	35000	
	01-02-2010	425	2	56000	
	08-02-2010	434	3	79000	170000
<u>Computers</u>					
Computers	11-03-2010	514	2	48000	48000
<u>Website Design</u>					
Website Design	11-11-2009	323	1	9545	9545
<u>Treadmill</u>					
Treadmill	30-03-2009	541	1	72500	72500
<u>1 Acrylic Podium</u>					
1 Acrylic Podium	17-02-2010	453	1	22345	
Dustbins	30-03-2009	545	2	13875	
Trolleys	30-10-2009	308	3	15700	
Classroom Tables	30-03-2010		1	28000	
Demonstration table			1	15000	94920

Total**824744**

2010-2011**Amount spent towards Improving Infrastructure**

PARTICULARS	SENIOR COLLEGE	U G C	Self Financing courses Income	Total
Furniture			105350.00	105350.00
Laboratory Equipment	65812.00	114206.00	241031	421049.00
Clothing Lab. Equipment	65625.00			65625.00
Office Equipment	16995.00			16995.00
Computers	43000.00		453215.00	496215.00
Projectors			113700.00	113700.00
Air conditioner			88870.00	88870.00
Computer Software			1104586.00	1104586.00
C.C. T.V in Premises			697960.00	697960.00
T.V. Common Room			89900.00	89900.00
Renovation of Library & computer centre			2811231.00	2811231.00
	191432.00	114206.00	5705843.00	6011481.00

2010 - 2011 (1)					
Item	Date of purchase	Sr. No.	Quantity	Rate	Total
<u>Laboratory Equipment</u>					
Skinfold Callipers with Accessories	31-03-2011		1	65812	65812
<u>Clothing Lab Equipment</u>					
8 Gas burners - Single	14-01-2011	453	8	6000	
Spare parts for BST Machine	03-02-2011	493	1	15188	
AI Make Bursting Strength Tester	03-02-2011	493	1	44437	65625
<u>Office Equipment</u>					
Office Shredder	09-03-2011	557	1	16995	16995
<u>Computers</u>					
Desktop Esys Wizard	08-07-2010	87	1		
Monitor			1	24000	
Desktop	23-02-2011	525	1	19000	43000
10 sewing Machines	28-03-2011	611	10	42000	
1 Computer	08-07-2010	86	1	24000	
1 Dynamometer	31-03-2011	623	1	48206	114206
Furniture					
M.Sc Classroom renovation -Tables	10-05-2010	44		10000	
M.Sc Classroom renovation -Tables	06-08-2010	113		41580	
M.Sc Classroom renovation- Tables	09-08-2010	117		1000	
Screen - Monarch Infotech	04-09-2010	150		6750	
Computer Trolley	11-02-2010	411		14000	
P.G. Chairs	30-03-2010	463	20	32020	105350
Lab Equipment					
ShubhChem	31-03-2011	470		241031	241031
Anthropometer	31-03-2011	470	1		
Rod meaurer stand and rod	31-03-2011	470	1		
Stand measuring wiring	31-03-2011	470	1		
G.M.Thicknessguage	31-03-2011	470	1		
B.T.Calipers	31-03-2011	470	1		
Computers					
Computers	08-07-2010	83	1	24000	
Bar Code Screen	13-08-2010	124	1	21315	
Library Printer	23-08-2010	134	1	10000	
Computers expenses	11-10-2010	209	1	8000	
Computer purchased	13-10-2010	218	1	19000	
C/F					652019

B/F					652019
Printer	22-01-2011	381	1	18000	
Computers with headphones	24-01-2011	385	12	291650	
Desktops	22-02-2011	424	3	57000	
Printer	23-03-2011	461	1	4250	453215
Projectors	07-02-2011	409	2	77000	
	11-02-2011	410	1	36700	113700
Air conditioner	04-11-2010	272	2	80000	
	01-12-2010	288		8870	88870
Computer Software	29-03-2011	464	1	552293	
TSG - License Software	29-03-2011	465	1	552293	1104586
T.V Common Room	19-03-2011	454	1	89900	89900
C.C.T.V In Premises	11-01-2011		1	697960	697960
Renovation Of library & Computer Centre				2811231	2811231
Total					6011481

2011-2012**Amount spent towards Improving Infrastructure**

PARTICULARS	SENIOR COLLEGE	UGC	Self Financing courses Income	Total
Furniture			64604.00	64604.00
Laboratory Equipment	55463.00		21938.00	77401.00
Clothing Lab. Equipment	35106.00			35106.00
Office Equipment	2700.00			2700.00
Computers		411750.00	116000.00	527750.00
Printers		83190.00		83190.00
1 Kjelo Automatic / Nitrogen/Protein Estimator		279821.00		279821.00
Bodystat Body Composition Analyser		247500.00		247500.00
Projectors		62000.00		62000.00
Autochem 2011 Plus with Sipper		132000.00		132000.00
Water Coolers		46000.00		46000.00
Food Lab. Equipment	2050.00	9350.00		11400.00
Textile Software		679875.00		679875.00
Textile Lab (Digital Tensile Tester)		140625.00		140625.00
Computer Software			543174.00	543174.00
Aqua Guard		17980.00	9490.00	27470.00
Gym Equip. Multi Gym Elliptical		119306.00		119306.00
	95319.00	2229397.00	755206.00	3079922.00

2011-2012 (1)

Item	Date of purchase	Sr. No.	Quantity	Rate	Total
Laboratory Equipment					
Scientific Calculators	15-02-2012	515	3		
Peddo meter			1		
Stop watch Mechanical			1	7538	
Contech Digital Electronic	17-02-2012	528	1		
Horizontal Electrolysis unit			1		
Bioera make power pack			1	47925	55463
Clothing Lab Equipment					
Mannequins	14-03-2012	570	6	33750	
Iron	27-03-2012	611	1		
Hair Dryer			1	1356	35106
Office Equipment					
Lamination Machine	07-07-2011	77	1	2700	2700
Food Lab Equipment					
Geyser	03-02-2012	491	1	2050	2050
Furniture					
Activity Tables	08-09-2011	221		27400	
Stools	10-09-2011	227	30	5704	
Chairs for classroom	22-09-2011	240		31500	64604
Lab equipment					
Microscope	20-03-2012	538	5	21938	21938
Computers					
	02-08-2011	151	4	116000	116000
Computer Software license	31-03-2012	JV.7		543174	543174
Aqua Guard	11-06-2011	74	2	9490	9490
U.G.C lab equipment					
J.K.P.C Digital Tensile Strength	20-03-2012	593		70000	
Tester	20-03-2012	595	1	70625	140625
Computer					
P.C Guide	17-02-2012	525	5	137500	
Forenix	05-03-2012	552	10	274250	411750
Printers					
Monarch Infotech	09-03-2012	557	3	40500	
P.C Guide	12-03-2012	565	1	3990	

P.C Guide	12-03-2012	565	2	11200	
P.C Guide	16-03-2012	575	1	27500	83190
Pelican Kjeldahl Automatic/ Nitrogen/Protein Estimator	28-03-2012	613	1	279821	279821
Bodystat Body Composition Analyser	29-03-2012	622 & 623	1	247500	247500
Projectors	12-03-2012	566	2	62000	62000
Autochem 2011 Plus with Sipper Span Diagnostics limited	31-03-2012	631 & 632	1	132000	132000
Water Coolers	14-03-2012	571	2	46000	46000
Food lab equipment oven	19-03-2012	583	1	9350	9350
Textile Software	16/3 & 20/3	574 & 594	1	679875	679875
Aqua Guard	09-03-2012	561	2	17980	17980
Gym Equipment					
4 station Multi Gym	29-03-2012	628	1	80156	
CET-JK E2130A Elliptical	29-03-2012	628	1	39150	119306
Total					3079922

2012-2013**Amount spent towards Improving Infrastructure**

PARTICULARS	SENIOR COLLEGE	UGC	Mgt.	Poly Mgt	Self Financing courses Income	Total
Furniture	15695.00				824704.00	840399.00
Laboratory Equipment	264088.00	191662.00				455750.00
Clothing Lab. Equipment	29818.00					29818.00
Computers					575250.00	575250.00
Food Lab. Equipment	21800.00					21800.00
Computer Software		291857.00			503324.00	795181.00
1 Goniometer for large & small joints		71437.00				71437.00
Projectors					66000.00	66000.00
Renovation of Classroom & Hall					917188.00	917188.00
Gr.Floor Toilets			451492.00			451492.00
2nd, 3rd & 6th Floor toilets				1204603.00		1204603.00
	331401.00	554956.00	451492.00	1204603.00	2886466.00	5428918.00

2012-2013 (1)

Item	Date of purchase	Sr. No.	Quantity	Rate	Total
Furniture					
Newspaper Stands	07-05-2012	43		11700	
Computer Trolley	03-08-2012	174	1	3995	15695
Laboratory Equipments					
Skinfold Caliper	02-03-2012	605/606	2	69750	
			1	69750	
Flamephotometer	02-03-2013	633	1		
Lactometer (Science House)			1	90788	
HD Lab Equip foe extn act toys, etc.	26-03-2013	657		22550	
Dehydrator	30-03-2013	674	1	11250	264088
Clothing Lab Equipment					
Sewing Machines	13-08-2012	198		20265	
Stiffness Tester	25-03-2013	647	1	9553	29818
Food Lab Equipments					
Mixer (Roopam Trading Co)	17-09-2012	319	2	6200	
Oven- Murphy Richards	07-03-2012	622	1	15600	21800
Furniture					
Jainson Bill no. 18	11-05-2012	45		80437	
Drawer Cabniet	03-08-2012	128	4	29916	
Florida Tables	03-08-2012	129	4	46516	
Conference Room Furniture	03-08-2012	130		90450	
Library racks	03-09-2012	174		40163	
Chairs	17-11-2012	287		93096	
Study tables	04-12-2012	316		58610	
Tables	20-12-2012	344		97684	
Furniture	25-03-2013	548		223775	
Chairs	28-03-2013	561		64057	824704

Computers					
Computers	09-08-2012	141		80000	
Computers	13-09-2012	195	5	155000	
Laptops	13-12-2012	325	2	60000	
Laptops	13-12-2012	326	1	28500	
Laptop	21-12-2012	346	1	29500	
Computers	22-12-2012	349	2	63500	
Computers	08-01-2013	376	2	63500	
Computers	08-01-2013	377	2	63500	
Computers	16-01-2013	383	1	31750	575250
Computer software	26-03-2013	558		503324	503324

Projectors	21-08-2012	152	2	66000	66000
Renovation of Classroom & Hall				917188	917188
Lab Equipment				191662	191662
Computers				99850	99850
Computer Software				192007	192007
Goniometer for large & small joints				71437	71437
Ground floor toilets				451492	451492
2nd, 3rd & 6th Floor toilet				1204603	1204603
Total					5428918

2013-2014

Amount spent towards Improving Infrastructure

PARTICULARS	International Conference	Total
Renovation of 2nd & 4th Floor Labs. & staffroom	2328510	2328510.00
Godrej Chairs 15 & 1	81509	81509.00
	2410019.00	2410019.00

4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?

The monitoring mechanisms and other quality assurance policies related to maintenance and upkeep of the infrastructure, facilities, and equipment of the college have been described in response to Ques. 4.1.1.

4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/instruments?

The laboratory attendants regularly check the equipment/instruments and get them ready for each class. Maintenance contracts for ICT facilities, sewing machines, and selected laboratory equipment have been issued.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?

Maintenance contracts and monitoring by trained staff allow us to maintain our sensitive equipment in good condition.

The college is located in South Mumbai and enjoys uninterrupted water supply and electricity. There are no voltage fluctuations.

Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.

Advantageous location of the college: Location in Mumbai and particularly also in South Mumbai has numerous benefits which we are exploiting for student and staff development (e.g., access to many libraries, many research laboratories, industry in all sectors, hospitals, gyms, schools/preschools, NGOs, GOs).

Specialized resources/equipment/software for each of the specializations is available through laboratories and the library.

In the Draft Report of the Green Audit of the college (December 2013) conducted by

1. Samuchit, Pune;
2. Institute of Community Organization Research (ICOR), Mumbai; &
3. The Arch Diocesan Commission for Environment, Mumbai;

it is stated that the college is to be commended for the:

- ✓ Judicious use of space for conducting multiple classes and courses
- ✓ Exceptional cleanliness and brightness of the premises
- ✓ Cultivation of greenery and variety of potted plants that contribute to creating green surroundings

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1: Student mentoring and support

5.1.1: Does the institution publish its updated prospectus /handbook annually? If ‘yes’, what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

The college provides an updated, user-friendly prospectus and handbook annually at the time of admission.

The handbook contains information about the:

- Background of the college
- Vision, goals, motto, and emblem
- Code of conduct for students
- University of Mumbai rules and regulations with regard to matters such as attendance
- College contact details, college timings, timings for going to the Accounts Office etc., holidays
- Guidelines for admission and fees
- Guidelines for examinations, tests, and assignments; instructions for examinations
- Student aid, scholarships, and prizes
- Services and facilities for students (e.g., library, cybercafé, counselling services, Employment Placement Cell); other facilities (e.g., Research Centre)
- College committees with student members (e.g., Sports Committee, Social Service Committee, Magazine Committee)
- Alumnae Association

The curriculum and all the activities in the college are aligned with the college vision/goals/motto/emblem. The code of conduct for students has been deliberated on and decided by the principal and the teachers. The code of conduct is described clearly and students are informed that they have to respect this code of conduct. The handbook is given to each student as a source of information. Other rules of the college/university are also very clearly spelt out in the handbook and students and parents/guardians are required to acquaint themselves with the rules. For example, as indicated in the handbook, students' identity cards are checked daily and those without the identity cards are not allowed into the premises. A further example from the handbook is with regard to attendance. Attendance is taken in every class by every teacher. This is collated for the month. Students who have less than 75% attendance are intimated through notices and letters are dispatched to their parents. Students falling short of the 75% attendance per term are not allowed to give their exams. The facilities and services for students, the college committees etc. are integral to the regular functioning of the college. The students are encouraged to make use of scholarships, facilities, and services; students do join each of the many committees in the college and join hands with the teacher members in these committees to plan/conduct/monitor/evaluate the events and activities of their committee.

An updated prospectus is published annually after review. The prospectus has been designed for both prospective students and current students. Therefore, some of the information is about the college (e.g., background, vision, goals, facilities, milestones) and there is also a brief description of admission, timings and holidays. The admission requirements, the subjects in the curriculum, duration, and fees of each of the courses from Junior College to PhD are outlined in the prospectus. Likewise, there is information on the value-added

courses. Importantly, the job opportunities and further educational opportunities for students who graduate from the many levels and specialisations of the college are listed. Scholarships/prizes/awards available in the college for students are also listed. The two new self-financed MSc courses each have their own prospectus.

It is the policy of the institution that the information in the handbook and prospectus is adhered to strictly to ensure that a number of systems are in place and are working smoothly.

The college calendar is additionally provided based on the plans of the academic year. The calendar is formulated in detail by the HOS and the committee conveners. This serves as a source of information for students in terms of various programmes held and the examination schedule. All efforts are made to adhere to the dates indicated in the calendar.

5.1.2: Specify the type, number and amount of institutional scholarships / Free-ships given to students during the last four years and whether the financial aid was available and disbursed on time?

The college endeavors to ensure that students who would benefit from need-based scholarships are given maximum support to complete their course. In addition, we also award merit-based scholarships to deserving students, so that the development of their potential is further encouraged. To achieve this, we have the following systems of support:

- Merit-based scholarships: The College awards merit-based scholarships each year. Refer to the data provided below.
- Need-based: There exists a system to provide need-based scholarships for deserving candidates. A large number of students have benefitted from the funds that have been disbursed (see the data below). Students who are in need apply for the scholarships and submit the necessary documents. This is reviewed by the scholarship committee after which the students are interviewed. The deserving candidates are then awarded the scholarships. The amount is disbursed well in time, so that students can maximize the help given.
- The college/each of the specializations are also in touch with organizations which aim to help needy students and collaborate with such organizations to facilitate the disbursement of funds. A good example is that of PFNDAI, which awards a scholarship of Rs.12, 000/- to deserving students of the specialization of Foods, Nutrition and Dietetics. Likewise, AFSTI, annually awards Dr. Naram scholarships to the top three rankers of M.Sc. (II) Foods, Nutrition & Dietetics students. Students are selected after the due process of documentation and an interview to establish need as well as potential. The head of specialization facilitates the process by conducting an initial screening of students and introducing them to the organisation.

The list of Scholarship provided for the last four years are attached in the Annexure

5.1.3: What percentage of students receives assistance from state agencies?

In the last 4 years, the total number of students who received scholarships was 173. Out of these 73 (42.2%), students received assistance from state agencies.

5.1.4: What are the specific support services/facilities available for:

- a. Students from SC/ST/OBC/Economically weaker sections?**

- The institution follows the recommended policy for reservation by the government. This is in addition to the preference given to Christian students as this institute is a minority institute. Students are admitted based on merit within categories. Thus, students from the SC/ST/OBC category are admitted and merit is considered within the category if the number of applicants exceeds the number of reserved seats.
- Help is provided in multiple unstructured ways as the need arises. Students who are economically disadvantaged are provided materials for various practicum subjects at discounted rates. Allowances are made to reduce fees for industrial visits, where the college contributes a part of the amount. There have been instances where some faculty members and students have contributed towards the expenses of selected students.
- The college also renders support in other ways. For example students who have suffered unanticipated loss (personal and financial) have been supported such that they have successfully completed the course. Needy students have been offered temporary jobs in the college (e.g., as the receptionist) in order to help them generate funds to complete their education.
- Support is also provided in the form of additional instructional guidance from the faculty and being assigned a peer tutor.

b. Students with physical disabilities

Students with special needs/disabilities are free to approach the Principal/ HOS/ Coordinator/ Assistant Coordinator for any assistance required. All efforts are made to extend the required help whenever approached.

- A ramp has been provided at the rear lift entrance for students with physical disabilities. A wheel chair is available on the premises to be availed of in case of temporary injury or by those with a permanent physical disability
- The college runs a value-added course on Indian Sign Language (for which all SY and TY students are eligible), to increase students' sensitivity towards the hearing impaired.
- Special seating arrangement is provided for left-handed students during lectures and for examinations.

c. Overseas students

- Overseas students are given hostel facilities on a priority basis.
- They are provided specialized mentoring and coaching to help them with their academic work. They are also provided support for personal problems if any.
- Peer support groups are formed by the faculty within the class to help them overcome any feelings of loneliness or homesickness during the initial period of stay. This is done also for students from other cities in India.

d. Students to participate in various competitions/National and International:

The college recognizes the learning opportunities that are possible through participation in competitions, be it academic, co-curricular or extra-curricular. Hence, it is the policy of the institution to encourage, motivate and facilitate the participation of students in competitions and events.

- Information about relevant competitions (e.g., Avishkar—the research presentation competition for students; Malhaar—the intercollegiate festival of St. Xavier's college) is made available to students and they are encouraged to participate in these competitions.
- Help and guidance is provided to students as they prepare for competitions, both academic and co-curricular. This is followed up with regular feedback on their work.

- Quite a few of our students particularly at the postgraduate level present their research papers at conferences and some have even won awards. They are given a leave of absence during the period of the conference. They are also highly appreciated and their achievements are published in the college magazine.
- For co-curricular activities, two of our students per year, for the past 3 years, have been selected by a team appointed by Mr. Milind Deora to visit the parliament and interact with ministers.
- When students qualify in the elimination rounds of dance competitions and are selected for the competition, the college takes care of expenses related to costumes and for hiring a choreographer.
- Internal exam dates and dates for assignment submissions are adjusted for students participating in competitions/conferences.
- Loss of attendance on the days of the events is excused, and students are allowed to appear for year-end exams.

e. Medical assistance to students:

- All students of the college are covered by Medical Insurance policy as per the directive of the University of Mumbai.
- The College has a trained health care nurse on the premises to attend to medical emergencies.
- A qualified physician has been placed on call, in case the need arises.
- The institute has a liaison with the closest hospital—Bombay Hospital—in case of need.
- The institute has a Gymnasium on the premises with state-of-the-art facilities and a qualified female fitness trainer; the services of the gym and the gym instructor are available at very nominal rates. Students are encouraged to use the gym facilities.
- The college runs a Diet Counseling Centre at very nominal rates for students as well as for others.
- Free Camps on Thalassemia and blood examination for anaemia are conducted annually, the reports of which are shared with the students and follow-up conducted.
- Besides this the staff of the specialization of the Foods, Nutrition and Dietetics as well as the Social Service Committee and the Women's Development Cell are always proactive in conducting various workshops/seminars/hands on training, and medical and nutrition camps on health and fitness for all in the college.

f. Organizing Coaching classes for competitive exams:

The students have not expressed a need for coaching classes for competitive examinations probably because numerous coaching classes are available in the city of Mumbai. Students are provided with information about such coaching classes, along with lists of centres where such coaching is conducted. Students are encouraged to attend these classes and appear for related examinations (e.g., Registered Dietician [R.D.] exam for students of relevant Nutrition-related postgraduate courses). At the postgraduate level, individual faculty, across the various specializations, support students who wish to pursue further education abroad. They guide the students/alumnae about selection of appropriate colleges/universities and programmes of study, admission procedures, the nature of exams to be undertaken (e.g., GRE), and how to write their statement of purpose and other aspects required in the application forms.

g. Skill development:

- Spoken English and communication skills: Language development and enhancing communication skills is part of the specially designed Foundation Course at the FY, SY levels. This subject also improves literary skills. In addition, language lab sessions are conducted to improve spoken English. Clarity English software has been purchased to enable FY BSc students to learn better English.
- Computer literacy: A value-added course on Computer basics is conducted for FY and SY students. TY and postgraduate students are given inputs regarding computer packages related to specialization subjects (e.g., Richpeace software). All postgraduate students learn to use the Statistical Package for the Social Sciences (SPSS). In order to sharpen students' skills with information technology, they are encouraged to make presentations using PPTs.
- Entrepreneurial skills: The institution believes in fostering the spirit of entrepreneurship among its students at all levels. Topics on entrepreneurship have been integrated into all courses at TY and postgraduate levels. Activities such as a Christmas Bazaar, the CRM market etc. provide students with hands-on opportunities to learn some of the skills related to entrepreneurship.
- The Home Science curriculum has a substantial weightage on Practicum courses which focus on skill development. Examples include preparation of different recipes, apparel manufacture, making audio-visual aids, interior design and design application and development, developing plans for conducting learning activities for children, designing workshops on several personal development themes for the underprivileged and the marginalized.

h. Support for slow learners:

- Special classes are conducted for academically challenged students both at a formal and informal level. In addition, special attention is paid to students if and when required after the regular classes.
- A mentorship programme has been instituted to ensure that weak students are identified and recommended for remedial support. Constant encouragement is given to slow learners, and they are referred to the counsellor for additional inputs in studying skills. Their progress monitored carefully.
- Peer tutoring is also set up by teachers.

h. Exposure of students to other institutions of higher learning/corporate /business house etc.

- Field visits and industrial visits/educational tours are organized for the third year and postgraduate levels.
- Internship programmes are arranged for the TY as well as the postgraduate students.
- TY and postgraduate students are sent to other institutes for seminars and conferences (at state, national and international levels) for exposure to recent research and contemporary trends in their fields.
- Postgraduate students collaborate with various reputed industries for the purpose of research.
- Our cultural exchange programmes expose students to foreign institutions of higher learning.

- i. **Publication of student magazines:** The college publishes the college magazine "Expressions" annually (earlier called "Reflections"). The magazine is managed by a committee comprising teacher and student members. Student contribution is high in organizing the material as well as for creative inputs. The magazine focuses on articles and poems contributed by the students as well as their achievements and awards.

5.1.5. Describe the efforts made by the institution to facilitate entrepreneurial skills, among students and the impact of these efforts.

The college recognizes the need for training and development of entrepreneurship skills in the students. All specializations easily lend themselves to entrepreneurial possibilities. This is fostered in various ways.

- Entrepreneurship is part of the syllabus at the TY and postgraduate levels. The students focus on this topic with respect to their specializations. Moreover, in the practicum subjects, students are oriented to practical applications. For example, in the practicum for Food Service Management, the students organize a canteen for the college. Students are also given opportunities to exhibit and sell items that they have made or procured.
- During the orientation to all courses, students are given information on job prospects across all specializations. Graduate and postgraduate students are exposed to entrepreneurship as a career avenue and are encouraged to take up the same. For example, for the specialization of Human Development, students are informed that they can write storybooks for children, design developmentally appropriate toys for children, set up a play school/day care centre/nursery for children, conduct programs for teachers on effective teaching, conduct programs for parents on creative parenting and so on.
- The Textile and Fashion Technology specialization runs a value-added course on “Entrepreneurship in Textile Crafts”. The course covers the theory of entrepreneurship in general and students from any specialization are eligible to enrol.
- The college/specialisations organize various courses, workshops and seminars revolving around the topic of Entrepreneurship. For example, the Specialization of Foods, Nutrition and Dietetics organized a National Seminar in January 2012 on “Entrepreneurship in Foods, Nutrition and Dietetics: Trends and Opportunities”. Apart from the input on the process of setting up businesses, successful entrepreneurs shared their success stories which were a very motivating experience for students. In December 2013, the Women’s Development Cell organized a panel discussion by successful women entrepreneurs relevant to all specializations on the process, the progress, and the outcome of their business ventures.
- Students are provided with opportunities for small-scale marketing and showcasing their products. Students are encouraged to put up stalls during college fests and other celebrations with the objective of exposing them to the possibilities of a later setting up their own business ventures. They are encouraged to put up stalls based on their talent and skill (e.g., mehendi application, snack preparation, organizing games) at college fests and functions such as the Nirmal Utsav Festival. Markets are organized by the students where articles prepared during course work (e.g., embroidery, apparel) are put up for sale. Food-related markets (e.g., Christmas Bazaar, Canteens) are also put up based on snacks and delicacies prepared by the students. The students, under faculty guidance, are involved in planning and organizing all aspects.
- The impact of such efforts is that many students and alumnae have opened their own small-scale ventures and are doing well. This also helps students to work from home and easily take care of both personal and other responsibilities.

5.1.6. Enumerate the policies and strategies to promote participation in extra and co-curricular activities.

The institution recognizes that college education is not only about academics, but must be aimed at holistic development. To this end, a number of intra and extra mural activities are organised.

The College organizes a number of intra-mural events for which the students are encouraged to participate according to their interests, talents and skills. This is facilitated by a process that is supported by faculty, and implemented by students. At the beginning of each academic year, students are invited to become members of various committees. Although the faculty oversees the planning and organizing of various events, students take charge of all aspects of the committee's functions. Information regarding various intra and intercollegiate events is made available to the students, especially to those who are keen on participating. The college has instituted various committees for this purpose. Each has two student members from each class. Students volunteer to work for the committee and are voted for by their classmates in case of more than two entries. These student members are responsible for organizing and conducting multiple events. It is a policy of the college to have a minimum of one event completely organized by students per committee. Once student representations are made for each committee, an internal organization is created (e.g., a General Secretary for each committee). It is to be noted that all activities are held after class hours. In case, it is not, then classes are not held on that day and are compensated for on other days (e.g., Nirmal Utsav—the annual College Fest). Talented students are mentored and guided for intercollegiate festivals and competition and timely assistance with regard to information regarding activities organized by other colleges and institutes is provided.

- At the college level many intra-mural events are organized. Some examples are :
 - The annual college fest (Nirmal Utsav).
 - The Annual Day which is a culmination of Nirmal Utsav includes a Fashion Show in which the Textile and Fashion Technology students (TY and MSc) showcase the garments that they have designed as part of their Practicum classes.
 - Cultural activities: *Dandiya-Raas* celebrations, independence day celebrations, festival celebrations, interclass recipe competition, charts and poster making competitions, teachers day, friendship day, celebrations of religious festivals, *Rangoli* competitions).
 - Indoor sports: table tennis, chess, carom and badminton.
 - Sports Day
 - Social Service activities: Elders' Day Out is an example. The College also engages in social service activities through the extension programmes of each specialisation. For example Bal Utsav is a programme conducted by the Human Development specialisation for underprivileged children.
 - Literary activities such as the college magazine (described above).
 - The annual college picnic.
- Students also participate in intercollegiate events: cultural fests, elocution competitions, essay writing, dramatics and sports. If necessary, adjustments regarding attendance are made. All measures are taken to ensure that students do not feel compelled to participate, but voluntarily engage with these programmes and learn from their experiences. Hence, dates for exams and assignment submissions are always scheduled about 7-10 days prior to the college fest, to allow vigorous student participation. The college also encourages participation by taking care of some of the expenses involved in participation.
- Personality development programmes and camps are organised for graduating classes. These programmes focus on promoting deeper awareness of self, personal values and leadership skills.

- All Student Council members (class representatives and assistant class representatives) attend a 2-day leadership camp every year.

5.1.7. Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR,NET,UGC-NET, SLET, ATE, CAT, TOFEL, GMAT, Central and State services, defense, civil services etc.

Home Science students mostly choose to appear for GRE, TOEFL, NET, SET, and Qualifying exams for Registered Dietician. Students are encouraged and supported for competitive exams, for which the faculty counsel them in the many ways.

- Students can use library resources for preparation.
- Information is given about different exams, the dates as well as opportunities success in such exams will provide. The list of institutes where such exams are held are also provided to students. Our postgraduate students usually express an interest in the NET-SET exam, Registered Dietician (RD) exam (for relevant Nutrition-related specializations) and entrance exams for TISS, NIFT, Interior Designing and other fashion designing courses as well as competitive exams held for admission into postgraduate courses in other Home Science colleges.
- Students are provided guidance for further education in India or overseas admission with regard to filling applications, writing their “Statement of Purpose” and provided strong recommendation letters.
- Students are guided by HOSs/Coordinators/Assistant Coordinators, mentors and faculty to help them prepare for competitive exams.
- Our faculty members are on the Local Executive Committee (LEC) of the Indian Dietetic Association, so dissemination of information is easier. Also members of the RD board are guest faculty and provide inputs to our students.

5.1.8. What type of counseling services are made available to students (academic, personnel, career, psychosocial)

Recognizing that education in today’s times is highly stressful, adequate support is provided to students by various Counselling services:

- The college has a lady counsellor available thrice a week for both academic and personal counseling. Students are encouraged to take the help of the counsellor as and when needed. She also organizes sessions with respective classes in coordination with the class coordinator on topics like “Time Management” and “Stress Management”. The counselor’s availability is stated in the handbook and mentioned in class. The counsellor introduces herself and builds relationships with students by coming to their class and talking to them. Students can take appointments according to their convenience. Students who are perceived as being in need of support and guidance are encouraged by HOSs/Coordinators/Assistant Coordinators, mentors and other faculty to meet the counselor. Sessions are also conducted during the parent orientation programmes on certain sensitive and psychological issues. Parents are also encouraged to talk to the counselor if they wish to. When necessary counselling sessions include the student and her parents.
- Faculty from the Human Development Specialisation who are trained in counseling also provide timely help and assistance to students who have personal and academic problems.

- Postgraduate students specializing in Human Development at the MSc 1 level have to undergo training in counselling skills. Before becoming counsellors they require to be assisted with their personal concerns and issues which the faculty in charge of the counselling practicum accomplishes.
- Each teacher is a mentor to a group of 20-25 students for academic and nonacademic issues. All faculty members are always available to the students as and when required.
- A range of psychosocial issues have been integrated into the curricula such as adolescent problems, sexuality, mate selection, and value-building.
- Diet counseling is also an important part of the services offered, and the S.Y students who have this as a subject are encouraged to redesign their diets and that of the family. This is a point that has been highly appreciated by the parents.

5.1.9. Does the institution have a structured mechanism for career guidance and placement for students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students selected during campus interviews by different employers (list the employers and the programmes).

Yes:

- Information regarding different careers leading from each of the specialisations is in the prospectus.
- Career counselling is organized for SY students to help them choose their specialisation at the TY level.
- Information regarding different careers leading from each of the specialisations is given to parents at the time of orientation at both F.Y. and S.Y. levels.
- Parent meetings arranged for senior students (TY and MSc) address the career and further education opportunities. Alumnae of the specialisation talk to the parents in these meetings describing their career and educational paths and achievements.
- Career guidance is also given at various levels to the students (in their classes and through appointments—thus, both group/small group/individual), by mentors, coordinators, and HOS at the time of orientation and periodically through the year.
- Alumnae are invited to conduct sessions and also to talk about different careers. These alumnae are a source of inspiration to the students who begin to visualise how they too would like to fashion their own careers. Every specialization invites alumni from their field to interact with the students. Sharing of experiences by alumna who are studying or working in various academic and professional organizations, help students make decision regarding further education and/or employment.
- The Employment Placement Cell invites various organizations to make presentations about their organizations and about career development opportunities.
- The Employment Placement Cell (EPC) conducts various sessions to help students to prepare for the professional world. These include information on Resume writing and the process of appearing for an interview.
- The EPC organises campus interviews, for which alumnae can also register. If there is an advertisement for a particular job, the faculty pass this information to alumnae through the EPC. Several students have obtained placements through this exercise. Details are provided in the following table.
- The tie-ups with the many NGOs, GOs, industry, academic organisations, research organisations for partnership in co-curricular activities, for student placement/internship, student/sponsored research, educational tours etc.

simultaneously allows students to identify the types of work settings that interest them and get jobs after graduation.

- When possible, the college also absorbs students with experience for part-time teaching vacancies and also in the Research Centre.

Percentage of students selected during campus interviews by different employers (list the employers and the programmes):

Details	2009-10	2010 – 11	2011 – 12	2012 -13
No. of students who applied for the campus recruitment program.	FND: 23	FND: 12	FND: 02	FND: 12
	HD: 28	HD: 22	HD: 14	HD: 16
	TFT: 15	TFT: 15	TFT: 12	TFT: 8
	CRM: 22	CRM: 11	CRM: 08	CRM: 16
	Total: 88	Total: 60	Total: 36	Total: 52
No. of students selected for placement during the year.	FND: 12	FND: 10	FND: 00	FND: 7
	HD: 16	HD: 12	HD: 07	HD: 7
	TFT: 05	TFT: 06	TFT:14	TFT:6
	CRM: 16	CRM: 06	CRM:08	CRM:7
	Total: 49	Total: 34	Total: 29	Total: 26
Percentage of students selected through the EPC	56	57	81	50
No. of programs organized				
• CV writing workshop	125	78	60	73
• Campus interviews	88	60	36	54
No. of companies/ corporate/ schools/ NGOs participating in the campus recruitment program	15	13	10	11

List of Companies and Agencies Participating in campus recruitment:

In 2009-2010, the participating companies/organisations were:

- Women’s India Trust
- K – 11
- Hexagon Nutrition Pvt. Ltd.
- EVOLVE
- Talwalkar’s
- VLCC
- Muktangan
- Gladioli Education
- Tree House
- New Age Knowledge Solutions
- Nandini Fashion House
- Cisons Knits
- V.S. Exports

In 2010-2011, the participating companies/organisations were:

- Hexagon Nutrition Pvt. Ltd.

- Vrijesh Export House
- Avalon Heights International School
- Vira Enterprises / Mann Creations
- i-Leap
- TIFR – CCCA
- Garodia Academy
- Muktangam Paragon Charitable Trust

In 2011-2012, the participating companies were:

- Shanti Juniors – Preschool
- Gopal’s Garden
- Muktangam Charitable Trust
- Nandini Fashions
- Vrijesh Corporation
- The Retail Hub
- You Fitness Club

In 2012-2013, the participating companies were:

- Garodia’s Academy – A preschool
- I – Leap
- Beehive
- Polygon Learning & Education Pvt. Ltd
- Hexagon Nutrition Pvt Ltd
- VLCC Healthcare Ltd
- Treasur(a bag designer firm)
- Nandini Fashions
- Talwalkars
- Hindustan Field Services Pvt. Ltd/ Smollan Group

Companies/Corporate/ NGOs have stated that on-campus recruiting continues to be the number one method for reaching new college graduates.

5.1.10. Does the institution have a grievance redressal cell? If “Yes”, list(if any) the grievances reported and redressed during the last four years.

- The institution has constituted a Student Grievance Redressal Cell. This grievance cell committee comprises the Principal, another Management Representative, representatives from the Senior College staff, Junior College staff, Non-teaching staff, Support Staff, and a Student Representative. A box is kept in the common room to deposit the complaints, requests or suggestions anonymously.
- Alternatively, students can also use the following grievance procedure policy: first, to take the grievance to the person concerned, that is, the person one has a grievance with. In other words, that person is given the opportunity to remedy the situation. If the person does not address the grievance satisfactorily, next the students can take the grievance to the class coordinators/HOS. Next in line is the principal, and lastly management representatives other than the principal. If the complaint is not with a person but with a policy etc., the academic coordinator/HOS and/or the principal can be approached as a first step. Students can bring up a matter confidentially with the HOS/mentor who can support them in following the appropriate protocol and to resolve the matter satisfactorily.

- No major grievances have been reported so far. This could be attributed to the fact that mentors, coordinators, Heads of Specializations as well as the other faculty are in regular touch with students and have instituted a feedback system, which ensures that most issues get resolved before they balloon into a grievance.
- Moreover the handbook explicitly states the rules, so students are well aware of the same and tend to adhere to it.
- So far, the grievances expressed are minor and the main themes have been:
 - equipment not functioning correctly/adequately
 - a teacher moving through the syllabus at a slower/faster pace than expected
 These grievances have been promptly addressed: Equipment has been repaired immediately and faculty members have been given feedback so that they could monitor their pace of instruction accordingly.

5.1.11. What are the institutional provisions for resolving issues pertaining to sexual harassment?

The college being mainly a women's institute, with very few male members on the premises, such incidents have not occurred, but the following preventive steps have been taken:

- Awareness is created and students are encouraged to report indecent behavior if it does occur in their lives in or outside college.
- Some faculty hold sessions in class where they address issues, such as eve teasing, violence in dating, molestation in crowded places and so on. Students are trained on how to identify signs of sexual harassment and how to deal with the same. Information is also given on how, if necessary, a relationship with the opposite gender should be terminated, since today, the repercussions of the same, such as facing physical attacks or public humiliation are on the rise.
- Sexuality education and gender sensitization are integrated into the syllabus with subjects like Adolescent development and Foundation Course (human rights). Sexuality (including sexual harassment and other sexual crimes against women) is a unit in the Adolescent Development course.
- The Women's Cell conducts Sexuality Education Sessions at the F.Y. and S.Y levels.
- Teachers/mentors/HOSs who have come to know of students who are being/have been sexually harassed in their homes/families have been counselled and guided to take appropriate action.

5.1.12. Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

Ragging is forbidden by the college. The college is extremely strict about this rule and students are informed about this rule multiple times. There have not been any such incidents of ragging till date.

The college has a friendly atmosphere and nurturing environment, with the junior and senior classes showing friendship and camaraderie. The organization of the Fresher's Party and various co- and extra-cultural programmes fosters the value of togetherness and bonding.

5.1.13. Enumerate the welfare schemes made available to students by the institution:

Students' welfare is best catered to when their holistic and all-round development is considered. A number of policies have been instituted in this regard.

- **Economic Welfare:**
Financial assistance is provided for needy students formally, through need-based scholarships, as well as informally by the Management by waiving fees partially or collecting fees in easy instalments. At times faculty and students make generous contributions to those in need, especially when paying for outstation visits, picnics, paying the registration for attending seminars, and at times buying stationery and books. The Management has borne the expenditure for some educational tours/extension activities to ease the financial burden for needy students. This has motivated students from economically-challenged families to seek admission to the college. Needy students are also offered part-time jobs in the college.

- **Academic Welfare:**
Besides the mentoring by faculty, support from peers and members of the Student Council, a professional counsellor is on the premises to help students with academic or personal matters. This gives a sense of security and confidence to those in distress. Career counselling too is imparted at different times through different channels. Formal and informal remedial coaching and peer tutoring have helped boost the morale of the students in the institute. When necessary, students are evaluated on their best submissions of work (in other words, they are rewarded for their efforts to improve their performance and not penalised for the process of learning). Hostel facilities are also provided for students who live in Mumbai but find commuting to be a challenge. If teachers are absent, others take over with their subjects so as not to keep the students waiting. Opportunities to present posters/papers in National and International conferences have given a wider exposure to our students. Exchange programmes with foreign universities have also helped in the holistic development of students

A cybercafé with internet and printing facilities at nominal cost, training in computer programmes as per the need of the syllabus with the latest software, has helped those students who may not be able to afford to have their personal computers. The introduction of value-added courses has also benefitted students immensely. Inviting experts from different fields has given much needed exposure for making useful right contacts for further career development.

- **Health and Well being**
 - A pertinent point to make note of is the concern that the Principal shows to the students during exam time by distribution of a snack/drink/chocolate to all those who are writing their exams.
 - There is provision of clean, filtered drinking water on every floor and all laboratories, and clean toilets on all floors. There is a qualified nurse on campus and a small infirmary. First Aid is rendered whenever required or if the situation warrants, the students are taken personally by someone in authority to the neighboring hospital.
 - Provision of the Gymnasium and the Diet Counseling facilities at nominal rates work towards positively impacting the health of students.
 - As described above, mental health issues are addressed through the services of the counsellor, and the mentoring offered by faculty.

- Infrastructural facilities
 - Classrooms and laboratories are clean, hygienic, well-lit and well-equipped, creating an atmosphere for academic growth.
 - All classrooms are ICT-enabled which permits students also to make PPT presentations with ease when required.
 - A garden area with ornamental, medicinal, and fruit bearing plants is maintained with care.
 - A common room with toilet, water filter, microwave oven and some indoor games is maintained for students.
 - New lifts have been installed and students can avail of this facility right upto the 5th floor or to any floor if medically required.
 - A chapel for prayers and in case of Muslim students, a separate prayer area for offering Namaaz is provided.
 - Hostel facilities are provided for outstation students as well as for those residing in Mumbai facing genuine problems in commuting.

5.1.14. Does the institution have a registered Alumni Association? If Yes, What are its activities and major contributions for institutional, academic, and infrastructural development?

The college has an Alumni Association which is in the process of getting registered. All efforts are being made to increase the strength of registrations. Almost all graduating students become members in the last month of their course. The association organizes an annual event and several academic programmes. Alumni support is also rendered for community service through students and NGOs connected to the college. The Alumni Association has been actively involved in various activities of the college. A significant recent contribution was financial assistance of Rs 2,50,000 to the college for making infrastructural alterations for the International Conference hosted by the college in January 2013. Several alumni members serve as academic resource persons for the institution. Members with the required qualifications and experience are invited to be academic experts, examiners and resource persons.

- The college has established a good network, and the college administration and faculty continue to remain in touch with the alumnae. Alumnae placed in positions of authority, recommend the college to potential employers and also support campus interviews.
- The alumnae members also periodically share their professional and entrepreneurial experiences with the students. They form a crucial source of feedback during syllabus modification and revision.
- The association also works for organizing institutional activities showcasing the strength and unity of the college.

5.2. Student Progression

5.2.1. Provide the percentage of students progressing to higher education or employment (for the last four batches). Highlight the trends observed.

The college offers:

- A PG Diploma in Dietetics and Applied Nutrition [self-financed]
- Master's courses in five specialisations (Foods, Nutrition, and Dietetics; Food Processing and Preservation [self-financed]; Sports Nutrition [self-financed]; Human Development; and Textile and Fashion Technology)
- A master's course in a sixth specialisation (Ergonomics and Management [self-financed]) is expected to be started in June 2014 as only the final sanction from the University of Mumbai is pending.
- PhD in Home Science in three specialisations (Foods, Nutrition, and Dietetics; Human Development; and Textile and Fashion Technology)

This provides an avenue for students who graduate from the BSc Home Science programme to pursue further studies; also MSc students after graduation can begin to think of doing a PhD in the college. Students who seek admission into the aided MSc courses are selected into each category (Minority, SC/ST/OBC/OBT/ NT, Open) by merit (past performance; and performance on entrance examination and interview). Selection into the self-financed MSc/PG Diploma courses is by merit alone. Those students who cannot be accommodated because of the limited number of seats do seek admission in various postgraduate programmes in Mumbai, other parts of the country as well internationally. Approximately 90% of our FND graduates enhance their future prospects by pursuing higher studies directly after completing their BSc; 75% of our HD graduates choose to study further immediately after completing their BSc. The TFT and CRM graduates appear to prefer career entry or self-employment with 35% continuing with higher studies immediately after graduation.

Students who do not study further take up employment in various organizations, or take up entrepreneurial ventures for self-employment.

All students who desire to work directly after graduation from the BSc program do get a job: either through the campus recruitment/EPC, faculty referrals/contacts, and independently.

All postgraduate students obtain jobs after graduation or engage in entrepreneurial activities/freelance (e.g., as a resource person for schools/corporate sector, conducting workshops for schools/corporate sector).

These trends have been observed by the respective HOSs, Coordinators, teachers, as well as based on the reports made by students/alumnae on an informal basis. It must be noted that as we are a women's institution, and have many students coming from families who encourage them to seek a life education to nurture the family, some students choose not to be employed. The course content, value-added courses, seminars, and talks by professionals are inspirations for those who prefer self-employment.

Student Progression	Percentage
UG to PG	FND: 90% HD: 75% TFT: 35% CRM: 35%
UG to direct career entry	FND: 6% HD: 20%

	TFT: 55% CRM: 60% EPC, staff referrals/contacts, entrepreneurial activities, other independently sought jobs
PG to employment/ self-employment	100% Nutrition-related: 25% through EPC, 40-50% by staff referral/contacts, remaining independently HD: 50% through EPC, 40% by staff referral/contacts, 10% on their own TFT: 35-40% through EPC, 25-30% by staff referral/contacts, remaining independently (entrepreneurial activities)

5.2.2 Provide details of the programme-wise pass percentage and completion rate for the last four years (cohort wise/ batch-wise/ as stipulated by the university). Furnish programme wise details in comparison with that of the previous performance of the same institution and that of the colleges of the affiliating university within the city/district.

The Nirmala Niketan College of Home Science has a single department programme (i.e., Home Science). Over the years, the completion rate has been on an average 90-95%. Being the only Home Science college affiliated to the University of Mumbai, no comparison can be made to other institutes of the affiliating university.

Programme-wise Pass Percentage and Completion Rate for the Last Four Years

	2009-2010	2010-2011	2011-2012	2012-2013
FYBSc	77.50	67.09	Sem I- 35.25 Sem II- 57.25	Sem I- 57.71 Sem II- 55.11
SYBSc	88.19	93.28	91.23	Sem III- 76.85 Sem IV- 86.11
TYBSc.	98.32	100.00	90.77	91.74
MSc.I	92.86	100.00	73.44	Sem I- 100.00 Sem II- 95.31
MSc.II	90.00	100.00	100.00	84.48
PG Dip	95.00	90.48	85.71	80.00

Observations/Comparisons within the Four Years:

- The lowest pass percentage was obtained for the first semester of the introduction of the Credit Based Semester Grading System (CBSGS) at the FY BSc level. Students were clearly not well-prepared to cope with the multiple unit tests and assignments in all the subjects, and the semester-end examinations. Teachers too were new to the system.
- All diagonals show the progress of the same group of students. The same group with a pass percentage of 35.25% did better in Semester II and even better in Semesters III and IV.
(The University of Mumbai revised the number of unit tests per subject and reduced it to one; at the college level, feedback was collected from students and implemented for the subsequent semesters—such as spacing out assignments.)
- Overall in the college, students are supported to develop into excellent learners and better achievers. Therefore, all diagonals especially from FY to SY show better pass percentages; MSc students also by and large perform better in the second rather than the first year.
- The pass percentage is high except for the few instances noted already.

Approximately 10-20% of the third year BSc and the postgraduate students graduate with a distinction, 40-50% graduate with a first class.

5.2.3 How does the institution facilitate student progression to higher level of education and or towards employment?

The College keeps up to its goals of imparting education that is life-oriented, community-oriented and most importantly career-oriented. The college facilitates student progression to higher level education and/or towards employment through the quality of education provided. The encouragement of a scientific temper in students specifically enables students to seek admission into and succeed in higher education programmes. Activities such as the following further strengthen the scientific temper of students:

- T.Y. and M.Sc students are sent to other institutes to attend seminars, workshops and conferences. This also gives a good exposure to the students to become more confident in their interactions, meet experts in their field, and build up contacts.
- M.Sc II students are supported by their research guides to present their research work at conferences and symposia which gives them a good exposure.

The substantial skill-development through (a) practicum subjects, (b) exposure/collaborative work with NGOs, GOs, research organisations/other academic organisations, (c) participation and organisation of co-curricular activities/events in the college, and (d) participation and organisation of extra-curricular activities of each of the many committees in the college such as Magazine Committee, Social Service Committee, allows students to enter the job market and succeed.

Also see our response to Ques. 5.1.9 with regard to the many ways in which we provide career guidance and facilitate placement of students on graduation.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out.

The faculty of the college takes keen interest in the academic growth of the students. Students who are weak academically are identified by the teachers on the basis of:

- The use of participatory teaching-learning methods in which the learner is active and the teacher can judge the quality of learning and the nature of support a student requires.
- Use of quizzes and mock tests.
- Regular assignments/unit tests given to the students.

Such students are then given special inputs by the teachers. Some of the measures adopted by the staff of the college include:

- Remedial classes are organized by the concerned staff for the students beyond regular class hours.
- Peer tutoring and peer support is set up.
- A copy of the resource material for all the subjects, with list of references is kept in the library (hard copy and soft copy), to which the students can refer.
- Students are helped to answer question papers of previous exams and learn how to identify the correct information for the answer and to articulate this answer well.
- Improve students' performance in assignment or practical by giving them additional opportunities.
- Students are motivated and encouraged by the staff.
- Personal counseling is provided by the mentors, coordinators, HOS to students, to help them perform better.

- Material is simplified for them by the faculty

5.3 Student participation and activities

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

The college has various active committees which involve staff as well as students. Some of the committees in the college are:

- Student Council
- Sports Committee
- Cultural Committee
- Social Service Committee
- Magazine Committee
- Inter-Faith Committee
- Library Committee
- Women's Development Cell
- Subcommittees of the IQAC (also known as the 7 NAAC committees)

Each of the faculty members is a member of (at least) two such committees. At the onset of the academic year student representatives from all sections of the college form a core body for each of the committees. These students who are part of the core body take regular feedback from their classmates on the type of events to be organized. In consultation with the staff members of the committee, the events to be organized are finalized at the beginning of the academic year. Most of the events feature in the college calendar, so as to help students plan better. Organization of events and execution of the same is managed by the core body of students with guidance from the staff. In addition to the extra-curricular activities organized by the various committees in the college, some events are planned and executed by the four specializations for the students primarily at the T.Y. and MSc I and II levels. However participation from the F.Y. and S.Y. students is also invited.

In addition to events being organized by the four specializations, value-added courses are being run by all the four specializations. Many of these courses are approved by the University of Mumbai. Courses are open for students at all levels. Students of any one specialization can also enroll for a course run by any other specialization.

The following Student Activities were arranged:

Student activities and participation

A. Academic activities have been held of the following categories:

- 1. Syllabus oriented**
- 2. Student development programmes**

1. Syllabus oriented student activities:

F.N.D:

- Celebrated Breast Feeding Week with T.Y. and P.G.Diploma student participating with awareness programmes
- Celebrated National Nutrition Week with students participating in intercollegiate quizzes and competitions and winning many prizes
- Bridge courses have been conducted for students of non – nutrition background to help them cope with the Nutrition subjects

- Promoting an environment and attitude of being Entrepreneurs by organizing two day national seminar on RECENT TRENDS IN Entrepreneurship in Nutrition

H.D:

- Various seminars have been held which had student participating as organizers and delegates e.g. seminar on Storytelling – An avenue for Transformation and Growth” and “Professional Counseling across the life span – challenges, innovations and future directions”

T.F.T.

- Educational trips were organized to Ahmedabad and Kerala. These industrial visits have provided a practical insight into the learning happening in class
- Students work has been showcased in the Fashion show organized at Nirmal Utsav—the annual college fest
- A textile symposium titled “Textfest” was organized which provided opportunities for students to participate in organization and learning.

C.R.M.

- Seminars have been organized for input regarding recent relevant issues, e.g. “Consumer and recent developments in the Telecom Industry” and “Rendering”
- Organizing a C.R.M. Market is an annual activity of the department where articles made by students are displayed and sold and the funds used for student development activities
- Students actively participated in the Breast Feeding Week and organized awareness programmes
- An industrial visit was organized to Kerala and Goa to provide a practical insight to classroom learning.

2. Student Development programmes:

- Annual Picnic: The college organizes an annual picnic every year, extremely enjoyable to provide an avenue for student and faculty bonding.
- Exchange Programmes: A student exchange programme was conducted in 2010-11 with student and faculty participation to Blois , France , for a period of 15 days
- All students of T.Y.BSc and MSc. II attended a “Personality Development” programme conducted in collaboration with the Don Bosco group.
- Visit to Parliament: Student representatives participated on a visit to the Parliament programme to expose the students to the working of the government
- Value added courses: Students have attended these courses as per their interests which has helped them in acquiring special skills in relation to a particular course like Ergonomics, FPP, Creative Parenting, Sign Language. This also gives the opportunity to students specializing in one area to also get s

B. Co-curricular and Extra- curricular Activities:

In line with the college vision, a holistic development of the student community has been targeted

Students are part of and are actively involved with the working of various committees and have taken initiatives in planning, preparing and following through of events under the guidance of the faculty.

The following are the committees that students are a part of:

1. **Student Council:** The following activities were organized :
 - Celebration of Independence Day
 - Picnic
 - Visit to the parliament
 - Christmas Day Programme
 - Sessions on:
 - **Maintaining** Accounts’
 - ‘Minutes and Report Writing’
 - “Youth against Terrorism
 - Leadership and Motivation’
 - Report writing
2. **Library Committee:** The “Best Reader’s Award” was instituted in 2011-12, for the student who makes the best possible use of library facilities and spend quality time in the library
3. **Interfaith Committee:** The interfaith committee has organized the following to provide an environment of Religious and communal tolerance and acceptance and to foster love among communities:
 - Rakhi making competitions
 - Interreligious Prayer Service
 - Celebrating Festivals of various Communities
 - Organising a talk on “ Communal Harmony”
4. **Social Service Committee:** To promote the value of service and to extend of ourselves for the benefit of the society and the underprivileged sections; the following programmes were organized:
 - Selling flags made by mentally challenged children ; the funds raised were given back to the NGO
 - Anaemia and Thallesemia detection as well as Blood Donation Camps
 - In collaboration with ALERT INDIA, a leprosy drive was organized . Students collected funds of Rs. 45,000 which was given ti the NGO and have won an award for their initiative
 - Beach Cleaning drive
 - Elder’s day out—organized in college for members of an old age home.
 - Health checkup camps
 - Blood donation
 - Sessions on cybercrime, protecting ourselves from terrorist activities
5. **Women’s Development Cell:** The following sessions were organized:
 - Session on “ Understanding Human Sexuality”
 - Session on “Overcoming Obstacles”
 - Session on financial Literacy titled’ Money Matters”
 - International Women’s Day was celebrated by putting up posters on ‘Women Achievers of India’

6. Sports Committee:

Sports and Games

- **Indoor**

- Carom, Chess, Badminton, Throw ball, Table Tennis
- **Outdoor**
 - Races- 100meter, 200meter, shot put, Javelin throw, High jump, Long Jump, Hurdles, Tug of war, Relay race, Festival events
- 7. **Cultural committee:** Students have taken part in many intercollegiate cultural fests. Students have been instrumental in organizing the annual cultural fest—“ Nirmal Utsav”.
 - **Workshops**
 - Salsa,
 - Calligraphy,
 - Cake making
 - Saree draping
 - **Competitions**
 - Mehndi, Nail art, Tadoo making, Sweet making, Swadisht traditional recipe Competition, Poster Competition, Essay Competition, Rangoli Competition, Essay Competition
 - Organizing Dandia, Jam session
- 8. **Magazine Committee:** Students have worked in sourcing articles, preliminary editing and in organizing the layout of the magazine.

Following activities are initiated by the magazine committee

1. “LIMERICKS CONTEST” There were 63 students registered in all, across the four categories: INDIVIDUAL (ENGLISH) – 23 entries; INDIVIDUAL (HINDI) – 3 entries; PAIRED (ENGLISH) – 16 entries; PAIRED (HINDI) – 18 entries.
2. “Story-Building Wall”
3. “Talent Search Weeks”
 - Jokes/Riddles Week
 - Puzzles Week
 - Poetry/ Articles Week
4. Contests like ‘
 - Story Writing
 - Talk Out of Your Hat’,
 - ‘Boosting Bollywood Beats’,
 - ‘Jest-A-Minute’,
 - ‘Magazine Cover Page Designing’,
5. Inter Class Quiz Competition “MASTERMIND”

Other extracurricular activities

- Putting Stalls of food during various events throughout the year
- Celebrating Independence day, friendship day, Teachers day
- Welcome party for fresher’s and farewell party for the final year students
- Participation in Intercollegiate events
- Extension trips,
- Educational Trips
- Organizing health check up camps
- Organizing Seminars and conferences
- Value added courses
- Screening of movies
- Fun n Fair

Also, please see the following table on the activities of the Student Council:

LIST OF ACTIVITIES CONDUCTED BY STUDENT COUNCIL

Activity	Number of Students Who Participated				
	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
Seminar on 'Leadership and Motivation'	46	43	38	41	41
Commemoration of Indian Independence					
• Swadisht traditional recipe Competition	20				
• Poster Competition		20		15	11
• Essay Competition			30		
• Rangoli Competition		30		40	90
• Cultural Programme	35				
• Canteen Based on the four regions of India.(north, south, east and west)	50				
• Posters on resources of India	-				
• Posters on Clothing of India	15				
• Posters on Food of India	15				
• Essay Competition	15				
• Traditional Costumes of India	12				
• PowerPoint Presentation Competition on 'We are proud of India because...'			Entire college		
			20		
Teachers Day	40	40	30	35	40
Annual College Picnic	400	603	583	609	592
Fresher's party	200	170	200	100	500
Christmas Day Celebration and Felicitation of Support Staff	60	20	30	40	35
Workshop on "Youth against Terrorism"	4	NA	NA	NA	NA
Seminar on "Report Writing"	46	NA	NA	NA	NA
Session on 'Maintaining Accounts'	NA	NA	30	NA	NA
Session on 'Minutes and Report Writing'	NA	NA	30	NA	NA
Visit to Indian Parliament	-	-	4	-	1
International Youth Fellowship	NA	NA	NA	NA	150

5.3.2. Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels for the last 4 years

Our students excel both in academic as well as co-curricular and extra-curricular activities.

Co-Curricular

University: Participation in Avishkar, a university level research presentation competition; students have reached the state and zonal levels.

National: Participation in national level conferences and seminars

International: Students have participated in international conferences and presented papers and posters. Students have got sponsorship for attending international conferences.

List of Student Achievements (2009-2013) (Examples)

Year	Name	Class	Category	Title	Prize	Event
2009-2010	Amzu Jamal	MSc II FND	Poster & oral	Polycystic Ovarian Syndrome (PCOS) - A New Era Epidemic	1st	Avishkar - Inter collegiate Research Festival
2009-2010	Amzu Jamal	MSc II FND	Poster & oral	Polycystic Ovarian Syndrome (PCOS) - A New Era Epidemic	2nd	Anveshan - Inter University Research Festival
2009-2010	Amzu Jamal	MSc II FND	Poster	New Era Epidemic: Ovaries on strike	2nd	Ovary Unraveled 2009
2009-2010	Delnaaz Disawala	MSc II	Poster	Effect of antioxidants on the Totox value of Soyabean Oil	1st	XX Indian Convention of A food Scientists and Technologists, Category: Fats and Oils
2009-2010	Shirin Janoos		Presentation, University Level	Risk of Metabolic Syndrome among Children and Adolescents	2nd	Avishkar - Inter Collegiate Research Festival
2009-2010	Swaroop A.	MSc II TFT	Mumbai Region	International design competition	1st	Society of Dyers and Colourists
2009-2010	Amruta V.	MSc II TFT	Design Competition		3rd	
2009-2010	TYCRM students	TYCR M	Dollar Challenge	INDIABUL LS MONETA 2009	1st	IndiaBulls Moneta 2009 organized by R.A. Podar College of Commerce & Economics
2010-2011	Amzu Jamal	MSc II FND	Academic Excellence	Naram Academic Award on World Food Day	1st	Association of Food Scientists and Technologists
2010-2011	Melita D'Souza	MSc II FND			2nd	
2010-2011	Andrea Martins	MSc II FND			3rd	

2010-2011	Shimpli Patil	MSc I FND	Intercollegiate Quiz	Nutrition Week	1st	BMN College
2010-2011	Swaroopa Adusumilli	MSc TFT	Design Competition	International Design Competition, London, UK	1st Runner up	Society of Dyers and Colourists
2010-2011	Amzu Jamal	MSc II FND	Presentation	Polycystic Ovarian Syndrome (PCOS) - Relevance in the Current Scenario	Best Paper Presentation	43rd National Conference of the Indian Dietetics Association
2011-2012	Stephanie D'Souza, Tiana Rodrigues & Leanne Fernandes	MSc I FND	Recipe Competitions	-	-	PFNDAI sponsored Seminar at P.N. Doshi College, Ghatkopar
2011-2012	Rachael Alphonso	MSc II FND	Nutrition Communication	-	1st	by NSI Mumbai Chapter
2011-2012	Arwa Lakdawala	MSc II FND	Competition	-	3rd	
2011-2012	P.G. students	P.G.	Nutrition Education Game Making Competition	-	2nd	IDA
2011-2012	Shimpli Patil	MSc II FND	Academic Excellence	Naram Academic Award on World Food Day	1st	Association of Food Scientists and Technologists
2011-2012	Megha Vishwanathan	MSc II FND	Academic Excellence		2nd	
2011-2012	Rashida Vapiwala	MSc II FND	Academic Excellence		3rd	
2011-2012	Awani Gogri	MSc I TFT	Design Competition	International design competition	Regional Award	Society of Dyers and Colourists at the International Conference
2011-2012	Prachi Savla	MSc II TFT	National Design Competition	-	Jury Award	Society of Dyers and Colourist
2011-2012	Rachael Alphonso	MSc II FND	“Take Care, take charge”	Mobile Dustbin - a folded paper bag that doubles as a waste collector	among 10 best	Environment friendly ideas by Garnier and Times of India initiative

				that could be carried about by anyone in the folds of a wallet		
2011-2012	Priyam Ahuja	MSc II FND	Paper presentation	Formulation of nutrition communication package and its impact on nutrition knowledge of Indian Hockey Coaches and players	Best paper	INCOSAN 2012 the International Conference on Sports and Nutrition, Coimbatore
2012-2013	Leane Fernandes	MSc II FND	Recipe Competition for obesity	-	1st	Narmada Kidney Foundation
2012-2013	Kruti Shah	MSc I FND		-	2nd	
2012-2013	Leane Fernandes	MSc II FND	Poster making	Oils and phytochemicals	1st	Saffola
2012-2013	Sasmira Naik	MSc II SN			2nd	
2012-2013	Sasmira Naik	MSc II SN	Recipe Competition	-	1st	Saffola
2012-2013	Shivani Shah	MSc II FND		-	2 nd	
2012-2013	Tiana Rodrigues	MSc II FND		-	3 rd	
2012-2013	Rupal Shah	MSc II FND		-	3 rd	
2012-2013	Kaynat Khan & Naina	P.G.	Debate Competition	-	1st	Saffola
2012-2013	Mariam Balalsinorwala & Luana Mascarenhas	MSc I FND		-	2nd	
2012-2013	Ekta Sutar	P.G.		-	3rd	
	Chandrika Mishra	MSc II SN				

Examples of the Achievements of Our Doctoral Students

1. Ms Minelly Rodrigues won the Best Poster Award for her paper entitled *Influence of a ragi-soyabean combination on the viability of probiotic organisms during storage and under simulated gastrointestinal conditions* at the International Conference and Exhibition on Food Processing Technology by OMICS group, 22nd- 24th November 2012, Hyderabad. (Co-authors: Subhadra Mandalika [guide] & J. Sahayog).

2. Ms Jignasa Shah received the **Best Oral Paper Award** for the paper entitled *Eco-friendly printing techniques for fashion fabrics in a small scale industry* at the Consortium of Green Fashion, Mumbai, on 5th April 2013 (Dr Ela Dedhia: guide).

3. Ms Jignasa Shah (PhD student) received the **Mid-Career Award** at the 30th Biennial Conference of the Home Science Association of India, on 21st December 2013 (Dr Ela Dedhia: guide).

Students with Special Achievements in their own areas of extra-curricular interests:

1. Deanne Nunes of F.Y.B.Sc. is undergoing football training cum trials for representing University of Mumbai from 6th to 26th January 2013
2. Alannah Fernandes of M.Sc. I – H.D. is a violinist in the Bombay Chamber Orchestra.

5.3.3 How does the college seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

Data and feedback from Graduates/Alumnae

- Graduating students' exit questionnaires have been reviewed by HOSs and suggestions noted.
- Teachers and ex-students remain in contact because of the high quality relationships formed. Teachers informally track the achievements of the alumnae and the sectors/types of jobs that the alumnae are involved in.
- Alumnae opinions are also sought when they are invited as resource persons to the college or through the activities of the Alumni Association.
- In the Human Development specialisation, two dissertations focused on tracking the Human Development specialisation alumnae of the BSc and MSc programmes respectively.
- All feedback such feedback is integrated into the functioning of the college including curriculum, teaching-learning methods etc.

Data and feedback from Employers

- Prospective employers who visit the institute during campus interviews, seminars and resource persons, meet Principal/Staff of the college and give feedback on job requirements which are then incorporated in the academic program.
- Employers of alumnae have provided feedback which has been used for development of the curriculum and planning enrichment activities for students.

5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazines and other material? List the publications /material brought out by the students during the previous four academic sessions.

The college magazine has a staff and student committee that work in concert to manage the publication of the magazine. All students are encouraged to pen down their creative thoughts in the form of prose or poetry. During seminars/conferences organised by the college, student volunteers are recruited as rapporteurs—they are trained to compile and present the information in a scientific and lucid manner. Postgraduate students are encouraged to present posters, papers in National/International conferences, or send their papers/articles to be published in reputed journals/newspapers/books and magazines. Some subjects lend themselves to students preparing manuals, pamphlets, puppets, flash cards, models, bibliotherapy as study material.

List of students' research publications is attached in the Annexure

5.3.5 Does the college have a student council or a similar body? Give details on its selection, constitution, activities, and funding.

The college has a Student Council, the constitution of which follows the prescribed guidelines issued by the University of Mumbai. The details are as follows:

Election and Constitution of the Student Council

- Class representatives and assistant class representatives are selected in each class through a democratic process of election.
- These elected representatives form the Student Council.
- These selected representatives are then asked to stand for posts within the Student Council (such as General Secretary).
- Interested candidates fill in a form and are evaluated by the staff through an interview.
- Those who pass the interview contest for election within the Student Council.
- The representatives then vote to elect the office bearers of the Student Council who will form the Executive Council. This includes the Secretary, Assistant Secretary, Additional Secretary, Assistant Additional Secretary, Treasurer, Assistant Treasurer, and two nominated members.
- There are teachers who are especially assigned to support the Student Council members in developing their leadership skills.

Activities

- The Student Council is responsible for the day-to-day administration and disbursement of information in the class.
- The members of the council act as a communication channel between Principal, teachers, and students.
- The council is in charge of the planning and execution of activities such as Independence Day celebrations, Teachers Day celebrations, picnics, Fresher's Party, and the Christmas Party for support staff.

The college does not receive external funding for the functioning of Student Council.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

All committees of the college have student representatives. Two students from every class are included in the committees. Students take lead roles in committees based on their areas of interest. All the activities are jointly organized by the staff and student representatives in most committees (e.g., Cultural Committee, Magazine Committee, Social Service Committee). The students suggest various activities to be organized on the basis of the feedback received from their classmates. The staff guide, supervise and monitor the execution of activities in every committee, and scaffold the development of leadership skills in students.

These committees include:

- Sports Committee
- Cultural Committee
- Social Service Committee

- Magazine Committee
- Interfaith Committee
- Library Committee
- Women's Development Cell
- Employment Placement Cell
- IQAC
- Subcommittees of the IQAC (also known as the 7 NAAC committees)
- Ad hoc committees for organising co-curricular events such as the International Conference in January 2013

5.3.7 How does the institution network and collaborate with the alumni and former faculty of the Institution?

The college maintains a register wherein all the outgoing students fill in their details. Regular contact is maintained with the alumni through emails, telecommunication or through messages posted through social networking sites. A newsletter is published for the alumni, informing the members of the association about the activities of the Institution. Alumni of the college are invited as resource persons, visiting faculty, and especially as prospective employers. The alumni are also invited at the time of the various orientations programmes or parent meetings to speak about and share their experiences with the present students. Collaborations are formed with alumni who wish to organize seminars/conferences in the college or utilize facilities of the college.

Contact is maintained with former faculty and they are informed of important events, invited for functions and called upon as resource persons.

Any other relevant information regarding Student Support and Progression which the college would like to include.

Participatory governance with student members in almost all the college activities is helping us meet our vision of empowering women.

CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

The college is guided by the following vision, goals, mission, motto, and emblem:

The vision of the college: The college aims at the total development of the Indian woman by providing learning opportunities to empower her with the knowledge, skills and attitudes to face personal and professional challenges with confidence, inculcating values of respect, commitment and concern for the service of others, thereby enabling her to make a positive contribution to society in the 21st century.

The goals of the college: The college aims at the development of women through an education that is:

- (a) Life-oriented,
- (b) Career-oriented, and
- (c) Community-oriented.

The mission of the college is:

- To work dedicatedly towards women's empowerment through socially-relevant, holistic, interdisciplinary education.
- To sensitize students to the needs of others, especially of those less advantaged, and foster a service orientation.
- To respect egalitarian justice, use participatory governance, and build capacity among students and staff.
- To continually innovate and deliver a curriculum that is globally valuable, locally relevant, and responsive to changing times and needs.
- To forge and enhance linkages with communities and organisations at multiple levels (e.g., local, regional, national, and international).
- To contribute to the national and international knowledge base in Home Science and allied fields.

The motto of the college is to “kindle the lamp of love with thy life”; and the emblem of the college is “the highest law of love is service”.

The vision, the mission, the motto, and the emblem are aligned to help us make our unique contribution to the development of women students, and through them, to the families and communities in which they participate. The distinctive characteristics of our vision/goals/motto are:

- Dedicated focus on women's development.
- Unequivocal mission of providing an education that extends beyond textbooks into the lived world.
 - The Home Science curriculum allows us to fulfill this mission by addressing scientifically and insightfully the knowledge, skills, and attitudes for successfully meeting varied human needs such as those related to human relationships, food, clothing, and resource management.
 - Career preparation is carefully crafted into the curriculum. Success in the lived world is also contingent on contributions we make through our careers.
 - A service-oriented and value-based approach: The lived world includes diversity and inequities among groups/communities in access to modern knowledge/technology/socioeconomic privileges. It is critical that our

students develop a sensitivity and commitment to reaching out to others, and thereby honor the interdependency amongst us all.

Addressing the Needs of Society & the Students that We Seek to Serve:

The gender gap in literacy/education/empowerment, disfavoring women, continues to be a major current concern in India (as well as the world) making our vision relevant and worthwhile today as well (refer to UN millennium goal 3, the NEP, and the UGC). Our vision and goals (and the resultant activities) are congruent with national and global goals and the vision of an equitable nation and world.

Even in the absence of gender inequity in education, women's education is a justifiable mission. Educating a woman is the first step in educating a family and thus a nation. In our integrated approach, we work to help women obtain an education such that they can excel in careers of their choice and on the home-front, as well as be of service to the community and larger society.

Institution's Traditions and Value Orientations

As stated, the institution is committed to valuing and serving women through the provision of high quality education that is empowering at the personal, family/community, and professional levels.

Although we are a Christian minority institution, we also have a large proportion of Muslim students. We are thus actualising our vision of social justice—we are catering to the needs of not just women students but women students from minority groups (i.e., Christian, Muslim, and Jain).

The college promotes a multi-faith culture and respect for the diverse communities that comprise India. The college and the Management explicitly focus on inculcating in students the desire to serve others, especially vulnerable communities.

The college is committed to providing an education that keeps pace with the changing times and the changing roles of women in society. Moreover, the college envisions playing a part in altering the Indian woman's roles in society and thus creating positive change.

Vision for the Future

As one of the premier Home Science/women's education institutes in India, we envision making our distinctive mark in this century as well. We will continue to assay the needs of women students, those of their families and communities, and macro-needs at the state, country, and global levels. Our efforts will continue to be synchronized with these needs at varying levels. We will continue to endorse our encouragement of responsible leadership among women students. We also see ourselves making outstanding contributions to knowledge building in Home Science and related fields through publications. We also view ourselves building international visibility and linkages, and strengthening national linkages.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

Top Management: The top Management of the college is constituted of the President, Vice-President, and other office bearers of the Nirmala Niketan Institute's governing body, all of whom are women belonging to the international Catholic congregation, "Society of the

Daughters of the Heart of Mary” (DHM). The DHM runs diverse educational institutions in several parts of the world.

The College of Home Science, Nirmala Niketan is the direct outcome of the dedicated mission of these sisters, and their desire to serve the cause of women’s development in India and other countries. Thereby, the college vision is one specific instance of the broader vision that guides the DHM: “One Heart, embracing the world we are women of vision and, women of faith; we strive to respond to the needs of those with particular concerns while exercising responsible stewardship, fostering unity in diversity, empowering each other, and growing in love.” Members of the Governing Body are all academicians since they are either present Faculty members or Professors Emeritae.

The President and other office bearers periodically monitor, review, and both suggest and consider policy and plans for quality maintenance and institutional development. This is facilitated through:

- Periodic reviews/discussions at government body meetings (held at least 6 times a year) in which the Principal as a member of the Management can also put forth ideas generated at faculty/IQAC meetings. Governing body reviews and discussions are oriented to ensuring quality curricula, student-centric teaching methods, and strengthening of horizontal communication and institutional transparency.
- Local Managing Committee meetings (held twice a year) of which the President of the Management is the ex officio chairperson. The Local Managing Committee is a statutory body which prepares the budget and financial statement and makes recommendations to the Management on college matters.
- Ad hoc requests to the President through letters or ad hoc meetings.
- Discussion with Management representatives in the college including the Principal and the Administrator.

Principal: The principal is also a trustee of the DHM Management and plays a dual role in the design and implementation of quality policies and plans: as a Management representative and as the head of the college.

She is responsible for executive decision-making on academic matters; she consults the heads at the university level (e.g., the Vice-Chancellor, Controller of Examinations, BCUD Director, Registrar), the Joint Director of Higher Education, the Academic Council of the university, the IQAC, and the HOSs, and others. She routes certain matters to the university through the Chairperson of the Ad Hoc Board of Studies of Home Science.

She regularly engages in dialogue with the senior members of the Management as well as with the faculty, students and other stakeholders to ensure the design and implementation of quality policies and plans. She uses a combination of assertive leadership and participatory management: therefore she contributes novel ideas and seeks consensus, as well as solicits novel ideas from teachers, students, and other stakeholders, and builds consensus for valuable ideas. She closely monitors the implementation of these policies and plans; at the same time, she entrusts staff and students with responsible positions that allow them to exercise autonomy and initiative. This results in capacity building.

Faculty: Each faculty member is serving a leadership position in the college allowing the faculty member to contribute to the design of quality policies and plans. This leadership role includes at least one of the following: Head of Specialization, Academic Coordinator at FY/SY levels, Convenor of an IQAC subcommittee, and Convenor of a college committee (e.g., Examination Committee, Magazine Committee).

Also, many quality-related decisions are discussed in faculty meetings in which faculty member's perspectives and views are solicited.

The quality policies and plans are implemented through the active efforts of the faculty along with the support of other stakeholders especially students.

6.1.3 What is the involvement of the leadership in ensuring:

- **the policy statements and action plans for fulfillment of the stated mission**
- **formulation of action plans for all operations and incorporation of the same into the institutional strategic plan**
- **Interaction with stakeholders**
- **Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders**
- **Reinforcing the culture of excellence**
- **Champion organizational change**

Policy Statements and Action Plans for Fulfillment of the Stated Mission

Policy Statements are reflected on and formulated by the Governing Body of the Nirmala Niketan Trust. The Principal who is the leader of the Executive Body draws up action plans to implement this Vision along with the active participation of Faculty Members.

Formulation/Incorporation of action plans: On obtaining consensus, the principal oversees and guides the formulation of action plans. Committees are formed allowing each faculty member (and when appropriate students) to play designated roles which entail responsibility and opportunities for leadership. Committee convenors have meetings and brainstorm amongst their own members, and the principal and other key administrators or leaders sanction/provide guidance with regard to the decisions that need to be made. Next, the decisions are executed and monitored.

Interaction/Consultations with Stakeholders:

Students:

- The principal periodically (once a term) meets each group of students and obtains feedback and solicits suggestions.
- The Heads of Specialization and the Academic Coordinators at FY/SY levels, likewise, meet designated groups of students and invite students to share any concerns or other feedback.
- All academic leaders are available on an ad hoc basis as well for students who wish to bring any concern to their attention.
- Two other quality policies instituted by the principal are relevant here:
 - Mentors meet their assigned group of students at least once a term.
 - Graduating students complete an exit questionnaire that solicits their feedback on the curriculum and other aspects.
- Student members of committees draw up plans for the entire calendar year at the commencement of the academic year, and take responsibility for executing these as scheduled.

Teachers:

- Senior members of the Management (e.g., President, Vice-President) meet the teachers once a term: this provides an open forum for discussion/consultation.
- Faculty members who are appointed on the LMC share any concerns expressed by the staff and students in their specialization at the LMC meeting.
- The principal consults all faculty members in the weekly teachers' meeting; she also

interacts and consults with each convenor of the many committees in the college periodically.

Parents:

- Parent meetings are held each year for different groups of students: this includes orientation sessions and other ad hoc parent meetings as needed. It is mandatory for Parents to attend the Orientation Sessions at the start of the academic year. They are also encouraged to make personal visits whenever they wish. This ensures their active collaboration in academic and other matters and provides a valuable space for mutual feedback.
- The principal also takes intake interviews with each set of parents.

Alumnae:

- The Alumni Committee of the college organizes activities for the alumni. The committee convenor and the principal consult with the alumnae during these activities.
- Alumnae are invited to college events including parent meetings.
- The LMC includes at least one alumna of the college.

Industry:

- The college leadership (e.g., principal, HOS) encourage tie-ups with the industry for student placements, student internships, student research, staff and student visits, and campus recruitment.
- The convenor of the Employment Placement Cell obtains feedback from the industry who recruits our students after they graduate.

Other Need Analysis & Research Inputs: Under the stewardship of the principal, HOSs/Academic Coordinators and committee convenors conduct relevant need analysis for their activities. Regular meetings (e.g., weekly Faculty meetings with the principal, monthly committee meetings) facilitate need analyses. In 2009-2010, two master's dissertation researches tracked the alumnae from one of the specialisations and sought their suggestions.

Reinforcing a Culture of Excellence & Championing Organizational Change:

The principal role models and encourages a work and learning culture of excellence, and champions openness to new ideas/plans. Her leadership entails:

- Forward planning
- Close monitoring of action
- Participatory governance (involvement of teachers and students in organization and governance)
- Consensus building (within and across all stakeholders)
- Use of technology in classrooms, staffrooms, and offices
- Strong encouragement for excellence practices

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

In order to plan, implement, monitor, and evaluate the policies of the institution and to enhance existing policies, the following are adhered to at periodic intervals:

- ✓ Internal Quality Assurance Committee meetings for proposing new plans and overseeing/evaluating plans in action.
- ✓ Consultation with the external Quality Assurance Committee members.
- ✓ All work is distributed/delegated/assigned to specific staff members (and when appropriate student members) by **forming committees**. Each committee has a convenor. The committee meets to:

- brainstorm new ideas
- build an execution and monitoring plan
- evaluate an ongoing or completed activity

At each step, the convenor consults with the principal and other leaders, and periodically solicits the views of all other faculty in a teachers' meeting, and when needed through a student meeting or a parent meeting.

The committee members, depending on the activity, either oversee the execution or execute the activity themselves.

This is one of the chief ways in which we plan, execute, monitor, evaluate and enhance our quality policies and plans.

- ✓ Each specialization also functions in like manner, with the HOS holding periodic meetings, including an overall evaluation meeting at the end of each academic year and a planning meeting for the next academic year. The principal attends some of these specialization meetings and definitely participates in the year-end evaluation meeting.
- ✓ In general, **regular meetings** for soliciting ideas, seeking and building consensus, mobilizing cooperation and enthusiasm, and monitoring and evaluating ongoing policies and activities:
 - Management with
 - Principal
 - Faculty members
 - Non-teaching administrative/accounts staff
 - Support staff
 - Principal with
 - HOSs
 - Coordinators
 - Faculty Members
 - Faculty members and experts
 - Students
 - Parents
 - HOSs with
 - Faculty members
 - Students
 - Faculty members with
 - Experts/Practitioners in the Industry/Other Industry Representatives
 - Colleagues
 - Students
 - Parents
 - Alumnae
 - Employers of our alumnae
- ✓ Local Management Committee meetings
- ✓ Annual Quality Assurance Report
- ✓ TAQs completed by students; written feedback solicited by teachers for their subjects
- ✓ Self-Appraisal Forms completed by faculty members annually
- ✓ SWOT analysis completed by each teacher for herself and the college annually
- ✓ Exit questionnaires completed by graduating students

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

- ✓ Academic leadership opportunities are provided to the faculty members through appointment of:
 - H.O.S. for each of the specializations
 - Academic Coordinators/Assistant Academic Coordinators
 - Conveners for various committees/subcommittees
 - Conveners and organizers of various Conferences (International and National), seminars and workshops organized by the college
 - Faculty members as members of LMC
 - Chairperson and members of Board of Studies
 - Chairperson and members of RRC
- ✓ Rotation of Conveners, Heads of the Specializations, and Coordinators
- ✓ The principal and the Management have encouraged teachers:
 - To undertake minor and major research projects.
 - To participate in conferences, seminars, and workshops.
 - To publish books/chapters/papers.

6.1.6 How does the college groom leadership at various levels?

Students:

- ✓ Class Representatives (CRs) and Assistant Class Representatives (ACRs):
 - Student leaders of every class are selected with utmost care so that they can be appropriate peer role models for students. Eligibility criteria include regularity and a good academic record. Eligible students are appointed as CRs or ACRs through student votes.
 - All the CRs and ACRs are provided intensive leadership training through an overnight leadership camp conducted by professionals (e.g., Don Bosco). Through the academic year, other leadership training opportunities are made available to selected CRs and ACRs.
 - As leaders, the CRs and ACRs serve as a liaison between their classmates and their teachers/coordinators/HOS/conveners of various committees/principal.
 - They are also welcome to contribute innovative ideas that would facilitate the smooth functioning of the college. When needed, CRs and ACRs are consulted with regard to the preferences of their class or ideas generated from their class especially with regard to the organization of a particular college event or activity.
 - To aid the CRs and ACRs in accomplishing various tasks, they are also given the authority to delegate responsibilities to group leaders (in the case of large classes).
 - A very unique strategy adopted by the college is that a student who has been the CR for a particular academic year is not permitted to become the CR for the consecutive academic year. This strategy is specially adopted to provide opportunities for other students to become leaders and thereby offer scope for grooming as many leaders as possible within the given period.
- ✓ Student Council:
 - The CRs and ACRs form the members of the Student Council. From among these, the Executive Council is formed as stipulated by the University of Mumbai.

- The process of selection of nominees from the CRs and ACRs for the post of Secretary includes a meticulous and comprehensive interview by the staff members which taps the student's aptitude in relation to academic performance, sports, cultural activities, concern for fellow students, her vision for the college and her ability to project the college in good light in public. Next, the members of the Student Council elect the Secretary and Asst. Secretary of the College. The posts of a Treasurer and Assistant Treasurer are also a part of the Executive Council. The student heads of various other committees such as the Cultural Committee, the Social Service Committee are also part of the Executive Council.
 - All members of the Executive Council also undergo training to ensure that they build leadership skills. Members failing to attend the leadership training program are withdrawn from the Executive Council/Student Council and replaced by other candidates.
 - Staff members are specially appointed as mentors of the Student Council and provide one-on-one leadership grooming to the Student Council members.
 - Workshops are held regularly for members on 'Record Keeping and Minutes Writing'. Inputs are also given on organizing and conducting meetings.
 - Under the guidance of the assigned staff members, the Student Council members conduct various events in the college, namely, commemorating India's Independence Day, Teachers' day Celebrations, Students' Picnic etc. These opportunities allow them to shoulder responsibilities and build decision-making/teamwork/motivational/public speaking skills. They are also scaffolded in strengthening their patriotic spirit and service orientation.
- ✓ Committee members:
- Various committees such as Cultural Committee, Sports Committee, Magazine Committee, and Interfaith Committee are formed in the College in order to cater to the diversified interests of students and provide scope for them to enhance their existing skills, hone their latent talents, or build new skillsets. Students can opt to be a member of any of these committees based on their interest.
 - Each of these committees has a student head, and an assistant student head and other leadership posts which engender leadership.
 - Members of these committees actively organize, conduct, motivate other students, and participate in the activities that their committee organizes for the college round the year. The ownership of organization of these activities and the planning/executing/evaluating of these activities results in student empowerment and leadership development.
 - The staff members in these committees provide one-on-one or small group leadership training to the members/office-holders in the conduction of the various events in the college.
- ✓ Student Representatives in each of IQAC subcommittees also have opportunities for developing their leadership qualities.
- ✓ Student members in all committees formed for the organization of international/national conferences, seminars, workshops and other co-curricular activities.

- Yet another distinctive feature of the college is that students are motivated/encouraged/supported in assisting in the organization of co-curricular events. These provide wide-ranging opportunities for boosting their leadership skills/event management skills, and enhance their self-confidence.
- Once again, staff members in these committees scaffold student learning.

Non-teaching and Support Staff:

- ✓ Seminars and workshops have been organized for the non-teaching and support staff on topics like Building Unity, Effective Communication, Fighting terrorism, and Self-Development.
- ✓ Participation in sports and other cultural activities at college and intercollegiate levels.

Faculty Members:

- ✓ Faculty members build and hone their leadership qualities and skills through their participation as leaders in the college.
 - In regular curricular activities: Positions of leadership through nomination/appointment as an HOS; Academic Coordinator; office-bearer/convenor of Examination Committee, Admission Committee, the Scholarship Committee, the Library Committee, the LMC, the IQAC, subcommittees of the IQAC, the staff members supporting the Student Council, the Employment Placement Cell etc. Other positions of responsibility such as in-charge of a student study tour; in-charge of the rural camp.
 - In organizing co-curricular activities/events: Positions of leadership through nomination/appointment as convenor/co-convenor of a seminar/conference, in-charge of a committee (e.g., registration committee, hospitality committee).
 - In organizing extra-curricular activities/events: Positions of leadership through nomination/appointment as a convenor of the Magazine Committee, the Social Service Committee, the Interfaith Committee, the Cultural Committee, the Women's Cell, and the Sports Committee etc.
 - Rotation of appointments such that each teacher gets multiple opportunities to build leadership skills. Some appointments are rotated amongst the senior-most (e.g., HOS), whereas other appointments are not necessarily based on seniority (e.g., convenor of the Interfaith Committee).
- ✓ There is strong encouragement for using innovative teaching-learning methods and therefore teachers exercise leadership through their originality in the classroom.
- ✓ Faculty members also learn academic leadership through participation in Boards of Studies and RRC of the University of Mumbai or other universities, through appointment as moderators.
- ✓ Faculty members also strengthen academic leadership through:
 - Participation in professional organizations and through holding office-bearer positions in professional organizations.
 - Being a resource person for invited sessions in other colleges or organizations.

- Successfully obtaining research grants and executing research projects.
- Participation in conferences, seminars, and workshops.
- Publications
- ✓ Faculty members are deputed for leadership training seminars.
- ✓ Sessions with experts in various areas are arranged for the faculty.

Principal:

- ✓ The principal is deputed for leadership training programmes by the Management.
- ✓ The principal participates in various national and international meetings for principals.
- ✓ The principal has been appointed as a NAAC peer team member.
- ✓ The principal is extending her leadership role through initiating and formalising collaboration with two new universities: Universiteit Gent (abbreviated as UGent University), Ghent, Belgium (in English: Ghent University); Fu Jen Catholic University, New Taipei City, Taiwan.
- ✓ The DHM Top Management grooms the principal's leadership talent by investing her with adequate authority in matters related to the college.

Overall, the use of participatory governance promotes capacity-building among staff and students.

6.1.7 How does the college delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?

To offer scope for decentralized governance, the college delegates authority to the HOSs of the various specializations. This indeed paves the way for operational autonomy.

Autonomy is provided for the specializations to:

- Design the syllabus for the courses
- Allocate credits for the subjects (within the stipulated University rules)
- Procure laboratory materials within the given budget
- Invite resource persons to deliver talks/conduct workshops for the staff and students
- Organize seminars, conferences, events
- Plan and organize educational tours and/or industrial visits
- Adopt a multitude of teaching methodologies pertinent to the subject/practical
- Choose various research topics and work on the same
- Conduct minor/major research projects
- Identify and place students in renowned institutions/ organizations/ industries for internship/job

6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

Yes, one of the strengths of the college is the use of participatory management. This is described for multiple levels as follows:

President/Vice-President of the Management: Decision-making and organization in the college are rooted in the principal's and DHM's vision of participatory management and egalitarian justice. As stated, the President and other office bearers periodically monitor,

review, and both suggest and consider policy and plans for quality maintenance and institutional development. Their openness to ideas generated at the college level testifies to the use of participatory management. For example, they were open to the idea of having an international conference and agreed to our request to remodel sections of the college for the international conference.

Principal: As stated, the principal uses a mix of assertive, forward-thinking leadership and participatory management.

- She proposes new plans and policies, seeks the perspectives of individual teachers either orally or in writing in a teachers' meeting, builds consensus across stakeholders (generally teachers and the management), and finalizes the plan or policy. She seeks the perspective of students or parents when appropriate.
- She solicits ideas from teachers, seeks the perspectives of other teachers on these ideas, builds consensus across stakeholders, and finalizes the plan or policy.
- Decentralized governance allowing participatory management strategies: For many aspects, the brainstorming/planning is done at the specialization or a designated committee level and the principal makes suggestions/approves of the plans designed by the teachers/students in a specialization or by the teachers/students in a committee. These plans are also communicated/discussed in the teachers' meeting where others can make suggestions. The execution is seen to by the specialization/designated committee with regular updates to the principal. The monitoring is overseen at two levels: specialization/designated committee and principal. The evaluation is done by the specialization/designated committee and discussed with the principal and in the teachers' meeting.

Teachers:

With most of the curricular, co-curricular, and extra-curricular work being accomplished through the concerted efforts of a specialization or of a designated committee (including the IQAC, and the IQAC subcommittees), the teachers in the college are involved in planning, designing, executing, monitoring, and evaluating policies/activities/events. The outstanding use of committees and role allocation (i.e., decentralized governance) permits extensive use of participatory management. (Explained in detail under "Principal".)

Weekly Faculty meetings provide Faculty members with the space to present their opinions, suggestions, and feedback on College functioning.

Students:

- Students participate in the organizational and decision-making processes by virtue of their membership in various committees/Student Council in the college.
- Moreover, teachers, HOSs, and the principal seek their opinions and justifications in classrooms; mentors too are asked to obtain the students' position with regard to an issue; occasionally larger groups of students are addressed with regard to their position in special meetings. In these latter cases (single class or mentee groups one at a time or multiple class groups together), each student has the opportunity to contribute to the decision-making process.
- There is also a suggestion box available for students to communicate their views.
- Individually or in groups the students are free at any time to meet the principal to offer feedback or suggestions. Likewise, students can approach HOSs, class coordinators, and other teachers.

Parents:

The parents' perspective is sought in Parent Orientation meetings. Occasionally, parent questionnaires are used to obtain parents' written comments and feedback. These are generally sent to parents via students. The parents' opinions are valued and used in decision-making regarding student welfare, curriculum and related matters.

Non-Teaching Staff:

Non-teaching staff representatives participate in some of the committees. Moreover, the principal periodically holds group meetings with various sections of the non-teaching staff and solicits their opinions etc. on matters of relevance to them.

Other Stakeholders:

The perspectives of alumni, employers, industry, and experts (academicians, researchers, practitioners etc.) have been sought through questionnaires/oral interviews/meetings. Suggestions from them have been respected and integrated into decisions regarding research, linkages, extension activities, curriculum content and methods, as well as in planning of co-curricular activities.

6.2 Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

Quality policies are embedded in the Student Handbook (e.g., student punctuality and regularity, class participation) and in relevant University of Mumbai rules and regulations or guidelines for various academic matters ranging from attendance to examinations. Quality policies have also been drawn up, for example, for student mentoring, MSc dissertations, expectations from teachers. Keeping the vision, goals, mission of the college in mind, most of the policies are based on consensus/discussion among faculty and observations of student conduct, data on student performance etc. Feedback from other stakeholders such as students is also incorporated. Quality policies with regard to expectations from teachers have been formulated by the principal who has integrated the feedback obtained from multiple stakeholders. Quality policies are upgraded as and when there is feedback which necessitates a change in policy. Quality policies are reviewed periodically, especially at the start and end of each term.

6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

Yes, the college does have a perspective plan. From the perspective plan developed in 2008-2009, the following has been accomplished:

- The self-financed M.Sc. programs in (a) Food Processing and Preservation, and (b) Sports Nutrition, affiliated to the University of Mumbai, were started in 2011-2012.
- An M.Sc. program has been designed in Ergonomics (i.e., specialization within Community and Resource Management) and has been approved by the Academic Council of the University. It is pending final sanction from the Chancellor.
- New value-added courses have been introduced (e.g., Creative Parenting in 2010-2011, and Sign Language in 2013-2014).
- We are collaborating with the Yashwantrao Chavan Pratishthan (an MOU has been signed): We have extended our knowledge expertise to benefit underprivileged women who are obtaining a certificate in Home Management from this organization.
- International linkages are being set up.

- An interdisciplinary, international conference was successfully organized with keynote speakers from multiple countries.
- A cultural-and-academic exchange programme was conducted with a college in Blois, France, in 2010-2011: Lycée Privé La Providence Blois. Eighteen students and two teachers stayed with host families in Blois and visited the college and toured Paris. The students and teachers from Blois, in turn, came to Mumbai and stayed with their Indian host families, visited the college, and toured Mumbai.
- An exchange program has been initiated with Ghent University, Belgium. Ten students and two teachers visited Belgium and participated in the first leg of this exchange programme in November 2013.
- An MOU has been signed with Fu Jen Catholic University, New Taipei City, Taiwan, in November 2013.
- An exchange program with Martin Luther Christian University (Shillong) is under discussion.
- We have expanded our use of technology in teaching-learning practices.
- We implemented the new syllabus starting June 2009 at the FY BSc and MSc1 levels.
- We have adopted the use of the Credit Based Semester and Grading System (CBSGS) initiated by the University of Mumbai. Within certain specified limitations (i.e., keeping the subjects intact), we have revised the curriculum to meet the requirements of the CBSGS and taken the opportunity to update the content.
- The Social Service Committee has instituted new activities such as Beach Cleaning after the Ganpati Festival, and Elders' Day Out.
- The possibility of starting a Distance Education course in Home Science has been explored at the university level.

New Perspective Plan: 2014-2015 onward

The realization of our vision and goals is an ongoing endeavor. The college has identified the following thrust areas in perspective planning for the upcoming years:

Continuing the following:

- Increasing the existing corpus fund.
- Expanding our educational programs to offer more choices to our women students.
- Designing and starting a distance education course in some of the subjects of Home Science.
- Innovating a globally valuable and locally relevant curriculum that allows us to empower our women students.
- Building international visibility and linkages, and strengthening national linkages.
- Collaborative research with scholars from other colleges or universities.
- Commitment to emerging innovations in teaching-learning practices.
- Emphasis on interdisciplinary activities (e.g., research, conferences/seminars, publications)
- Creating a data base of our alumnae; increasing the activities of the alumnae in the college.
- Emphasis on extension/social service activities of students and staff (e.g., work closely with the already existing DHM centres in rural and tribal areas).
- Introduce new green initiatives such as solar heating.

- We plan to introduce new short-term certificate courses/weekend courses, this time specifically for the public/ paramedics on: wellness/ dietetics/general health/ cooking for therapeutic conditions/healthy aging.

Special Thrust Areas:

- We plan to make outstanding contributions to knowledge building in Home Science and related fields through publications.
- We visualise ourselves as developing into a nodal research centre for all Home Science colleges.
- We plan to initiate internationally-reputable, globally-relevant online courses for our students through linkages with foreign universities.
- We intend to form a separate Board of Studies of Home Science and further explore the possibility of academic autonomy.
- We intend to increase our Floor Space Index (FSI) and build vertically.
- Start short-term certificate courses/weekend courses for the public/paramedics on: wellness/ dietetics/general health/cooking for therapeutic conditions/healthy aging.
- We intend to make our Food Analysis Laboratory a commercial, fund-raising facility.

6.2.3 Describe the internal organizational structure and decision-making processes.

Decision-Making and Organizational Processes: A Case in Decentralized Participatory Management

As already described, decision-making processes are considerably decentralized in the college through the institution of various committees (including the IQAC and its 7 subcommittees) as well as demarcation into four specializations.

Decision-making is facilitated by frequently held meetings. For example, the faculty meet with the principal once a week; the LMC meetings are once a term.

The governing body of the Nirmala Niketan Institute is the overall steward; at the college level, the Principal, who is also a Trustee member of the Management, is the chief steward. The Dean of the Faculty of Science also impacts decision-making processes in the college. The governing body members are open to suggestions generated at the college level; they also ensure that the short-term and long-term plans and activities of the college are aligned with the DHM vision and the college vision. The principal plays the role of an effective leader by balancing authority and democratic principles in management. The principal along with the assistance of teachers and other staff, and the cooperation of students, also ensures compliance with all university policies and procedures. The Chairperson of the Ad Hoc Board of Studies in Home Science also steers decision-making with regard to structure of the syllabus (marks/credits/number of subjects) and examinations.

The administrator, who is senior member of the Management (i.e., a Trustee of the Governing Body), is available in the college daily to broadly oversee the college functioning.

Teachers are playing multiple leadership roles in one capacity or the other (e.g., convenor of a committee, assistant coordinator) and participating in decision-making. Students' views are actively sought and incorporated in the decision-making on relevant matters.

Monitoring of quality, for example, occurs at multiple levels: governing body meetings, BOS meetings, RRC meetings, QAC meetings, LMC meetings, IQAC meetings, Examination Committee meetings, all-teachers' meetings, specialization meetings, committee meetings,

HOS/Academic Coordinator meetings, and Student Council meetings. The administrator, the principal, the HOSs, the Academic Coordinators, and Convenors in cooperation and with assistance of others also monitor the quality of functioning on a daily basis. Individual teachers and student CRs and ACRs ensure quality in their classes. Whereas everyone does not and cannot participate in every decision that is made, yet there is substantial decentralized and participatory decision-making in the college.

6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following:

- **Teaching & Learning:**
- **Research & Development:**
- **Community engagement:**
- **Human resource management:**
- **Industry interaction:**

Quality Improvement Strategies for Teaching and Learning

- Ensuring that the content that is taught and learnt is life-oriented, community-oriented, and career-oriented; is globally valuable and locally relevant. The syllabi of the various subjects reflect such an orientation.
- Strong encouragement for the use of innovative, student-centric, interactive/participatory, hands-on and “minds-on” teaching-learning methods.
- Strong encouragement for the use of ICT-enriched teaching-learning methods; provision of ICT-enabled classrooms. Each classroom in the college is ICT-enabled.
- Work plans and the teacher’s diary.
- Use of student feedback: written feedback obtained anonymously from each student by the teacher (in the middle of each term) and through the TAQ (once a year).
- Teachers reflect on their teaching-learning methods in their self-appraisal and SWOT analysis.
- Conduction of faculty development sessions related to teaching-learning. For example, Credit Based Semester and Grading System workshops have been conducted.
- Meeting the infrastructural needs for excellence in teaching both theory and practical classes.
 - Excellent classrooms.
 - Well-equipped and well-maintained laboratories.
 - Regular identification of equipment needs and due purchase of equipment.
 - Remodeling and upgrading of laboratories.
 - Cybercafé with internet access, and computers with internet access in the library/staffrooms/HOS and Principal’s offices.
 - Purchase of new editions/new books; regular upgrading of library resources.

Quality Improvement Strategies for Research and Development

- Top Management policy to have a Research Centre in the college with a specially appointed Research Director with outstanding qualifications.
 - Engagement in research projects for the industry/government/international (e.g., FROMAGERIES BEL-France) bodies/agencies.
 - Publication of a national, peer-reviewed, ISSN-registered, research journal in Home Science (Research Reach).
- Whereas most of the affiliated colleges of the University only have an undergraduate program, because of the top Management vision we have academic programs ranging

from BSc to PhD in the college. The PhD program in Home Science in the college with specializations in (a) Foods, Nutrition, and Dietetics, (b) Human Development, and (c) Textile and Fashion Technology creates the scientific temper further encouraging quality involvement in research.

- Alignment of curriculum with promoting research competence in students: not only a theory subject in research methods but a practicum in research methods in Semesters I and II, and a dissertation in Semesters III and IV.
- Excellence standards for research in the master's and PhD programs.
- Collaborations with various hospitals, industries, research institutes, academic institutes, government and non-government organizations for master's and doctoral research.
- Strong encouragement to faculty to complete their PhDs.
- Strong encouragement for faculty to engage in minor or major research projects and obtain grants from the university or the UGC.
- Encouragement to faculty to participate in conferences and present their research work.
- Strong encouragement to faculty to publish their research work.
- Regular meetings of the Research Committee to discuss matters relevant to student research at master's and/or doctoral level.
- Conduction of faculty development programs on research (e.g., research projects, funding, patenting).
- Provision of infrastructural/technological support (e.g., licensed SPSS software).
- Internship opportunities at the Research Centre for postgraduate students.

Quality Improvement Strategies for Community Engagement

- Top Management policy that TY and MSc students participate in rural/tribal camps once a year and conduct extension activities.
- Social Service Committee with staff and student members.
- Collaboration (MoU) with the Home Science certificate course of the Yashwantrao Chavan Pratishthan: We extend our knowledge expertise to the women enrolled in this certificate course.
- Community development activities as part of the curricula of various specializations: for example, the CRM specialization students organize awareness sessions with street vendors on food safety and hygiene.
- Decision to become a member of Lifelong Learning program of the University of Mumbai with an aim to sensitize the students to sociocultural realities.

Quality Improvement Strategies for Human Resource Management

- Extensive use of participatory management/decentralized governance for capacity development and leadership among staff.
- Multiple opportunities for leadership for various assignments/tasks/responsibilities made available to staff and students.
- Top Management policy to have and sponsor Faculty development sessions in the college; likewise, to arrange and sponsor staff development sessions for non-teaching staff, and those for support staff.
- Top Management policy to have leadership training/personality development overnight camps for students of the college (TYs, MSc1, Student Council members) conducted by youth professionals such as the Don Bosco Youth Services.
- Faculty members are encouraged to attend seminars/conferences, present papers, avail of refresher courses so as to keep abreast of changing times/advancements in

knowledge.

- Policy of drawing up plans for the year for each specialization and each committee so as to ensure the scheduling and conduction of co-curricular and extra-curricular activities and events in the college that facilitate faculty and student development.
- Feedback mechanisms like the TAQ.
- Welfare measures.

Quality Improvement Strategies for Industry Interaction

- Top Management policy to have a Research Centre in the college with a specially-appointed Research Director who engages with the industry and is responsible for turn-key research projects for the industry, funded by the industry.
- Encouragement to master's and doctoral students to work with the industry for their research projects.
- Organization of co-curricular activities and events in which the industry plays a role as a sponsor/industry expert.
- Encouragement to faculty to collaborate with the industry for their research work and other academic activities.
- Employment Placement Cell and campus recruitment.
- College policy to arrange for industrial visits for faculty and students in Mumbai and in other cities/regions.
- Student internships and placements with the industry.

6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top management and the stakeholders, to review the activities of the institution?

The principal collects extensive information in structured and relatively unstructured formats. Examples of structured formats include:

- TAQs
- Self-appraisals/Performance-Appraisals
- SWOT analyses
- First term/second term/annual reports for each specialization
- First term/second term/annual reports for each committee
- LMC reports of each specialization, the Research Centre, and the Accounts Department twice a year
- Annual college magazine
- Workplans for each subject
- Teacher's Diaries
- Purchase Committee records
- Student Attendance records
- Student Assessment records
- Staff attendance registers, staff leave record, biometric attendance system records
- Annual Budgets, other Accounts Department records
- Record of use of cybercafé

Examples of relatively less structured formats (i.e., narrative, open-ended) include:

- Minutes of meetings (e.g., of the weekly faculty meeting with the principal)
- Written feedback or perspective of each teacher on a proposed or existing policy/plan/activity solicited during the weekly faculty meeting.

Examples of unstructured formats:

- Observation of interaction/discussion during the weekly faculty meeting.
- Interaction/meeting with HOSs or a particular committee.
- Interaction/discussion with students in a class.
- Interaction with parents who bring any particular concern or request to her.

The principal is in daily and regular/frequent contact with faculty, other staff, and students.

6.2.6 How does the management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?

The considerable use of participatory management/decentralized governance allows ownership such that the staff members are intrinsically motivated to contribute to their best and thereby to enhance the effectiveness and efficiency of institutional processes.

Appreciation and welfare measures such as meeting the staff request for internet access in the staffroom also enable the Management to have the full backing of their staff.

Availability of the principal and the administrator for consultations also aids this process.

Excellence expectations from the management also solicit high levels of performance from the staff.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

The Principal presents the application of the staff member or college-related matters, before the members of the Nirmala Niketan Institute Governing Body. The members seek clarification and thereafter a resolution is passed by the members at the meeting. The Secretary informs the Principal to communicate the outcome of the resolution to the concerned staff. Resolutions regarding opening of bank accounts, repairs in the college are also passed at the Governing Body meeting and necessary documents are presented to the members before the decision is made.

Table No. 6.1. Resolutions Passed by the Management Council in the Past Year.

Resolutions were passed by the Management Council in the past year on the following matters	Status of implementation
Long leave application of a staff member.	Granted. The person is on leave.
Selection and promotion of staff.	Implemented.
Whether to hold an international conference.	An international conference was successfully organised in January 2013
Expenditure allocated for infrastructural development.	Granted and implemented. Substantial remodeling of the college infrastructure (e.g., toilets, classrooms, toilets, labs) both before and after the international conference.
Whether to start exchange programmes with Ghent University, Belgium, and Fu Jen Catholic University, Taiwan.	Granted. First leg of the exchange programme implemented in November 2013 with Ghent University. MOU with Fu Jen Catholic University, Taiwan, signed in November 2013.

6.2.8 Does the affiliating university make a provision for according the status of autonomy to an affiliated institution? If 'yes', what are the efforts made by the institution in obtaining autonomy?

Yes, the affiliating University has made a provision for according the status of autonomy to an affiliated institution.

The college is the only Home Science college affiliated to the University of Mumbai and thereby enjoys default autonomy on syllabus/curriculum and appointment of the panel of university examiners.

At the same time, the possibility of attaining academic autonomy is being considered. The required information on academic autonomy has been collected and experts are being consulted.

6.2.9 How does the Institution ensure that grievances/complaints are promptly attended to and resolved effectively? Is there a mechanism to analyse the nature of grievances for promoting better stakeholder relationship?

The institution has constituted a Student Grievance Redressal Cell. This grievance cell committee comprises the Principal, another Management Representative, representatives from the Senior College staff, Junior College staff, Non-teaching staff, Support Staff, and a Student Representative. A box is kept in the common room to deposit the complaints, requests or suggestions anonymously.

Alternatively, students can also use the following grievance procedure policy: first, to take the grievance to the person concerned, that is, the person one has a grievance with. In other words, that person is given the opportunity to remedy the situation. If the person does not address the grievance satisfactorily, next the students can take the grievance to the class coordinators/HOS. Next in line is the principal, and lastly management representatives other than the principal. If the complaint is not with a person but with a policy etc., the academic coordinator/HOS and/or the principal can be approached as a first step. Students can bring up a matter confidentially with the HOS/mentor who can support them in following the appropriate protocol and to resolve the matter satisfactorily.

Teachers also follow similar procedures: first give the person, with whom one has a complaint, a chance to redress the complaint, failing which one can approach the HOS followed by the principal. If the grievance is with regard to a policy or deadline, teachers take their grievance to the principal in a group who redresses their concern (e.g., makes provision for time to work on an assignment, allows a change in deadline).

Most grievances are redressed early in the chain and in a timely manner. This speaks for the quality of relationships that students and teachers share among and with each other and their trust that face-to-face interactions will lead to resolution of a matter.

The nature of grievances have not been grave and have been dealt promptly (e.g., that a sewing machine was not working).

6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

No court cases have been filed by or against the college. A legal notice was served by a student and her parents in 2012-2013 with respect to withdrawal of her examination form because of poor attendance. The college responded to the notice through their own lawyer and the matter was resolved in favour of the college. The quality policy with regard to maintenance of attendance records proved helpful in this case.

6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If ‘yes’, what was the outcome and response of the institution to such an effort?

Yes.

Teaching-Learning Process

Each teacher collects written feedback from each student for each subject at least once each academic year. She addresses any concerns and incorporates student suggestions that are feasible.

Students also complete TAQs which are analyzed by the administrative staff under the guidance of the principal. The principal examines the TAQs before sharing the results with the individual teachers. The TAQs are used as a quality mechanism for teaching-learning processes.

Feedback on Curriculum

The Criterion 1(Curriculum) NAAC subcommittee in the college has collected student feedback on the new credit-based semester grading system (CBSGS) syllabus. The data is being analysed.

Comprehensive Feedback

The Exit Questionnaires are more comprehensive and are filled by graduating students. These are analysed by the respective HOSs and are used to propose and execute changes in curricular and other aspects. Subjects in the curriculum have been added/removed/alterd based on such feedback.

Other than written feedback, it is a quality policy of the college to solicit feedback from students orally, and to integrate that feedback as promptly as is possible. The Principal, the HOSs, the FY/SY Academic Coordinators, and mentors solicit feedback orally at least once a term. Student feedback on their committee’s activities is also solicited and used.

6.3 Faculty Empowerment Strategies

6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non-teaching staff?

Teaching Staff

- Faculty development sessions are organized in the college by the institution periodically through the year.
- The faculty members are strongly encouraged to apply for research grants and are supported by the Research Director if they need assistance. The Research Centre has also offered to assist a teacher in writing a paper for publication.
- Professional development of teachers is also supported by encouraging participation and paper presentation in seminars and conferences locally, nationally, and internationally.

All invitation notices for such activities that are received by the principal are duly forwarded to the HOSs.

- Faculty members are deputed to go abroad for a short-stay exchange program initiated by the principal.
- Faculty members are deputed to organize and conduct study tours as well as exposure visits to the industry/agencies which facilitates their own professional growth as well.
- The institution encourages and initiates the organization of co-curricular events such as national and international conferences/seminars which offer varied opportunities for enhancing the professional development of the teaching staff.
- Leadership positions in the college are on rotation (within certain limits).

Non-Teaching Staff

- Staff development sessions and skill-training sessions are organized in the college for non-teaching staff by the institution.

6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibility they perform?

Faculty members participate in faculty development programs in the college generally at the beginning of the academic year and periodically through the year. Non-teaching staff and the support staff each have their own staff development programs.

Teachers also participate in orientation and refresher courses, are invited as resource persons to other colleges or organizations, and participate in conferences/seminars/workshops at local, national, and international levels. Requests for training from the teachers have been sanctioned.

Appreciation and welfare measures motivate the staff to perform their roles and responsibilities with excellence.

6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

With regard to the teaching-learning process, safeguards for quality maintenance as well as appraisal for individual performance include the following:

- Informal (oral and/or written) feedback from students by the teacher and incorporation of the feedback into the teaching-learning process.
- A formal questionnaire to assess teacher performance is administered to each student for each subject at least once a year. The outcome is shared with the teacher by the principal without disclosing names of students who fill in the questionnaire. The TAQ gives a feedback of the teacher's performance in class with respect to teaching methodology, content, delivery, discipline and overall rating of the teacher.
- Each teacher fills in a self-appraisal form at the end of each academic year. This self-appraisal is comprehensive and covers teaching-learning, research, extension, professional contributions (e.g., as an editor or reviewer of a peer-reviewed journal, membership in professional organizations), and contributions to the college. SWOT analysis for oneself was also requested last year.
- Teacher's Diary of teaching-learning accomplishments in each class (for each subject) is maintained by the teachers; this serves as a self-monitoring tool for teachers.
- Oral and written reports of plans and accomplishments of each committee/other organizational units/organizational leader in the college allow members to evaluate their progress. All staff members meetings allow incorporation of the evaluative as well as appreciation of others who are not members of that unit.

- The LMC biannually reviews the achievements of each specialization and the college as a whole and provides evaluative support for performance.
- Overall performance of non-teaching staff is appraised by the principal and other members of the management. This is done through a feedback meeting which may be in the form of a group meeting or meeting with an individual staff.

6.3.4 What is the outcome of the review of the performance appraisal reports by the management and the major decisions taken? How are they communicated to the appropriate stakeholders?

The accomplishments of the faculty are shared by the Principal in parent meetings, and meetings with students.

The Principal also reviews the information in the performance appraisals when participating in decisions pertaining to confirmation of probation, promotion, and application for grants.

6.3.5 What are the welfare schemes available for teaching and non-teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

Common

- Through the beneficence of the Management, the teaching, non-teaching, and support staff of the college receive their salaries on time (on the 1st of each month). These, in effect, are advance salaries as government does not release the salaries on time. The staff hugely appreciates this welfare scheme.
- Staff development activities are arranged for teaching, non-teaching, and support staff. Resource persons/experts conduct these workshops/sessions.
- Health check-up/medical camps are arranged for staff.
- Picnics and excursions are arranged for teaching, non-teaching, and support staff.

Teaching Staff

- Newly appointed teachers begin to receive their salaries from the government after a delay of a year or more. When requested, the Management has paid salaries for a year to such newly-appointed teachers before being reimbursed by the government.
- Teaching staff on short-stay exchange programs with international institutes are sponsored.
- Staffrooms have been equipped with more computers, computers with Internet facility, printers, Godrej furniture, a microwave oven, and a fridge.

Non-Teaching Staff

- The Management grants personal, interest-free loans to support staff when needed. (Number of support staff that has utilized this welfare scheme: 6 out of 25)
- The Management has provided educational scholarships to support staff's children. The Management has employed the adult children of the senior support staff when they have made such a request.
- The support staff receives free uniforms each year. Tonics are given to support staff.

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

The Nirmala Niketan College of Home Science is the only Home Science college affiliated to the University of Mumbai. It is one of the premiere Home Science and women's education institutes in the country. The dedication of Nirmala Niketan College of Home Science to women's education and commitment to quality has helped build and sustain a reputation that attracts faculty to the college.

- The work culture which is characterized by excellence expectations helps to retain the staff.
- Deputation of staff to attend seminars/conferences, and for exchange programs with other institutes.
- Opportunities provided to exhibit leadership skills – HOS, conveners of various committees.
- Opportunities for networking with the industry, other academic institutions.
- Sanctioning of long leave for personal reasons, extended maternity leave.
- Receptivity of Management to concerns of the staff.
- The visiting lecturer rates have been increased in order to attract eminent/high-quality faculty to teach on a clock-hour-basis when needed.

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

Internal Audit is carried out every year.

The budget is presented, discussed, and passed in the LMC meetings.

The Management Council meetings also include deliberation over effective and efficient use of available financial resources.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance?

Internal audit: The college accountant and her staff maintain all accounts.

External audit: A chartered accountancy firm (Chhotalal H. Shah & Co. [Regd.] Chartered Accountants), especially appointed, conducts the external audit.

The last External Audit was done in the year 2012 – 13.

The audit did not raise any queries/questions/irregularities in accounting.

6.4.3 What are the major sources of institutional receipts/funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund/corpus available with Institutions, if any.

Major Sources of Institutional Funding

- 100% salary grant from the government
- Self-financing courses

Other Sources of Institutional Funding

- Value-added courses
- Conferences/seminars/fund-raising events (e.g., Musical Night) organised by the college
- Fund-raising through student-arranged markets/sales of items

The audited income and expenditure statements of academic and administrative activities of each of the previous four years is available and can be examined during the Peer Team Visit (as prepared by Chhotalal H. Shah & Co. [Regd.] Chartered Accountants). The statements are too large to be included in the RAR.

The Corpus Fund available with the institution: Rs.12,17,720 (December 2013).

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

The college had applied for the UGC Special Assistance Grant and was sanctioned 25 lakhs, of which 22.5 lakhs has been received. We have also applied for a second UGC Special Assistance Grant of another 25 lakhs which has been promised to us after closure of accounts of the first grant.

Also, other than the academic advantages of organising an international conference, the conference was also visualised as a means to raise funds. Thus, the funds raised through the international conference (January 2013) have been used to remodel two of the laboratories into multi-purpose laboratories.

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

- a. **Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?**

Yes, the institution has had an IQAC since February 2005.

The college has formulated the IQAC in an innovative manner. Justifiably viewing the 7 criteria of the accreditation/reaccreditation report as domains within which excellence is required, and the items as the specific quality indicators, the college has formed 7 committees, one for each NAAC RAR criterion. Each committee has teacher and student members and some committees also have non-teaching staff members. Each committee monitors quality assurance for its criterion, plans feedback mechanisms, takes requests to the Principal/Top Management as per the need, and plans/implements activities to promote quality with regard to that criterion. The convenors of these 7 committees, the Principal, and one of the senior-most teachers (the head of the IQAC) comprise the IQAC. By expanding the IQAC into 7 subcommittees (also known in the college as 7 NAAC committees) which cover all of the faculty, selected student representatives, and some of the non-teaching staff, the college has institutionalised quality assurance in a comprehensive and inclusive manner. With each teacher being in one of the NAAC subcommittees, all teachers participate in monitoring and effecting quality assurance as visualised in the NAAC RAR.

The college's inception and efforts towards women's education and empowerment were started in 1955—only 5 years after the Constitution of India was adopted, empowering the state to adopt measures of affirmative action in favor of women. Right from its inception, the college, as also visible in the college vision, has been adhering to the five core values of NAAC:

- *Contributing to national development*
- *Fostering global competencies among students*
- *Inculcating a value system among students*
- *Promoting use of technology*
- *Quest for excellence*

The policy of the institute is to also admit students who have not scored too well in their school level exams but wish to pursue Higher Education. Over the years those students who

have been below average and with low hope of securing admission elsewhere, have been accepted, tutored and have graduated to stand independently and the education received a fruitful gain.

b. How many decisions of the IQAC have been approved by the management/ authorities for implementation and how many of them were actually implemented?

The IQAC at the beginning of every academic year draws a plan of activities. These activities or requests are discussed at the subcommittee levels and brought by convenors to the IQAC meeting. Next the request is taken to the Principal/Top Management. Ninety percent or more of the decisions have been approved and put into effect.

1. Cybercafé
2. Computer training for teachers
3. National/ State/ International Conferences
4. Exchange Program
5. LCD Projectors
6. Internet facilities, hardware/software upgradation
7. Extension activities
8. Upgrading infrastructure
9. Starting of two new Nutrition MSc programs
10. Value-added courses
11. Library facilities
12. Acoustics in hall
13. Gym
14. Remodeling of Food Labs
15. Multipurpose room
16. AV room
17. Employment Placement Cell
18. Picnic for teaching and non-teaching staff
19. Linkages with local, regional, national and international organizations

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

Yes. Eminent academicians are our external members, whose expert advice is taken from time to time. Both the experts have helped in improvising the shortcomings suggested by the Peer Team in June 2009 during the 2nd cycle of reaccreditation.

Some of their suggestions that have been implemented are additional courses besides the regular curriculum, value-added courses, interest and need-based sessions (e.g. communication skills, personality development, art workshops), increasing the number of teachers applying for various grants (especially research grants).

d. How do students and alumni contribute to the effective functioning of the IQAC?

Student members have been inducted into IQAC for the 3rd cycle of reaccreditation. They help the teachers in implementing the activities planned, are the liaison between teacher and classmates, provide ICT help, and collect/give feedback for different activities so that appropriate changes can be incorporated.

e. How does the IQAC communicate and engage staff from different constituents of the institution?

The constitution of IQAC has ensured fair representation of all specializations. As described in response to Ques. 6.5.1a, the IQAC expands into 7 subcommittees such that each teacher is in one of the NAAC subcommittees. Non-teaching staff are also members on some of these subcommittees.

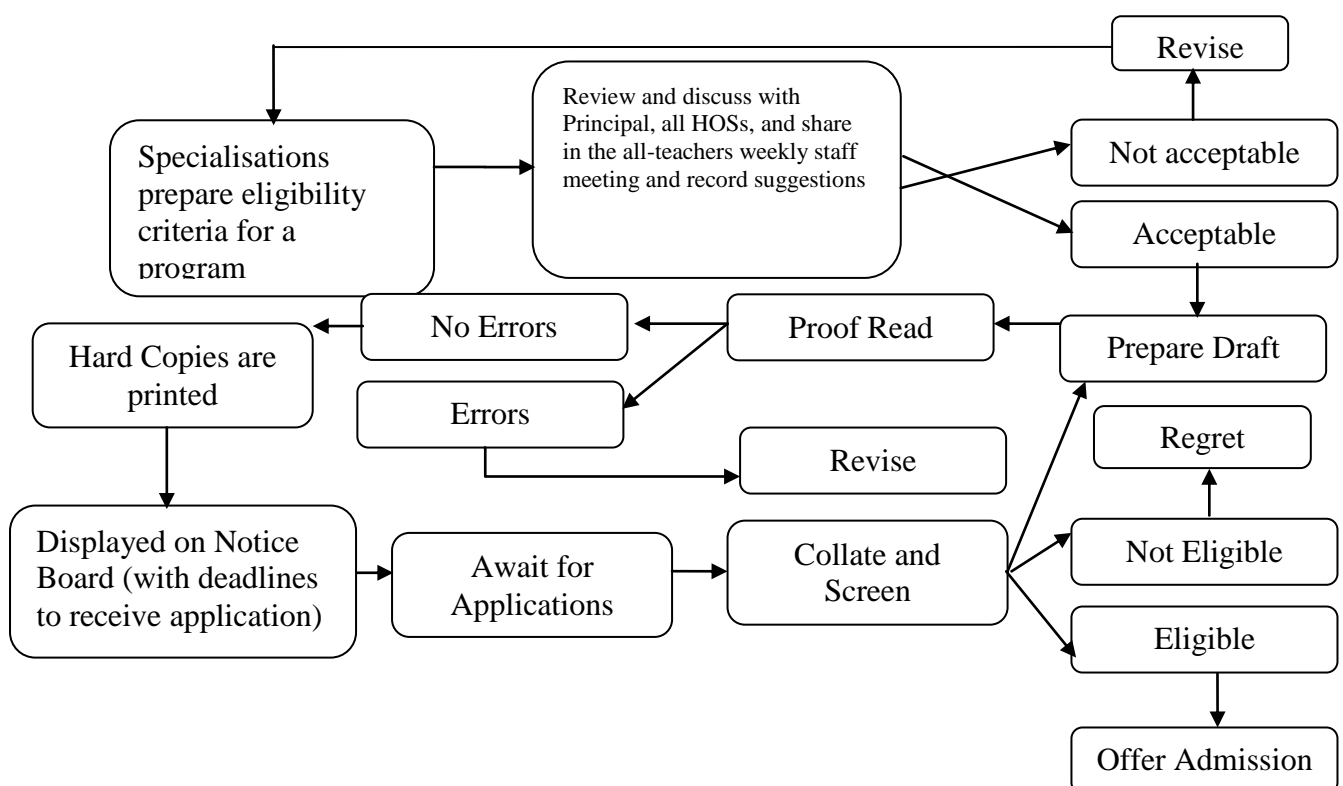
6.5.2 Does the institution have an integrated framework for Quality assurance of the academic and administrative activities? If ‘yes’, give details on its operationalisation.

At Nirmala Niketan College of Home Science, Quality Assurance has always been a conscious exercise. The quality assurance framework is integrated:

- The IQAC expands into 7 subcommittees such that all teachers are active in either an IQAC subcommittee or both the subcommittee and the IQAC itself.
- Teachers are simultaneously active in their specialisation-specific meetings. Therefore, they can bring quality issues from one sphere to another (i.e., IQAC subcommittee to the specialisation or vice versa).
- Teachers are also in at least one other committee such as the Magazine Committee, Interfaith Committee, and Cultural Committee.
- Teachers are active in the weekly all-teacher meetings where policy decisions are brought up, plans shared, and others’ suggestions are generated.
- The Principal is part of the IQAC, active in the all-teacher weekly meetings, and oversees the work of the specialisations and all committees.

By virtue of participation in at least an IQAC subcommittee, the specialisation, at least one other committee such as Library Committee, and the all-teachers meeting, the faculty members are able to monitor, sustain, and enhance quality in an integrated manner among the many areas of functioning in the college. Student members participate in IQAC subcommittees, Student Council, and other committees; senior students are active in their own specialisation activities as well. Therefore, multiple stakeholders, through playing multiple roles, allow for an integrated quality assurance operationalisation.

E.g.: Process Flow Chart is used for Admission process, the work for which begins at the end of the academic year, to ensure that admission notices are displayed during vacation itself.



Other decisions with regards to planning of any activity also follow a similar method of preparation.

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If ‘yes’, give details enumerating its impact.

A formal training program is not provided to the staff for Quality Assurance. However, meetings with the external members of our QAC who are renowned academicians and other experts are arranged for clarifying particular quality assurance features.

Young faculty members have been paired with senior faculty in some committees to facilitate learning of quality functioning.

Importantly, an ongoing method of evaluation of all decisions, policies, activities, events, examinations provides the necessary feedback to the staff to effectively bring about positive changes in the functioning of the college.

6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If ‘yes’, how are the outcomes used to improve the institutional activities?

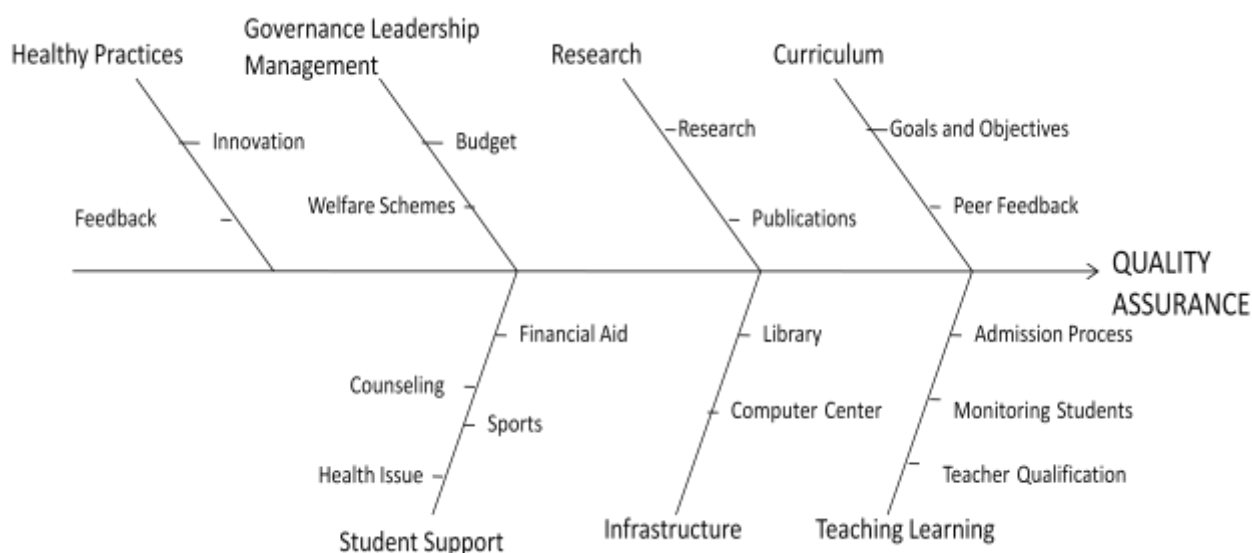
At the beginning of every academic year, each teacher submits a Plan of Work to the Principal and tries to adhere to the plan. A record book or Teacher’s Dairy is maintained individually, where details of each lecture taken, topic and subtopics addressed, methods used, evaluation/feedback are recorded. The diary is submitted on a monthly basis to the Principal, who verifies the information with the Plan of Work and in case of any discrepancies has a very positive discussion with the teacher concerned so as to ensure that necessary rectifications are done for the academic enhancement of the students. This serves as an Academic Audit. It is a systematic and independent process to determine whether quality activities and related results comply with the Plan of Work, and whether these plans are implemented effectively and are suitable to achieve objectives (BIS, 1988). Besides, a teacher’s diary, an academic audit of other related activities is also done periodically. Assessment of students, both by internal and external examiners, Employment Placement Cell, Postgraduate Research which is continuously monitored by the teacher concerned, student feedback on Teaching and Curriculum, programme approval from the affiliating University, feedback from external agencies where the students are placed for their internship.

6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

The seven Criteria of NAAC are subjected to deep scrutiny by the subcommittee for each criterion. They meet at regular intervals to analyse their various component questions assigned to their criterion in a cause-effect type of analytical method

University of Mumbai quality policies relating to the syllabus/curriculum framework, examinations, attendance etc. are communicated and discussed in all-teacher meetings, specialisation meetings, HOS/Academic Coordinator meetings, and other committees such as the Examination Committee, Attendance Committee. Relevant college-level policies are formulated leading to appropriate action/activities which in turn are monitored.

It involves participation of the stakeholders and ensures teamwork. It also generates a large pool of ideas which are then subjected to methodical assessment. All are allowed to express their viewpoint and ideas are recorded in a visible manner.



6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?

There is a continuous evaluation of both teachers and quality of learning by multiple feedback mechanisms. Each individual teacher midway through the term, twice in a year, solicits feedback from students for each subject she is teaching (in a less structured format), so as to make necessary and feasible changes in methodology of teaching in an ongoing manner as per the critical evaluation given by majority of students.

The institution has always laid a strong emphasis on quality of education. Hence, towards this end a number of initiatives have been made to ensure quality in the teaching-learning process; planning, implementation and evaluation are all focused on.

- Every good academic program is supported by regularity and punctuality of the staff and students. In keeping with technological advancement a biometric attendance machine has been installed, which helps in monitoring attendance of all the teaching and non-teaching staff.
- Regularity of all the staff members is excellent; however, in the event of a long absence of any staff member due to untoward circumstances, efforts are made to occupy the students fruitfully. This is made possible by exchange of lectures— other teachers willingly agree to teach the class if free. At times the timetable is reworked to make this possible. New appointments are made on clock-hour bases if a staff member proceeds on leave for long durations (e.g., maternity leave).
- Teaching workplans are submitted by all faculty members, for each subject, at the beginning of the year and these are reviewed by the Principal.
- Maintenance of teacher's diary by each staff member enables monitoring of the plan. In addition to information about the topics covered in each class, leave taken by the staff member and exchange of classes or other compensatory methods, mentoring sessions conducted are written in the diary.
- Orienting and mentoring of new faculty and those teaching a new course facilitates improvement of professional competence.
- Oral peer feedback and self-appraisal form filled by each faculty member help provide insights into personal strengths that can be capitalized on and areas that need strengthening.
- Evaluation of teaching-learning process has been regularly undertaken through

administration of the Teacher Assessment Questionnaire (TAQ). A high level of confidentiality is maintained in this process. Academic Coordinators/Heads of Specializations and the Principal seek feedback from the students on a bimonthly basis and term-wise, respectively. Information obtained is communicated to the teacher concerned in order to enable her to stretch the boundaries of excellence and enhance the teaching-learning process.

- Along with Teacher Assessment by the Principal, teachers also do self-assessment and evaluation which helps them to analyze their academic growth. In addition, every teacher obtains oral/written feedback from students. Subject teachers are encouraged to take feedback from students each month.
- The evaluation of learning outcomes is undertaken through the periodic evaluation of assignments, fieldwork, research work, and practical work. Students are also involved in peer evaluation and self-assessment under the guidance of the teacher.
- In its efforts to optimize student satisfaction and minimize grievances with respect to assessment, the college encourages shared evaluation for practical subjects in all specializations. The assessment group consists of 2-3 experts in the subject who may/may not be teaching the student. This enables consultation and permits more objective evaluation of practical work.
- Remedial teaching and coaching has been initiated whenever necessary to improve the understanding and performance of the students.
- A mentoring program includes individual and group mentoring, which facilitates academic and personal problem resolution and encourages group decision-making. In many cases it has also helped improve study habits of students.
- A transparent policy of admission into the four specializations at TY BSc, which is based on choice and merit, also demonstrates the concern of the institution to ensure objectivity. Similar transparency is demonstrated in admissions to other courses, such as the Post Graduate Diploma in Dietetics and Applied Nutrition, MSc, and PhD.
- A list of students falling short of the requisite 75% attendance stipulated by the University of Mumbai is displayed on the notice board and also communicated on an individual basis. This provides the students with an opportunity to improve their attendance before the term ends. In those cases where the situation has not improved, a meeting with the student's parents is arranged and efforts are made to improve the situation.
- The college involves the primary stakeholders in decision-making to ensure whole-hearted cooperation in implementing the decision and hence strives to continuously obtain the same. Every year the college takes an initiative to involve parents in the education process. Parent's orientation programme is organized at the beginning of the year to acquaint parents with the various requirements of the course, scope of higher education, and various job opportunities. Parents and students are encouraged to make suggestions and give feedback which is carefully reviewed. A suggestion box has been provided for those who wish to make suggestions anonymously. Similarly, suggestions are invited from alumnae, industry, experts, employers, etc. The feasible suggestions are used to make changes in the administrative policies, syllabus, and infrastructure of the institution in order to improve the quality of the education provided. An example is the provision of learning resource material to students to assist them in their studies.
- A grievance redressal procedure encourages honest expression of concerns of all stakeholders. The issues raised are deliberated upon by the management/principal/teaching/non-teaching staff and action plans often emerge from those discussions which help improve the quality of the education provided.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

Policies at the formulation/introduction stage are orally communicated and explained, frequently with the aid of a PPT presentation. On being finalised, hardcopies of relevant policies are put up on staff and/or student notice boards as is suitable. When appropriate, the soft copy of the policy/guidelines is also uploaded on the college website. Quality policies are spelt out in the Student Handbook.

Outcomes are communicated to/discussed with internal stakeholders at IQAC meetings, committee meetings, specialisation meetings, all-teacher weekly meetings, and LMC meetings; also in the Student Council, with particular class groups, and when necessary specially-arranged student body meetings.

Outcomes are communicated to parents through Parent Orientation Meetings and during the College Day Celebrations. Outcomes are also communicated to/discussed at the Management Council meetings through the Principal.

Any other relevant information regarding Governance Leadership and Management which the college would like to include.

We would like to reiterate that the administration of the college is notably decentralized.

CRITERION VII: INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

7.1.1 Does the College conduct a Green Audit of its campus?

The college is in the process of having a Green Audit conducted by:

1. Samuchit, Pune;
2. Institute of Community Organization Research (ICOR), Mumbai; &
3. The Arch Diocesan Commission for Environment, Mumbai.

The Draft Report submitted in December 2013 states that:

The College is to be commended for the:

- ✓ Judicious use of space for conducting multiple classes and courses
- ✓ Exceptional cleanliness and brightness of the premises
- ✓ Cultivation of greenery and variety of potted plants that contribute to creating green surroundings

It is recommended that the college:

- Use solar energy
- Organise sessions for faculty and students on calculating carbon footprints
- Experiment with vermicomposting

We would like to add:

Several green initiatives have been undertaken by the college such as energy conservation, reduction of wastage, recycling or reuse of waste, and carbon neutrality. Maintenance of the college building has been given top priority and several features of the building have been renovated/remodelled keeping in mind the need to meet the educational/functional purpose in an ecofriendly manner. The researches of our students have also focused on green topics such as waste management.

7.1.2 What are the initiatives taken by the College to make the campus eco-friendly?

Energy conservation

- All rooms in the college are bright and well-ventilated and so the need for and use of artificial lighting is minimal. The excellent ventilation has meant that we do not need to rely on airconditioning. Therefore, there is minimal usage and installation of air conditioning units in the building. Only the computer labs and the audio-visual room are fitted with AC units.
- Incandescent bulbs have been replaced with the more efficient CFLs.
- Lights, fans, computers, ovens, irons and other electrical devices are switched off immediately after completion of work by the students. Teachers taking the respective classes and peons appointed for classrooms on the designated floors check immediately to ensure this.
- To save on electricity, students whose classes/activities are on the 4th floor and below are expected to take the stairs and not the lift, except in the case of a medical problem or an emergency.
- Much attention is given to the maintenance of the building and equipment.

Use of renewable energy

Sessions are conducted for the students by Bharatgas on “Ways to minimize LPG consumption”. This knowledge is then put into practice in the Food Science practicals.

Water harvesting

Not being done

Dam construction

Not applicable

Efforts for carbon neutrality

Continuous efforts have been made to create awareness among staff and students about the concept of “Reduce, Reuse and Recycle” in order to minimise/reduce carbon emissions.

Students and staff reuse as much paper and other material as is practically possible:

- Loom waste (warp threads on the looms) are reused by the students for ‘tie and dye’ activity (for practicals and extension activities).
- Fabrics used for the “Draping” practical are reused for the “Apparel Construction” practical.
- Students are encouraged to use leftover fabric and embellishments of all kinds generated in college and at home as material to prepare bookmarks, cards, penholders, file covers, purses, bags etc. This is then made use of when teaching income-generating skills to tribal and rural women (extension activities).

Other examples of ways in which we reduce our carbon footprint:

- Photocopying on both sides of a sheet and the use of soft copies for internal communication is encouraged to reduce wastage of paper.
- Newspapers, magazines and a lot of other waste generated in the college is sold to facilitate recycling.
- Garments prepared by students at the examinations are worked over by senior students and the refinished garments are sent to the Institute’s urban and rural centres to be used by the underprivileged sections of society.

Plantation

The college has made concerted efforts to grow plants in the front and backyard of the college building as well as the building in which the hostel and canteen are situated. Potted plants are another specialty in the college. Much time and energy has been invested in growing a diverse variety of plants. Refer to **Table 7.1** for a list of plants in the college garden.

Hazardous waste management

Standard procedures are used to dispose of hazardous waste management. Chemicals used in the laboratories are carefully diluted before disposal.

e-waste management

There is an organized collection and disposal of e-waste. Outdated computers and/or their parts are sold to computer recycling firms.

Any other

- Students are educated to be environmentally conscious and responsible. The subjects in our courses include a wide range of green topics (e.g., ecofriendly technologies).
- Students have been given topics related to environmental conservation for assignments.
- T.Y. B.Sc. students visited Don Bosco, Karjat (2012-2013 academic year), where they learnt how the institution reused/recycled everything resulting in zero waste. They were also shown how simple technology was being used to modify gadgets and make them more eco-friendly.
- M.Sc. (TFT) students have completed dissertations on green topics and have even won awards and accolades. Examples are provided below:

- Ms. Swaroopa Adusumallai was declared India Finalist in August 2010 and participated for Veronica Bell Award winning award in an International Design Competition on Sustainable Designs held in UK for her M.Sc. dissertation under the guidance of Dr. E. Dedhia on ‘Management of silk waste in the rural areas of Hyderabad’ October 2010 organized by Society of Dyers and Colourists.
<http://sdc/colourblogspot.in/2010/08/sdc-desin-competition>
- Ms Jignasa Shah presented a poster and received the Best Oral Paper Award for the paper entitled ‘Eco-friendly printing techniques for fashion fabrics in a small scale industry’, based on Ph.D. work under the guidance of Dr. E. Dedhia on 5th April 2013 “A Way of Life Green Fashion Conference” on a National Level held at the Lalit Andheri Mumbai.
<http://www.dystar.com/Article.cfm?AID=94>
- Ms Jinal Shah received the Best Poster Paper Award for her paper entitled ‘Khadi a fabric for social justice and sustainability’ based on Ph.D. work under the guidance of Dr. E. Dedhia at the Consortium of Green Fashion national award on 5th April, 2013 “A Way of Life Green Fashion Conference” on a National Level held at the Lalit Andheri Mumbai.
<http://www.dystar.com/Article.cfm?AID=94>
- Staff members in the TFT specialization are particularly renowned for their work in areas such as ecofriendly natural dyes.
- The students of the college, under the supervision of the Social Service Committee, have contributed to the city’s endeavour to keep beaches clean by being actively involved in cleaning beaches after Ganpati idol immersions.

The list of plants in the garden is present in the Annexure 4.1.2

7.2 Innovations

7.2.1 Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the college.

Innovations in:

Curriculum

- In compliance with the directives of the University of Mumbai, the Credit Based Semester and Grading System has been designed and implemented at all levels successfully.
- Several new courses have been introduced which help diversify the choices available to students at various levels. These new courses also help students build a wider repertoire of knowledge and skills, useful for their personal and professional lives:
 - PhD *coursework* (e.g., in Research Methods and Statistics) for those enrolled in the doctoral program in Home Science.
 - An MSc in Home Science with a specialisation in *Food Processing and Preservation* (recognised by the University of Mumbai; self-financed).
 - An MSc in Home Science with a specialization in *Sports Nutrition* (recognised by the University of Mumbai; self-financed).
 - Certificate courses recognised by the University of Mumbai: *Visual Merchandising, Entrepreneurship in Textile Crafts, and Nutrition and Exercise for Fitness*.

- New value-added courses such as *Ergonomics and Work Station Design*, *The Indian Sign Language*, and *Creative Parenting*.

A new MSc program in Home Science with a specialisation in *Ergonomics* (self-financed) has been approved by the University Academic Council and is pending final sanction.

Teaching and Learning

- Teachers are maintaining a “Teacher Diary” which helps them keep track of the syllabus covered and to review the instructional methods employed. This diary which includes a leave record is a self-monitoring tool as well as provides the Principal another way to monitor the teaching process.
- Educational tours are arranged for all senior students in the college. Participation in educational tours/industrial visits/internships is helping students have greater exposure and build skills relevant to careers in their specialisation.

Scientific Temper

- Conscious efforts have been made to cultivate a scientific temper and contribute to the national and international body of knowledge in Home Science and allied fields:
 - Many teachers have obtained minor research grants and completed research projects of excellence.
 - Many teachers and students/ex-students (including PhD scholars) have made scientific paper and poster presentations at various national and international conferences. Teachers and postgraduate students have been recipients of awards for their presentations.
 - The expertise of teachers has led to their being invited to speak in plenary sessions of international conferences.
 - More teachers are publishing research papers/books both nationally and internationally. Reputed journals and book publishers are publishing their work.
 - Teachers are reviewers and/or editors of national and international journals.
 - More teachers have obtained their PhD degree.
 - The number of PhD guides has increased.
 - Teachers have obtained the UGC travel grant for their scientific presentations abroad.
 - The research component has been strengthened in the five MSc programmes in the college: Students complete 12 credits of research-related coursework in Semesters 1 and 2 (Research Methods and Statistics theory; Research Practicum) and 12 credits in Semesters 3 and 4 (Dissertation). They complete a group research project/other research exercises in Semesters 1 and 2, and an individual research project in Semesters 3 and 4 under the guidance of teachers.
 - An Ethics Committee with internal and external members has been recently formulated to review and provide ethics clearance to students for their research projects at the master’s and doctoral levels.

Linkages/Collaboration/Extension

- In accordance with our future vision/perspective plan, we have taken deliberate steps to build international visibility and linkages:
 - We organised our **first international conference** in January 2013. The theme was very relevant to the current times: “*Enhancing Health, Wellbeing, and Sustainability—Challenges, Opportunities and Future Directions*”. Eminent speakers from abroad as well as Indian scholars of international repute provided tremendous value; paper and poster sessions also offered an excellent platform for dialogue. The conference was very successful as noted in the number of

registrations, the range of scholars, the number of proposals received for paper presentations, the number of paper and poster presentations, the funds generated, and the international linkages set up.

- **Academic exchange programmes** have been set up with Ghent University, Ghent, Belgium, and Fu-Jen Catholic University, Taiwan.
- Students and staff participated in a cultural/educational exchange programme with a college in France—l'Ecole de la Providence, Blois.
- An academic exchange programme is being explored with the Martin Luther Christian University, Shillong.
- We have signed an MOU with the Yashwantrao Chavan Pratishtan: Teachers of the college are extending their knowledge expertise to benefit the underprivileged women who enrol in the certificate course in Home Management conducted by the Pratishtan.
- We are collaborating with the University of Mumbai's Department of Lifelong Learning and Extension and have established the Nirmala Niketan college unit. Enrolled students are transferring their experiences and learning from the classroom to the community.

Infrastructure and Technology

- Substantial remodeling of sections of the college is helping improve functioning:
 - A new computer-laboratory-cum-cybercafé
 - Two new multi-purpose laboratories
 - Newly modeled multi-purpose hall
 - Newly modeled classrooms
 - Newly modeled Research Centre
 - Newly modeled toilets/washrooms
 - Both the lifts are new (the old lifts have been replaced)
 - A newly modeled gymnasium with more equipment and a qualified trainer
- All classrooms are now ICT-enabled, permitting teachers to use PPT presentations and video clippings routinely.
- Computers in the staffrooms also now have Internet connectivity which is greatly assisting in preparation for classes (e.g., downloading relevant images/videos) and in maintaining professional communication.
- CCTV installation is helping security be maintained on campus; biometric sign-in/sign-out for staff is also helping maintain quality records.
- The college has acquired two software programs—Fee Manager and Tally ERP.9—which enable faster accounting, administrative, and admission work.
- Academic results are now computerized.
- An equipment grant received from the UGC for 25 lakhs (and another 25 lakhs has been promised) has allowed specialised software and laboratory equipment to be purchased.

Student and Staff Support

- Each group/subgroup of students has an assigned mentor (i.e., a teacher who plays this designated role).
- Leadership training camps have been arranged for Class Representatives and Assistant Class Representatives.
- Personality development camps have been arranged for TY BSc students.
- Through the initiative of Shri Milind Deora (Member of the Lok Sabha), student representatives of the college have visited the Parliament and observed its functioning.
- Personality development workshops have been organised for the nonteaching and support staff.
- Increased welfare measures for staff and students. Some examples are:

- Timely receipt of salaries from the management (on the first of each month) as salaries from the government are delayed.
- Microwave in the Common Room for students.
- Microwave and fridge in the staffroom area for teachers.
- A high-energy drink and snack is distributed to students during examinations.
- Medical camps are organised for students and staff.
- Tonics are distributed to nonteaching staff members.
- A nurse is available in the college.
- Picnics and sightseeing tours are arranged for students.
- Picnics are arranged for staff.
- Students and staff play a secret buddy game in December, prior to Christmas; small gifts and caring/uplifting messages are exchanged in the true spirit of Christmas. On the day of the Christmas party, buddies reveal themselves to each other.
- An inspirational quotation is read out on the public address system by assigned students each day before the classes begin.
- An Employment Placement Cell has been established: Students are assisted in writing their CVs and campus interviews are organised for interested students which lead to placements.
- An Interfaith Committee through its various activities and programs helps students of different (minority and other) communities feel valued. Respect for multiple religions/communities is fostered amongst all students/staff through the activities and programs of this committee.

Governance

- An administrator (who is a member of the Management) has been appointed to assist and support the Principal in her endeavours to actualize the vision of our college.
- FY and SY examinations are now conducted by the college as per the directives of the University of Mumbai. The Examination Committee, and the newly formed Central Assessment Process and Unfair Means Committees are facilitating the examination work.

7.3 Best Practices

7.3.1 Give details of any two best practices which have contributed to better academic and administrative functioning of the College.

Best Practice 1

Title of the Practice: Use of learner-centred, participatory, innovative teaching-learning methods.

Goals

- To engage students in the learning process.
- To respect the learner as an active participant as opposed to a passive recipient.
- To encourage cooperative learning.
- To empower our women students through teaching-learning activities that help students build self-confidence.
- To respond to students in smaller groups and individually as far as possible rather than as “a class” of students.
- To enable students to make connections between ideas in textbooks and the real worlds that they are experiencing in Mumbai/tribal-rural areas outside Mumbai/other parts of India.
- To have students co-construct knowledge and take ownership for ideas.

- To support students in thinking, problem-solving, and in specialised knowledge- and skill-development.
- Most importantly, to enable powerful learning.

The underlying principles are clear in the statement of goals: We need to ensure that students are strongly engaged in the learning process; students learn far better when they are active participants in the learning process; the role of peers in learning needs to be respected and opportunities for learning interpersonal skills/teamwork are essential (soft skill development); the teaching-learning activities themselves must allow students to build positive ideas of who they are and what they can accomplish; teaching-learning activities must allow us to identify and respond to the needs of individual learners as far as possible; education must be relevant for the learner; we uphold a constructivist epistemological position; in today's changing times, it is imperative that students learn how to think/problem-solve; our education is also focused on specialised knowledge and skill development; powerful learning is the outcome of the use of learner-centred, participatory teaching-learning methods.

The Context

- Students who belong to the Net-generation/ICT-dependent world can easily “switch-off” unless they are strongly engaged in the learning process through the use of learner-centred, participatory, innovative teaching-learning methods.
- With information far more accessible today through the Internet, teachers can no longer remain providers of information. Teachers need to be facilitators of powerful learning rather than providers of dry information.
- The content of education becomes relevant to students when they are supported in making connections with their own lives; when they are provided opportunities for applying their learning in real-life contexts.

Many of the textbooks are published outside India: exercises/activities that help student link ideas in Western textbooks to the real-world in Mumbai/India are exceedingly important.

- The rate of change is extraordinarily high today: knowledge in different fields, the job market, skill requirements, technologies are changing. It is important that students learn values and skills that are generally applicable across contexts: For example, valuing oneself and others, problem-solving skills, skills in presenting/articulating ideas, skills in applying ideas to multiple contexts.
- Women's empowerment through education is our vision.
- Whereas the ancient gurukul system was learner-centred and participatory, modern higher education in India has not necessarily been as receptive to the needs of learners. At Nirmala Niketan College of Home Science, we deliberately choose to use learner-centred, participatory, innovative teaching-learning methods .

The Practice: Overview

Teachers in the college outstandingly use a variety of teaching-learning methods that engage the learner in hands-on and minds-on activities, enabling powerful learning. Examples across teachers are:

- Use of images, video clippings, PPT slides, documentaries, movies, songs
- Use of relevant/inspirational stories, books, newsevents
- Readings and guided discussions of extracts from textbooks/reference books/scientific journals
- Discussion, debates, buzz sessions
- Games, dumb charades, crosswords, short exercises, small group exercises, brainstorming, problem-solving activities
- Use of anecdotes and illustrations

- Role plays, dramatization, puppet shows
- Workshops
- Case histories
- Demonstrations and experiments
- Mock lessons, simulation

Also relevant are the following:

- Opportunities to apply learning in real-life contexts: planning, conducting, and evaluating extension activities for beneficiaries in urban/rural/tribal areas.
- Students (especially doctoral students) are also supported in making scientific poster or paper presentations in national and international conferences.

The Practice: Selected Examples in Detail

FY BSc/SY BSc Theory Subjects (class size: 60-90 students)

- Foundation Course (Theory, FY BSc, General): Students are sensitised towards the needs of workers employed in their homes. Under guidance, they interview the maids who work in their homes and learn about the differences in their own and their maids' life circumstances and needs.
- Adolescent Development (Theory, FY BSc, Human Development): Discussion of reality shows like "Parvarish" which has a theme of adolescence, while explaining various topics related to adolescence; discussion of movies such as *3 Idiots*, *Udaan*. Relating different theories to the students' own experiences with family and peers, and the problems faced by them; providing a platform for students to share their experiences and what they are going through.
The teacher role-plays various vignettes as an illustration of concepts (e.g., gender differences in walking, holding a book, talking; desirable and undesirable feminine qualities; emotional competence). For example, each of the emotional competencies was role played with adolescent characters, embedded in an easy-to-relate-to situation. Students could correctly identify each of the emotional competencies (e.g., recognition/ awareness of own emotions).
Use of short exercises (e.g., each student rated self on a 10-point scale of femininity and likewise for masculinity; each student listed what it meant to be feminine and what it meant to be masculine); followed by discussion and explanation.
Use of guessing games.
Use of interesting images and cartoons on PPT slides to invite reflection and discussion
- Consumer Education (Theory, FY BSc, Community Resource Management): Students are shown advertisements in class through the FLV/VLC player, and are guided in analysing whether the advertisement is misleading consumers with special reference to the Consumer Protection Act, Drugs and Magic Remedies Act, Monopolies and Restrictive Trade Practices Act etc.
Newspaper and magazine articles are discussed in class with respect to the content, rights of the consumer, and redressal process if any.
"What's the Right?" Sessions: Situations are discussed with students who then analyse which consumer right is violated, and whether under the Consumer Protection Act 1986 that grievance can be redressed.
Students are motivated to collect and bring samples of fake/replica products such as bottled drinking water, chocolates, coconut oil, cosmetic brands etc. to class and the labels are compared with those of the original brands.
- Principles of Design (Theory, FY BSc, Community Resource Management): Students are shown pictures on PPT slides and are asked to analyse the pictures based on the topic being discussed. For example, if the topic being discussed is *rhythm*, they are

asked to analyse whether the rhythm shown in the picture is too much or too little based on the type of room. Suggestions are invited for possible changes in the design composition used in the room.

- Development in Adulthood (Theory, SY BSc, Human Development): For the topic of social development/family development in adulthood, film clippings and documentaries have been used (e.g., Nick Vujicic, Abby & Brittany Hensley-Joined for Life, Satyamev Jayate).

Students attitudes towards the elderly were ascertained through a quiz; this was followed by the topic on “ageism”.

Students’ involvement in the lives of their grandparents was assessed through a quiz (eg; What is your grandmother’s favourite food item, what is your grandfather’s shoe size)

Students were helped to relate what they have studied in the textbook with their own real life experiences in relation to their grandparents.

In the topic on health in adulthood, students were helped to assess their risk of developing certain medical conditions (e.g., osteoporosis) through a brief checklist.

- Traditional Indian Textiles and Costumes (Theory, SY BSc, Textile and Fashion Technology): Recent articles from the *Apparel* magazine were collected and discussed, giving students the current scenario of traditional textile crafts.

Videos were used to explain the working of artisans in craft centres, manufacture of traditional textiles, draping styles for traditional costumes.

The teacher wore and brought traditional Indian textiles to class as samples for the students to understand the characteristics of traditional textiles (e.g., saris from different states, woven fabrics, shawls, embroidered and printed textiles).

Students were guided in identifying and gathering traditional textiles from their homes and to creatively drape/exhibit them as part of a class project.

Sari draping sessions were conducted in class.

- Principles of Resource Management (Theory, SY BSc, Community Resource Management): Five different Hollywood/Bollywood movie clippings were shown and students had to discuss the style of leadership. Students were supported in brainstorming and discussing the advantages and disadvantages of the style.

Students role-played different styles of leadership.

Students were guided in analysing case studies from the industry.

Games, puzzles, activities, exercises, management stories, short movies (FLV player) are also used.

Quizzes, Q & A sessions, and focused listing have been used for revision.

FY BSc/SY BSc Practicum Subjects (class size: 15-25 students)

- Children’s Clothing (Practical, FY BSC, Textile and Fashion Technology): Teaching, including demonstrations, is done in small groups (e.g., of 5) to ensure that each student understands the steps involved.

Peer tutoring is used: Student with better stitching skills are identified through close observation who then take up the role of explaining simple stitching techniques again to the students who need more assistance.

- Nutrition & Meal Planning (Practical, SY BSC, Foods, Nutrition and Dietetics): Students are asked to get nutrient-rich recipes of high fibre, Vitamin A, iron, and protein of different communities. Of these, particular recipes are selected and cooked in class.

It is also seen to that one serving will cost up to Rs 15. Students, therefore, study the dietary practices of different communities and learn the importance of selecting the best, yet low-cost ingredients.

TY BSc Theory Subjects (class size: 28-38 students)

- **Counselling and Psychological Testing (Theory, TY BSc, Human Development):**
Eliciting idea generation and idea articulation by giving students 3-5 minutes of buzz-time when they can discuss their ideas with their bench partners followed by selected bench-groups sharing their idea in the large group; ensuring that each student gets opportunities to participate in class.
The workshop method was used for some topics (e.g., play therapy; intelligence testing).
The teacher read out transcripts of actual counselling sessions followed by supporting students in reflecting and sharing their insights about counselling.
Resource person was called to teach about marital counselling and use actual case examples.
- **Curriculum Planning (Theory, TY BSc, Human Development):** A music and movement workshop is conducted by the course teacher who is also recognised as an expert (nationally) in Early Childhood Care and Education.
- **Human Exceptionality (Theory, TY BSc, Human Development):** Discussion of movies such as *Taare Zameen Par*, *My Name is Khan*, *Children of a Lesser God*, *At First Sight*, *I am Sam*, *A Beautiful Mind*. Discussion of reality shows on TV such as *Aapki Antra*, *Dance India Dance*, wherein children with disability participate.
- **Family Relations and Family Welfare (Theory, TY BSc, Human Development):** For the topic of spousal abuse, students' attention was drawn to the cyclical patterns of behaviour that characterise the dyad of perpetrator and victim; this was followed by videos that illustrate these dysfunctional patterns of behaviour. Family violence awareness videos were also used to sensitise students to the gravity of the problem of domestic violence, and help them to identify the typical behaviours of an abuser, impact on victim/family members (including death). A real-life case illustration was presented of an acid-attack survivor from Mumbai.
- **Residential Interior Design (Theory, TY BSc, Community Resource Management):** Students are asked to conduct a market survey of the materials available in the market, collect samples, and submit the report. Students collect information on the brands, sizes, price etc. of the materials used in Interior Designing. This gives an in-depth, real-world, and up-to-date knowledge of the materials available for designing. The teacher supplements and discusses with students the results of their market survey.
- **Marketing Management and Entrepreneurship (Theory, TY BSc, Community Resource Management):** Students are guided in organising a theme-based market, which requires prior planning of 3 months. This allows the students to apply a lot of the theoretical concepts that they learn in this theory class.
- **Introduction to Ergonomics (Theory, TY BSc, Community Resource Management):** Students are given opportunities to analyse designs ergonomically and are supported in brainstorming suggestions for improvement.
Students are guided in making suggestions for ergonomically remodeling/redesigning spaces or furniture units such as study table, classroom, multi-purpose labs in college etc.
Under guidance, students analyse bad designs such as a badly designed toothbrush, manhole, door placement in malls and other public areas etc.
Students are taken on industry visits to help them identify the ergonomic best practices followed in the industry.
- **Household Appliances (Theory, TY BSc, Community Resource Management):** Students are guided in conducting a market survey of new gadgets such that they learn

about the latest technologies in household appliances. The findings are presented in class in interactive sessions.

TY BSc Practicum Subjects (class size: 14-19 students)

- Food Analysis and Clinical Biochemistry (Practical, TY BSc, Foods, Nutrition and Dietetics): Students undergo individual training in microbiological techniques at the Microbiology Dept. of Jaihind College (certificate course of 15 hours). Visits are arranged for students to reputed analytical laboratories; resource persons are invited for demonstration of particular laboratory techniques.

- Administration of Schools and Other Human Development Agencies (Practical, TY BSc, Human Development): Visits were arranged for the students to schools of excellence in Mumbai.

Had students take a virtual tour of a school of excellence, shared their YouTube videos, and had them review the school policies as stated on the school website in the practical class.

Workshops were arranged for them, conducted by nationally and internationally acclaimed experts on topics such as Eurythmy (Waldorf Schools), NGOs.

Students in small groups selected an NGO that they would like to visit in Mumbai. Students were supported in a step-by-step process: designing the observation and interview tool to be used for the visit; student presentations on the NGOs they would like to visit and why, feasibility; selection of NGO, procurement of formal consent, and the visit; student presentations (using creative means such as dramatisation/role play, PPT slides) on the outcome of their visit—sharing about their learning.

Debates on school policies.

- Dyeing and Printing (Practical, TY BSc, Textile and Fashion Technology): Workshops were organised for students on Dabu Resist Technique and Leheriya (for example), conducted by national award-winning artisans.

MSc Theory Subjects (class size: 10-30 students)

- Research Methods and Statistics (Theory, MSc1, 3 branches): Extensive use of discovery-learning and cooperative learning—Small-group exercises in which students build their knowledge step-by-step with careful guidance from the teacher; alternating between small-group and large-group instruction.

Use of examples from the journals of each of the three disciplines—shared through PPT slides.

Brief written quizzes individually answered by students using a closed-book format; feedback provided through inviting students to answer the quiz questions immediately afterwards using an open-book method.

- Food Science and Processing (Theory, MSc1, Foods, Nutrition and Dietetics): Visits to food processing units and food industries are arranged for the students in collaboration with AFST(I)-Mumbai Chapter.

- Issues in Education (Theory, MSc1, Human Development): Relevance of Dance Education was taught through a dance exercise in the classroom.

Students also engaged in an exercise in Bibliotherapy (developing therapeutic stories for children).

Students also presented about the lives and contributions of various visionary educationists (e.g., Mahatma Gandhi, Tarabai Modak, Rousseau, Maria Montessori) through a role play in which they dressed up and enacted as one of these visionary educationists.

- Advanced Study of Counselling and Psychological Testing (Theory, MSc1, Human Development): The skills in counseling are demonstrated to students.

Workshops on Gestalt Therapy and Rational Emotive Behavioural Therapy were conducted for students.

Sharing of counselling cases (without indicating the identity).

A rapid round of questions is fired to ensure that students have mastered the concepts taught.

- Global Marketing Merchandizing and Entrepreneurship (Theory, MSc1, Textile and Fashion Technology): Different retail brands were assigned to students for extensive study through Internet browsing and creating and presenting a PPT on brand/company profile.

Students were guided in organising visual displays to give hands-on experience in designing aesthetic and functional window displays.

Case studies were used with discussion on trends in retailing.

Newspaper clippings were used to illustrate fashion, marketing, and retail trends.

- Management—Manpower & Marketing (Theory, MSc2, Foods, Nutrition and Dietetics): Exercises and games were conducted with students on problem-solving, team spirit, and out-of-the-box thinking.
- Advances in Research in Human Development (Theory, MSc2, Human Development): Exemplary writings are selected by the teacher; readings are assigned for each class; in class, there is a guided discussion and teaching using the readings; students share what they liked/were inspired by/appreciated, read aloud any such segment from the readings, question/make comments/summarise; students are supported as they participate in short exercises in reading, abstracting, and writing in class.

Inspirational, real-life stories were shared to illustrate the developmental principles of discontinuity, deceleration, transformation, and novelty. Students were also asked to come up with examples (which they did—e.g., King Ashoka after the Kalinga war).

The teacher shared from the lives of C.G. Jung, Elizabeth Kübler Ross, Urie Bronfenbrenner, and Elias Howe to illustrate key ideas from Thomas Kuhn's thesis on the structure of scientific revolutions.

Affirmation cards with attractive images have been used to illustrate principles in human development.

- Human Exceptionality and Psychological Disorders (Theory, MSc2, Human Development): Students were taught how to write snapshots of children with disabilities. Snapshots are descriptions of children with disabilities that highlight all their strengths and characteristics other than their disability so that the reader gets to know them as individuals in their own right. The disability is indicated right at the end of the description.

Cases are read out to the students to get them to identify the symptoms and causes.

Students are helped to develop items/questions to tap the symptoms of specific psychological disorders.

Quizzes are conducted in fun ways to elicit whether they have mastered the topic.

Students are asked to share their insights at the end of the two-hour class.

- Advanced Family Studies (Theory, MSc2, Human Development): Use of Indian cinema to portray and help students reflect on and discuss special topics in the course (e.g., betrayal in marriage, marital sexuality, career-related conflicts among spouses): Students have been shown movies (or movie clippings) such as *Astitva* (2000, Director: Mahesh Mandrekar), *Kabhi Alvida Naa Kehna* (2006, Director: Karan Johar), *Ijaazat* (1987, Director: Gulzar), and *Abhimaan* (1973, Director: Hrishikesh Mukherjee).

- Textile and Garment Finishing (Theory, MSc2, Textile and Fashion Technology): Students were asked to think of products in regular use (e.g., ID card straps, mobile covers, mops) and to list the various finishes that could be applied to these products in order to improve the serviceability and durability of the products.

- Management and Business Administration (Theory, MSc2, Textile and Fashion Technology): Student viewed videos on management issues which was followed by discussion.

Case study evaluation and discussion to understand various managerial perspectives.

MSc Practicum Subjects (class size: 10 students)

- Biochemistry and Food Analysis (Practical, MSc1, Foods, Nutrition and Dietetics): Demonstrations are organised for students at research laboratories of KEM Hospital, Bhabha Atomic Research Centre (BARC), Somaiya College, and Khalsa College. Experts (e.g., hematologists, microbiologists) are invited as resource persons to the college to demonstrate laboratory techniques.

Note that the following are in repeated usage and therefore are not (necessarily) mentioned in the examples cited:

- Graphic and text display on PPT slides
- You-tube videos
- Group discussions
- Role plays

Evidence of Success

- Student feedback/teacher evaluations have been positive.
- Alumnae have shared feedback about the long-term utility/benefits of their educational experiences in the college.
- Our alumnae are placed in excellent positions (e.g., as academicians, researchers, dieticians).

Problems Encountered and Resources Required

- Time intensive: Therefore, each of the Academic Coordinators/Assistant Coordinators and the HOSs work out timetables for extra teaching-learning sessions/classes when requested by individual teachers. Extra sessions are held at all levels.
- Space requirements: These teaching-learning practices also increase the space requirements. In response, for example, two of the laboratories this year have been remodeled into multi-purpose laboratories/learning spaces.
- Technology: The Management and the Principal have been most receptive to the needs of teachers and students with regard to technology. All classrooms are equipped with LCD projection systems attached to computers; wireless mouse devices have been made available for teaching in the large classrooms; speakers are readily made available on request.

Best Practice 2

Title of the Practice: Decentralised participatory management.

Goals

This best practice is aligned with our mission:

- To respect egalitarian justice, use participatory governance, and build capacity among students and staff.

Related goals include the following:

- To have students and staff value their own role and the roles of others in planning and executing day-to-day or special activities/events in the college.
- To enhance teamwork across all types of primary stakeholders in the college.

Democratic and welfare-oriented principles undergird this best practice.

The Context

Learning and leadership development occur best when participatory methods are used. Participatory governance allows for the holistic development of both faculty and students: in partaking in various activities as decision-makers and executors of decisions, faculty and students build/strengthen skills that have enduring value.

The Practice

The decision-making and organizational processes in the college are exemplary of decentralized participatory management. Decision-making processes are considerably decentralized in the college through demarcation into four specializations and the institution of various committees:

- **Demarcation into four specialisations**

There are four specialisations in the college (namely, the Nutrition-related, Human Development, Textile and Fashion Technology, and Community Resource Management). The three specialisations that are available from the BSc to the PhD level have an HOS (on rotation among senior-most faculty), and the fourth (i.e., Community Resource Management) has a Coordinator. The faculty of each specialisation takes the lead in designing the curriculum related to that specialisation, delivers the curriculum related to that specialisation, and plans/coordinates/organises activities and events for enriching the educational experience of the students. Students participate, provide feedback and inputs, and help in the decision-making processes by proffering valuable suggestions. Enrichment activities are organised for students along with their assistance so that they learn organisational skills and interact with professionals outside the college.

All relevant brainstorming/planning (curriculum design, curriculum delivery, special activities and events) is done at the specialization level and the principal makes suggestions/approves of the plans/drafts. These plans/drafts are also communicated/discussed in the teachers' meeting where others can make suggestions. The specialization sees to the execution (curriculum delivery, special activities and events) with regular updates to the principal. The monitoring is overseen at two levels: specialization and principal. The evaluation is done by the specialization and discussed with the principal and in the teachers' meeting. (Curriculum design is routed from the specialisation/Principal through the Chairperson of the Ad Hoc BOS of Home Science, the Faculty of Science, and the Academic Council of the University of Mumbai.)

- **The 7 subcommittees of the IQAC/Also known as the 7 NAAC Committees** (with faculty, other staff, and student members)

A specially noteworthy and innovative strategy of decentralised participatory management in the college is that the IQAC expands into 7 subcommittees or 7 NAAC Committees, one for each NAAC criterion. This allows each faculty member (and other staff and students) to participate in the quality assurance activities/monitoring through the year as each faculty member is part of at least one such NAAC Committee. Whereas the convenor of each such committee is an IQAC member, all members of each subcommittee or NAAC Committee participate in the decision-making processes relevant to their criterion such as Infrastructure and Learning Resources or Student Support and Progression.

- **Formulation of Relevant Committees for Curricular Activities**

Each of the committees such as the Admission Committees, Examination Committee, Central Assessment Process and Unfair Means Committees, Grants Committee, Purchase Committee, Ethics Committee, Library Committee, and the Employment Placement Cell, with its convenor and members, makes/executes/evaluates decisions. This process occurs in coordination with periodic meetings with the Principal as well as sharing/soliciting of suggestions in the all-faculty meetings.

- **Formulation of Committees for Extra-Curricular Activities** (with faculty, other staff, and student members)

These committees include the Sports Committee, Cultural Committee, Social Service Committee, Magazine Committee, Interfaith Committee, and the Women's Development Cell; the Student Council is composed of the class representatives and assistant class representatives and has specially-assigned teachers who scaffold the leadership training of the Council members. Once again, decision-making processes occur at the level of the committee with approval/suggestions sought from the Principal/other faculty through special meetings/all-faculty meetings.

- **Ad Hoc committees for special events** such as seminars and conferences (with faculty and student members)

Decision-making and work distribution is regulated through these committees which have student members who are very active. These provide wide-ranging opportunities for boosting the leadership skills/event management skills/professional networking skills of staff and students.

- **Other Overall Committees: The Local Managing Committee, the IQAC**

The LMC and the IQAC are (also) platforms for generation of new plans and monitoring of plans already in place. The LMC has members from each of the specialisations such that it is well-linked with the decision-making at the level of the specialisation; the IQAC as already noted expands into the 7 NAAC Committees.

Moreover, multiple strategies are in place for capacity-building and leadership training among faculty and students:

- Teachers are playing multiple leadership roles in one capacity or the other (e.g., convenor of a committee, assistant coordinator) and participating in decision-making.
- ✓ Rotation of Conveners, Heads of the Specializations, and Coordinators
- A leadership training camp is arranged for the Student Council members each year.
- Student Council members have teachers specially assigned to support their leadership training in an ongoing manner through the academic year.
- Students are encouraged and supported by the teacher members of various committees in building leadership skills.

The following roles of the top Management and the Principal are aligned with participatory governance:

The governing body of the Nirmala Niketan Institute is the overall steward; at the college level, the Principal, who is also a Trustee member of the Management, is the chief steward. The governing body members are open to suggestions generated at the college level; they also ensure that the short-term and long-term plans and activities of the college are aligned with the DHM vision and the college vision. The principal plays the role of an effective leader by balancing authority and democratic principles in management.

Evidence of Success

- The clearest indicator of success is the excellent execution of day-to-day activities as well as those relating to special events, such as the international conference held in January 2014.
- Our faculty and students have developed skills in being assertive, taking initiative, engaging in communication, proposing and following up on valuable ideas.
- Our alumnae are placed in excellent positions (e.g., as academicians, researchers, dieticians).

Problems Encountered and Resources Required

- Consensus-building is time-intensive.
- Despite the use of participatory governance, each individual's position on a policy cannot be implemented. Therefore, at times a particular member may feel dissatisfied with the decisions made.
- Each individual (faculty member or student) is challenged to reach for their best interpersonal skills and strengthen existing interpersonal skills.
- Faculty development sessions on themes such as "Gaining Harmony in Life: The Art of Emotion Regulation" (Resource person: Fr George Cordeiro) have been found useful.

E: EVALUATIVE REPORT

The Self-evaluation of every department may be provided separately in about 3-4 pages, avoiding the repetition of the data.

1. **Name of the department:** Home Science
2. **Year of Establishment:** 1969
3. **Names of Programmes / Courses offered (UG, PG, M.Phil., Ph.D., Integrated Masters; Integrated Ph.D., etc.)**
B.Sc. (Home Science)
M.Sc. (Home Science)
Ph.D. (Science) in Home Science
Post graduate Diploma in Dietetics and Applied Nutrition
4. **Names of Interdisciplinary courses and the departments/ units involved:** Home Science is a multidisciplinary and interdisciplinary field (combination of Physical Sciences, Life Sciences, and Social Sciences).
5. **Annual/ semester/choice based credit system (programme wise):**
Credit Based Semester and Grading System:
B.Sc. (Home Science)
M.Sc. (Home Science)
Postgraduate Diploma in Dietetics and Applied Nutrition
PhD (CBSGS curriculum has been designed)
6. **Participation of the department in the courses offered by other departments**
Not Applicable
7. **Courses in collaboration with other universities, industries, foreign institutions, etc.**
Home Management course in collaboration with Y.B. Chavan Pratishtan
8. **Details of courses/programmes discontinued (if any) with reasons:** Nil.
9. **Number of Teaching posts (as of January 2014)**

	Sanctioned	Filled
Professors	00	00
Associate Professors	12	12
Asst. Professors	16	16

10. Faculty profile with name, qualification, designation, specialization, (D.Sc./D.Litt. /Ph.D. / M. Phil. etc.)

Name	Qualification	Designation	Specialization	No. of Years of Experience		No. of Ph.D. Students guided for the last 4 years
				In Nirmala Niketan College	Total Experience	
Dr. Perpetua Machado	M.Sc. (Home Sc.), M.Phil., Ph.D.	Principal	Foods, Nutrition & Dietetics	25y	30y	3
Mary Varghese	M.Sc. (Home Sc.)	Associate Professor	Foods, Nutrition & Dietetics	35y 7m	38y 7m	
Dr. Nirmala Almeida	M.A. (Psychology), Ph.D.	Associate Professor	Human Development	35y 7m	35y 7m	2
Dr. Geeta Ibrahim	M.Sc. (Biochem), M.Phil., Ph.D.	Associate Professor	Foods, Nutrition & Dietetics	34y 6m	34y 6m	
Dr. Ela Dedhia	M.Sc. (Home Sc.), Ph.D.	Associate Professor	Textile & Fashion Technology	31y	31y	7
Ms. Nina Dias	M.Sc. (Home Sc.)	Associate Professor	Foods, Nutrition & Dietetics	34y	34y	
Ms. Anuradha Mitra	M.Sc. (Home Sc.)	Associate Professor	Foods, Nutrition & Dietetics	28y	29y	
Ms. Jacqueline Colaco	M.Sc. (Home Sc.)	Associate Professor	Foods, Nutrition & Dietetics	25y	25y	
Ms. Pratima Goyal	M.Sc. (Home Sc.)	Associate Professor	Textile & Fashion Technology	25y 6m	25y 6m	
Dr. Veena Yardi	M.Sc. (Home Sc.), M.Phil	Associate Professor	Foods, Nutrition & Dietetics	22y 6m	31y	
Ms. Sunita Jaiswal	M.Sc. (Home Sc.), SET	Associate Professor	Community Resource Management	18y 7m	19y 7m	
Dr. Anuradha Bakshi	M.Sc. (Home Sc.), Ph.D.,	Associate Professor	Human Development	17y 6m	26y 6m	4
Ms. Rhonda Divecha	M.Sc. (Home Sc.), SET	Assistant Professor	Human Development	18y 7m	19y 7m	
Dr. Subhadra Mandalika	M.Sc. (Home Sc.), Ph.D.	Associate Professor	Foods, Nutrition & Dietetics	15y 7m	21y 7m	3
Ms. Payal Maheshwari	M.Sc. (Home Sc.), M.Phil, SET	Assistant Professor	Human Development	17y	20y	
Ms. Vibha Hasija	M.Sc. (Home Sc.), SET	Assistant Professor	Foods, Nutrition & Dietetics	16y 6m	16y 6m	

Dr. Vishaka Karnad	M.Sc. (Home Sc.), Ph.D., SET	Assistant Professor	Textile & Fashion Technology	16y 1m	16y 1m	
Dr. Kamini Rege	M.Sc. (Home Sc.), Ph.D., SET	Assistant Professor	Human Development	15y 7m	19y 7m	
Dr. Ritu Madhan	M.Sc. (Home Sc.), Ph.D., NET	Assistant Professor	Textile & Fashion Technology	13y	13y	
Dr. Subhadra Prabhu	M.Sc. (Home Sc.), M.Phil, Ph.D., SET	Assistant Professor	Human Development	6y 8m	6y 8m	
Ms. Roopa Rao	M.Sc. (Home Sc.), SET	Assistant Professor	Community Resource Management	6y 8m	19y	
Ms. Sanam Khan	M.Sc. (Home Sc.), NET	Assistant Professor	Community Resource Management	5y 1m	9y 1m	
Ms. Neha Mulchandani	M.Sc. (Home Sc.), NET	Assistant Professor	Textile & Fashion Technology	3y	3y	
Ms. Vrinda Udiaver	M.Sc. (Home Sc.), NET	Assistant Professor	Textile & Fashion Technology	3y	11y	
Ms. Vibhuti Barve	M.Sc. (Home Sc.), SET, B.Ed.	Assistant Professor	Textile & Fashion Technology	00	2y 6m	
Ms. Sanghmitra Navalgund	M.Sc. (Home Sc.), SET, PG program in Planning & Entrepreneurship	Assistant Professor	Textile & Fashion Technology	00	2y 9m	
Dr. Anjali Srivastava	M.Sc. (Home Sc.), Ph.D., NET	Assistant Professor	Textile & Fashion Technology	3y	7 y	
Ms. Prajakta Mhaprolkar	B.A., B.L.I.Sc, M.L.I.Sc, NET	Librarian		4y	14y	

11. List of senior visiting faculty

Some of the senior visiting faculty is:

- Dr. Gideon Arulmani
- Ms. Sheetal Joshi
- Dr. Kiran Sangani
- Ms. Naaznin Husein
- Dr. Geetanjali Bhide
- Mr. R.C. Moorjani
- Mr. Adrian Rosario
- Ms. Ashwini Korvade
- Ms. Saloni Benjamin
- Ms. Gauri Murthy
- Dr. Jyoti Vora
- Dr. Shruti Samant

- Dr. Kondekar
- Dr. J.S. Pai
- Mr. Hoshang
- Ms. Beena Chhedda
- Prof. C.S. Purushottam
- Ms. Sheryl Salis
- Ms. Aban Bana
- Ms. Dilnawaz Bana
- Mr. Prakash Pangam
- Dr. Rachel Valles
- Prof Dr. M D Teli
- Prof Dr. Adivarekar
- Dr. Usha Sayed
- Dr. Shilpa Charankar
- Ms. Archana Kochhar
- Mr. Navin Vasvani

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty

Temporary faculty is only appointed on an ad hoc basis as and when required. We have to appoint temporary faculty when a teacher is on sanctioned leave, and also for the duration between resignation/retirement of a teacher and the appointment of a new teacher following due procedures.

13. Student -Teacher Ratio (programme wise)

B.Sc. (Home Science): 1 teacher to 16 students

M.Sc. (Home Science): 1 teacher to 2.5 students

PhD (Science) in Home Science: 1 teacher to 2.1 students

14. Number of academic support staff (technical) and administrative staff; sanctioned and filled

	Sanctioned post	Filled post
Academic support staff (technical)	00	00
Administrative Staff	09	05

15. Qualifications of teaching faculty with D.Sc. / D.Litt. / Ph.D. / MPhil. / P.G.

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent teachers							28
D.Sc./D.Litt.	--	--	--	--	--	--	
Ph.D.	--	--	--	07	--	05	12
M.Phil.	--	--	--	--	--	01	01
PG	--	--	--	06	--	09	15
Temporary teachers							
Ph.D.	--	--	--	--	--	--	--
M.Phil.	--	--	--	--	--	--	--
PG	--	--	--	--	--	--	--

Part-time teachers							
Ph.D.	--	--	--	--	--	--	--
M.Phil.	--	--	--	--	--	--	--
PG	--	--	--	--	--	--	--

*(28 teaching staff includes 1 Principal & 1 Librarian)

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received

Year	Principal Investigator	Type of project	Sponsoring Agent	Amount Sanctioned
2013 -2015	Ms Payal Maheshwari	Minor Research Grant	University Grants Commission	70,000
2013-2014	Ms. Nina Dias	Minor Research Grant	University of Mumbai	25,000
2013-2014	Ms. A. Mitra	Minor Research Grant	University of Mumbai	25,000
2013-2014	Ms. Pratima Goyal	Minor Research Grant	University of Mumbai	25,000

17. Departmental projects funded by DST-FIST; UGC, DBT, ICSSR, etc. and total grants received

Projects funded by University Grants Commission:

Year	Principal Investigator	Type of project	Amount Sanctioned
2009-2010	Dr. Geeta Ibrahim	Minor Research Grant	Rs 1,54,900
2013-2015	Ms. Payal Maheshwari	Minor Research Grant	Rs. 70,000

Projects funded by University of Mumbai:

Year	Principal Investigator	Type of project	Amount Sanctioned
2011-2012	Dr. Perpetua Machado	Minor Research Grant	Rs. 30,000
2011-2012	Dr. Geeta Ibrahim	Minor Research Grant	Rs. 35,000
2011-2012	Dr. Subhadra Mandalika	Minor Research Grant	Rs. 30,000
2011-2012	Dr Anuradha J. Bakshi	Minor Research Grant	Rs. 30,000
2011-2012	Dr Subhadra Narasimhan	Minor Research Grant	Rs. 30,000
2011-2012	Dr Nirmala Almeida	Minor Research Grant	Rs. 15,000
2011-2012	Dr Kamini Rege	Minor Research Grant	Rs. 30,000
2011-2012	Ms Rhonda Divecha	Minor Research Grant	Rs. 15,000
2011-2012	Dr. Deepa Rathi	Minor Research Project	Rs. 30,000
2011-2012	Dr. Vishaka Karnad	Minor Research Project	Rs. 20,000
2012-2013	Dr. Geeta Ibrahim	Minor Research Grant	Rs. 12,000
2012-2013	Ms. Veena Yardi	Minor Research Grant	Rs. 28,500
2012-2013	Ms. Vibha Hasija	Minor Research Grant	Rs. 24,600
2012-2013	Ms Payal Maheshwari	Minor Research Grant	Rs. 70,000
2012-2013	Ms. Ritu Madhan	Minor Research Project	Rs. 39,000
2013-2014	Ms. Nina Dias	Minor Research Grant	Rs. 25,000
2013-2014	Ms. Anuradha Mitra	Minor Research Grant	Rs. 25,000
2013-2014	Ms. Pratima Goyal	Minor Research project	Rs.25,000

18. Research Centre /facility recognized by the University

The college has been evaluated by the University of Mumbai as a centre for advanced research, that is, doctoral research. In 2005, the college was awarded permanent recognition for a doctoral programme (Science) in Home Science. Thus, the University of Mumbai has recognized the college as having the material and human resources for being a research centre for doctoral candidates.

Moreover, we have a special Research Centre at the college which stands testimony to the college's endorsement of the integral role of research in a place of learning. The Research Centre lives up to the motto of "Reaching out through Research". Two international projects have been successfully carried out with the food company, Fromageries Bel, France. The Research Centre has also carried out several projects in collaboration with various National Industries like Marico India Ltd, Kellogg India. The Research Centre also publishes a bi-annual journal "Research Reach—Journal of Home Science". ISSN: 0974-617X.

19. Publications:

• Publication per faculty

Name of Faculty	2009	2010	2011	2012	2013-2014	TOTAL
Dr Subhadra Mandalika	3	3	2	3	8	19
Dr Ela Dedhia	3	2	1	4	6	16
Dr Anuradha J Bakshi			3	3	7	13
Dr Nirmala Almeida	1		1	4	7	13
Dr Kamini Rege	1	3	1	5		10
Dr Veena Yardi	2	1			1	4
Ms Payal Maheshwari				3	1	4
Dr Deepa Rathi					3	3
Dr Muriel Mendes	1	2				3
Dr Ritu Madhan					3	3
Dr Vishaka Karnad			2		1	3
Ms Hemalatha Jain		2	1			3
Ms Rhonda Divecha				3		3
Dr Perpetua Machado					2	2
Dr Shubhadra Prabhu			1		1	2
Ms Pratima Goyal				1	2	2
Ms. Anuradha Mitra	1	1				2
Dr Geeta Ibrahim				1		1
Ms Roopa Rao					1	1
TOTAL	12	14	12	27	43	108

- Number of papers published by faculty and students in peer reviewed journals (National): 27
- Number of papers published by faculty and students in peer reviewed journals (International): 18
- Number of publications listed in international data base (e.g. Web of science, Scopus, Humanities international complete, Dare data base-International social sciences Directory, EBSCO host, etc.)

24 publications of the college staff have been listed in various international database.

- **Monographs as books—02**
- **Chapters in books: 7**
- **Books edited: 02**
- **Books with ISBN/ISSN numbers with details of publishers: 05**

- **Citation Index:**

24 publications of the faculty are on sources which are used for computing a citation index (10 out of 27 faculty)

- **Impact factor**

18 publications are in journals with an impact factor (10 out of 27 faculty)

Journal	Citation Index	Impact factor
Asian Journal of Research in Social Sciences & Humanities	✓	0.315
International Journal for Educational and Vocational Guidance	✓	0.80
An International Scholarly Research Journal for social studies	✓	1.38
Nutrition & Dietetics	✓	0.671
Journal of Radiation Physics and Chemistry	✓	1.38
Journal of Food Chemistry	✓	4.072
Research & Reviews: A Journal of Neuroscience	✓	2.974
Indian Journal Public Health Research & Development, indexed with Index Copernicus (Poland)	✓	---
Manmade Textiles in India	✓	---
Journal of Food Chemistry	✓	3.334
Manmade Textile Journal	✓	---
J. Human Ecology	✓	1.923
Indian Journal of Nephrology	✓	0.260
Transplantation Proceedings	✓	0.952
Psychological Studies	✓	---
International Scholarly Research Journal for Interdisciplinary Studies	✓	---
International Journal of Social Science and Humanity	✓	---
Handbook of Career Development: International Perspectives	✓	---

- **H-index -**

- Singhania, P.R., Mandalika, S. (2012). Holistic health assessment tool for patients on maintenance hemodialysis. *Ind. J. Nephrology*, 22(4), 269-274. ISSN: 09714065, 19983662, H Index: 3

20. Areas of consultancy and income generated

The Research Centre is the main consultancy service provider of the Institute. However, individual staff members have also provided consultancy to various companies and industries. The broad areas where consultancy has been provided are as follows: food product development, community nutrition, dietary practices for better weight management and healthy body composition, better methods of identifying and preventing nutritional deficiencies, fibre analysis etc. The amount that has been generated by the Research Centre is Rs 33,03,944/- and that of the individual staff is Rs 50,000 which amounts to Rs 33,53,944/- The income generated through the consultancy services of the Research Centre has been invested in the infrastructural development of the college, purchase of scientific equipment, books etc. Some amount of money has also been allotted as seed money for new and emerging research projects, if required.

21. Faculty as members in

a) National committees b) International Committees c) Editorial Boards....

Several teachers are members of one or more of the following committees / associations / organizations:

a) National Committees:

Academic bodies	Professional bodies
Home Science Association of India (HSAI)	ACBI
Maharashtra Bal Shikshan Parishad	ACLABP
Board of Studies:	AFST(I) Mumbai Chapter
• International College For Girls, Jaipur	AIARO
• Goa University	AIDS Society of India
• K. J. Somaiya College (Autonomous)	All India Council for Technical Education (AICTE)
• M. S. University of Baroda, Vadodara	All India Council for Technical Education - Vocational
• SASMIRA, Mumbai	All India Women Science Conference
• St Xavier's College (Autonomous)	Bombay Art Society
• SVT College of Home Science, SNDT University	Bombay Management Association
• University of Mumbai	
Panel member for awarding PFNDAI Scholarship	Bombay Psychological Association (BPA)
Selection Panel of Saurashtra University for lecturers in Food Tech, AILSG	BUCTU
Reviewer for Ph.D. thesis of IRSHA, Pune	Cotton Fibre Society
Member, UGC-NET	Counsellor's Association of India
RRC of University of Mumbai	Early Childhood Association (ECA)
	Fibre Society of India
	Home Science Association of India (HSAI)
	Indian Association for Career and Livelihood Planning (IACLP)
	Indian Association for Preschool Education (IAPE)
	IATBS
	Indian Dietetics Association (IDA)
	India International Friendship Society

	Indian Science Congress
	Indian Women Scientists' Association
	NAAC
	NEEF
	Nutrition Society of India (NSI)
	Textile Association of India
	Society of Dyers & Colourists, India (SDC)

b) International Committees/Professional Bodies:

- Asian Regional Association for Home Economics (ARAHE)
- International Society for the study of Behavioral Development (ISSBD)
- International Play association (IPA)
- Australasian Human Development Association (AHDA)
- Member of the Kappa Omicron Nu, Honor Society of Home Economists, USA
- EQ Alliance Forum
- The Textile Institute, UK
- International Federation for Home Economics (Annual)
- Advisory committee of TUV

Editors/Authors of International Books / Chapters in books

Dr. Subhadra Mandalika Co-author: alumna Priyanka Bhalja)	<i>Alfalfa Supplementation and Exercise Performance</i>	LAP Lambert Academic Publishing (2012) ISBN-10: 3659126284 ISBN-13: 978-3659126284
Dr Subhadra Mandalika, co-author	<i>Nutrition in Traditional Therapeutic Foods</i>	Astral International (2012) ISBN-10: 8170358671 ISBN-13: 978-8170358671
Dr. Kamini Rege (co-author: alumna Mansi Mehta)	<i>Matrimonial Websites: An Emerging Mediator for New Generation</i>	LAP Lambert Academic Publishing (2012) ISBN-13:-978-3-659-21690-9 ISBN-10:-3659216909
Dr Anuradha J Bakshi Second Editor & Author of four chapters	<i>Handbook of Career Development: International Perspectives</i>	Springer, February 2014 ISBN-10: 1461494591 ISBN-13: 978-1461494591
Dr Nirmala Almeida Author of a chapter	<i>Handbook of Career Development: International Perspectives.</i>	Springer, February 2014 ISBN-10: 1461494591 ISBN-13: 978-1461494591

Editors/Authors of Indian Books/Chapters

Dr Ela Dedhia Technical Editor	'Saris: Splendor in Threads'	Redpepper Books, 2012 ISBN 9350673606
Ms Hemalatha Jain Author	<i>Techniques of Dyeing and Printing</i>	Ane Books in 2010. ISBN13: 9789380156170 ISBN10: 9380156170
Dr Nirmala Almeida Author	<i>Psychological Management of Diabetes and Behavioural Change</i>	Booklet used for National Diabetes Educator Program in 2011
Dr Subhadra Mandalika Co-editor	Methodologies for Fitness Assessment	Ane Books in 2011

Editors / Reviewers of International Journals

Dr Deepa Rathi	Member of the editorial advisory board	<i>Colourage</i>
Dr Geeta Ibrahim	Associate Editor	<i>Research Reach—Journal of Home Science</i>
Dr Ela Dedhia	Editors	<i>Journal of Asian Regional Association of Home Economics, published in Korea</i>
	Editorial Advisor	Journal of Innovative Media—Textile Value Chain
	Associate Editor & Referee	<i>Research Reach—Journal of Home Science</i>
	Editor	Fashion Practice Journal, UK (India issue 2016)
Dr Anuradha J. Bakshi	Reviewer	<i>South African Journal of Psychology (SAJP)</i> published by Sage ISSN 0081-2463
	Reviewer	<i>British Journal of Guidance and Counselling (BJGC)</i> published by Routledge, Taylor & Francis Group ISSN 0306-9885
	Guest Editor	<i>International Journal for Educational and Vocational Guidance</i> ISSN: 0251-2513 (Print) 1573-1782 (Online)
	Associate Editor	<i>Research Reach—Journal of Home Science</i>
Ms Payal Maheshwari	Reviewer	<i>Global Education Review</i> , ISSN 2220-1599, Published by Longbridge, Hong Kong
	Reviewer	<i>US-China Education Review A</i> published by David Publishing, USA ISSN 2161-623X
	Reviewer	<i>Journal of Modern Education Review</i> , ISSN 2155-7993, Published by Academic Star Publishing Company, New York, USA
Dr Subhadra Mandalika	Reviewer	<i>International Journal of Food and Nutritional Sciences (IJFANS)</i>

Editors / Reviewers of National Journals

Dr Nirmala Almeida	Associate Editor	<i>Indian Journal of Career and Livelihood Planning</i>
Dr. Anuradha Bakshi	Managing Editor	<i>Indian Journal of Career and Livelihood Planning</i>
Dr Ela Dedhia	Reviewer	<i>Journal of Textile Association</i>
	Reviewer	<i>Research Imprints</i> , Published by Smt. P.N. Doshi Women's College
	Editorial Advisor	<i>Design and Art Journal</i> , IIG Jaipur
Dr Subhadra Mandalika	Reviewer	<i>Research Imprints</i> , Published by Smt. P.N. Doshi Women's College

22. Student projects

a) Percentage of students who have done in-house projects including inter departmental/ programme

100%: All undergraduate and postgraduate students carry out in-house projects in the form of assignments (case studies, surveys) every year as part of the syllabus.

b) Percentage of students placed for projects in organizations outside the institution i.e.in Research laboratories/Industry/other agencies

Almost 70% of the postgraduate students carry out their projects in various government, non-government, and commercial organizations.

23. Awards/ Recognitions received by faculty and students

Faculty Awards

Dr. Nirmala Almeida	Best Paper Award (Oral Presentation)	Indian Society of Nephrology West Zone Chapter Annual conference, organized by the Mumbai Nephrology Group, September 2009
Ms. Payal Maheshwari	Best abstract (researcher) Award	2010 Joint World Conference on Social Work and Social Development: The Agenda, Hongkong, 10-14, June 2010
Dr. Nirmala Almeida	First Prize	37 th Annual Conference of Association of Clinical Biochemists of India (ACBICON 2010) held in Mumbai, December 13-15, 2010
Dr. Nirmala Almeida	Best Paper Award (Oral Presentation)	22 nd Annual Conference of the Indian Society of Organ Transplantation, New Delhi, 7- 9 October, 2011
Ms. Veena Yardi	Pragatisheel Mahila Award	Research contributions to HIV+ women
Ms. Veena Yardi	Award cum Scholarship	Women's Graduate Union, Mumbai
Dr. Ela Dedhia	Bronze Medal	Society for Dyers and Colourists SDC International at Bradford UK on 13th May 2011
Ms. Veena Yardi	Times and Talent Club Diamond Jubilee Scholarship	Research contributions to HIV+ women
Ms. Roopa Rao	Best Paper Award	International Conference on Current Scenario of Ergonomics in Interiors, Chennai, 15-16 February 2013
Dr. Nirmala Almeida	Best Paper Award (Poster Presentation)	24 th Annual Conference of the Indian Society of Organ Transplantation, Bhubaneswar, 25 -27 October, 2013

Student awards

Ms. Delnaaz Disawala	First Prize	XX Indian Convention of Food Scientists and Technologists, Bangalore
Ms. Amzu Jamal	First Prize	"AVISHKAR –The National Research Festival" in 2009 at the Research Convention, Mumbai University
Ms. Amzu Jamal	Second Prize	"ANVESHAN – a research convention" in 2009 at the Interuniversity Research Convention, Solapur
Ms. Shirin Janooswon	Second Prize	"AVISHKAR a research convention" in 2011 at the Intercollegiate Research Convention by University of Mumbai
Ms. Priyam Ahuja	Best Paper Award	INCOSAN (International Conference on Sports and Nutrition), Coimbatore.
Ms. Minelly Rodrigues	Best Poster Award	International Conference and Exhibition on Food Processing Technology by OMICS group
Ms. Elizabeth Pereira	First Prize	Design Category at the National Young Talent Search Competition organized by the Society of Dyers and Colourists (SDC)
Ms. Bijal Vora	Second Prize	International Conference of SDC in Goa
Ms. Bijal Vora	National Winner	"SDC Design Competition, 2009"
Ms. Swaroopa Adusumallai	India Finalist and first runner-up	International Design Competition on Sustainable Designs held in UK
Ms. Amrita Verma	3rd Regional Winner	SDC Design Competition
Ms. Prachi Savla	Jury Award	SDC Design Competition
Ms. Awani Gogri	Regional Award	SDC Design Competition

Ms Jeenal Shah	Best Poster Paper Award	Consortium of Green Fashion, Mumbai, on 5 th April 2013.
Ms Jignasa Shah	Best Oral Paper Award	Consortium of Green Fashion, Mumbai, on 5 th April 2013
Ms Jignasa Shah	Mid-Career Award	30 th Biennial Conference of the Home Science Association of India, on 21 st December 2013
Ms Sneha Luhera	Best poster award	Food Alert Conference held at St Teresa's college Ernakulam, 1-3 rd October, 2013

Plenary Team Members and Keynote Addresses

1. Dr. Nirmala Almeida: Key opinion leader for National conferences
2. Dr. Geeta Ibrahim: Plenary Teams for National conferences
3. Ms. Anuradha Mitra: Keynote speaker at a National conference
4. Dr. Anuradha Bakshi: Plenary team member for International conferences
5. Dr. Subhadra Mandalika: Plenary Teams for National conferences

Leadership Positions in Professional Bodies

- Dr Perpetua Machado is a Peer Team Member, NAAC
- Dr Geeta Ibrahim:
 - Examiner and expert for Curriculum development for University of Mumbai, Goa, AILSG, ICT
 - Expert on the Panel of MPSC selection of grade I officers
- Dr Ela Dedhia:
 - Representative India Zone, Asian Regional Association of Home Economics (ARAHE)
 - Trustee, Society of Dyers & Colourists, India (SDC)
 - Member of Professional Awards Committee, Textile Association of India
 - Examiner & Expert for Curriculum Development for Universities in India: University of Goa; IIG, Jaipur
 - Expert for University Grants Commission (UGC), New Delhi
 - Expert for Curriculum development for Vocational courses for All India Council for Technical Education (AICTE)
- Dr Vishaka Karnad is a Fellow of the Textile Institute, Manchester, UK, and is entitled to practice being a chartered member of the Textile Institute.
- Dr Anuradha J. Bakshi is the Vice-President of the *Indian Association for Career and Livelihood Planning* (IACLP)
- Dr Kamini Rege is the Joint Secretary and an Advisory Board Member of ECA—India (Early Childhood Association—India)

Other Recognition

- Many of our faculty have been invited to chair sessions in international conferences in India and abroad.
- Many of our faculties have also been invited as judges for academic competitions.
- Our faculty have high visibility in relevant national and international conferences
 - 14 poster/paper presentations in local, regional, or state conferences
 - 75 poster/paper presentations in national conferences
 - 190 poster/paper presentations in international conferences
 - Total: 279 poster/paper presentations (calculated based on the period 2009-2010 academic year to October 2013)

24. List of eminent academicians and scientists/ visitors to the department

Interactions of eminent scholars/researchers/experts with teachers and students have been made possible through the following two strategies:

- Eminent researchers/scientists/experts have been invited as resource persons/speakers for workshops, seminars, and conferences organised by the college.
- Researchers/scientists/experts have also been invited to hold sessions with students and/or faculty.

List of eminent academicians and scientists/ visitors to the department (specialization wise)

Foods, Nutrition and Dietetics:

- Dr B. Sesikeran (Former Director, National Institute of Nutrition, ICMR; eminent nutritional pathologist)
- Dr V. Prakash (Former Director, Central Food Technological Research Institute)
- Dr J. S. Pai (Executive Director of Protein Foods and Nutrition Development Association of India)
- Dr. J. Louis (Assistant Director, PFNDAI)
- Dr. G. Subbulakshmi (Former Director, Dept. of Post Graduate Studies & Research in Home Science, SNDT Women's University, Mumbai)
- Dr. Srihatti (Marico Industries)
- Dr. Halde (Vice President, Marico Industries)
- Dr. Maritta (Deputy Director, Haffkine; Head, Department of Biochemistry)
- Dr. Prakash Kondekar (Director, Naturopathy Institute)
- Dr. Ashish Contractor (MD, Asian Heart Institute)
- Dr. Shashank Joshi (Endocrinologist)
- Dr. Yadav (Sr. Vice President, Kamani Oil Industries)
- Dr. Julie Lovegrove (Deputy Director, Hugh Sinclair Unit of Human Nutrition & Institute for CVD & Metabolic Research, UK)
- Mr. Madhukar Talwalkar (MD, Talwalkar institute of Fitness)
- Mr. Kaizad Kapadia (MD, K-11 Gym)
- Ms. Saloni Benjamin
- Ms. Gauri Murthy
- Prof. R.C. Moorjani
- Dr. Jyoti Vora
- Dr. Shruti Samant
- Mr. Hoshang
- Ms. Beena Chhedda
- Prof. C.S. Purushottam
- Ms. Sheryl Salis

Human Development:

- Dr Gideon Arulmani (Founder Director, The Promise Foundation; Visiting Senior Lecturer, Canterbury Christ Church University, UK; WB/ADB/ILO Consultant)
- Dr Maurice Walgrave (Dean of the Faculty of Education, Health and Social Work, University College, Ghent, Belgium)
- Mrs Elizabeth Mehta (Founder, Muktangam [NGO])
- Dr Ajit Mohanty (Retired Professor, JNU, New Delhi and Ex-Fullbright Visiting Fellow, University of Columbia, New York)
- Dr Anuradha Sovani (Associate Professor, University of Mumbai)
- Dr Farookh Bucchia (Director of CASP)

- Mrs Farida Lambay (Ex-Vice-Principal, Nirmala Niketan College of Social Work; Co-founder, Pratham)
- Dr Tushar Guha (Founder and Managing Director, Nrityanjali Group)
- Dr Shailendra Chaubey (Ayurveda and Panchkarma Consultant)
- Dr K B Kushal (Director, DAV Public Schools)
- Dr. Anjali Sadhwani (PhD in Clinical Psychology, Illinois Institute of Technology, Chicago, USA; Clinical Psychologist, Boston Children's Hospital, USA)
- Dr Harish Shetty (reputed psychiatrist)
- Dr Anjali Chhabria (reputed psychiatrist)
- Ms. Sugandha Jain (NAEYC coordinator and Assistant Director, Kids 'R' Kids, learning centre in Northwest Austin, USA)
- Dr. Coomie Vevaina (Professor of English Literature, Mumbai University)
- Dr Swati Khanolkar (Therapist, REBT Practitioner, USA trained)
- Ms. Jahnvee Joshi (Professor, Coordinator, Aga Khan Youth and Sports Board, India)
- Ms. Aban Bana (Waldorf Education, India; Founder, Anthroposophy in India)
- Ms. Dilnawaz Bana (Waldorf Education, India; Founder, Anthroposophy in India)

Textile and Fashion Technology:

- Dr Richards Straughan (President SDC [Society of Dyers and Colourists] & STP, UK)
- Dr Elizabeth Straughan (Member, SDC&STP, UK)
- Dr M D Teli (Dean, Institute of Chemical Technology [ICT])
- Dr Adivarekar (Head of Department, Textiles Technology, ICT)
- Dr Usha Sayed (Associate Professor, ICT)
- Dr Shilpa Charankar (Principal, Dr B M N College, Matunga)
- Ms Archana Kochhar (Fashion Designer)
- Mr Navin Vasvani (NCS Brand of T-Shirts)
- Mr. Anup Garg
- Mr A B Joshi, Textile Commissioner
- Mr Anil Mehra, Director Auxichem & Mrs Geeta Castelino, Senior Designer
- Ms. Susie Hargreaves
- Dr. Vandana Punjabi
- Mr. Harsh Gupta
- Mr Devendra Layal
- Mr. Navin Vasani
- Ms. Anjali Dileep
- Ram Babu Chippa
- Badshah Miyya, Artisan, National Awardee
- Kanhayalal Salvi
- Naushad Khatri
- Dr. Anjani Prasad (Executive, Clariant, Singapore)
- Dr. Mahapatra (Environment Head, Intertek Pvt. Ltd.)
- Mr. Gauri Prasad Desai (Entrepreneur, Laxmi Silk Sarees)
- Ms. Vandana Joshi (Canara Bank)
- Mr. A.B. Joshi (Textile Commissioner, Ministry of Textiles, GOI)
- Mr. Nimkar (CEO, Nimkartek)
- Mr. Manohar Sameul (Executive, Birla Cellulose)
- Neha Karnani (CEO, Cisons Knits)
- Mr. Richard Straughan, President, SDC, UK

- Ms. Nidhi Somani
- Ms. Sai Vijaya Naidu
- Dr Mrinal Choudhary

Community Resource Management:

- Mr Viren Shah (Manager, Occupational Health Services, Occupational Health and Environmental Safety Division, 3M-India, Bangalore)
- Dr Deepak Sharan (Director, RECOUP, Neuromusculoskeletal Rehabilitation, Bangalore, India)
- Mr Rohit Gaur (Joint General Manager, Quality Control Equinox Realty, Real Estate Division, Essar Group, Mumbai)
- Mr Parag Shastri (Senior Manager, Marketing, Godrej Interiors, Mumbai)
- Ms Mabel Abraham (Head, Corporate Social Initiatives Cell, Larsen & Toubro Ltd, Mumbai)
- Ms Meeta Singh (Global Director, Sustainability, Unilever, Mumbai)
- Dr Sanjay Vasant Deshmukh (Professor of Life Sciences & Head, University Department of Life Sciences, University of Mumbai)
- Mr Rohit Heblekar (Owner, Butterfly Conservatory of Goa, India)
- Dr Madhuri Pejaver (Dean, Science Faculty, University of Mumbai, India)

25. Seminars/ Conferences/Workshops organized & the source of funding

a) National

- On 30th September 2011, a one-day National level seminar entitled “**Professional Counseling across the Life Span: Challenges, Innovations and Future Directions**” was organized by the Human Development specialisation. This conference drew 300 participants and included college students, university and school teachers, university and school counselors, college and school principals and independent counselors from multiple states of India.
- A two-day UGC sponsored National Seminar was organized by the specialization of Foods, Nutrition and Dietetics on a very relevant topic “**Entrepreneurship: Recent Trends and Opportunities**” on 27th and 28th January 2012. This seminar enlightened the students with different arenas and challenges one can face during the process of becoming a successful entrepreneur. The seminar had eminent speakers from different fields that gave their valuable knowledge and shared experiences.

b) International

- A three-day International Conference on the theme “**Enhancing Health, Wellbeing and Sustainability—Opportunities, Challenges and Future Directions**” was organized by the College on 10th, 11th and 12th January 2013 which brought together experts and delegates from all the four specializations viz. Nutrition-Related, Human Development, Textile and Fashion Technology, and Community Resource Management from across the globe. The sub-themes for the Conference were Health and Wellbeing, Positivity and Wellness, Social Justice Issues and Sustainability, and Environmental Concerns and Sustainability.

26. Student profile programme/ course wise:

Name of the Course/programme (refer to Ques. 4)	Applications received	Selected	Enrolled		Pass percentage
			*M	*F	
B.Sc. (Home Science)	257	186	00	185	Sem I- 57.71 Sem II-55.11
M.Sc. (Home Science)	139	28	00	28	Sem I- 100.00 Sem II- 95.31
P.G. Diploma in Dietetics & Applied Nutrition	40	20	00	20	80.00
Ph.D. (Science) in Home Science	13	06	00	06	100.00

*M=Male F=Female

27. Diversity of Students

Name of the Course	% of students from the same state	% of students from other States	% of students from abroad
B.Sc. (Home Science)	99.53	0.23	0.23
M.Sc. (Home Science)	92	8	00
P.G. Diploma in Dietetics & Applied Nutrition	83.33	16.67	00
Ph.D. (Science) in Home Science	100	00	00

Although students are largely from Maharashtra, they belong to multiple states of origin. Typical of Mumbai, we have students from most states of India.

28. How many students have cleared national and state competitive examinations such as NET, SLET, GATE, Civil services, Defense services, etc.?

NET: 6

SET/SLET: 2

Others: GRE/TOEFL: 6

29. Student progression

Student Progression	Against % enrolled
UG to PG	FND: 90% HD: 75% TFT: 35% CRM: 35%
UG to direct career entry	FND: 6% HD: 20% TFT: 55% CRM: 60% through EPC, staff referrals/contacts, entrepreneurial activities, other independently sought jobs
PG to employment/ self-employment	100% Nutrition-related: 25% through EPC, 40-50% by staff referral/contacts, remaining independently HD: 50% through EPC, 40% by staff

	referral/contacts, 10% on their own TFT: 35-40% through EPC, 25-30% by staff referral/contacts, remaining independently (entrepreneurial activities)
PG to M.Phil.	Not applicable
PG to Ph.D. (after a gap of 2 or more years)	25%
Ph.D. to Post-Doctoral	Not applicable

30. Details of Infrastructural facilities

a) Library

- Renovation of library resulting in extension of reading area
- Purchase of 2 new cupboards, 2 racks and 3 tables
- Installation of six cameras in prominent locations inside the library to tackle the problem of theft of books and tearing of pages from reference books
- 6 new computers installed in library with internet facility. Presently 10 computers are available in the library.
- 2 deskjet printers made available in library.
- Purchase of new software for library operation(SLIM21)
- Purchase of automation system for the library (barcode printer, barcode scanner)

b) Internet facilities for Staff & Students

- Computer and internet facility has been made available on the campus for faculty and students.
- The faculty have access to computers with internet in the staffrooms, library, and cybercafé (without charge). Students can access computers, internet, and printing facilities in the library and in the cybercafé (at a minimal cost). Based on student request, multiple plug units have been installed in the library, and the corridors adjoining the library for students who wish to work on their laptops.

c) Classrooms with ICT facility

- Remodeling of the classrooms on the 2nd and 6th floors.
- All classrooms now have the facility of fixed LCD projection systems (including a CPU, keyboard, and mouse etc.).
- All large and few medium-sized classrooms (VIIA, VIIB, VA, IA,PG room), AV room and Hall are now equipped with wireless mouse for easy operation of computers and PPT presentations.

d) Laboratories

- Biology laboratory remodeled into a multipurpose room/laboratory. Currently also used for Principles of Design Practicum.
- Fourth Floor Foods Laboratory has been made into a multipurpose room/laboratory which caters to the needs of undergraduate and postgraduate students. Currently used for conducting Foods practicum, Principles of Design practicum, Developmentally Appropriate Practices practicum, and Hotel Front Office practicum.
- Old Dyeing and Printing Laboratory on the third floor has been renovated and remodeled to make a computer lab as well as cybercafé. Currently the Research Lab on the second floor is used for conducting Dyeing and printing practical which is well suited for the same.

- Purchase of new instruments (i.e., Tearing Strength Tester, Tensile Strength Tester, Bursting Strength Tester) for the instrument room on the first floor.
- Purchase of equipment (Autochem 2011, Bodystat 1500 MDD, KelPlus Automatic Micro mix, heart rate monitor & evaluation software, SPSS software) for research laboratories.
- Purchase of 5 Juki Sewing machines & 6 Dress forms for clothing laboratories.
- Purchase of 15 new computers for the computer lab/cybercafé.
- Purchase of equipment for ergonomics.

31. Number of students receiving financial assistance from college, university, government or other agencies

In the last 4 years, the total number of students who received scholarships was 173. Out of these 65 (37.5%) students have received merit-based scholarships, while 108 (62.5%) students have benefitted from the need-based scholarships. Of all the scholarships awarded, 42.2% of the assistance is received from state agencies.

32. Details on student enrichment programmes (special lectures / workshops / seminar) with external experts

Examples of Student enrichment programmes (specialization-wise) with external experts

Nutrition-Related:

- Celebrated Breast Feeding Week.
- Celebrated National Nutrition Week with students participating in intercollegiate quizzes and competitions and winning many prizes
- Bridge courses have been conducted for students of non – nutrition background to help them cope with the Nutrition subjects
- Promoting an environment and attitude of being Entrepreneurs by organizing two-day national seminar on Recent Trends in Entrepreneurship in Nutrition.
- Short educational tours/industrial visits.

Human Development:

- Seminars have been held with students participating as organizers and delegates (i.e., regional seminar on Storytelling – An avenue for Transformation and Growth” and national seminar on “Professional Counseling across the life span – challenges, innovations and future directions”

Textile & Fashion Tehnology:

- Educational tours.
- Students work has been showcased in the Fashion show organized at Nirmal Utsav—the annual college fest
- A textile symposium titled “Texfest” was organized which provided opportunities for students to participate in organization and learning.

Community Resource Management:

- Seminars have been organized for input regarding recent relevant issues, e.g. “Consumer and recent developments in the Telecom Industry” and “Rendering”
- Students actively participated in the Breast Feeding Week.
- Industrial visits/educational tours.

Overall

- Breastfeeding Week activities
 - Building awareness about hygiene among street food vendors
- Participation of students in intercollegiate events.
- Student involvement in planning and conducting co-curricular events such as seminars and conferences.
- Study Tours for TYs, PG Diploma students, MSc1s, MSc2s.
- Workshops organised by each specialisation as well as committees such as the Cultural Committee.
- Leadership training camp for all Student Council members
- Personality Development Camp for T.Y.B.Sc. students
- Linkages/tie-ups/collaborations with the industry, NGOs, GOs, academic organisations, and research organisations in curriculum implementation strengthen the career orientation of our curriculum.
 - Exposure visits
 - Study tours
 - Placements/Internships
 - Research collaborations
 - Talks/sessions/workshops with experts from the industry/NGOs etc.
- Talks/sessions with our alumnae are arranged periodically. The career successes of our alumnae help the students visualise and plan for their own careers and identify the types of jobs and settings that interest them.

33. Teaching methods adopted to improve student learning

Teaching-Learning:

- The learning outcomes approach helps sharpen the coherence and transparency of a curriculum. Learning outcomes describe what a student will know and would be able to do at the end of a module or course. Hence students are first of all informed of what the ILOs are, at the beginning of the Term and beginning of each topic/subtopic.
- In addition to lectures, teaching learning methods such as discussions, role plays, student presentations, short exercises, debates, are employed, keeping “learning” rather than “teaching” as the primary objective of the transaction of the curriculum.
- It must also be noted that the curriculum has multiple practicum subjects. Students are expected to demonstrate skill in the transfer of theoretical information to the practical level. This is seen in the products they create and the experiments they conduct. The following further methods are employed to keep the focus on a learning outcomes orientation:
- In addition to the various methods used for classroom learning, students are also encouraged to participate in the different enriching programmes. Some of the co-curricular activities organized for the students include:
 - Educational tours are arranged for all senior students in the college with a view to helping them see how the theory they are learning is implemented in the real world.
 - Students engage in research under the supervision of their teachers.
 - Linkages/Collaboration/Extension programmes are organised in which students play a significant role. This also gives students a chance to engage with scholars from other institutions around the country and different parts of the world.
 - Academic exchange programmes have been set up various universities overseas

such as the Ghent University, Belgium, and Fu-Jen Catholic University, Taiwan, l'Ecole de la Providence, France.

- Collaborations with programmes such the University of Mumbai's Department of Lifelong Learning and Extension have helped students transfer their experiences and learning from the classroom to the community.

Through such methods, all teachers aim at keeping the learner actively engaged rather than passively receptive.

34. Participation in Institutional Social Responsibility (ISR) and Extension activities

In alignment with the vision and mission of the college, there are multiple ways in which the college promotes an institution-neighbourhood-community network and student engagement which contributes to good citizenry, a service orientation, and holistic development:

- Extension work in rural/ tribal areas of all senior students (TY BSc and MSc) each year.

The DHM Management has numerous rural and tribal outreach programs and centres. Senior college students plan and implement extension activities through these centres. Students build a service orientation and are able to translate theoretical knowledge into practical use with varied target groups in rural and tribal areas.

Students have also got opportunities to interact informally with children, youth, and/or adults in rural or tribal areas and share a sense of connection despite differences in lifestyles and life circumstances.

- The Social Service Committee of the Institute organizes several activities. These activities promote the vision of the college and instill the values of serving the community amongst students and joy of contributing to others.
 - Elders' Day Out: Elders from old age homes were brought to the college on a holiday for an outing entailing a recreational and cultural programme and lunch. The program was organised by students with guidance from teachers of the committee.
 - Beach cleaning after the Ganesh Festival immersions (each year)
 - Blood donation camp
 - Anemia / thalassemia detection camp
 - Cancer detection camp
 - Sale of items made by differently-abled children
- Fieldwork/extension work/community work carried out by the institute:
 - Programs for Anganwadi workers, slum residents (Dharavi, Kandivali, Samtanagar, Kalwa) in coordination with ICDS, REAP and the Ministry of Family and Child Welfare.
 - Organization of skits, role plays, street plays, puppet shows to highlight information regarding gas safety, health and hygiene for food vendors near the college, breast-feeding awareness.
- Collaboration with the Department of Lifelong Learning and Extension of the University of Mumbai. The college unit of The Department of Lifelong Learning and Extension has enrolled 29 students in the program and has selected the Industrial Orientation Project.
- Bal Utsavs for underprivileged children and youth.
- Sensitisation visits to agencies have been arranged for various groups of students.
- Encouragement of research topics which exemplify a service orientation is another strategy; for research work and extension work, faculty/research guides and students

tie-up with NGOs (e.g., IAPA, CHIRAG) and GOs (e.g., NACO, ICDS) serving vulnerable groups.

- Selected college students have participated in the parliament visits organised for the youth of South Mumbai constituency by Member of the Lok Sabha, Milind Deora.

35. SWOC analysis of the department and Future plans

SWOC Analysis: Strengths

Primary Strengths:

- Dedicated to women's education.
- Only Home Science College affiliated to the University of Mumbai
- Home Science is a multidisciplinary and interdisciplinary field; the curriculum which is life-oriented, community-oriented, and career-oriented is especially relevant for the comprehensive development of women.
- We enjoy default academic autonomy which allows us to design our Home Science curricula at all levels (following due procedures).
- Innovative, learner-centred, participatory teaching-learning methods employed regularly at all levels.
- Focus on development of entrepreneurial skills among students.
- Engagement in new initiatives such as exchange programs with foreign universities.
- High quality relationships among teachers and students.
- Rotational leadership of Faculty as HOSs, Coordinators /Convenors of College Cells and committees.
- Strong institute-industry linkage with collaboration for research and student placements.
- Multiple enrichment programmes and activities for students (e.g., visits to the industry, agencies/organisations; seminars/conferences/workshops; availability of outside experts in varied fields) because of our location in Mumbai.
- We develop social responsibility in the staff and students through extension activities.
- Regular staff development activities for teaching, nonteaching, and administrative staff.

Students and Teachers/Faculty:

- Hardworking, creative, and responsible students capable of facing challenges and meeting deadlines.
- Dynamic, qualified team of teachers, many of whom are recognised nationally and internationally as experts in their field.
- Almost all of the faculty have been recognised for postgraduate teaching (22 out of 27); many are PhD guides (10 out of 27); faculty are also appointed on Boards of Studies of multiple universities/colleges.
- Students and teachers are open to feedback and change.

Research:

- A Research Centre, with a qualified, eminent researcher as a Research Director.
 - ✓ Multiple turnkey research projects carried out for the Food Industry by the Research Centre, including a multi-centric breakfast study with 150 newspaper write-ups.
 - ✓ Publication of a research journal: Research Reach—Journal of Home Science.
- Substantial weightage assigned to research in the MSc programs.
- Excellence standards for research at MSc and doctoral levels.

- Many teachers have been awarded minor research projects; teachers and students have actively participated in and presented papers and posters at international and national conferences; initiative has been taken for research publications in nationally and/or internationally renowned journals and books.
- Ethics Committee with internal and external members to review and provide ethics clearance for student research projects (MSc and PhD).

Infrastructure & Learning Resources:

- Hygienic, well-ventilated, well-lit classrooms and laboratories.
- ICT-enabled classrooms with LCD projection systems allowing routine use of PPTs.
- Excellent space management.

Management:

- Participatory governance.
- Offers multiple leadership opportunities to staff and students.
- Dynamic leadership of Principal.

SWOC Analysis: Weaknesses

- Space constraints.
- Fund-raising through consultancy activities have to be strengthened.
- Potential donors to be contacted for augmenting the Corpus Fund.
- A six-day workweek is fatiguing for staff and students and interferes with a balanced life.

SWOC Analysis: Opportunities

- Prime location of the college in Mumbai, and particularly in South Mumbai, allowing sharing of resources across institutions.
- Multiple opportunities for student and faculty development through collaboration/networking with other universities/organisations, participation in national and international conferences.
- Start short-term certificate courses/weekend courses for the public/paramedics on: wellness/ dietetics/general health/cooking for therapeutic conditions/healthy aging.
- The Food Analysis Laboratory could also be used as a commercial facility and become a fund-raising facility.

SWOC Analysis: Challenges

- Balancing preparation for classes, classroom teaching, research, and other responsibilities.
- To extend our infrastructural facilities to meet new demands.
- To face the competition from professional institutions locally and internationally.

FUTURE PLANS

New Perspective Plan: 2014-2015 onward

The realization of our vision and goals is an ongoing endeavor. The college has identified the following thrust areas in perspective planning for the upcoming years:

Continuing the following:

- Increasing the existing corpus fund.
- Expanding our educational programs to offer more choices to our women students.
- Designing and starting a distance education course in some of the subjects of Home Science.

- Innovating a globally valuable and locally relevant curriculum that allows us to empower our women students.
- Building international visibility and linkages, and strengthening national linkages.
- Collaborative research with scholars from other colleges or universities.
- Commitment to emerging innovations in teaching-learning practices.
- Emphasis on interdisciplinary activities (e.g., research, conferences/seminars, publications)
- Creating a data base of our alumnae; increasing the activities of the alumnae in the college.
- Emphasis on extension/social service activities of students and staff (e.g., work closely with the already existing DHM centres in rural and tribal areas).
- Introduce new green initiatives such as solar heating.
- We plan to introduce new short-term certificate courses/weekend courses, this time specifically for the public/ paramedics on: wellness/ dietetics/general health/ cooking for therapeutic conditions/healthy aging.

Special Thrust Areas:

- We plan to make outstanding contributions to knowledge building in Home Science and related fields through publications.
- We visualise ourselves as developing into a nodal research centre for all Home Science colleges.
- We plan to initiate internationally-reputable, globally-relevant online courses for our students through linkages with foreign universities.
- We intend to form a separate Board of Studies of Home Science and further explore the possibility of academic autonomy.
- We intend to increase our Floor Space Index (FSI) and build vertically.
- We intend to make our Food Analysis Laboratory a commercial, fund-raising facility.

F: POST-ACCREDITATION INITIATIVES

Nirmala Niketan College of Home Science has been through two cycles of accreditation by NAAC. This document is a report of the initiatives taken by the college post the 2nd cycle of reaccreditation. Having been graded with B and a CGPA of 2.90 in June 2009, the IQAC under the guidance of the Principal as the Chairperson, set itself to work on the recommendations made by the esteemed Peer Team. The supportive Management, competent and committed faculty, and highly motivated students gave us the necessary confidence to achieve this goal. The first strategy was to work on the institutional weaknesses as pointed in the Peer Team analysis. The limitations of the institute as pointed out by the earlier peer team and the corrective measures taken up by the institute are discussed below.

I. Limited Academic & Vocational Courses.

Corrective action :- Two self-financed MSc courses (MSc in Food Processing and Preservation and MSc in Sports Nutrition) affiliated to University of Mumbai have been successfully implemented from 2011-12. These courses were designed to meet the growing demands of the expanding Fitness and Food industries. These are offered only at our institute under the University of Mumbai. The course on MSc in Food Processing and Preservation is first of its kind in Mumbai and MSc in Sports Nutrition is the first of its kind in the country, both of which have been highly appreciated by the experts from relevant fields. One batch of students has successfully completed each of these courses and has procured placement/employment in reputed food and/or fitness organisations. Another MSc course in Ergonomics and Management has been formulated, is approved by the Academic Council of the University of Mumbai, and will be introduced in the coming academic year.

In addition, six more short-term, value-added courses have been initiated by the college/ specialisations, which are in addition to the existing four certificate courses. Especially with regard to the certificate courses, this gives students an added advantage of simultaneously acquiring a Certificate along with a Degree, while offering academic flexibility, and improves their vocational and entrepreneurial skills.

- **List of newly introduced value-added courses**
 - FY and/or SY value-added courses:
 - Computer Applications
 - English Language
 - Value-added Certificate Courses:
 - Creative Parenting
 - Indian Sign Language
 - Work Station Design and Applied Ergonomics
 - Research Methods and Statistics (for doctoral students in Home Science)

II: Inadequate Facilities in Research Laboratories & Library

Corrective action:-

Laboratories:

In addition to the existing equipment/material, in order to keep pace with the recent technology and to meet the increasing research demands, latest/state-of-the-art equipment/material has been purchased by the college in the past four years as given below.

In addition to the existing equipment/material, in order to keep pace with the recent technology and to meet the increasing research demands, latest/state-of-the-art equipment/material has been purchased by the college in the past four years. Examples include:

For the specialisation of Foods, Nutrition and Dietetics:

- Anthro kit (for anthropometrical assessment)
- Grip Dynamometer (for fitness testing)
- Semi-automatic Clinical Analyser
- Soxtec for fat analysis
- Kjeltex distillation unit

For the specialisation of Human Development:

- IPAT Depression Scale
- Older Persons Counseling Needs Survey (OPCNS)
- Coping Resources Inventory (CRI)
- Five Factor Wellness Inventory
- Dimensions of Self-Concept Form W(DOSC-W)(Self-concept Diagnostic for Workers in Business and Industry)
- Wechsler's Intelligence Scale for Children
- Torrance Tests for Creative Thinking (TTCT)

For the specialisation of Textile and Fashion Technology:

- Electronic Tensile Testing Machine
- Plotter
- Richpeace Software

For the specialisation of Community Resource Management:

- Flexi-curve (1m)
- Pedometer
- Goniometer (small and long joints)
- Sphygmomanometer

Library

There has been substantial increase in the total collection of research/academic/industry print and e-journals; dissertations, research project reports; reference books, textbooks; newspapers, magazines, and CDs. The e-journals including The American Journal of Clinical Nutrition, Indian Journal of Career and Livelihood Planning (IJCLP), International Dyer etc. are highly useful to the students.

In addition, the library cataloguing is available through the SLIM Library Software and reprographic facilities are also available on request. SPSS package has been made available in the Research Centre and cybercafé along with Internet access on library cybercafé and staff room computers. A total of Rs .15,74,289/- has been spent towards procuring various resource materials in the library.

- The institute provides laboratory facilities, relevant equipment and material (e.g., chemical reagents) required by the students for their research free of cost.
- When students are completing their research work on funded projects of teachers, their research-related expenses are met.

- Some of the student research projects (for MSc dissertations or PhD theses) are collaborative ventures wherein the faculty and the student collaborate with outside agencies. In which case, hospital/industry/research institute provides the needed resources such as laboratory, equipment, chemicals etc.

III. Inadequate mobilization of funds for institutional development.

Corrective measures:

Through the contacts that the college has built up with the industry, funds have been raised which has helped develop research facilities in the college. Details of the financial support are as follows:

- Reputed food industries, namely, Marico, Kellogg, PepsiCo, and Fromageries Bel (Total Amount: Rs 39,59,013).
- The YB Chavan Institute (Rs 11,250).
- UGC (Equipment grant sanctioned of Rs 25,00,000, of which Rs 22,00,000 has been received; second grant of another Rs 25,00,000 has been promised).

Also, the funds raised from the international conference (organized in January, 2013) amounting to Rs.32,33,226/- were used to remodel two laboratories into multi-purpose laboratories.

Several faculty members received funds from University of Mumbai and UGC for carrying out research projects. Moreover, students are also encouraged to apply for financial support to certain NGOs, philanthropic organizations, or the religious communities to which they belong for part or full funding of their research.

The funds generated have been efficiently utilized on the improvisation of various facilities in the college.

Table- 1a: Amount Spent towards Improving Infrastructure

Sr. No.	YEAR	AMOUNT (Rs)
1	2009-2010	8,24,744/-
2	2010-2011	60,11,481/-
3	2011-2012	30,79,922/-
4	2012-2013	54,28,918/-
5	2013 till date	24,10,019/-
	Grand Total	1,77,55,084/-

Many infrastructure and learning resource changes have been implemented in the last five years. These include:

- Library
 - Renovation of library resulting in extension of reading area
 - Purchase of 2 new cupboards, 2 racks and 3 tables
 - Installation of six cameras in prominent locations inside the library to tackle the problem of theft of books and tearing of pages from reference books
 - 6 new computers installed in library with internet facility. Presently 10 computers are available in the library.
 - 2 deskjet printers made available in library.

- Purchase of new software for library operation (SLIM21)
- Purchase of automation system for the library (barcode printer, barcode scanner)
- The amount spent on procuring new books, journals and e-resources during the last four years has been as follows
 - 2009-10 Rs 2,63,662/
 - 2010-11- Rs 3,49,345/
 - 2011-12 Rs 3,55,358/
 - 2012-13 Rs 6,05,924/

It is pertinent to note that there has been a substantial purchase of e-resources, with amount invested rising from a figure of zero in 2009-10, to Rs 1,89,420 in 2012-13.

● **Table- 1b: Amount spent on e-journals in the library**

Name of E-Journal	Type	Frequency	Annual Subscription Rate
The American Journal of Clinical Nutrition	Online	Monthly	Rs 24,432
Journal of Nutrition	Online	Monthly	Rs 17,840
Nutrition Reviews	Online	Monthly	Rs 36, 450
International Journal of Sports Nutrition and Exercise Metabolism	Print+Online	Bimonthly	Rs 37, 320
Indian Journal of Human Nutrition and Dietetics	Print+Online	Half-yearly	Rs 3000
Indian Journal of Nutrition and Food Science	Print+Online	3 issues/yr	Rs 38,000
Indian Journal of Career and Livelihood Planning (IJCLP)	Online	Annual	Rs 500
Psychological Studies	Print+Online	4 issues/yr	Rs 4050
International Dyer	Print+Online	Monthly	Rs 31,878

● **Laboratories**

- Biology laboratory remodeled into a multipurpose room/laboratory. Currently also used for conducting Principles of Design Practicum.
- Fourth Floor Foods Laboratory has been made into a multipurpose room/laboratory which caters to the needs of undergraduate and postgraduate students. Currently used for conducting Foods practicum, Principles of Design practicum, Developmentally Appropriate Practices practicum, and Hotel Front Office practicum.
- Old Dyeing and Printing Laboratory on the third floor has been renovated and remodeled to make a computer lab as well as cybercafé. Currently the Research Lab on the second floor is used for conducting Dyeing and printing practical which is well suited for the same.
- Purchase of new instruments (i.e., Tearing Strength Tester, Tensile Strength Tester, Bursting Strength Tester) for the instrument room on the first floor.
- Purchase of equipment (Autochem 2011, Bodystat 1500 MDD, KelPlus Automatic Micro mix, heart rate monitor & evaluation software, SPSS software) for research laboratories.

- Purchase of 5 Juki Sewing machines & 6 Dress forms for clothing laboratories.
 - Purchase of 15 new computers for the computer lab/cybercafé.
 - Purchase of equipment for ergonomics.
- Classrooms
 - Remodeling of the classrooms on the 2nd and 6th floors.
 - Availability of added rooms for lectures, meetings or for certain practicals.
 - All classrooms now have the facility of fixed LCD projection systems (including a CPU, keyboard, mouse etc.).
 - All large and few medium-sized classrooms (VIIA, VIIB, VA, IA, PG room), AV room and Hall are now equipped with wireless mouse for easy operation of computers and PPT presentations.
- Other facilities for students
 - Installed a television with cable connection in the common room.
 - Complete renovation of toilets/wash room area in ground, second, third & sixth floors.
- Staffrooms
 - Installation of 5 new computers in the 5th floor staffroom with a black & white printer
 - Reorganization of the staffroom with one room on the third floor (for Heads of specializations), second on the fourth floor for coordinators/assistant coordinators, and three rooms on fifth floor for rest of the teachers.
 - Purchase of one Aquaguard for staff.
 - Remodeling of the 5th floor staffrooms.
 - New staffroom furniture (19 new chairs & desks) for each teacher.
 - Installation of LAN facilities on the computers in the staffrooms and HOS room.
 - Installation of Internet facilities on the computers in the HOS room and on one computer in the 5th floor staffroom.
- Other infrastructural alterations
 - Both the lifts are new.
 - The college multi-purpose hall has been remodeled.
 - Newly modeled Research Centre.
 - Purchase of new chairs, new mikes, and new stage curtains for the hall & classrooms.
 - Purchase of new computers for the General Office and the Accounts Office.
 - Renovation of Principal's office & passage to Principal's office.
 - New phones purchased to provide intercom facility.
 - 1 new Aquaguard and water cooler purchased.
 - Equipment (Treadmill, Cycle, Stepper, Flat bench, Abs Exerciser, Dumbbells, Ankle Weights [2 Pairs], 4 Pad Multigym & Elliptical Trainer) purchased for gym.
 - New biometric machine.

Thus the funds generated have been efficiently utilized to improvise infrastructural facilities.

The Green Audit of the college has been conducted by Samuchit, Pune; Institute of Community Organization Research (ICOR), Mumbai and The Arch Diocesan Commission for Environment, Mumbai in December 2013. We are happy to mention that the college has been commended for the following:

- ✓ Judicious use of space for conducting multiple classes and courses
- ✓ Exceptional cleanliness and brightness of the premises
- ✓ Cultivation of greenery and variety of potted plants that contribute to creating green surrounding.

IV. ICT application is at infancy stage

Corrective action:

Current global trends demand strong ICT skills among staff and students. Hence, the following measures have been taken up by the institute to improve the same.

- Computer Applications have been made a compulsory part of the core curriculum (FY and SY BSc Home Science).
- Students at senior levels (TY and postgraduate) are trained to use software skills specific to their specializations.
- Master's and doctoral students are offered a training course in the Statistical Package for the Social Sciences (SPSS).
- Students are encouraged to use computers/internet for their assignments and projects.
- MSc students have conducted research on ICT-related topics as part of their dissertation.
- Students and teachers use class mailing lists and class e-groups.
- All our teachers have undergone training in the basics of computer usage.
- Internet access has been provided to students in the library and cybercafé. One of the computers has internet facility in the 5th floor staffroom; the computers for the HOSs have internet facility.
- All classrooms are ICT-enabled. The use of PPTs by teachers and students is regular and routine.
- All classrooms have ceiling mounted LCD projectors connected to computers, sound system, and pull-down screens. Laptops and projectors are also available on demand.
- Computer-student ratio
 - Total No. of computers – 79 + 5 laptops = 84; total no. of computers that students have access to: 60
 - Total No. of students – 564 (December 23, 2013)
 - Overall computer-student ratio is: 1 computer to 6.71 students.
 - Student-access computer to student ratio: 1 computer to 9.4 students.
- **LAN facility:** Available for computers in the staffroom, cybercafé, library, accounts office, general office.
- **Licensed software:** Regular and specialised software in the college is licensed:
 - MS Office 2007 and 2010
 - Windows 7
 - CorelDraw X5
 - Adobe Photoshop CS5.1
 - AutoCAD
 - Study Skills (Clarity English software)

- 3DS Max
- Richpeace Garment CAD 8.0
- ReachCAD
- SPSS 21
- **Number of nodes/ computers with Internet facility:** Most computers in the college have internet facility:
 - Library – 8 out of 10 computers with internet
 - Cybercafé – all 34 computers with internet
 - Internet Room on the 3rd floor– 1 with internet
 - Accounts Office – all 3 computers with internet
 - HOS Room – all 3 computers with internet
 - 5th floor Staff Room – 1 out of 5 computers with internet
 - Research Centre – all 3 computers with internet
 - Principal's laptop—with internet
- Software for different subjects is made available to students which make learning simple and easy like English speaking software, design software, SPSS.
- The college has its own website: www.nirmalaniketan.com. This website is updated whenever needed. Information on upcoming college events is also included on the website.
- There are 7 e-mail addresses available for various types of enquiries/correspondence listed on the College of Home Science hyperlink on this website.

The college regularly updates the IT infrastructure and associated facilities even without requests. Moreover, the computer engineer is prompt in addressing any complaints/requests.

V. Inadequate facilities for sports, games, physical education and recreational facilities.

Corrective action:

Sports & games

The Sports Committee regularly arranges competitions of indoor games such as Carom, Chess, Badminton, Table Tennis etc. The backyard is used for Outdoor Games such as throw ball or badminton occasionally. The University Sports Ground (Marine Lines) is used for the Annual Sports Day. We do not have our own open ground for sports given the cost of land in South Mumbai and the lack of availability of this land. We are using our existing (mainly indoor) space in flexible ways in order to address some needs of students related to sports.

Recreational facilities:

A television has been installed in the common room for the recreation in the staff room. Access to certain sports equipment such as badminton and table-tennis rackets, carom boards etc. are made available on request to the students.

Physical education:

The college offers exercise facilities through its well-equipped gymnasium.

- There are two rooms in the gymnasium with an attached bathroom, toilet, and dressing room.

- The gymnasium is open for outsiders (thrice a week), students and staff. The timings of gym are from 11.30 to 3.30 on all 6 days except Sundays and public holidays. The gymnasium is also open during first 15 days of the summer break.
- On payment of a monthly/quarterly/yearly fee, students (and staff) can avail of the use of the college gym. This includes the use of some specialized gym equipment and the services of a gym instructor. Also students are offered free trial sessions for a specific period to encourage them to make use of the gym. The Sports Committee also encourages them to use the facility.
- The gymnasium is well equipped with machines like Treadmill, Cycle, Stepper, Flat b Bench, Abs Exerciser, Dumbbells, Ankle Weights, 4 Pad Multigym, Elliptical Trainer, step board, digital weighing scale, 4 exercise mats, and 2 exercise sticks

Opportunities as mentioned by Peer Team:

I. Development of Entrepreneurial skills

Corrective Action: The college recognizes the need for training and development of entrepreneurship skills in the students. All specializations easily lend themselves to entrepreneurial possibilities. This is fostered in various ways.

- Entrepreneurship is part of the syllabus at the TY and postgraduate levels. For example, in the practicum for Food Service Management, the students organize a canteen for the college. Students are also given opportunities to exhibit and sell items that they have made or procured.
- For the specialization of Human Development, students have practical subjects such as Children's Literature in which they learn how to write storybooks for children; in multiple subjects they learn to identify developmentally-appropriate toys/educational material for children; they learn about curriculum planning for young children; how to conduct lessons/activities for children; how to conduct workshops for youth and adults. Each of these topics/learning activities is also cast as a possible entrepreneurial activity that they can engage in after graduation.
- The Textile and Fashion Technology specialization runs a value-added course on "Entrepreneurship in Textile Crafts". The course covers the theory of entrepreneurship in general and students from any specialization are eligible to enroll.
- The college/specialisations organize various courses, workshops and seminars revolving around the topic of Entrepreneurship. The Specialization of Foods, Nutrition and Dietetics organized a National Seminar in January 2012 on "Entrepreneurship in Foods, Nutrition and Dietetics: Trends and Opportunities". Apart from the inputs on the process of setting up businesses, successful entrepreneurs shared their success stories which were a very motivating experience for students. In December 2013, the Women's Development Cell organized a panel discussion by successful women entrepreneurs relevant to all specializations on the process, the progress, and the outcome of their business ventures.
- Students are provided with opportunities for small-scale marketing and showcasing of their products. Students are encouraged to put up stalls during college fests and other celebrations with the objective of exposing them to the possibilities of later setting-up their own business ventures. They are encouraged to put up stalls based on their talent and skill (e.g., mehendi application, snack preparation, organizing games) at

college fests and functions such as the Nirmal Utsav Festival. Markets are organized by the students where articles prepared during coursework (e.g., embroidery, apparel) are put up for sale. Food-related markets (e.g., Christmas Bazaar, Canteens) are also held with a sale of snacks and delicacies prepared by the students. The students, under faculty guidance, are involved in planning and organizing all aspects.

- The impact of such efforts is that many students and alumnae have opened their own small-scale ventures and are doing well. This also helps students to work from home and easily take care of both personal and other responsibilities.

II. Development to meet global needs

Corrective Action:

The internationalisation of higher education has been taken seriously. Links have been established with some of the best institutions in the world. An MOU has been signed with Fu Jen Catholic University, Taipei; an academic exchange program has been started with Ghent University, Belgium, for short-term exchange of students and faculty. Faculty trips to such institutions abroad have sponsored by the college and have provided short-term exposure to the best universities in the world. Students, both at home and abroad, have been able to interact with the students from excellent universities/colleges.

Conclusion

We at Nirmala Niketan are confident that in the years to come we would continue to innovate and provide the best quality of higher education, with new and relevant courses/educational experiences to meet changing local/regional/national/global demands, and to capture the imagination and harness the potential of each successive new generation of students. Our efforts will continue to be focused on collaboration with other institutions and universities, alignment with the Five Basic Core Values of NAAC, and the empowerment of the women students in our care.

G: DECLARATION BY THE HEAD OF THE INSTITUTION

I certify that the data included in this Re-Accreditation Report (RAR) are true to the best of my knowledge.

This RAR is prepared by the institution after internal discussions and no part thereof has been outsourced.

I am aware that the Peer-Team will validate the information provide in this RAR during the Peer team Visit.

**Signature of the Head of the Institution
with seal**

Place: Mumbai

Date: January 2014

ANNEXURES FOR CRITERION II

2.5.4 Scheme of Examination Credit Based Semester and Grading System Paper Pattern for Theory at T.Y.B.Sc. Semester V and VI conducted by University of Mumbai

Total Marks	100	75
Internal Assessment (Marks)	40	30
One class test/ case study / online examination Duration (45 Minutes)	20	20 averaged to 10
One assignment (Marks)	10	10
Active participation in routine class instructional deliveries (Marks)	05	05
Overall conduct as responsible learner, communication and leadership qualities in organizing related academic actives. (Marks)	05	05
Sem End Examination (Marks)	60	45
Duration (Hours)	2¹/₂	1¹/₂
2 Unit Course	(20 marks each) 1. Unit I 2. Unit II 3. Mixed	–
All questions are compulsory Options within a question as per weightage (keeping in mind that the marks of each question sums upto 30 marks as mentioned in the syllabus)	For example: Any four out of six (5 marks each) Any two out of three (10 marks each)	–
3 Unit Course	(15 marks each) 1. Unit I 2. Unit II 3. Unit III 4. Mixed	1. Unit I (10 marks) 2. Unit II (10 marks) 3. Unit III (10 marks) 4. Mixed (15 marks)
All questions are compulsory Options within a question as per weightage (keeping in mind that the marks of each question sums upto 30 marks as mentioned in the syllabus)	For example: Any five out of ten (three marks each) Any three out of six (five marks each)	Q.1-3. For 15 marks question: Any five out of ten (three marks each) / Any three out of six (five marks each) Q.4. For 10 marks question: Any two out of six (5 marks each) / Any one out of three (10 marks each)

ANNEXURES FOR CRITERION III

3.3.1 Examples of Specialization-wise equipment available in the institution are as follows:

Nutrition-Related:

Sr. No.	NAME OF THE EQUIPMENT	Sr. No.	NAME OF THE EQUIPMENT
1	Colorimeters	2	Kelplus
3	Spectrophotometer	4	Soxtec apparatus
5	Humidity control oven	6	Incubators
7	Skin fold callipers	8	Autoclave
9	Tanita body composition analysers	10	Laminar airflow
11	Rotary Vaporiser	12	Flourimeter
13	Clinical analyser	14	Haemoglobinometers
15	Microscopes	16	PH meter
17	Ovens	18	Electronic balances
19	Body stat	20	Grip dynamometer
21	Flexi curve (1m)	22	Pedometer
23	Metronome-1	24	Scientific calculator
25	Step stools (8",6" & 4")	26	Goniometers (small & large joints)
27	Anthropometric kit	28	Anthro man (16")
29	Anthrostool+4 slabs	30	Anthro hand
31	Sphygmomanometer	32	Grip dynamometer
33	Skinfold callipers	34	Pedometer

Human Development

Sr. No.	Name of Testing Material	Type of Test
1.	Abbreviated Torrance Test for Adults Starter Set	Creativity
2	The Children's Apperception Test (Original)	Personality
3.	Chatterji's Non-Verbal Preference Record	Interest
4.	Dr. C.M. Bhatia's Battery of Performance Test of Intelligence	Intelligence
5	Draw-A-Man Test for Indian Children - Dr. P. Phatak	Intelligence
6	Draw A Person	Personality
7	IPAT Depression Scale (or Personal Assessment Inventory)	Personality
8	IPAT Anxiety Scale (or Self Analysis Forms)	Personality
9	Sacks' Sentence Completion Test	Personality
10	Older Persons Counseling Needs Survey (OPCNS)	Counselling
11	Coping Resources Inventory (CRI): Specimen set	Well-being
12	Occupational Aspiration Scale(OAS)	Career Development
13	Five Factor Wellness Inventory	Wellness
14	Dimensions of Self-Concept Form W -William and Crowder(Self-concept Diagnostic for Workers in Business and Industry)	Personality
15	Wellness Evaluation of Lifestyle – Sampler Set	Wellness
16	Wellness Evaluation of Lifestyle Workbook	Wellness
17	Enright Forgiveness Inventory – EFINS Manual/Sampler	Spirituality

Textile & Fashion Technology

Sr. No.	NAME OF THE EQUIPMENT	Sr. No.	NAME OF THE EQUIPMENT
1	Projection Microscope	16	Spray Tester
2	Colour Matching software	17	Abrasion Tester
3	Magnetic Stirrer	18	Crease Recovery Tester
4	Drapometer	19	Electronic Tensile Testing Machine
5	Quick-Cut (Sample Cutter)	20	Oven Digital
6	Flat Knitting Machine	21	Pneumatic Padding Mangle
7	Plotter + Richpeace Software	22	Comb Sorter
8	Stiffness Tester	23	Bursting Strength Tester
9	Tearing strength tester	24	Beasley Balance
10	Stirrer	25	Twist Tester
11	Crimp Tester	26	Thickness Tester
12	Launderometer	27	Shaker Water Bath
13	Automatic Jigger	28	Vacuum Pump
14	Water Bath Thermos	29	G.SM Round Cutter
15	Soxhlet Unit	30	Juki Machines
	Electronic Balance	31	Calorimeter
		32	Spectrophotometer

Community Resource Management

NAME OF THE EQUIPMENTS		
Flexi curve (1m)	Grip dynamometer	Skin fold callipers
Metronome-1	Pedometer	Anthro hand
Step stools (8",6" & 4")	Scientific calculator	Sphygmomanometer
Anthropometric kit	Goniometer (small & large joints)	Heart rate monitor
Anthrostool+4 slabs	Anthro man (16")	

3.3.3 Examples of Equipment Procured in the Past Four Years

Flexi curve (1m)	Grip dynamometer	Skinfold callipers
Metronome-1	Pedometer	Tanita body composition analysers
Step stools (8",6" & 4")	Scientific calculator	Ovens
Anthropometric kit	Goniometer (small & large joints)	Bodystat
Anthrostool+4 slabs	Anthro man (16")	Kelplus
Sphygmomanometer	Anthro hand	Soxtec apparatus
Skinfold callipers	Heart rate monitor	Colorimeters

3.4.3 The list of Research Publications by the faculty in the assessment period is as follows:

2009

1. Dedhia, E., & Gupta, M. (2009). Shirts – The contemporary way. *Apparel*, 29 (7),172-182.

2. Gupta, M., & Dedhia, E. (Dec 2009). Emerging trends in fabrics for men's shirts. E-Journal Fibre2Fashion, Sanblue Enterprise Pvt Ltd., India. (<http://www.fibre2fashion.com/industry-article/22/2161/emerging-trends-in-fabrics-for-mens-shirts1.asp>)
3. Jyoti, A., Variyar, P. S., Dhokane, V., Yardi, V., Chatterjee, S., Parte, M. N., Sharma, A., & Mandalika, S. (2009). Effect of radiation processing and storage on the chemical, microbial and sensory quality of sambar powder. *Indian Journal of Arecanut, Spices & Medicinal Plants*, 10(3), 123-133.
4. Mandalika, S., Variyar, P.S., Yardi, V., Dhokane, V., Sharma, A., & Jyoti, A. (2009). A survey on the purchase, storage and consumption of selected spices and spice mixes in Mumbai. *Research Reach, Journal of Home Science*. 8(2), 47-56.
5. Mendes, M., & Dedhia, E. (2009). 'Natural fibres - The safe fibre for children's apparel' University of Leeds, Ars Textrina, International Textiles Conference Natural Fibres - A world heritage, in celebration of 'The International Year of Natural Fibres' 2nd & 3rd September 2009, Session 3B Page 14
http://ulita.leeds.ac.uk/docs/Ars_Textrina/Abstracts2009.pdf
6. Mitra, A., Dev, B., Pednekar, M., & Sharma, A. (2009). Effect of radiation processing of ragi and acceptability and shelf life of ragi malt, *Journal of Radiation Physics*, 360-365. Impact Factor: 1.38
7. Rege, K., & Almeida, N. (2009). Perception of supervisors and teachers regarding the barriers to and strategies for promoting home-school partnership. *Research Reach Journal of Home Science*, 8 (1), 19-26.

2010

8. Dedhia, E., & Mendes, M. (2010). Care for kids-wear. *Apparel*, 30 (3), 44.
9. Dedhia, E., & Mendes, M. (2010). Chemical effects on kids-wear, CMAI Apparel, July 2010 http://www.cmai.in/news/apparelnews_view_index.asp?articleID=925
10. Jain, H. (2010). Effects of speciality finishes on handloom woven furnishing fabrics with different fiber contents. *Manmade Textiles in India*, Vol. LIII No. 1, 19-22.
11. Jamdar, S. N., Rajalakshmi, V., Pednekar, M.D., Juan, F., Yardi, V., Sharma, A. (2010). Influence of degree of hydrolysis on functional properties, antioxidant activity and ACE inhibitory activity of peanut protein hydrolysate, *Journal of Food Chemistry*, 121(1), 178-184. Impact factor-4.072
12. Mandalika, M. (2010). Reproductive problems and women's health – Special reference to pregnancy. *Proceedings: UGC sponsored National conference on "Current Problems of Women Health in India" organized by UK Vacchani Mahila Arts and Home Science College, Home science Department, Keshod, Junagadh, Gujarat on 29th and 30th Jan, 2011*, 15-20.
13. Mehta, M., & Rege, K. (2010). Awareness of never married adults (20-35 years) regarding matrimonial websites" *Proceedings: 28TH Biennial Conference of the*

Home Science Association of India organized by the J. D. Birla Institute, Kolkata, from 7th to 9th January 2010 titled the 'Impact of Social Change and Technological Advancements on family and Community', 187-191.

14. Mitra, A. (2010). Women's Health Issues .*Proceedings: UGC sponsored National conference on "Current Problems of Women Health in India" organized by UK Vacchani Mahila Arts and Home Science College, Home science Department, Keshod, Junagadh, Gujarat on 29th and 30th Jan, 2011, 21-26.*
15. Rege, K., & Mehta, M. (2010). Benefits/Barriers and suggestions for seeking marriage alliance through Indian matrimonial websites according to never married adults (20-35 Years)" *Proceedings :Special Issue of the UNISWA Journal of Agriculture, for the conference organized by the Department of Consumer Sciences, University of Swaziland, from 22nd to 25th September 2009 titled the 4TH International Federation for Home Economics (IFHE) AFRICA- Region on the theme "Consumer Sciences Beyond 100 Years: Empowering for the Digital World", 331-340.*

Books

16. Jain, H. (2010). *Techniques of dyeing and printing*. New Delhi : Ane Books Pvt. Ltd.
17. K.Sen Ray, G. Subbulakshmi & M. Subhadra. (2011). *Methodologies for fitness assessment*, New Delhi: Ane Books Pvt. Ltd., New Delhi, ISBN-978-93-8061-890-6

Chapter in a Book

18. Mandalika, S. (2010). Assessment of nutritional fitness, biochemical, clinical and functional methods. In S. Mandalika & (Eds.),*Methodologies for fitness assessment* , pp. 39-46, Ane Books Pvt. Ltd, New Delhi, ISBN-978-93-8061-890-6

Newsletter article

19. Rege, K. (Feb 2011). *Parenting Techniques*. Wonder years :A Monthly Newsletter Published by Podar Education Network, Mumbai,

2011

20. Almeida, N., & Rathod, P. (2011). Quality of life, coping strategies and coping effectiveness of caregivers of individuals with Alzheimer's Disease. *Proceedings : National Conference on Gerontology "Healthy and productive ageing – The need of the hour, organized by the LT College of Nursing, 3rd & 4th October, Mumbai , 137-140.*
21. Bakshi, A. J. (July, 2011). Past adolescence, into and across adulthood: Career crises and major decisions. Special issue, East and West: Exploring New Concepts for Career Guidance, *International Journal for Educational and Vocational Guidance, 11(2), 139-153.*
22. Arulmani, G., Bakshi, A. J., Watts, T., & Flederman, P. (July, 2011). Editorial. Special issue, East and West: Exploring New Concepts for Career Guidance, *International Journal for Educational and Vocational Guidance, 11(2), 61-64.*

23. Arulmani, G., Bakshi, A. J., Watts, T., & Flederman, P. (Eds.) (July, 2011). Special issue, East and West: Exploring New Concepts for Career Guidance, *International Journal for Educational and Vocational Guidance*, 11(2), 61-153.
24. Dedhia, E. (2011). 'Need based training in designing, production and marketing of apparel and home textiles through fair trade centres in non-government organizations for needy women' was presented as individual Oral presentation on 19th July from 1pm to 3pm and is also published in an E format on the website of the organization. (http://ifhe.org/index.Congress_2012_Papers/Need_based_training_in_apparel_and_home_textiles_for_the_needy_women.pdf&t=1386613279&hash=67c38e82a2619bbb6ce435ddd31f2e0a)
25. Jain, H. (2011), Development of different woven designs for furnishing fabrics on handloom and the status of the product in market. *Manmade Textile Journal*, pp. 4-9.
26. Karnad, V., & Nerkar, T. (2011). Eco friendly clothing: Comparison of organic cotton, bamboo and linen towards product development for infant wear. *Colourage-The Magazine of Textile and Garment Processing*, Vol. LVIII, No. 7, 54-60.
27. Karnad, V., & Sompura, P. (2011). Product development from spun silk/polyester fabrics printed with geometric motifs and newsprints for home interiors. *Colourage - The Magazine of Textile and Garment Processing*, Vol. LVIII, No.3, 40-48.
28. Mandalika, S., Colaco, S., & Bahekar, A. (2011). Calcium fortification of flavored cow's milk. *Beverage & Food World*, 38 (8), 26-28.
29. Mandalika, S., & Bhalja, P. (2011). Effect of nutritional counselling & alfalfa supplementation on exercise performance and nutritional anaemia of overweight and obese adult females. *J. Human Ecology*, 35(3): 155-159 .
30. Prabhu, S., & Parekh, N. (2011). Perceptions of mothers on mother child programs, *Carmelight (Interdisciplinary National Journal)*. 8(1), 23-31.

Newspaper Article

31. Rege, K (2011) "Parents, schools need to forge a dynamic bond [Parents' involvement in the school has a beneficial effect on student learning, achievement, attitudes, homework and aspirations]", *Hindustan Times*, Mumbai, page 4.

2012

32. Almeida, N. (2012). Understanding the psychosocial aspects of end – stage renal disease. *Proceedings: Conference on Renal Health-Care Professionals organized by the International Federation of Kidney Foundation*, 8th to 10th June, 2012 , 135-139.
33. Almeida, N. (2012). Turning ideas into research projects: Using psychosocial tools to assess patients suffering from ESRD, kidney transplant recipients and kidney donors. *Proceedings:3rd Conference of the Association of Renal Social Workers and Transplant Coordinators*, 7th October, 2012 , 3-9.

34. Bakshi, A. J., Gandhi, H.N., Shah, R., & Maru, K. (April, 2012). Influences on career choice as perceived by youth in Mumbai. *Indian Journal of Career and Livelihood Planning*, 1(1), 5-15.
35. Dedhia, E. (2012) Technology to meet the challenges of apparel merchandising published in Proceedings of National Conference on Apparel Merchandising Management' held at Dr B M N College of Home Science, Matunga on Jan 12th 2012, pp 41 - 50
36. Dedhia, E. (Tuesday, April 10, 2012). A stitch in time - Technology to meet Challenges of apparel merchandising. Fibre2Fashion.
(<http://www.fibre2fashion.com/industry-article/40/3953/a-stitch-in-time1.asp>)
37. Mundkur, S and Dedhia, E. (2012). Waste management and supply chain for second-hand clothes in Mumbai, *Textile Value Chain Volume 1*, Issue 3 October to December 2012, 57-58, ISSN No. 2278-8972
38. Divecha, R. (2012). Facilitating multiple intelligences through innovative teaching methodology in higher education. *Education For All: International Journal of Education and Humanities*, January-December, 1(1), 129 – 139. ISSN: 2319-2437.
39. Divecha, R. (2012). Using bibliotherapy for transformation in the classroom. *Edu World: International Journal of Education and Humanities*, January-December, 1(1), 130 – 136. ISSN: 2319-7129.
40. Ibrahim G (2012) Nutrition for elderly KEEMAT The Consumers Voice Nov-Dec 2012, 41 (6), pp 8-9 and also in AFST Newsletter
41. Goyal, P, & Cletius, S (2012). Designing Tie and Dye Cushion covers using traditional vibrant colours with improved fastners properties". *Proceedings :National seminar on "Value added Apparel and Home textiles from Natural Fibres" organized by "Indian Fibre Society" and SVT College of Home Science-SNDT university, 2-3 March 2012*, 56-67.
42. Gupta, M. & Dedhia, E . (2012). Consumers assessment of shirt's functional features. *Indian Textile Journal*, and also on
<http://www.indiantextilejournal.com/articles/FAdetails.asp?id=4365>.
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44. Maheshwari, P. (2012, in press). Relationship between the level of emotional intelligence and occupational stress in working women and the strategies used by them to deal with stress. *Proceedings: London International Conference on Education (LICE-2012) in London, UK. (ISBN 978-1-908320-11-7)*.
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46. Narayanan, N., & Almeida, N. (2012). Stress in healthcare professionals working with patients with HIV/ AIDS : A study of doctors, nurses and laboratory technicians working in selected public hospitals in Mumbai . *Asian Journal of Research in Social Sciences & Humanities*. 2 (7), 59-63.
47. Rege, K. (2012). The power of teacher-student relationship. *Navtika: Journal of Early Childhood Care and Education*, 3(1), 3-14.
48. Rege, K., & Maru, D. (2012) .Child's transition to first grade (primary level): Mothers' perception" *Journal for Interdisciplinary Studies, September, Vol. I, Issue-II*, 18-28.
49. Shah, R., & Maheshwari, P. (2012, in press)Relationship between level of emotional intelligence and level of organizational role stress of customer service representatives (on desk). *Proceedings : London International Conference on Education, (LICE-2012) in London, UK*. (ISBN 978-1-908320-11-7)
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54. Rege, K., Popat, S., Rawal, S., & Dalwai, S., (2012). *Quality indicators to sustain and maintain the program standards, (1st ed.)*, Mumbai, India: Early Childhood Association – India

E- book

55. Mandalika, S., & Bhalja, P. (2012). *Alfalfa supplementation and exercise performance -Effect of Nutritional counselling and alfalfa supplementation on anemia and exercise performance of adult females*, USA/ UK: LAP Lambert Academic Publishing Co, ISBN: 978-3-659-12628

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56. Rege, K (2012). Causes and types of sexual harassment at workplace. In D Deshpande. D & N Bhagwat. [Eds.] *.Sexual Harassment at Workplace* (pp 61-71). Nasik, India: Gautami Publication.

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57. Almeida, N. (2012). *Psychological Management of Diabetes and Behavioural Change: Module 1*. Dr Mohan's Diabetes Education Academy in Association with International Diabetes Foundation, India, April, 4th 2012

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58. Divecha, Rhonda (2012). "On Eco-friendly Pigs and Wise Wolves". Times Of India , Mumbai, 4-3- 2012.

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59. Almeida, N., & Almeida, A. (2013). Community Attitudes towards Kidney Donation in India. *Transplantation Proceedings*, 45, (4) ,1307-1309.
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62. Baruhah, N., & Dedhia, E . (2013). Revival of textiles of selected tribes residing in Assam - The north eastern state of India. *Journal of ARAHE*, Vol 20(2), 119-125.
63. Canday, E.,& Machado, P. (2013).The dietary department functions and systems in public and private hospitals of Mumbai. *Proceedings :International Conference on "Environment and its Impact on Society(Kolkata, 18th - 20th August)*, 23 – 30.
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3.7.3 Research Collaborations of Specialisations with Various Institutes

SPECIALI SATION	RESEARCH COLLABORATIONS (Illustrative)				
	INDUSTRIES	RESEARCH INSTITUTES/ Centers	Hospitals /Gyms	ACADEMIC INSTITUTE S	Government/ NGOs/ support groups
FND	Marico Industries, Kellogg, PepsiCo Foods, Hexagon Nutrition, Nestlé India Ltd	BARC Haffkine Institute, Institute of Chemical Technology CB Patel Research Institute	Bombay Hospital, Nair Hospital, KEM hospital, Breach Candy Hospital, Bhatia Hospital, Shushrusha Hospital etc., Qi Gym., K-11 Fitness center, Talwalkars Institute et.	Ramnarain Ruia College Jai Hind College Khalsa College	ICDS, CHIRAG, IAPA, Rotary Club
HD	US Vitamins	P D Hinduja Hospital	P D Hinduja Hospital, KEM Hospital, Bombay Hospital, Nair Hospital	Shishuvan School	The Promise Foundation, Bangalore Dream Foundation, V Care
TFT	Vrijesh corporation, Keshavlal Mohanlal Co. Textiles Pvt. Ltd., DyStar Pvt. Ltd. Nidhi Exports (Tirupur), Amol Paper Industries, Goa Handicrafts Rural and Small Scale Industry Development (Goa)	Central Institute for Research on Cotton Technology (CIRCOT) Wool Research Association of India, Saroj Texfab (India) Pvt. Ltd., TexanLab (Mumbai), Biotech Testing Services			

		R.R. Enterprise, Synthetic and Art Silk Mills Research Association Testing Services (Mumbai)			
CRM	The Lalit International The Grand Hyatt Kalina Hotel Ramada Palm Groove, Juhu Meluha The Fariyas,	National Institute of Industrial Engineering NITIE			Consumer Guidance Society of India (CGSI)
Research Centre	Kellogg India Pvt. Ltd., Marico Industries, Pepsico Foods, Fromageries BEL, France				

ANNEXURES FOR CRITERION IV

4.1.2 and 7.1.2: Plants in our garden.

PLANTS IN OUR GARDEN		
COMMON NAME	BOTANICAL NAME	TYPE / USE
Peepal	Ficusreligosa	Evergreen shade providing
False Ashoka	Polyalthialongifolia	Wind breaker
Gulmohar	Delonixregia	Ornamental
Papaya	Carica papaya	Fruit yielding, medicinal
Mango	Mangiferaindica	Fruit yielding, shade, medicinal
Banana	Musa acuminata	Fruit yielding, medicinal
Tagar (Chandni)	Tabernemontana	Ornamental
Aboli	Crossandrasp	Ornamental
Chilli	Capsicum	Vegetable, medicinal
Passion flower	Passiflorasp	Ornamental
Asparagus	Asparagus racemosus	Ornamental, medicinal
Adulsa	Adathodavastica	Medicinal
Coleus	Coleus sp	Ornamental
Coconut	Cocosnucifera	Fruit yielding, medicinal
Jamun	Eugenia jambulana	Fruit yielding, medicinal, evergreen
Jackfruit	Atrocarpusheterophyllus	Fruit yielding, medicinal, evergreen
Sontaka	Hedichiumsp	Ornamental
Paanphuti	Bryophyllumsp	Medicinal
Tulsi	Ocimum sanctum	Medicinal, condiment
Paan leaves	Betel	Medicinal
Aralia	Aralia sp	Ornamental
Crotons	Crotons sp	Ornamental
Spider plant	Cryptophyllum	Ornamental
Gulvel		Medicinal
Curry leaves	Murryakoengii	Medicinal
Philodendron	Philodendron sp	Ornamental
Ferns	Nephrolepissp	Ornamental
Jasmine	Gardenia jasminoids	Essential oil, medicinal
Khorphad	Aloe vera	Medicinal
Raat Rani	Cestrum nocturnum	Ornamental, essential oil
Jasvand	Hibiscus rosasinensis	Medicinal
Money plant	Pothosvar	Ornamental
Pentase	Pentasesp	Ornamental
Lemon	Citrus sp	Fruit yielding, medicinal
Syngonium	Syngoniumsp	Ornamental
Song of India	Dracena variety	Ornamental
Table palm	Phoenix dactylifera	Ornamental
Dieffenbechia		Ornamental
Balsam	Balsam	Ornamental
Euphorbia	Euphorbia milli	Biofuel
Insulin plant	Costa picla	Medicinal
Caladium	Caladium	Ornamental
Begonias	Begonia sp	Ornamental

4.3.1 Details of the configuration of the computers in the college are as follows:

3rd Floor –Computer Lab cum Cybercafé

Sr. No.	Brand	CPU	RAM	HDD	Anti-Virus	DVD	Monitor	MS Office	Photoshop	Corel Draw		Remark
3/CR/1	ESYS WIZARD	C2D 2:80	2	232	NP 12/04/2016	X	18.5"	2010	CS5.1	X5		
3/CR/2	ASM	i3 3.07	2	465	NP 13/06/2016	LG	17" HCL	2010	CS5.1	X5		
3/CR/3	HCL	Dual 2.0	1	153	NP 26/03/2015	LG	18.5" esys wizard	2010	CS5.1	X5		
3/CR/4	HCL	Dual 2.0	1	153	NP 09/04/2018	LG	17"	2010	CS5.1	X5		
3/CR/5	HCL	Dual 2.0	1	153	NP 07/03/2016	LG	17"	2010	CS5.1	X5		CMOS Battery
3/CR/6	HCL	Dual 2.0	1	153	NP 07/03/2016	LG	17"	2010	CS5.1	X5		
3/CR/7	HCL	Dual 2.0	1	149	NP 13/04/2016	LG	17"	2010	CS5.1	X5		
3/CR/8	@GIGAHERT Z	i3 3.07	2	465	NP 07/03/2016	LG	19" View sonic	2010	CS5.1	X5		
3/CR/9	@GIGAHERT Z	i3 3.07	2	465	NP 07/03/2016	LG	19" View sonic	2010	CS5.1	X5		
3/CR/10	@GIGAHERT Z	i3 3.07	2	465	NP 07/03/2016	LG	19" View sonic	2010	CS5.1	X5		
3/CR/11							19" View sonic					
3/CR/12	@GIGAHERT Z	i3 3.07	2	465	NP 07/03/2016	LG	19" View sonic	2010	CS5.1	X5		
3/CR/13	@GIGAHERT Z	i3 3.07	2	465	NP 21/02/2016	LG	19" View sonic	2010	CS5.1	X5		
3/CR/14	@GIGAHERT Z	i3 3.07	2	465	NP 07/03/2016	LG	19" View sonic	2010	CS5.1	X5		
3/CR/15	@GIGAHERT Z	i3 3.07	2	465		LG	19" View sonic					
3/CR/16	ESYS WIZARD	DUAL 2.80	2	149	NP 07/03/2016	✓	19" View sonic	2010	CS5.1	X5		
3/CR/17	@GIGAHERT Z	i3 3.07	2	465	NP 07/03/2016	LG	19" View sonic	2010	CS5.1	X5		
3/CR/18	COMPACQ	i3 3.20	2	465	NP 21/08/2015	✓	19" View sonic	2010	CS5.1	X5		
3/CR/19	COMPACQ	i3 3.20	2	465	NP 21/08/2015	✓	19" View sonic	2010	CS5.1	X5		
3/CR/20	DELL	i3 3.30	2	465	EXPIRE D	✓	19" View sonic	2007	CS5.1	X5		Windows XP
3/CR/21						□	19.5" Dell					

3/CR/22	DELL	i3 3.30	2	465	NP 21/02/20 16	✓	19" Dell	2007	CS5.1	X5		Windows XP
3/CR/23	ASM	Dual 1.8	512 MB	75	EXPIRE D	✓	19" Dell	2007	CS5.1	X5	UPDA TE	Windows XP
3/CR/25	DELL	i3 3.30	2	465	NP 11/09/20 15	✓	19" Dell	2007	X	X		
3/CR/26	DELL	i3 3.30	2	465	NP 12/03/20 16	✓	19" Dell	2010	CS5.1	X5		
3/CR/27	DELL	i3 3.30	2	465	NP 10/03/20 16	✓	19" Dell	2010	CS5.1	X5		
3/CR/28	DELL	i3 3.30	2	80g b	x	✓	19" Dell	X	X	X		
3/CR/29	DELL	i3 3.30	2	465	NP 12/03/20 16	✓	19" Dell	2010	CS5.1	X5		
3/CR/30	DELL	i3 3.30	2	465	NP 12/03/20 16	✓	19" Dell	2010	CS5.1	X5		
3/CR/31	DELL	i3 3.30	2	465	NP 12/03/20 16	✓	19" Dell	2010	CS5.1	X5		
3/CR/32	DELL	i3 3.30	2	465	NP 12/03/20 16	✓	19" Dell	2010	CS5.1	X5		
3/CR/33	DELL	i3 3.30	2	465	NP 12/03/20 16	✓	19" Dell	2010	CS5.1	X5		
3/CR/34	DELL	i3 3.30	2	465	NP 03/08/20 15	✓	19" Dell	2010	CS5.1	X5		
No Number	DELL	i3 3.30	2	465	NP 27/05/20 15	✓	19" Dell	2010	CS5.1	X5		

OTHER THIRD FLOOR COMPUTERS: HOS Room, General Office, Internet Room

Sr. No.	Brand	CPU	RAM	HD D	Anti- Virus	DVD	Monitor	MS Office	Photoshop	Corel Draw		Remark
3/IR/1	LENOVO	Dual 2.20	1	149	NP 21/12/20 15	LG	19" ACER	2007	X	X		Windows XP
3/OF/ 1	ESYS WIZARD	Celer on 2.53	1	232	NP 08/02/20 16	✓	19" Dell	2007	X	X		
3/OF/ 2	@GIGAHER TZ	i3 3.07	2	465	NP 26/03/20 15	LG	19" Chirag	2007	X	X		
3/OF/ 3	DELL	i3 3.07	4	465	X	LG	19" Dell	2007	X	X		
3/HOS /1	ASM	PD 3.0	512 MB	74	NP 08/02/20 16	SONY	15" AOC	2007	X	X	UP DAT E	XP
3/HOS /2	ASM	Dual 2.00	Dual 2.00	1	NP 28/03/20 15	LG	16"AO C	2007	X	X		XP
3/HOS /3	ASM	P4 1.7	224m b	37	NP 12/07/20 13	Not Conne ct	16"AO C	2007	X	X	UP DAT E	XP

3rd- Floor Accounts Office

Sr. No.	Brand	CPU	RAM	HDD	Anti-Virus	DVD	Monitor	MS Office	Photoshop	Corel Draw	Remark
3/ACCT/1	ASM	i3 3.30	4	46 5	NP 21/12/2013	X	19"Dell	2007	X	X	
3/ACCT/2	DELL	i3 3.30	2	46 5	NP 14/07/2014	✓	19"	2007	X	X	
3/ACCT/3	DELL	i3 3.30	2	46 5	NP 05/02/2016	✓	19"	2007	X	X	TALLY

Research Room - 4th Floor

Sr. No.	Brand	CPU	RAM	HDD	Anti-Virus	DVD	Monitor	MS Office	Photoshop	Corel Draw	Remark
4/RC/1	ASM	Dual 1.8	1	80	NP 09/08/2015	✓			X	X	XP
4/RC/2	COMPAC Q	i3 3.20	2	465	NP 22/08/2015	✓	19"	2010	X	X	
4/RC/3	HCL	AMD 1.6	1GB B	80GB B	NP 28/03/2015	✓	15' HCL	2007	X	X	XP

Coordinator Room- 4th Floor

Sr. No.	Brand	CPU	RAM	HDD	Anti-Virus	DVD	Monitor	MS Office	Photoshop	Core Draw	Remark
1	DELL	i3	2GB	500GB	NP 2016	X	✓	2007	X	X	

Library - 4th Floor

Sr. No.	Brand	CPU	RAM	HDD	Anti-Virus	DVD	Monitor	MS Office	Photoshop	Core Draw	Remark
4/LB/1	DELL	i3 3.30	4	465	FREE	✓	19" AOC	2007	X	X	
4/LB/2	DELL	i3 3.30	4	465	NP 16/01/2014	✓	19"	2007	X	X	
4/LB/3	ASM						19" Chirag				
4/LB/4	ESYS WIZARD	C2P 2.8	1	232	NP 29/09/2015	✓	19" AOC	2007	X	X	XP
4/LB/5	DELL	i3 3.30	4	465	NP 16/01/2014	✓	19"	2007	X	X	
4/LB/6	DELL	i3 3.30	4	465	NP 04/01/2016	✓	19"	2007	X	X	
4/LB/7	DELL	i3 3.30	4	465	NP 16/01/2014	✓	19"	2007	X	X	
4/LB/8	COMPACQ	i3 3.20	4	465	FREE	✓	19"	2007	X	X	
4/LB/9						✓	19" Dell		X	X	
4/LB/10	ASM	PD 2.67	448mb	80	NP 27/03/2015	✓	19" AOC	2007	X	X	XP

Degree STAFF ROOM- 5th Floor

Sr. No.	Brand	CPU	RAM	HDD	Anti-Virus	DVD	Monitor	MS Office	Photoshop	Core Draw	Remark
5/TFT/1	DELL	i3 3.30	2	465	NP 10/03/2016	✓	19"	2010	CS5.1	X5	
5/CRM/1	@GIGAHERTZ	i3 3.07	2	465	NP 28/02/2016	LG	19" View sonic	2007	X	X	
5/HD/2	@GIGAHERTZ	i3 3.07	2	465	NP 28/02/2016	LG	19" View sonic	2007	X	X	
5/FND/1	DELL	i3 3.10	4	465	NP 22/09/2018	✓	17"	2007			
5/FND/2	HCL	DC 2.8	2	465	NP 20/02/2016	✓	19"	2007	X	X	XP

CLASSROOM- PROJECTOR

Sr. No.	Brand	CPU	RAM	HDD	Anti-Virus	DVD	Monitor	MS Office	Photoshop	Core Draw	Remark
3TTY 1	DELL	i3 3.30	4	500	NP 08/09/2015	✓	Projector	2007	X	X	WIRELESS
2CLASS 1	DELL	i3 3.30	4	500	NP 06/08/2015	✓	Projector	2007	X	X	WIRELESS
1HDTY 1	ASM	P4 2.26	512	80	NP 27/08/2015	LG	Projector	2007	X	X	XP
1 FNDTY 1	DELL	i3 3.30	2	500	NP 21/02/2016	✓	Projector	2007	X	X	WIRELESS XP
1PG 1	ASM	PD 3.00	1	80	X	X	Projector	2007	C52	X	WIRELESS XP
7AV 1	ASM GIGAHERTZ	i3 3.07	2	500	X	LG	Projector	2007	X	X	WIRELESS XP
7A JR1	CHIRAG	DC 2.69	2	320	NP 13/10/2015	✓	Projector	2007	X	X	WIRELESS XP
7 CRM C	DELL	i3 3.10	2	500	NP 21/02/2016	✓	Projector	2007	C35	X	WIRELESS XP
7B JR 1	CHIRAG	DC 2.69	2	320	NP 13/03/2016	✓	Projector	2007	X	X	WIRELESS XP
7 FND MSc	ASM GIGAHERTZ	i3 3.07	2	500	NP 09/10/2013	LG	Projector	2007	X	X	XP
7 TFT MSc	ASM	PD 2.66	1	40	NP 22/02/2016	LG	Projector	2007	X	X	XP
6 Class 1	DELL	i3 3.30	4	500	NP 21/08/2015	✓	Projector	2007	X	X	WIRELESS
5 Class Sr 1	ASM GIGAHERTZ	i3 3.07	2	500	NP 25/09/2015	LG	Projector	2007	X	X	
5 Class Sr 2	CHIRAG	DC 2.7	2	320	NP 29/09/2015	✓	Projector	2007	X	X	WIRELESS XP
7 HD MSc 1	ASM GIGAHERTZ	PD 2.6	1	80	NP 11/07/2015		Projector	2007	X	X	XP

GROUND FLOOR-Reception and Hall

Sr. No.	Brand	CPU	RAM	HDD	Anti-Virus	DVD	Monitor	MS Office	Photoshop	Core Draw	Remark
	P4	i3 2.20 GHz	1GB	80GB	NP 24/12/2013	✓	✓	X	X	X	
	P4	i3 2.20 GHz	1GB	80GB	NP 24/12/2013	✓	✓	X	X	X	

LAPTOPS

Sr. No.	Brand	CPU	RAM	HDD	Anti-Virus	DVD	Monitor	MS Office	Photoshop	Core Draw	Remark
	DELL INSPIORON	i3 2.20 GHz	4GB	500GB	NP 24/12/2013	✓	✓	2010	CS5.1	X5	
	DELL INSPIORON	i3 2.20 GHz	4GB	500GB	NP 24/12/2014	✓	✓	2010	CS5.1	X5	
	SAMSUNG	i3 2.30 GHz	4GB	500GB	NP 24/12/2015	✓	✓	2010	CS5.1	X5	
	LENOVO	i3 2.4GHz	2GB	500GB	NP 24/12/2016	✓	✓	2010	CS5.1	X5	
	COMPACQ	T2050 1.60GHz	504GB	X	X	✓	✓	WINDOWS XP	X	X	

ANNEXURES FOR CRITERION V

5.1.2 The list of Scholarship provided for the last four years
2009 – 2010

Sr. No.	Types of scholarships	Amount Rs.	No. of Beneficiaries	Type of scholarship
1	Minority students Scholarships	76524.00	29	State; need-based
2	Private Scholarships	11000.00	4	Need-based
3	Freeships SC/ST	12860.00	5	State
4	Gauri Char Scholarship	6000.00	2	Merit-based
5	Prin. C. Galby Scholarship	4000.00	1	Merit-based
6	Prin. L. Menezes Sch.	4000.00	2	Need-based
7	Miss N. D'souza Sch.	2000.00	1	Merit-based
8	Makben Premji Vora Sch.	2000.00	2	Merit-based
9	T.JosephMemorial Sch.	500.00	1	Merit-based
9	Saffola Sch.	400.00	1	Merit-based
10	D. Patwardhan Sch.	600.00	1	Merit-based
11	OBC Freeships& Sch.	25415.00	7	Merit-based
12	University Sch.	1000.00	2	State
13	Pvt. Students Aid	2800.00	2	Need-based
Total:		149099.00	60	

2010 – 2011

Sr. No.	Types of scholarships	Amount Rs.	No. of Beneficiaries	Type of scholarship
1	Minority students Scholarships	4850.00	1	Need-based
2	Private Scholarships	4440.00	2	Need-based
3	Freeships SC/ST	6140.00	2	State
4	Gauri Char Scholarship	6000.00	2	Merit-based
5	R.K. Pillai Sch.	2000.00	2	Merit-based
6	Miss N. D'souza Sch.	2000.00	1	Merit-based
7	Makben Premji Vora Sch.	2000.00	1	Merit-based
8	T.JosephMemorial Sch.	800.00	1	Merit-based
9	Saffola Sch.	500.00	1	Merit-based
9	D.Patwardhan Sch.	400.00	2	Merit-based
10	OBC Freeships& Sch.	13920.00	3	State
11	Pvt. Students Aid	18000.00	2	Need-based
Total		61050.00	20	

2011-2012

Sr. No.	Types of scholarships	Amount Rs.	No. of Beneficiaries	Type of scholarship
1	Minority students Scholarships	14110.00	4	State
2	Private Scholarships	13428.00	4	Need-based
3	Freeships SC/ST	Nil		Need-based
4	Gauri Char Scholarship	5000.00	1	Merit-based
5	R. K. Pillai Sch.	2500.00	1	Merit-based
6	Miss N. D'souza Sch.	2000.00	1	Merit-based
7	Makben Premji Vora Sch.	2000.00	1	Merit-based
8	T.JosephMemorial Sch.	1700.00	2	Merit-based
9	Saffola Sch.	500.00	1	Merit-based
9	D. Patwardhan Sch.	400.00	2	Merit-based
10	OBC Freeships & Sch	Nil		State
11	University Of Mumbai	4050.00	4	State
12	C. Galby Alumni Assoc.	2800.00	2	Merit-based
13	A. N. Kothare Sch.	400.00	1	Merit-based
14	S.Khan Sch.	3000.00	1	Need-based
15	A.M. Versey Sch.	900.00	1	Need-based
16	Braganza Sch.	8100.00	3	Merit-based
17	Miss L. Menezes Sch	4000.00	2	Need-based
18	T. Surana Sch.	400.00	1	Merit-based
19	L.R.Shah Sch.	200.00	1	Merit-based
20	Watumall Sch.	800.00	1	Merit-based
21	Pvt. Students Aid	146650.00	5	Need-based
Total		212938.00	39	

2012-2013

Sr. No.	Types of scholarships	Amount Rs.	No. of Beneficiaries	Type of scholarship
1	Minority students Scholarships	58152.00	13	State
2	Private Scholarships	93185.00	14	Need-based
3	Freeships SC/ST	Nil		Need-based
4	Gauri Char Scholarship	9300.00	3	Merit-based
5	R. K. Pillai Sch.	2500.00	1	Merit-based
6	Miss N. D'souza Sch.	2000.00	1	Merit-based
7	Makben Premji Vora Sch.	2500.00	1	Merit-based
8	T. Joseph Memorial Sch.	1640.00	2	Merit-based
9	Saffola Sch.	400.00	1	Merit-based
9	D. Patwardhan Sch.	390.00	3	Merit-based
10	OBC Freeships & Sch	Nil		State
11	University of Mumbai	2650.00	3	State
12	C. Galby Alumni Assoc.	1800.00	2	Merit-based
13	A. N. Kothare Sch.	400.00	1	Merit-based
14	S. Mannadiar Sch.	2500.00	2	Merit-based
15	A.M. Versey Sch.	1000.00	1	Need-based
16	Braganza Sch.	1000.00	1	Merit-based
17	Miss L. Menezes Sch.	1450.00	1	Need-based
18	T. Surana Sch.	400.00	1	Merit based
19	L.R.Shah Sch.	200.00	1	Merit-based
20	Watumall Sch.	800.00	1	Merit-based
21	Pvt. Student Aid	20000.00	1	Need-based
Total		202267.00	54	

5.3.4 LIST OF STUDENTS' RESEARCH PUBLICATIONS

2009

1. Dedhia, E., & Gupta, M. (2009). Shirts – The contemporary way. *Apparel*, 29 (7),172-182.
2. Gupta, M., & Dedhia, E. (Dec 2009). Emerging trends in fabrics for men's shirts. E-Journal Fibre2Fashion, Sanblue Enterprise Pvt Ltd., India. (<http://www.fibre2fashion.com/industry-article/22/2161/emerging-trends-in-fabrics-for-mens-shirts1.asp>)
3. Mendes, M., & Dedhia, E. (2009). 'Natural fibres - The safe fibre for children's apparel' University of Leeds, Ars Textrina, International Textiles Conference Natural Fibres - A world heritage, in celebration of 'The International Year of Natural Fibres' 2nd & 3rd September 2009, Session 3B Page 14 http://ulita.leeds.ac.uk/docs/Ars_Textrina/Abstracts2009.pdf
4. Mitra, A., Dev, B., Pednekar, M., & Sharma, A. (2009). Effect of radiation processing of ragi and acceptability and shelf life of ragi malt, *Journal of Radiation Physics*,360-365. Impact Factor: 1.38
5. Rege, K., & Almeida, N. (2009). Perception of supervisors and teachers regarding the barriers to and strategies for promoting home -school partnership. *Research Reach Journal of Home Science*, 8 (1), 19-26.

2010

6. Dedhia, E., & Mendes, M. (2010). Care for kidswear. *Apparel*, 30 (3), 44.
7. Dedhia, E., & Mendes, M. (2010). Chemical effects on kids wear, CMAI Apparel, July 2010 http://www.cmai.in/news/apparelnews_view_index.asp?articleID=925
8. Jamdar, S.N., Rajalakshmi, V., Pednekar, M.D., Juan, F., Yardi, V., Sharma, A. (2010). Influence of degree of hydrolysis on functional properties, antioxidant activity and ACE inhibitory activity of peanut protein hydrolysate, *Journal of Food Chemistry*, 121(1), 178-184. Impact factor-4.072

2011

9. Karnad, V., & Nerkar, T. (2011). Eco friendly clothing: Comparison of organic cotton, bamboo and linen towards product development for infant wear. *Colourage-The Magazine of Textile and Garment Processing*, Vol. LVIII, No. 7, 54-60.
10. Karnad, V., & Sompura, P. (2011). Product development from spun silk/polyester fabrics printed with geometric motifs and newsprints for home interiors. *Colourage - The Magazine of Textile and Garment Processing*, Vol. LVIII, No.3, 40-48.
11. Mandalika, S., & Bhalja, P. (2011). Effect of nutritional counseling & alfalfa supplementation on exercise performance and nutritional anaemia of overweight and obese adult females. *J. Human Ecology*, 35(3): 155-159 .
12. Prabhu, S., & Parekh, N. (2011). Perceptions of mothers on mother child programs, *Carmelight (Interdisciplinary National Journal)*. 8(1), 23-31.

Newspaper Article

13. Rege, K (2011) "Parents, schools need to forge a dynamic bond [Parents' involvement in the school has a beneficial effect on student learning, achievement, attitudes, homework and aspirations]", Hindustan Times, Mumbai, page 4.

2012

14. Bakshi, A. J., Gandhi, H.N., Shah, R., & Maru, K. (April, 2012). Influences on career choice as perceived by youth in Mumbai. *Indian Journal of Career and Livelihood Planning*, 1(1), 5-15.
15. Mundkur, S and Dedhia, E (2012). *Waste management and supply chain for second-hand clothes in Mumbai, Textile Value Chain Volume 1*, Issue 3 October to December 2012, 57-58, ISSN No. 2278-8972
16. Gupta, M. & Dedhia, E. (2012). Consumers assessment of shirt's functional features. *Indian Textile Journal*, and also on <http://www.indiantextilejournal.com/articles/FAdetails.asp?id=4365>.
17. Maheshwari, P., & Savla, R. (2012). Emotional intelligence competencies: Their importance in making a career choice in the profession of medicine and management. *US-China Education Review B*, 9,765-780. (ISSN2161-623X, USA).
18. Narayanan, N., & Almeida, N. (2012). Stress in healthcare professionals working with patients with HIV/ AIDS: A study of doctors, nurses and laboratory technicians working in selected public hospitals in Mumbai. *Asian Journal of Research in Social Sciences & Humanities*. 2 (7), 59-63.
19. Rege, K. (2012). The power of teacher-student relationship. *Navtika: Journal of Early Childhood Care and Education*, 3(1), 3-14.
20. Rege, K., & Maru, D. (2012) .Child's transition to first grade (primary level): Mothers' perception" *Journal for Interdisciplinary Studies*, September, Vol. I, Issue-II, 18-28.
21. Singhania, P.R., Mandalika, S. (2012). Holistic health assessment tool for patients on maintenance hemodialysis.. *Indian Journal of Nephrology*, 22(4), 269-274. ISSN: 09714065, 19983662, H Index: 3

Books

22. Rege K, Mehta M. (2012) *Matrimonial websites: An emerging mediator for new generation search for life partner*. Germany: LAP Lambert Academic Publishing, ISBN: 978-3-659-21690-9).

E- book

23. Mandalika, S., & Bhalja,P. (2012). *Alfalfa supplementation and exercise performance -Effect of Nutritional counselling and alfalfa supplementation on anemia and exercise performance of adult females*, USA/ UK: LAP Lambert Academic Publishing Co, ISBN: 978-3-659-12628

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24. Baruhah, N., & Dedhia, E. (2013). Revival of textiles of selected tribes residing in Assam - The north eastern state of India. *Journal of ARAHE, Vol 20(2)*, 119-125.
25. Dedhia, E., & Padia, D. (July-Sept 2013). Changing trends of legwear in women's wardrobe. *Textile Value Chain*, 47-50.
26. Goyal, P., & Dedhia, E. (2013). Eco-friendly Fiber for the 21st century-Lyocell and its blends." Accepted for Publication in an International Scholarly Research Journal for Interdisciplinary Studies. Print Issue and Online Vol-II, Issue-VIII<SEPT-OCT, 2013. Online ISSN 2278-8808.
27. Joshi, S., Almeida, N., & Almeida, A. (2013). Assessment of the perceived quality of life (QoL) of successful kidney transplant recipients and their donors pre and post transplantation/ donation. *Transplantation Proceedings*, 45, (4), 1435-1437.
28. Madhan, R., & Rathi, D. (2013). Environment sustenance through water quality management in hospitality industry. *International Journal of Scholarly Research Articles, Vol-I/VI May, June, 2013, www.srjis.com, ISSN 2278-8808.*
29. Mandalika, S., & Janoos, S. (2013). Risk of metabolic syndrome among children and adolescents residing in Mumbai, *Indian Journal of Public Health Research & Development*, 4(2), 246-250.
30. Mundkur S & Dedhia E. 'Socio-economic conditions of Collectors of Post-consumer Clothing Waste in Mumbai, India' published in peer review journal, *International Journal of Social Science and Humanities, IJSSH Vol.4. No.1. pp 68-73 January 2014, Journal IJSSH's ISSN 2010-3646.*
(<http://www.ijssh.org/index.php?m=content&c=index&a=show&catid=45&id=625>)
31. Rodrigues, M., & Mandalika, S. (2013). Influence of a ragi-soybean combination on the viability of probiotic organisms during storage and under simulated gastrointestinal conditions, *BARC newsletter, Founder's Day Special Issue*, 322-326.
32. Satish, V., & Bakshi, A. (2013). Educational software as a means for promoting cognitive skills in children: An application of Sternberg's WICS model. *Journal of the 2nd International Conference on Ideas to Implementation for Early Childhood Education in India (23-24 February, 2013)* (organised by Early Childhood Association, Mumbai, India), 29-31.
33. Yardi, V., & Mandalika, S. (2013). Knowledge, Attitude and practices of HIV/AIDS counselors regarding nutrition counseling of people living with HIV/AIDS. *Proceedings (full paper) has been accepted for publication for proceedings by National institute for research in Reproductive health (ICMR), UNDP, UNFPA, WHO and World Bank.*
34. Bakshi, A. J. & Joshi, J. (2014). The interface between positive youth development and youth career development: New avenues for career guidance practice. In G. Arulmani, A. J. Bakshi, F.T.L. Leong, & A. G. Watts (Eds.), *Handbook of Career Development: International Perspectives, International and Cultural Psychology Series*, Springer Science+Business Media, LLC.



COLLEGE OF HOME SCIENCE
AFFILIATED TO THE UNIVERSITY OF MUMBAI

Phone : 2207 6503 / 22007544
Gram : NIRMALSEVA
Fax : 2200 3217
E-mail : nnchsc@mtnl.net.in
Website: www.nirmalaniketan.com

NIRMALA NIKETAN
49, NEW MARINE LINES
MUMBAI - 400 020.

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1. Stipulated by the affiliating University and/or
2. Regulatory Council/Body [such as UGC, NCTE, AICTE, MCI, DCI, BCI, etc] and
3. The affiliation and recognition [if applicable] is valid as on date.

In case the affiliation / recognition is conditional, then a detailed enclosure with regard to compliance of conditions by the institution will be sent.

It is noted that NAAC's accreditation, if granted, shall stand cancelled automatically, once the institution loses its University affiliation or Recognition by the Regulatory Council, as the case may be.

In case the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the college website.

Date: 30th September 2013
Place: Mumbai

Perpetua Machado
Dr. (Ms.) Perpetua Machado
Principal

