



MODERN EDUCATION SOCIETY, PUNE
The **D. G. Ruparel College**
OF ARTS, SCIENCE AND COMMERCE

NAAC RE-ACCREDITATION 3RD CYCLE
SELF STUDY REPORT

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Certificate of Compliance

This is to certify that D. G. Ruparel College of Arts, Science and Commerce, Mahim, Mumbai 400016 fulfils all norms

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 is valid as on date.
4. In case the affiliation / recognition is withdrawn by the authority concerned the same will be informed to NAAC immediately. 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the undertaking submitted by the institution is found to be false then the accreditation given by NAAC is liable to be withdrawn.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.

Principal
(Dr. Tushar Desai)

Place: Mumbai

Date: 30 / 06 / 2016

Declaration by the Head of the Institution

I certify that the data included in this Self-Study Report is true to the best of my knowledge.

This SSR 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 provided in the SSR during the peer team visit.

Principal
(Dr. Tushar Desai)

Place: Mumbai
Date: 30 / 06 / 2016

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Executive Summary

Doongarsee Gangjee Ruparel College, established in 1952 by the Modern Education Society (Pune), is renowned as one of the foremost institutions of higher education in Mumbai. Our constant quest for excellence in education is reflected in the high scores of our students in the University examinations as well as in the fact that our students progress to occupying eminent positions in varied fields ranging from research and defence services to the industry and the media.

The College offers a variety of undergraduate, postgraduate and doctoral programmes. In addition to the conventional programmes like BA, BSc and BCom, students can opt for professional courses like Bachelor of Management Studies and BSc and MSc in Information Technology and Computer Science. The newly introduced MCom course and the additional divisions at BCom and MCom reflect our awareness of the changing demands of the students.

Teachers of the College actively participate in the development and revision of various syllabi at the University level. By encouraging the students to *learn beyond the classroom*, they ensure that the learning keeps pace with the changing global milieu. **Student-centric teaching** practices are enhanced and enriched by the use of **ICT tools** to make learning more interesting and interactive. The impact of these practices is visible in the fact that the students have scored top ranks at the University examinations.

Fostering research is one of the focal points of development in the post-accreditation period. The establishment of the **Central Research Facility** for interdisciplinary research through UGC and DST-FIST funding, the number of research papers and projects and the active participation of students in the Avishkar Research Convention stand testimony to the increased research activity in the College. The **R-Quest** scheme initiated by the College offers

funding for minor research projects by students and teachers. Many teachers are recognised guides for postgraduate and doctoral research.

A fertile ground for research is provided by the well-equipped laboratories, computers with internet access and the library with its collection of over 1.25 lakh books along with journals and e-resources. Some teachers provide consultancy services on a non-remunerative basis.

The unique feature of the College is the **huge, lush green campus** in the heart of the island city. Certain areas in the campus have been developed in an **eco-friendly** manner using recycled materials. The buildings, classrooms and laboratories are maintained and upgraded from time to time as per the needs of the students and the revised syllabi. The New Building is being effectively utilised to house the Library, the self-financing courses and the newly-developed well-equipped large multi-purpose hall.

The amphitheatre **Rupangan** and the activity area Saawli have been created to provide a **conducive learning ambience** for the students. IT infrastructure has been considerably enhanced and effectively deployed to facilitate administrative efficiency as well as to enhance teaching-learning.

The welfare of students has always been the prime concern of the College and every effort is made to provide a safe, healthy and conducive environment for them. In keeping with our motto **For the Spread of Light**, no student is denied admission on the basis of inability to pay fees; support is given to such students through student welfare schemes. The students' progress is constantly monitored and suitable measures are adopted to deal with the difficulties faced by them. The Counselling Centre – Suman, the Placement Cell and the Women's Development Cell play an active role in this regard. The College is sensitive to the needs of differently-abled students and creates a supportive atmosphere for them.

Apart from academics, the College enjoys a reputation for excellence in sports with a place in the top five sports ranking of the University of Mumbai every year. Our sportspersons can hone their skills in different sports and games using the sports facilities which have been enhanced and upgraded. Box nets for cricket, modernised air-rifle shooting range, basketball court are some of the important developments. Participation in the wide array of **extra-curricular and cultural activities** organised by various associations of the College has helped to identify and nurture talent in the fields of music, dance and theatre. The endeavours of the NCC and NSS units orient the students towards **community service and national development**. Students are given the scope and guidance to discover and actualize their potential in the field of their interest.

The College is a **teacher-managed institution** and it functions on democratic principles. Structured and systematic processes that are periodically modified ensure the smooth functioning of the College. Decisions are taken after considering the feedback from stakeholders, including the eminent academicians and professionals who are members of the governing body of the College. Open communication channels, **participative decision-making** and cohesive relationship between the management and the teachers ensure a healthy and favourable working environment. All endeavours of the College are carried out in the **spirit of service** to the field of education.

The best practices of the College are promoting **learning beyond the syllabus** and nurturing the environment. Through various teaching-learning methods, students are encouraged to become aware of the latest trends in the subject apart from aiming at success in the examinations. With its commitment to **nurturing the environment**, the College has undertaken eco-friendly projects and has implemented practices aimed at environmental sustainability.

A combination of **traditional values** and contemporary teaching methods has rendered the College synonymous with excellence in higher education. The College has been and still remains the destination of choice for students aiming at quality education and multi-dimensional personality development.

CRITERION I: CURRICULAR ASPECTS

1.1 Curriculum Planning and 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:

Quest for lifelong learning

Learners as the focus

Stimulation of active learning

Fostering research

Efficient governance

Collaboration with industry

Social responsibility

Mission:

In accordance with its motto *For the spread of light*, The Modern Education Society aims to create and disseminate an atmosphere of learning and research of high academic, professional, ethical and ecological standards in which learners can gain knowledge and skills encompassing a wide range of disciplines – humanities, physical, biological and social sciences, law, technology, management and commerce – which will result in multi-dimensional personality development of the learners and enable them to fulfil the needs of industry and the community at large.

The objectives of the College have been detailed in 6.1.1.

The Vision and Mission of the College are displayed on boards on walls in corridors, foyer area and faculty common room. They are communicated to the stakeholders through the College Prospectus and College website.

During meetings with teachers, non-teaching staff, students and parents, a special mention of objectives is made. All academic, co-curricular and administrative activities are carried out in accordance with the Vision, Mission and Objectives.

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).

- All the teachers prepare and submit a teaching plan in consultation with the Head of the Department at the beginning of each semester.
- Teachers submit individual time-table to the Head of the Department and the College office.
- Since the academic year 2014 – 2015, the teachers record the following details in the Teachers' Diary - lectures engaged, topics taught, conferences / seminars / workshops / meetings attended, examination duties performed and participation in various co-curricular activities. It also contains a declaration that the assigned syllabus was completed. The Teachers' Diaries are verified by the respective Heads of Departments and submitted to the Principal at the end of each semester.
- Regular meetings are held in the Departments to discuss the progress of teaching plans and to review the activities. A plan of action is prepared based on the previous years' feedback, opportunities and challenges.
- Feedback about performance of teachers is obtained every year from students.
- Since Open Door Policy is implemented in the college, students and parents can approach the concerned teacher / Head of the Department / Principal and convey the academic difficulties. Immediate steps are taken to resolve the same.
- Suggestion boxes have been installed in the college office, faculty common room and examination department, so that students and staff can convey their concerns. Teachers are also encouraged to give their suggestions in writing to the Principal in the self-appraisal form and the Teacher's Diary.
- Exposure to industry is facilitated through visits and workshops as per the course requirements.
- Science Departments plan their schedule of practical sessions and inform the students through the notice board in advance. Discussions on the experiments are held prior to the actual practical sessions. Additional practical sessions are held for students to clear their doubts and complete their minimum requirements.

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

- The Boards of Studies in association with the College conduct workshops whenever the syllabi are revised. Teachers are deputed to attend these workshops and brief their departmental colleagues about the same.
- The College provides the infrastructure necessary to implement the curriculum by purchasing the required books, journals, and instruments for the revised syllabi.
- Computer, internet connection and printing facilities are provided in every department of the College, while some departments have been provided laptops. Some classrooms are equipped with overhead projectors and screens.
- ICT equipment such as digital visualizer, portable sound system is made available on demand. A *Smart Classroom* is available for conducting lectures, which consists of one Smart Board, Touch and Smart Panel, Digital Presenter, RF Response Cards with 100 cards and two Lectern Speakers.
- Teachers from the Department of Physics use simulations such as PhET, Wolfram, Mathematica and SIRM to teach scientific concepts.
- Teachers of the College who are Chairpersons / Members of Board of Studies and Syllabus Committees for different courses play a significant role in designing the syllabi.
- Copies of University circulars about the syllabi, question paper pattern and examination are regularly sent to the respective departments and to the Library.

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 the affiliating University or other statutory agency.

The College uses the following methods to ensure effective curriculum delivery and transaction on the curriculum:

- Teachers effectively use lecture summaries, question banks, reference books, research articles, and articles in newspapers, films and documentaries, field visits, guest lectures and internet and social media to supplement the conventional chalk-and-board lecture method.

- Book bank facility as per University norms is made available for socially and economically backward students. To augment this scheme, the College has provided additional funding.
- Departmental library facility for the students is available for reference work and project preparation.
- Students are mentored by teachers in some departments to improve their grades and enhance their overall personality.
- Parents' meeting is conducted at the beginning of the year to create awareness regarding the pattern of the three-year degree course, the rules of discipline and facilities offered by the College.
- The teachers conduct subject-wise orientation sessions to inform students about the curriculum, books prescribed, examination pattern and other relevant details at the beginning of each semester.
- The College laboratories and Library infrastructure are regularly upgraded to meet the demands of the curriculum.

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?

- In order to help students understand the real life application of concepts, field visits and industrial visits are regularly organised. Through this, students also get insight into the functioning of various organisations.
- In addition to the departmental laboratories, the College has established the Central Research Facility for inter-disciplinary research in Chemistry, Physics and Life Sciences. This has encouraged faculty and students to take up research projects.
- Experts from the industry are invited to deliver talks under the aegis of various associations of the Departments.
- Programmes like *Learning Beyond the Syllabus* by various departments help the students to develop life skills.
- To increase awareness about banking and financial instruments, a Commerce laboratory has been introduced in the year 2014-2015.
- The College has a tie-up with Tata Institute of Fundamental Research (TIFR) wherein the faculty from TIFR visits the College to deliver lectures in the Department of Physics. The monthly programme *Chai and Why?* organised by TIFR is hosted in the College. This

programme is open to all and is aimed at popularisation of science and public outreach. It involves interactive sessions on a variety of topics like the science behind Diwali crackers, astrophysics and mathematics.

- The College has a tie-up with FOSSEE, IIT-Bombay (Free and Open Software in Education) and Spoken Tutorial to spread awareness about open-source software.

1.1.6 What are the contributions of the institution and/or its staff members to the development of the curriculum by the University (number of staff members/departments represented on the Board of Studies, student feedback, teacher feedback, stake holder feedback provided, specific suggestions etc.)

Teachers contribute to the development of curricula for various courses as Chairpersons / Members of Board of Studies and Syllabus Committees. A list of the teachers who have worked in various committees is given below:

Department of Economics	
Dr. Prakash Salvi	Member, Board of Studies in Economics (2010-2015) Former Chairperson, Board of Studies in Economics (2005-2010) Convener and Member, Syllabus Committees for TYBA and MA Economics.
Ms. Varsha Utpat	Member, Syllabus Committee for Economics from 2010.
Department of Psychology	
Dr. Nandini Diwan	Member, Board of Studies in Psychology (2010-2015) Former Chairperson, Board of Studies in Psychology (2005-2010) Member, Faculty of Arts. Member, Faculty of Science Member, 32 (5)(a) committee of the Univ. of Mumbai.
Dr. Neeta Tatke	Member, Ad-Hoc Board of Studies in Physical Education- SNDT Women's University. Contribution to syllabi development in Psychology at FY, SY and TYBA.
Ms. Ruta Patwardhan	Contribution to syllabi development in Psychology at SY and TYBA.
Department of Botany	
Dr. Mangala Heble	Member, Syllabus Committee for TYBSc Botany.
Ms. Neha Sawant	Member, Syllabus Committee for SYBSc Botany.

Department of Chemistry	
Dr. Rajan Rele	Member, Syllabus Committees for SYBSc, TYBSc, MSc Chemistry (2010-2012).
Mr. Sanjay Mahimkar	Member, Syllabus Committee for MSc Chemistry (2011-2012). Member, Syllabus Committee for SYBSc- Physical and Analytical Chemistry (Paper I) (2015-2016)
Department of Mathematics	
Ms. Jayashree Mehta	Subject Expert, Board of Studies for the Department of Mathematics, St. Xavier's College, Mumbai (2010-2013)
Department of Physics	
Dr. Tushar Desai	Member, Academic Council, University of Mumbai (2010- 2015) Chairperson, Ad-hoc Board of Studies in Information Technology (2010-2015). Member, Faculty of Science Member, 32(5)(a) committee of the University of Mumbai. Member, Syllabus Committee for Information Technology (2010-2015). Member, Board of Studies in Applied Sciences, Amity University (2016 onwards) Convener, Board of Studies in Computer Education and Information Technology, Maharashtra State Board of Secondary and Higher Secondary Education (2006 – 2011).
Ms. Vidya Patil	Member, Syllabus Committees for FYBSc, SYBSc and TYBSc in Physics (2014-2017)
Department of Statistics	
Ms. Vasundhara Govilkar (retd.)	Member, Syllabus Committee for TYBSc (2010).
Ms. Vrinda Kanitkar	Member, Syllabus Committee for BSc, Statistics at SNDT University (2012-2013)
Department of Zoology	
Dr. Meenakshi Sundaesan	Member, Syllabus Committees for TYBSc and MSc Zoology (2012-2015) Member of Book Writers Committee, University of Mumbai Member, Organizing Committee for the workshop - Peer review of University books for FYBSc Zoology
Mr. Nitin Wasnik	Member – Special invitee for committee constituted for the revision of FYBSc Syllabus in Zoology (2014-2015)

Dr. Minakshi Gurav	Member – Special invitee for committee constituted for the revision of FYBSc Syllabus in Zoology (2014-2015)
Dr. Gayathri N.	Member – Special invitee for committee constituted for the revision of FYBSc Syllabus in Zoology (2014-2015)

The teachers take into account the current trends and the feedback from students and peers while suggesting changes in the curriculum.

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.

The College is affiliated to University of Mumbai and therefore has to follow and implement the syllabi prescribed by the University. In view of industry requirements, students require additional training in career-oriented programmes and soft skills development. Hence, as per the demand, the College conducts short-term certificate courses and other value-added programmes on various subjects. The list of the courses organised is given below:

Department of Botany:

- A certificate course titled *Fruit Bonanza* – 1st to 6th November 2012.
- A two – day certificate course in Horticulture entitled *Glory of Horticulture* – 2nd and 3rd February 2012.
- A certificate course in Horticulture entitled *Glory of Horticulture* - 7th to 15th January 2011.

Department of Chemistry:

- A ten day *Certificate Course in Food and Drug Analysis* – 1st to 13th April 2016.
- A ten day *Certificate Course in Food and Drug Analysis* – 31st March to 10th April 2014.
- A certificate course in *Industrial Analytical Chemistry* - 19th to 27th April 2010.

Department of Economics:

- An Introductory course in *Basic Econometrics*.

Department of English:

- A two-week Certificate Course titled *Proficiency Course in English* – November 2013.
- A two-week Certificate Course titled *Proficiency Course in English* – April 2014.

Department of Information Technology and Computer Science:

- Bio-Python workshop- 6th January 2016
- Exp Eyes workshops:
 - 1st-Batch: 4th and 5th February 2016
 - 2nd Batch: 15th to 17th February 2016
- Windows Azure workshop- 13th February 2016
- Microsoft Training:
 - 1st Batch: 8th and 9th October 2015
 - 2nd Batch: 10th and 11th October 2015
- Python workshop - 19th June 2015
- J-Mol and G-Chem paint - 1st August 2015
- A certificate course on *Information Storage Management* for IT and Computer Science students - 1st to 30th September 2011.

Department of Management Studies:

- A ten-day lecture series on *Industry Trends and Development* - 16th to 29th April 2016
- A ten-day lecture series on *Industry Trends and Development* - 19th July to 20th September 2014.
- A two day certificate course on *Management Games- Team Building* - 25th – 26th February 2014.

Department of Marathi:

- Short term course in *Modi Script*, 15th January to 23rd February 2016
- Short term course in *Soft Skills and Radio Jockey* - December 2015
- Workshop on *Samwad Kaushalye* – 1st to 10th December 2015
- Seminar on *Critical Review of the Novel Rahichya Swapnacha Ulgada* - written by Bharat Sasne - 16th December 2016.
- One day orientation programme on *Self Employment* under People Education Programme of Khadi and Village Industries Commission (KVIC), Government of India on 7th February 2015.

Department of Mathematics:

- Training in LATEX for writing research papers and usage of software XMAXIMA for graphs of mathematical functions for students of TYBSc – 7th August to 7th September 2016.

Department of Physics:

- A two day certificate course on *Know your Household Electrical Appliances* - 6th and 7th April 2015.

- A two week bridge course for students of TYBSc (Physics) in *Theoretical and Experimental Physics* in 2013.
- A two week bridge course for students of TYBSc (Physics) in *Theoretical and Experimental Physics*- 13th to 24th March 2012.
- One week advanced course in *Astronomy and Astrophysics* - January 2012.
- Two week bridge course for students of TYBSc (Physics) in *Theoretical and Experimental Physics* - 13th to 27th April 2011.
- A short-term certificate course in *Perspectives of Basic Astronomy* - November 2010 to April 2011.

Department of Psychology:

- A five day course on *Basic Counselling Skills* from 2nd to 9th May 2016.

Department of Zoology:

- Bridge Course for students admitted to TYBSc Zoology, April 2015.
- Bridge Course for students admitted to TYBSc Zoology, April 2014.
- Two day certificate course in *Separation Techniques in Biological Systems* for SYBSc and TYBSc students, 11th and 12th July 2012.
- *Bioinformatics for Beginners* on 1st and 3rd February, 2014 for SYBSc and TYBSc students.

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

To ensure that the stated objectives of curriculum are achieved in the course of implementation:

- Students are evaluated through tests, assignments, seminars, classroom discussions and presentations to monitor their performance.
- Results are analysed every semester to track the academic progress of the students.
- Remedial coaching is offered to the weak students in some subjects.
- The College has instituted gold medals and endowment prizes for toppers in each subject to motivate the students.
- Each teacher maintains a Teacher's Diary, which is a record of the completed academic activities as per the schedule.

Consequently, the College results are consistently higher than the University results.

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.

The major focus of the certificate and other skill development courses is:

- To bridge the gap between the academic learning and industry demands.
- To inform the students about various available employment opportunities, career development courses and innovative skills.
- To develop confidence in speaking English and to improve basic vocabulary skills among students who come from vernacular medium.

Please refer to 1.1.7 for the detailed list of such courses.

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

Since the College is affiliated to University of Mumbai, the College is not permitted to offer twinning/dual degree programmes.

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 skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:

- *Range of Core / Elective options offered by the University and those opted by the college*
- *Choice Based Credit System and range of subject options*
- *Courses offered in modular form*
- *Credit transfer and accumulation facility*
- *Lateral and vertical mobility within and across programmes and courses*
- *Enrichment courses*

The Choice Based Credit System was introduced by University of Mumbai in the academic year 2011-2012 and has been systematically implemented in the College since then.

The College is affiliated to the University of Mumbai and offers a variety of subject combinations for Arts, Science and Commerce faculties. There are 18 subject combinations in

Arts faculty at FYBA. This enables the students to select the courses that meet their interests and demands of their future career options. Apart from specialisation in Economics, English Literature, Marathi Literature, Philosophy and Psychology, double majors like History-Political Science, History–Marathi Literature, Philosophy-Psychology, Psychology-English Literature, Psychology-Marathi Literature are also available for interested students. Eight subject combinations are offered in Science faculty at FYBSc with specialisation in Botany, Chemistry, Mathematics, Physics, Statistics and Zoology. Postgraduate programmes in Science – Botany, Chemistry, Physics and Zoology are offered. The University recognised laboratories and Central Research Laboratory offer scope for scientific research. The College also runs seven self-financed programmes in Bachelor of Management Studies (BMS), Bachelor of Science (BSc) and Master of Science (MSc) in the subjects of Information Technology and Computer Science, MSc in Analytical Chemistry and MCom (Advanced Accountancy). Doctoral Programmes in three subjects Botany, Chemistry and Zoology are offered. This is in keeping with the current trends in the job market.

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 the following self-financed programmes :

No.	Name of Self Financing Course	
1	Bachelor of Management Studies	BMS
2	Bachelor of Science (Information Technology)	BSc (IT)
3	Bachelor of Science (Computer Science)	BSc (CS)
4	Master of Science (Information Technology)	MSc (IT)
5	Master of Science (Computer Science)	MSc (CS)
6	Master of Commerce in Advanced Accountancy	MCom
7	Master of Science (Analytical Chemistry)	MSc

These courses are affiliated to the University of Mumbai. The syllabi, admission criteria, fee structure and qualification norms for teachers are as prescribed by the University. The Management decides the salary component of the teachers appointed on ad hoc basis. The College does not receive any salary grant from the Government for these courses.

1.2.5 Does the college provide additional skill-oriented programmes, relevant to regional and global employment markets? If 'yes' provide details of such programme and the beneficiaries.

Yes. Certificate courses and other value-added programmes are conducted by various departments. Students can learn topics of their interest beyond the prescribed syllabi. These courses are inter-disciplinary in nature and of practical importance for students. They help in generating interest for the subject and make students aware of career options. The list of the programmes conducted is given in 1.1.7.

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?

Talks, lecture series and other skill-development activities conducted by experts from various fields are organised for the students. This helps them in understanding the topics better, broadens their knowledge base and creates awareness of the additional dimensions of their subject area. Students and teachers participate in workshops, symposia, conferences organised in the relevant subjects. Film screening, field visits, educational tours, book reviews, presentations supplement the curriculum. Innovative activities such as mobile planetarium in the campus, science exhibitions, formal and informal discussions, participation in debates, quizzes, and skill-development programmes help the students to *Learn Beyond the Syllabus*.

Department-wise subject-related festivals are organised such as *Arthotsav* for Economics, *Carpe Diem* for English, *Dot Tech* for Information Technology and Computer Science, *Aarambh* for Management Studies, *VIBGYOR* for Physics, *Psynergy* for Psychology and the Science Association Exhibition. They help students to learn teamwork and event management skills.

1.3.2 What are the efforts made by the institution to enrich and organize the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

Within the framework of the curriculum specified by the University of Mumbai, the teachers make efforts to deliver the content using a variety of teaching methods to make the subject interesting. Apart from chalk-board method, PowerPoint presentations, simulations, and group

discussions are used. Activities are conducted to bridge the gap between the curriculum and the demands of the industry e.g. training sessions for computer hardware and software, certificate course on Proficiency in English. Students are encouraged to apply for summer research fellowships. Interactive sessions with professionals and scientists are regularly conducted. DLLE Unit volunteers are encouraged to take up Industry Orientation Projects (IOP). Career-related lectures are organised for students.

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?

The Women's Development Cell and other departments organise programmes on gender sensitisation. Programmes related to climate change, environmental education, human rights, ICT are also regularly organised. In the last five years, several such programmes were conducted for the students and the staff. A detailed list of such programmes is given in 2.2.4. An environment-friendly approach is maintained on the college campus. The College has a botanical garden and the specimens required by the Department of Botany for the practicals are sourced from the campus itself.

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.

Every attempt is made to sensitize the students to moral and ethical concerns through programmes related to gender, social equality and community service activities to mould the students into good citizens. As mentioned above various skill-development programmes are organised by the departments for holistic development of the students. The detailed lists of such programmes are given in 1.1.7 and 2.2.4.

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

Many Heads of the Departments and senior teachers are members of Board of Studies in their respective subjects at the University. Many teachers are members of the syllabi committees at the undergraduate and postgraduate levels.

These teachers discuss the subject-related issues, current trends in the industry and market with the students, parents and alumni. They also attempt to identify limitations of the existing syllabi and to suggest changes for restructuring the syllabi. Feedback, inputs and suggestions regarding the curriculum are informally given by the students, by alumni who are professionals, and by parents. This feedback is conveyed to the respective Boards of Studies by the teachers of the College who are Chairpersons / Members or participants in syllabus framing workshops.

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

The Head of the Department or the Course Coordinator takes feedback about the course from the participants. This feedback is discussed with the subject experts and the Principal and necessary modifications are made. The suggestions from the feedback are implemented during the future courses.

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?

The curriculum is defined by the University of Mumbai. Many teachers of the College, in their capacity as chairpersons/ members of Board of Studies / syllabi committees make important contributions to the development of the relevant syllabi. The list of teachers involved in syllabi revision, professional and developmental programmes for teachers and students is given in 1.1.6 and 2.4.3. They also attend subject and skill-development workshops, refresher and orientation courses to enhance their knowledge and expertise to teach the curriculum.

Efforts are taken to enable *Learning Beyond the Syllabus*. Remedial sessions, mentoring, training in enhancing study skills make an attempt to reach out to students to improve their academic skills. Research is encouraged at both student and teacher level and a substantial increase in research activity is found. The details of research by teachers are given in 3.4.3 and Research Profile annexure.

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?

The suggestions about curriculum given by teachers, students, alumni and other stakeholders are conveyed to the Board of Studies and syllabi development committees by teacher members.

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?

Keeping in view the large demand from the students and the availability of infrastructural facilities, MCom in Advanced Accountancy was introduced in the year 2013-2014. Within a period of two years, an additional division of MCom has been introduced. An additional division for BCom was also started. The Research Laboratory in Physics is in process of obtaining recognition for PhD in 2015-2016. Proposals for additional divisions for BSc and MSc (IT) have also been sent to the University.

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

A shift to Credit Based Grading System from 2011-2012 resulted in a change in syllabi and examination pattern. Internal class tests, assignments were introduced. Keeping in mind the number of students who had to be assessed on continuous basis, the College extended full support to teachers to conduct and attend workshops on revised syllabi and to use a variety of innovative methods including ICT in teaching and evaluation. Through the introduction of Teachers' Diary, it was also ensured that teachers plan and implement the syllabi meticulously. *Training in Soft Skills* and *Learning Beyond the Syllabus* are major highlights in addition to the teaching of the curriculum.

CRITERION II: TEACHING – LEARNING AND EVALUATION

2.1 Student Enrollment and Profile

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

The College is one of the premier educational institutions in Mumbai, well-known for its excellence in academic, extra-curricular and co-curricular activities. A large number of students seek admission to this College.

The Admission Committee of the College comprising the Principal, Vice-Principals, teachers and Office Registrar monitors the entire admission process.

The College prints and publishes a comprehensive prospectus every year, which gives information about the course options, combinations and newly-introduced programmes along with the eligibility criteria for admissions to various programmes.

After the Higher Secondary Certificate (HSC) examination results, the University of Mumbai notifies the schedule for admissions. This schedule and other information about the admission procedure are displayed on large flex boards and notice boards on the campus. The information is also put up on the College website: **www.ruparel.edu**.

An information leaflet which has details like dates and venues for submission of forms, fees and required documents is provided with every admission form. The cut-off marks as per merit lists in different faculties and for different categories of students of the previous academic year are also displayed to enable the applicants from other colleges to gauge their chances of admission. Prospective students can also gather additional information by visiting the College website or by consulting teachers who are always available and willing to give information and guidance to all who seek it.

As per the rules of the University, students have to upload their information including the HSC marks on the website of the University and submit the printout of the same to the College, for the admissions at the first year level. All admissions are granted on merit and in accordance with the guidelines of the Government and the University applicable at the time. The lists of students eligible for admission on the basis of merit are displayed on notice boards. The **Management quota is surrendered** to the Government / University and all the admissions are granted strictly according to merit.

As the demand is more than the number of seats available, the College does not advertise in either local or national newspapers. Being a prominent College in Mumbai, articles about the facilities

and the features of the College are published by the newspapers before and during the admission process.

The schedule prepared by the College for Second and Third Year of Degree Programme admissions is displayed on notice-boards at different locations on the campus. The information leaflet about admission to higher class is provided to the students along with the marksheets. Members of the Admission Committee and senior teachers are available to answer all the queries of the prospective students and their guardians regarding selection of courses.

For post-graduate programmes in Science and Commerce, seats are allotted by University of Mumbai. The College quota seats are filled by in-house students strictly on merit basis and remaining seats, if any, are available to outside students on the basis of merit. Eligible candidates for MSc by Research and PhD are admitted as per the procedure prescribed by the University of Mumbai.

The College ensures that the entire admission process is systematic and transparent and in accordance with the policies, rules and guidelines set by the University and the Government from time to time. All the policies of reservation, quotas applicable for differently-abled persons sports, cultural activities and other categories are strictly adhered to.

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.

Process of admission and criteria adopted

Admissions for all programmes including self-financed programmes are given strictly on the basis of merit.

Students who select optional courses are counselled about which courses would suit their caliber and interest.

The College does not conduct any entrance test for any course. All the admissions to the first year level are given on the basis of the marks obtained in HSC. Admissions for the postgraduate programmes are given on the basis of marks obtained at the final year of the undergraduate programme.

Candidates who have passed the PhD Entrance Test (PET) conducted by the University are interviewed at the College for admission to the PhD 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.

Course-wise cut-off percentages for admission at the entry level are given below:

2015 - 2016

Category		FYBA	FYBCom	FYBSc	FYBSc (Comp. Sc)	FYBSc (IT) Maths 100 marks	FYBMS Arts	FYBMS Com.	FYBMS Sc.
General	Max	97.07	91.69	97.84	94.46	100	88.00	90.46	93.38
	Min	93.53	79.23	49.23	70.92	69	53.53	82.30	67.07
OBC	Max	61.53	76.92	61.53	65.84	69	74.28	79.69	79.69
	Min	50.00	72.00	47.53	64.15	57	61.74	75.69	75.69
SC	Max	58.92	69.23	54.76	51.23	54	58.02	71.53	71.53
	Min	52.30	63.53	38.46	45.23	43	51.30	68.15	68.15
ST	Max	45.38	44.92	42.32	50.15	55	-	47.38	55.82
	Min	35.07	35.07	36.57	50.15	36	-	32.07	47.63
VJ (A)	Max	48.00	57.69	35.25	60.76	40	-	65.38	71.84
	Min	48.00	57.69	35.00	60.76	40	-	60.61	66.00
NT (B)	Max	62.00	62.61	60.00	63.23	62	-	74.46	67.07
	Min	55.38	60.00	44.30	56.76	50	-	73.23	53.69
NT (C)	Max	73.69	43.69	49.38	50.92	53	-	70.15	60.61
	Min	73.69	43.69	39.84	50.92	53	-	60.61	54.30
NT (D)	Max	68.76	41.38	53.53	53.69	64	-	77.69	67.07
	Min	68.76	41.38	48.30	51.38	48	-	69.84	48.92
SBC	Max	71.84	78.30	61.53	66.15	60	-	87.69	64.76
	Min	71.84	67.84	42.46	63.53	59	-	74.76	56.92
Special Category	Max	76.61	59.69	63.68	53.69	46	-	73.63	75.80
	Min	72.46	53.07	58.00	53.69	46	-	70.44	64.35

2014 - 2015

Category		FYBA	FYBCom	FYBSc	FYBSc (Comp. Sc)	FYBSc (IT) Maths 100 marks	FYBMS Arts	FYBMS Com.	FYBMS Sc.
General	Max	92.92	82.92	70.77	78.00	80.00	68.15	84.00	80.15
	Min	82.15	80.15	52.31	73.08	75.00	49.23	80.46	73.08
OBC	Max	65.23	81.53	69.23	70.92	70.00	54.61	77.53	64.00
	Min	48.76	76.76	44.92	65.23	65.00	54.61	73.53	61.53
SC	Max	65.23	77.07	61.84	60.00	56.00	47.38	74.69	56.61
	Min	44.15	64.61	44.61	49.85	53.00	47.38	68.61	56.61
ST	Max	53.23	45.53	43.32	47.84	41.00	-	46.15	45.53

	Min	53.23	45.53	36.87	47.84	41.00	-	46.15	-
VJ (A)	Max	50.00	55.84	38.25	57.84	41.00	-	57.69	-
	Min	50.00	43.85	35.00	57.84	41.00	-	57.69	-
NT (B)	Max	49.69	74.92	60.92	55.45	70.00	-	74.61	-
	Min	49.69	55.84	55.00	53.73	50.00	-	74.61	-
NT (C)	Max	53.07	68.61	49.69	52.00	58.00	-	51.84	-
	Min	45.23	46.30	40.63	50.38	48.00	-	51.84	-
NT (D)	Max	54.76	66.92	51.53	51.72	69.00	-	57.53	-
	Min	54.76	56.00	45.00	51.00	64.00	-	57.53	-
SBC	Max	63.84	76.30	66.92	67.10	70.00	-	72.30	-
	Min	63.84	76.30	44.92	62.76	70.00	-	72.30	-
Special Category	Max	48.15	57.53	58.63	53.84	-	-	69.23	-
	Min	48.15	57.53	-	-	-	-	69.23	-

2013 - 2014

Category		FYBA	FYBCom	FYBSc	FYBSc (Comp. Sc)	FYBSc (IT) Maths 100 marks	FYBMS Arts	FYBMS Com.	FYBMS Sc.
General	Max	81.33	83.33	93.00	79.16	84.00	64.33	80.00	71.00
	Min	74.16	77.55	41.66	71.66	70.00	45.00	76.66	65.83
OBC	Max	66.83	78.00	52.30	66.16	75.00	54.61	72.16	61.83
	Min	59.33	73.16	38.46	54.16	65.00	54.61	67.83	53.16
SC	Max	61.16	71.16	43.07	58.50	55.00	47.38	73.83	65.50
	Min	51.66	54.16	40.07	58.50	45.00	47.38	66.00	55.50
ST	Max	52.35	53.50	44.86	48.46	52.00	-	59.00	-
	Min	51.02	53.50	37.78	46.64	40.00	-	59.00	-
VJ (A)	Max	-	45.00	40.25	59.34	38.00	-	58.00	-
	Min	-	40.33	36.00	56.47	37.00	-	56.00	-
NT (B)	Max	68.33	74.66	61.23	57.33	58.00	-	70.33	62.33
	Min	68.33	66.00	54.78	54.49	56.00	-	49.33	62.33
NT (C)	Max	81.66	73.66	49.00	54.00	66.00	-	52.38	65.50
	Min	81.66	46.66	42.04	51.83	57.00	-	51.27	65.50
NT (D)	Max	55.59	74.33	52.36	52.67	59.00	-	59.00	-
	Min	53.52	62.33	46.68	51.35	53.00	-	57.62	-
SBC	Max	-	75.50	52.15	55.00	80.00	-	79.00	61.83
	Min	-	67.66	50.15	55.00	65.00	-	67.00	61.83
Special Category	Max	-	64.83	58.63	-	74.00	-	71.16	-
	Min	-	64.83	-	-	-	-	71.16	-

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 entire admission schedule at first year level is decided by the University, including the dates for sale of forms, schedule for the display of each merit list and the payment of fees. The College appoints an Admission Committee and ensures that this process is strictly adhered to.

The students are offered guidance in choosing the courses by the senior teachers from all faculties. Any feedback given by the students, parents and stakeholders is considered for improving the admission process.

In order to review the student profile, data of admitted students is recorded in Vriddhi software. It has been observed that more than 60 percent of the students are women. Many of the students are from economically weaker section of the society. No eligible student is denied admission due to financial inability; financial support is provided wherever possible.

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.

The College is sensitive to the socio-cultural, economic, and gender diversity of the student population, and every effort is made to respect the students' right to higher education and to develop themselves and the nation through higher education. The various quotas specified for the different groups through ordinances of the University are strictly adhered to. To ensure inclusion, students from different categories are admitted as described below:

- a. **SC/ST Students from disadvantaged community:** As per Government and University norms, the College admits students from disadvantaged communities like SC, ST, NT, VJ and DT. The College strictly follows the reservation policy specified by the Government. The College has a *Special Cell Advisory Committee*, which conducts an orientation programme, and helps the students from disadvantaged communities to fill the online form for the Government scholarship and freeship. For aided as well as self-financed programmes, these students are asked to pay a nominal amount of fees ` 450/-. Requirement of marks at entry level for the disadvantaged students is lower than that for the students of general category. All related ordinances of the University are strictly adhered to. For example the minimum eligibility criteria is 45% marks for General Category (in one attempt) at the respective examination and 40% marks for the

Reserved Category (in one attempt) for Bachelor of Management Studies and Information Technology.

- b. **OBC:** Requirement of marks at entry level for the OBC students is lower than that of the students of general category.
- c. **Women:** Since a large percentage of admitted students are women, all efforts are made to ensure a safe and conducive learning environment for them.
- d. **Differently-abled:** A quota of 3% is indicated for differently-abled students (physical/visual/hearing/learning impairment) for admission.
- e. **Economically weaker sections:** No deserving student is denied admission on grounds of inability to pay the fees. Students from economically weaker sections who require assistance are advised to approach the Principal. On verifying each case, the student is allowed to pay the fees on suitable installment basis. In case the student is unable to pay the fees, his/her fees are paid through the Students' Mutual Aid Fund or Students' Welfare Fund. To support the academic needs of such students, a special scheme is implemented through the College Book Bank and some departmental book banks, or the teachers give their own copies of text and reference books to them. The College Management has an empathetic and considerate attitude towards such students. The College has instituted various endowment scholarships for the benefit of needy and deserving students. These scholarships are awarded on the basis of the recommendations by the Departments and the Prize Distribution Committee.
- f. **Minority community:** As per the norms of the Government, there are scholarships for students from Minority Community. They are given admission on merit.
- g. **Any other:** Sportspersons (sports quota) and artists (cultural quota) are admitted as per the quota stipulated for them.

Each of the above categories is listed in the circulars regarding admission by the University. Norms notified by the University from time to time are strictly followed. Where specific norms of admission are not mentioned for a particular category, admissions are given strictly on merit basis.

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.

<i>UG 2015-2016</i>				<i>2014-2015</i>		
<i>Programmes</i>	<i>Number of applications</i>	<i>No of students admitted</i>	<i>Demand Ratio</i>	<i>Number of applications</i>	<i>No of students admitted</i>	<i>Demand Ratio</i>
FYBSc	943	358	2.63	1034	327	3.16
FYBSc(IT)	671	107	6.27	838	99	8.46
FYBA	433	50	8.66	388	50	7.76
FYBCom	963	200	4.81	1115	200	5.575
FYBMS	709	116	6.11	810	120	6.75
TOTAL	3719	831	4.47	4185	796	5.25

<i>UG 2013-2014</i>				<i>2012-2013</i>		
<i>Programmes</i>	<i>Number of applications</i>	<i>No of students admitted</i>	<i>Demand Ratio</i>	<i>Number of applications</i>	<i>No of students admitted</i>	<i>Demand Ratio</i>
FYBSc	743	252	2.94	939	278	3.37
FYBSc(IT)	628	101	6.21	837	117	7.15
FYBA	261	70	3.72	260	197	1.31
FYBCom	735	200	3.67	692	311	2.22
FYBMS	537	120	4.47	665	113	5.88
TOTAL	2904	743	3.90	3393	1016	3.33

Overall a good response is seen for admission to all the programmes. This is a result of academic excellence along with co-curricular and extra-curricular activities. Availability of remedial coaching, consistent efforts by the teachers to reach out to students have resulted in increase in the number of students seeking admission to this College. The College makes sincere efforts to upgrade the laboratories, enhance the quality of education and to maintain conducive environment for the students. This trend is seen more prominently for the FYBSc because special efforts are made to generate interest in pure sciences. The College also has a Boys' Hostel and this is an additional asset, especially for outstation students to seek admission to this College.

<i>PG</i>		<i>2015-2016</i>		<i>2014-2015</i>		
<i>Programmes</i>	<i>Number of applications</i>	<i>No of students admitted</i>	<i>Demand Ratio</i>	<i>Number of applications</i>	<i>No of students admitted</i>	<i>Demand Ratio</i>
MSc-Chemistry	60	30	2:1	56	30	1.86:1
MSc-Botany	*	09	2:1*	*	10	2:1*
MSc-Physics	24	04	6:1	30	04	7.5:1
MSc-Zoology	*	09	2:1*	*	10	2:1*
MSc-Comp. Sc.	21	06	4:1	42	13	3:1
MSc -IT	61	18	3:1	122	20	6:1
MCom	86	60	1.5:1	75	57	1.5:1

<i>PG</i>		<i>2013-2014</i>		<i>2012-2013</i>		
<i>Programmes</i>	<i>Number of applications</i>	<i>No of students admitted</i>	<i>Demand Ratio</i>	<i>Number of applications</i>	<i>No of students admitted</i>	<i>Demand Ratio</i>
MSc-Chemistry	50	30	2:1	54	28	2:1
MSc-Botany	*	08	2:1*	*	10	2:1*
MSc-Physics	26	04	6:1	32	04	8:1
MSc-Zoology	*	10	2:1*	*	10	2:1*
MSc-Comp. Sc.	56	12	5:1	31	20	
MSc -IT	116	19	6:1	61	17	
MCom	69	54	1.5:1	-	-	

* The College has 10 seats for each of the above mentioned courses, of which 7 students are admitted by the University of Mumbai. For the three College seats, on an average, the demand ratio is 2:1.

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?

The College is sensitive to the needs of differently-abled students and attempts to facilitate the learning process for them by offering various facilities. A quota of 3% has been allotted by the University for differently-abled students (physical/visual/hearing/learning impairment) for admission. Classrooms and examination halls for physically-challenged students are allocated on the ground floor to provide easy access. The College makes changes in the time-table and classroom allocation for the ease of access to physically challenged students on a case to case basis. Ramps have been constructed at all the entry points in all the buildings of the College.

During examinations, differently-abled candidates are given extra time as per the University rules.

JAWS software is available for visually challenged students in the UGC Resource Centre to enable them to read study material.

These students are encouraged to meet the College counsellor for addressing study-related and other difficulties. A separate meeting of these students and their parents is held at the beginning of the academic year to make them aware about the facilities.

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.

Yes. Students' knowledge and skills are assessed before the commencement of programmes on the basis of marks scored by them in the (previous) examination, mainly for the third year students. Information is also obtained through personal interviews and interaction.

In-depth orientation is given by teachers to give information about the importance and scope of the subject, the prescribed syllabus, books for study and reference, examination pattern and evaluation process. All students are made aware of the syllabus, list of books and pattern of question paper by distributing copies of the same or through email, or putting them on the notice board. These copies are also kept in the College library as well as the respective departmental libraries.

Many departments conduct bridge courses, additional lectures by experts, and regular parents' meetings to help the students focus on their studies. Some departments also conduct sessions of the students with the College counsellor, mainly to help the students to improve their study skills.

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

The following methods are used to bridge the knowledge gap of the enrolled students:

- Mentorship programme is conducted in some departments to give personal attention to every student. The teacher mentor assists the students for academic progress and provides personal help, if needed. All students of TYBSc Physics are assigned teacher mentors from the department to monitor the academic progress and personality development of the student.

The Department of Physics also organised counselling sessions on *Effective Study Habits* for the students of TYBSc.

- Departments of Physics and Chemistry conduct a Bridge Course for TYBSc in Theoretical and Experimental aspects to help students learn the fundamental concepts of the subject. Remedial sessions are also conducted for weak students.
- Department of Zoology conducts a Bridge Course for second year students who wish to major in Zoology at third year. It helps students in understanding the basic concepts in Zoology and also helps teachers in realising the students' level of understanding so that appropriate steps can be taken for effective teaching and learning.
- Department of Botany conducted Bridge Course for SYBSc students in 2015 – 2016. It helped the students in understanding basic concepts.
- Department of Management Studies conducts a Bridge Course in Accountancy for the FYBMS students, who take admission from Arts and Science Stream.

Since 2013-2014, the Principal and Vice-Principals conduct meetings of students with low grades in the semester end examinations in order to guide and motivate the students. Students facing academic or personal problems are encouraged to meet the Counsellor.

- Department of Psychology conducts meetings of the students who have taken admission to the second and third year classes and gives them detailed information about the books and the syllabi so as to encourage the students to read more about the subject. Other subject related e – books are also given to the students.
- Departments of English and Marathi conduct short courses to help the students improve their proficiency in languages.
- Department of Commerce conducts remedial coaching sessions for FY and SY Commerce students who fail in the examinations. They have introduced Commerce Laboratory, to help the students bridge the gap between the theory and practical aspects of the subject.

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

In keeping with the Mission and Vision statements of the College, the staff and students are sensitised towards gender, inclusion and environment in various ways.

Gender sensitisation programmes and activities:

The teachers and students are sensitised about gender issues through the different programmes organised in the College. Programmes including talks, symposia, training sessions, workshops,

film screenings, street plays and participation in rallies are organised e.g. the renowned social worker Sindhutai Sapkal who works for orphaned children was invited by the Women's Development Cell to deliver a talk on *Striyanche Sabalikaran (Empowerment of Women)* on 10th February 2012. Also, social activists Dr. Ravindra and Dr. Smita Kolhe conducted an interactive session on *Aamache Sahajivan ani Samajsewa* on 28th November 2014.

Apart from the WDC, the departments and co-curricular associations are active in this regard. The teachers are invited as resource persons for gender-related talks and they also present research papers on gender issues.

The list of programmes on gender sensitization is given below:

- Reading of a story *Adam ani Eve* written by Ms. Rohini Kulkarni followed by a discussion, 5th January, 2011, Women's Development Cell and Marathi Vangmay Mandal.
- A talk on the *Domestic Violence Act* by Ms. Ujwala Kadrekar, 4th August 2010, Women's Development Cell.
- Participation by NSS volunteers in the *Sambhavana Rally* about *Preventing Female Foeticide* at Ravindra Natya Mandir, 21st August 2011.
- Screening of the film *Rita* followed by discussion with the director of the movie Ms. Renuka Shahane, 1st December 2011, Chitravedh.
- A talk on *Gender Sensitization* by Mr. Harish Sadani, President, MAVA (Men Against Violence and Abuse) followed by a workshop and exhibition, 8th December 2011, Women's Development Cell.
- Attendance by NSS volunteers at a seminar on *Stop Female Foeticide*, 2013, Yuvak Biradari.
- Screening of a Marathi film *Me Sindhutai Sapkal*, 3rd February 2012, Women's Development Cell.
- A talk on *Mental Health of Youth* by Dr. Kranti Kadam, 25th July 2012, Women's Development Cell.
- A talk on *Womanhood - Biological Changes and Challenges* by gynaecologist Dr. Ashwini Bhalerao Gandhi, 2nd August 2012, Department of Psychology.
- A seminar on *Gender Awareness* with an NGO MAVA (Men Against Violence and Abuse) 7th September 2012, NSS unit.
- Visit by the NSS volunteers to the exhibition on *Stop Violence against Women* at the University of Mumbai, 12th January 2013.

- A talk on *Women's poetry in Marathi during post-1990 era: Changing Perspectives* by the poet Neerajaa, 10th January 2013, Department of Marathi.
- A street play *Eve Teasing* performed by NSS Unit at Kasar Wadi, Dadar, 26th January 2013.
- Attendance by NSS volunteers at a three-day workshop on *Gender Sensitization* organised by Men Against Violence and Abuse, 9th - 11th August 2013.
- A five day workshop on the theme *Say No Accept No*, 9th-13th August 2013, NSS Unit and the NGO MAVA.
- A talk by Dr. Kranti Jejurkar on *Violence faced by Women in India*, 14th August 2014, Womens's Development Cell.
- Poster presentation on *Status of Woman in Indian Society* by students of the DLLE Unit at Udaan Festival held at Thakur College.
- Poster exhibition on *Survey of Women's Status, Career Project, Student Manager and ICT* by students of DLLE Unit, 19th January 2015.
- A screening of a short film *Keep Talking* followed by a talk and question-answer session by Mr. Harish Sadani, 29th November 2014, Department of Psychology.
- A photography competition *Psyclick* on the theme *Gender Bias*, 29th November 2014, Department of Psychology.
- A seminar on *Gender Sensitization* by Ms. Kavita Bhatia, 10th December 2013, NSS Unit.

Teachers as resource persons:

- A talk by Dr. Nandini Diwan on *Violence against Women* at the Silver Jubilee Conference of Marathi Manas-shastra Parishad on *Psychology of Violence*, University of Mumbai, on 22nd December 2010.
- Ms. Neeta Tatke as a resource person for a panel discussion on *Multitasking and Building of Potential*, organised by Sheth G. S. Medical College and K.E.M. Hospital, 8th March 2011 – International Women's Day.
- Review of a questionnaire on *Eve Teasing* prepared for a survey by MAVA, Dr. Nandini Diwan.
- Keynote address by Dr. Nandini Diwan on *Stress Management for Working Women*, at the Department of Atomic Energy, Government of India, 8th March, 2013.

Research papers presented:

- *The Changing Status of Women in a globalising city: A Case of Girangaon (Mumbai)* presented by Ms. Deepali Bhide at the 11th Asian Urbanization Conference organised by Osmania University, 10th - 13th December 2011.
- Presentation of a research paper titled *A house wife's right to the Personal Space* by Ms. Deepali Bhide at the UGC Sponsored Two Day National Conference on *Women's Quest for Equality in India- Promises, Problems and Prospects* at K. G. Joshi and N. G. Bedekar College, 9th - 10th January 2015. ISBN: 978-81-922741-4-0.
- *Mapping Marginalisation of women in Mumbai and its peri-urban areas* by Ms. Deepali Bhide at a National Conference on *Marginalisation and the Politics of Identity: Issues and Challenges*, 10th February 2015, Kirti M. Doongursee College.
- *Spirituality – The need of the hour* presented by Ms. Anupama Mujumdar at a conference titled *Women's Quest for Equality in India: Promises, Problems and Prospects* at K. G. Joshi College of Arts and N. G. Bedekar College of Commerce, 9th – 10th January 2015.

Activities to promote Inclusion:

The College makes active attempts to sensitise its students towards the needs of diverse groups, helps the students to overcome their challenges and to work towards skill development. e.g. A seminar on *Entrepreneurship* was organised in the College in collaboration with Khadi and Village Industries Commission from 5th to 7th February 2015 by the Departments of Marathi, Philosophy and Commerce. In 2016, another seminar on *Entrepreneurship* was conducted by the NSS Unit.

Umed- Aasha Jagnyachi – a talent showcase for senior citizens is organised every year by the NSS unit. It includes performances by senior citizens and physically and mentally challenged persons. The event has received an overwhelming response from the senior citizens in the neighbourhood of the College.

A seven day rural residential camp is organised every year by the NSS unit at Adivasi Madhyamik Vidyalaya, Bamnewadi, Shahapur, Asangaon. It includes gender sensitization free health check-ups and clean up drives for the villagers and educational games for the tribal children.

Another village school which has benefitted from the one day camp conducted by the NSS unit is the Anand Toraskar School at Vangani, a tribal village near Mumbai, The volunteers conducted

a dental check-up for the adivasi children on 25th August 2013. Education through games and cultural projects were undertaken.

Other programmes related to inclusion conducted in the College are listed below:

- A talk on *Overcoming Examination Phobia* by Savitri Bhadra, 22nd July 2010, Department of Economics.
- Screening of a documentary film *Prakashvaata*, 18th September 2010, Department of Geography.
- Science exhibition *Sci-Rup* which is conducted every year with participation of around 1000 students from neighbouring schools is organised by Science Association. It includes events like Mobile Planetarium, Fun and Learn Physics, Sun Spots Observation, Lecture Series, Screening of 3D Scientific Film.
- A talk on *Youth and Entrepreneurship* by Mr. Sajit Nair, 19th January 2011, Department of Management Studies
- Presentation of research studies on the theme of *Old Age and Related Issues* by students of Department of Psychology at a Research Convention, 3rd January 2011.
- Sale of flag stickers made by underprivileged students by NSS volunteers, 13th - 14th August 2012.
- A talk on *Samvaad-Kaushalya* by Mr. Pramod Pawar, 27th July 2012, Department of Marathi.
- Poster presentations by students of SYBA Psychology at the Inter Collegiate Research Convention Avishkar 2012-13 on *Social Conformity in College Students for College Related Activities as a Function of Being Alone or Having Support* and on *Self Esteem and Anxiety in Dyslexic and Non Dyslexic Students*.
- A talk on *Samruddha, Sundar Vyaktimattva* by Ms. Vidya Bal, 23rd November 2012, Department of Psychology and Women's Development Cell.
- Participation by NSS volunteers at the *Youth day* celebrations at the University of Mumbai, 12th January 2013.
- Sale by NSS volunteers of *Utana* made by the visually challenged students for the benefit of the National Federation Blind School, 31st October 2013.
- A two day camp on *Gender Sensitisation for Adolescents* organised by NSS unit at Adivasi Madhyamik Vidyalaya, Shahapur, on 25th-31st December 2013.
- Participation by NSS volunteers in the education project at the City of Los Angeles BMC

School, 28th - 30th November 2013 and 2nd December 2013. Drawing and essay writing competitions were conducted for the students.

- Visit by students of TYBA Psychology to *Kamala Mehta Dadar School for the Blind*, 20th June 2014.
- Screening of the film *Ek Ruka Hua Faisala* followed by discussion, 12th July 2014, Department of Psychology.
- Field visit to Shanti Avedana Sadan, a hospice for terminally ill cancer patients, by students of TYBA, Psychology, 19th July 2014.
- Screening of a short film *Alppikatu 25* followed by a talk and question-answer session by the film-maker Ms. Inka Achte, 29th November 2014, Department of Psychology.
- Celebration of NSS Day by NSS volunteers at Kasarwadi, 24th September 2014. Stationery, old clothes were donated to the needy children. A street play by the volunteers was performed.
- Sale by NSS volunteers of envelopes made by differently abled people for the benefit of Avahan Palak Sangh, Dadar in 2014-2015.
- A talk on *Suicide Risk Assessment and Intervention Strategies* by Dr. Prachi Kene, 10th January 2015, Department of Psychology.
- A. D. Shroff Memorial Elocution Competition is organised every year by the Department of English in association with the Forum for Free Enterprise to build confidence and develop the public speaking skills of students.

Teachers as resource persons:

- Visually challenged students and foreign nationals trained in Mallakhamb by Ms. Neeta Tatke at Shree Samartha Vyayam Mandir.
- Ms. Neeta Tatke as a resource person for the programme *Suttichi Pathshala* on Zee Chovis Tass, 13th May 2010.
- Ms. Neeta Tatke as a resource person for *Developing Effective Study skills and Sports Skills* at Deeplo Sports, 22nd August 2010.
- A workshop on *Effective Study Habits* at SPJIMR conducted by Dr. Nandini Diwan for teachers from BMC schools, 25th November 2010.
- Participation by Ms. Neeta Tatke in a talk on *High Functioning Children with Autism* by Dr. Chandan Vaidya at Sophia College, 20th December 2010.

- A workshop on *Effective Study Habits* at SPJIMR conducted by Dr. Nandini Diwan for teachers from BMC schools, 18th November 2011 and 27th March 2012.
- A workshop on *Emotional problems of teenagers* conducted by Dr. Nandini Diwan at the Pragati School for Hearing Impaired children, 1st February 2012.
- Dr. Nandini Diwan as resource person for a seminar on *Kautumbik vivadache Mulanvar Padsad* by Aadipath Foundation and Research Centre, 7th October 2012.
- A lecture on *Exploring Ideas of Physics Experiments through Simulation* for the BMC school children by Mr. Dilip Maske, 1st February 2013.
- SUMAN – Guidance and Counselling Centre: This centre has been set up to provide personal, academic and career counseling to students and staff members free of cost. The two visiting counsellors provide guidance and counselling about coping with personal, academic, family, and emotional problems, and information about courses and careers. The working hours of the Centre are between 11 a.m. and 3 p.m. two days a week.

Environment awareness and conservation initiatives:

The College has a large campus, where the following eco-friendly initiatives have been adopted:

- Rain-water harvesting - The College was the first in Mumbai to initiate the rain-water harvesting project in 2008. The capacity of the well is about 70,000 litres of water and it is used to maintain the huge 10 acre campus and also in the washrooms.
- Vermi-composting pit has been created for solid waste management.
- Solar panels have been installed in the Boys' Hostel since 2000. In 2014, solar panels have been installed and are used for power supply to experiments in Physics Laboratories.
- Solar-powered lights have been installed for lighting up the Notice Boards in the foyer of Science building and the washrooms in the Faculty Room.
- Solar-powered mobile phone chargers have been installed in the Faculty Room.
- Tubelights are being replaced by LED tubelights to reduce electricity consumption.
- Washrooms in the New Building are installed with sensors, so that lights and fans will be switched off automatically when not required.
- The campus has 65 listed varieties of herbs and shrubs along with a separate Botanical/ Butterfly garden.
- Ten Nakshatra trees have been identified on the campus.
- Bird feeders and sparrow shelters have been installed.

Apart from field visits that are a requirement of the syllabi, students are taken for such visits as a part of *Learning Beyond the Syllabus*.

The Geography Association – GENESIS organised the following events:

- Visit to Indian Meteorological Department, Santacruz, Mumbai on 16th December 2010.
- Screening of a documentary film titled *From Antwerp to Ghana* discussing the issue of illegal transfer of E-Waste from the developed to developing countries in August 2011.
- Screening of a documentary film by the Centre for Science and Environment (CSE), Delhi titled *A Fate Worse than Floods* on 15th September 2011.
- Visit to Maharashtra Nature Park, Mahim on 12th January 2012.
- A talk on the topic *Antarctica on Bhoogol Din* by Dr. Ajay Dhar, Senior Scientist, Indian Institute of Geo-magnetism on 14th January 2012.
- Visit to Vasai fort on 18th August 2012.
- Participation in the *Model making competition* and presentation of a model on *Tsunami- how and why?* by students of SYBA Geography-Akshay Tarfe and Sayli Chavan at K. G. Joshi College of Arts and N. G. Bedekar College of Commerce in November 2012.
- Presentation of a research paper titled *Perspective of Society towards Religion* by students of SYBA Geography- Akshay Tarfe, Nisha Jacob and Vaidehi Bhujbal at the two-day international conference titled *Geography of Change: Contemporary Issues in Development, Environment and Society* at K. G. Joshi College of Arts and N. G. Bedekar College of Commerce on 11th and 12th January 2013.
- A visit to Indian Meteorological Department, Colaba, Mumbai on 5th February 2013.
- Nature trail to Sanjay Gandhi National Park, Borivali on 9th August 2013.
- Presentation on the topic *Waste Management* by Ms. Rashmi Joshi on 15th January 2014.

Department of Zoology organised the following activities:

- A four day excursion to Ganapatipule for students of SYBSc, TYBSc and MSc from 1st to 4th January 2011.
- A visit to Marine Biological Research Institute at Ratnagiri for students of SYBSc, TYBSc and MSc on 2nd January 2011.

- A project on *Mangrove Survey* which included Avian survey using line and Point transect method and Benthic Survey using Quadrant transect with Terracon Ecotech Pvt. Ltd. for Mira Bhayander Municipal Corporation by Akshay Nachane in November 2011.
- A project on *Water and sediment analysis (Hydrology) project* as a part of Environment Impact Assessment for Proposed Sewri-Nhava Seva Trans Harbour Sea link (MTHL) by Amit Patil, Akshay Nachane, Shashank More and Prachi Salunke under the guidance of Dr. Madhavi Indap, 11th December 2011- 11th January 2012.
- Visits to Suruchi beach and the rocky shore at Worli Fort for study and collection of marine specimens for students of TYBSc and MSc respectively.
- Visits to Shilonda at Sanjay Gandhi National Park to study biodiversity on 10th January 2011, 9th September 2012 and 30th August 2015.
- Visit to Sasoan Dock for studying marine fishes and collection of specimen on 21st January 2012.
- Visit to Government Hatchery at Goregaon by students of SYBSc and TYBSc to study Aquaculture practices.
- Visit to Dwarka, Okha, Khijadiya Bird Sanctuary (Jamnagar) from 3rd - 10th December 2011.
- Screening of documentaries on wildlife, animal behaviour pertaining to the syllabus of SY and TYBSc.
- Presentation of a paper on *Study of water quality and biological parameter of Sewri creek* by students of Zoology - Amit Patil, Akshay Nachane, Shashank More and Prachi Salunke at a National symposium on *Emerging trends in Life Science and Material Science* held at V.G. Vaze College in January 2012.
- Visit to Government Carp Breeding Centre at Goregaon, Mumbai by MSc II (Oceanography) students in October, 2012.
- Zoological Survey with Ecobasics as part of EIA at Trombay, Vashi, Nerul lake, Kharghar hills, Ghotake camp, Vashi, Gonkode lake, Koperkhairane, MIDC, Shilphata, Bhandup pumping station, CRODA chemicals and Sewri conducted by Mr. Ganpati Naik in October-November 2012.
- Work as nature educators and nature trail conductors by Mr. Akshay Nachane and Mr. Ganpati Naik (MSc I) at Nature Information Centre, Sanjay Gandhi National Park, Borivali.
- A seven day excursion to Sasan Gir National Park, Veraval and Khijadia Bird Sanctuary, Jamnagar from 7th to 14th January 2013.

- A one day excursion to Arnala fish landing and processing centre on 15th January 2013.
- A one day excursion to Suruchi beach for FYBSc students on 24th January 2013.
- Participation in *Mumbai Bird Race* on 27th January 2013 and *Dombivali bird race* on 20th January 2013 by Mr. Akshay Nachane, Ms. Sweta Agrawal and Mr. Sagar Gavas.
- A visit to Central Institute of Fisheries Education (CIFE), Versova by TYBSc students as a part of their curriculum for Applied Component-Marine Science on 17th August 2013.
- Excursion to Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli from 26th to 29th August 2013.
- An exhibition introducing the school students to various biological systems organised in collaboration with Science Association on 7th - 8th February 2014.
- Performance of a street play *Conservation of Environment* during College Annual day on 23rd December 2014 and at Parle Mahotsav on 26th December 2014 by TYBSc (Zoology) students.
- An excursion to Bhagwan Mahavir WLS, Goa from 28th January - 2nd February 2015.
- Visit to Virar for studying details of animal husbandry, vermiculture, piggery, poultry and nature trail on 23rd February 2015.
- Highest Point trail at Sanjay Gandhi National Park on 28th February 2016.
- Excursion to Amboli Ghat- Malvan from 11th to 17th January 2016. It included nature trail at Sawantvadi and Amboli, visit to rocky and sandy shore at Malvan, ornithology session at Dhamapur Bird Sanctuary and visit to Malvan sea shore for study of choncology and marine organisms.
- Visit to Ferry wharf (Bhaucha Dhakka) on 4th February 2016 to study various aspects of fisheries and types of fishes in marine life.
- Participation of students in the pre-conference workshop on 3rd July 2015 at Maharashtra Nature Park to spread awareness about wet-lands organised by M.D. College.

Department of Botany organised the following activities:

- One day excursion to BPT Gardens, Colaba, in January 2011.
- Excursion to Ootacamund, January 2011 for collection of various Bryophytes and Gymnosperm.
- Botanical excursions to Jijamata Udyan, Byculla, in July 2011, July 2012, July 2013 and July 2014.

- An excursion to Karnala Bird Sanctuary in October, 2011.
- A 14 day excursion to Dehradun, Mussorie, and Nainital in November 2011.
- One day excursion to BPT Gardens, Colaba, in January 2012.
- Excursion to Mahabaleshwar in January, 2012.
- Excursion to Kaas plateau in September 2012.
- One day excursion to Karnala Bird Sanctuary on 2nd October 2012.
- One day excursion to Bombay Port Trust (BPT) Gardens, Colaba, in January, 2013.
- Excursion to Mahabaleshwar in January 2013.
- One day excursion to Karnala Bird Sanctuary and Go Green Nursery, Karnala, on 11th August 2013.
- Excursion to Ranthambore, Bharatpur and Agra from 17th - 23rd November 2013.
- Excursion to Bombay Port Trust (BPT) Garden, Colaba, in the month of January, 2014.
- Excursion to Neral and Matheran, on 5th February 2014.
- Excursion to Yeoor Hills, in the month of August 2014.
- Screening of a short documentary about the *Gujarat Excursion* in January 2015
- Excursion to Bombay Port Trust (BPT) Gardens, Colaba, in January 2015.
- A six day excursion to Jamnagar, Gujarat, from 15th - 20th January 2015.
- Demonstration of Fruit and Vegetable Carving, Japanese flower arrangements, free-style flower arrangements.
- Labelling of the wide variety of plants available in the department by students and teachers.
- Excursion to Jamnagar, Dwarka and Gir Forest, Gujarat from 15th-20th January 2015.

NSS Unit organised the following activities:

- Aiding Mumbai police for crowd management at Shivaji Park and Dadar Chowpatty during Ganesh immersion. The volunteers also made the people aware about the proper disposal of flowers and other pooja materials. This activity is carried out every year.
- *Beach Clean-up project* at the Dadar Chowpatty after the Ganesh immersion on 19th September 2013.
- A seminar on *Save Earth* for NSS Yuvak Biradari conducted by Vasundhara Bachav volunteers in August 2013
- Seminar on *Water harvesting* by Mr. Amit Jathar.
- A *Pulse Polio drive* on 20th November 2011.

- *Tree Plantation* is carried out in the College campus on Independence Day and Republic Day every year.
- *Campus clean-up drive* and levelling of area marked for Open Air Canteen, January 2013.
- *Tree Plantation* at Karav, Vangani on occasion of Independence Day Celebration on 15th August 2013.
- Participation in *Hiroshima and Nagasaki Peace Rally* organised by the University of Mumbai on 6th August every year.
- College clean-up drive to clean the College campus and spread the awareness of Swatcha Bharat Abhiyan on 8th, 9th and 15th November 2014.
- *Paper Bag Project* aimed at reducing the use of plastic bags and using eco-friendly paper bags.

Department of Management Studies

- Celebration of *Environment Day* with presentation of models by FYBMS students on environmental issues, 20th February 2016.
- A visit to Saguna Baug - a farm with agro forestry, dairy, fishing and aquaculture, agro tourism, horticulture, traditional and non-traditional farming, on 27th January 2016.
- An exhibition on Vermiculture, extinction of animal species, electronic waste from 15th to 19th January 2014.

Health awareness programmes and initiatives:

Since more than fifty percent of students in the College are women, the College addresses health related issues of the students and the staff regularly. The College also makes efforts to spread health awareness outside the College. The following programmes related to health were organised:

- A visit to Haematological Laboratory at KEM Hospital for students of MSc II (Physiology) on 8th and 9th December 2010.
- A talk on *Stress management in metropolitan life* by Dr. Nandini Diwan at the National Rajbhasha Sammelan, Central Bank of India on 1st October 2011.
- A talk on *Drugs from the sea - Have we realised the potential?* by Dr. Madhavi Indap at the National Symposium on Emerging Trends in Life and Material Sciences: Mission Mankind at V.G. Vaze College on 25th January 2012.

- A talk on *Healthy Heart and Happy Life* by Dr. Shekhar Ambardekar on 28th July 2012, Department of Psychology.
- A talk on *Womanhood - Biological Changes and Challenges* by gynaecologist Dr. Ashwini Bhalerao Gandhi on 2nd August 2012, Department of Psychology.
- A medical health check-up camp and education camp for the school students at Vangani on 25th August 2012 organised by the NSS Unit.
- Participation in the *Pulse Polio Project* in the Dadar region by NSS volunteers from 4th to 8th November 2012.
- A programme on *Anaemia Awareness* by Dr. Rekha Bhatkhande and Dr. Monica Goel on 9th July 2013, Women's Development Cell.
- A lecture on *Anaemia Awareness* by doctors from Shushrusha Hospital, 23rd July 2013, Department of Management Studies.
- *Malaria Awareness Project* by NSS Unit in collaboration with BMC office of G North ward from 25th to 31st October 2013 and 12th December 2014.
- Celebration of *World AIDS Day* by NSS Unit, 1st December 2012. A street play on AIDS was also performed. A huge red ribbon formation was made by the volunteers.
- A one day visit to Advanced Centre for Treatment, Research and Education in Cancer (ACTREC) by TYBSc Zoology students on 6th December, 2012 and 28th November 2013.
- A talk on *Neurocognitive Assessment* by Dr. Surabhi Patwardhan on 19th December, 2012, Department of Psychology.
- A seminar on *Sexual Orientation* by Ms. Kavita Bhatia on 29th January 2013, NSS Unit.
- A *Blood Donation Camp* is organised every year by NSS unit in association with St George Hospital.
- Participation of 30 NSS volunteers in the *Dengue-Malaria Prevention* awareness drive along with the G North ward BMC officials from 25th to 31st October 2013.
- Volunteer work by NSS Unit during the free diabetes check-up booths set up by the BMC in the G-North ward on *World Diabetes Day* on 13th November 2013.
- Participation by the NSS unit in the *Pulse Polio Project* of the BMC on 24th November 2013 and 16th to 27th November 2014.
- Nine group guidance sessions on *Nutrition and Fitness* by Ms. Sharmila Phansikar on 10th, 12th, 16th and 17th December 2013, Suman.

- *Go Mad* seminar on coping with stress by the NSS Unit in collaboration with Art of on 14th December 2013.
- Visit to pathology laboratory at Bombay Hospital by students of MSc II (Physiology) in January 2012.
- A talk on *Breast Cancer and Cervical Cancer* by Dr. Shalaka Veling on 23rd January 2014, Women's Development Cell.
- Visit to the pathology, biochemistry and microbiology laboratories at Hinduja hospital by MSc Part II Animal Physiology on 11th February 2015.
- Health check up camps for the teaching and non teaching staff organised by the Staff Academy of the College:
- Dental check-up – 15th March 2014
- Bone density check-up - 22nd December 2014
- Eye check-up – 3rd December 2015
- A talk on *Healthy Mouth – A Gateway To Healthy Body* by Dr. Shailendra Pathak on 15th March 2014, Staff Academy.
- A talk on *Diet and Exercise* for students by Ms. Sharmila Phansikar on 20th June 2014, IQAC.
- Seminar on *Antidrug* by NSS Unit along with Anti-narcotics Cell of Mumbai Police, Worli on 30th June 2014.
- A talk on *Yoga and Stress Management* by an expert from Ambika Yog Kutir on 19th July 2014, CASSO.
- A talk on *Euthanasia- an Indian Perspective* by Dr. Namita Nimbalkar on 30th July 2014, Tattvadarshan.
- A seminar on *Organ Donation* by NSS unit in collaboration with the Lions Club on 10th September 2014.
- Participation by the NSS Unit in *Vyasanmukti Rally* organised by the University of Mumbai on 1st October 2014.
- A talk on *Positive Thinking* by Dr. Shubha Thatte on 11th February 2015, Tattvadarshan.
- A talk by Dr. Rajen Daftary on *Ill effects of Self Medication*, 7th February 2015, Bioluminescence.
- A lecture titled *Win with Wellness* by Dr. Nihar Mehta, Cardiologist, 16th July 2015, Bioluminescence.

Thus, the activities and initiatives of the College reflect the concerns and create awareness about issues such as gender, inclusion, environment and health.

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

Students' education and learning needs are identified by their grades obtained in examinations and also through their classroom performance. The examination department gives the details of the results to all the departments and the results are analysed to identify the advanced students.

The bright and hard-working students are given the opportunity to undertake small research projects and the Departments allow them to use the laboratory resources free of cost, to conduct their work. These students are assigned additional reading and reference material. Under the 60:40 pattern of CBSGS, they were encouraged to select challenging topics for the project/assignment work. Advanced learners are encouraged to participate in seminars and conferences and present their work. Such students are deputed for intercollegiate competitions like quiz and presentations.

These students are motivated to enroll for various co-curricular activities and attend special lectures, career guidance and personality development programmes arranged by various associations/forums in the College and other institutions. Departments also invite experts in various fields to interact with students. All these activities help in addressing the needs of advanced learners.

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 dropout (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?

After the introduction of Credit Based Semester Grading System, Parents' meetings for the first year classes of all the faculties are organised every year at the beginning of the term. The Principal interacts with the parents to inform them about the continuous evaluation process. For the last two years, students who have failed in examinations were addressed on the day of their results as to how to cope with failure and increasing demands of the studies.

The information about the academic performance is collected from the result sheet of previous examinations and tests. Mostly the students at the risk of drop-out are poor academic performers.

The concerned teacher member pays special attention to such students. Most departments conduct regular parents' meetings to inform them about the performance of the students. Some departments have mentorship programme. The College has a counselling centre – Suman, which provides academic and personal counselling free of cost for the students. Effective study skills sessions are regularly conducted through the counselling centre. If the student is found to have family or personal problems, they are advised to visit the counselling centre. For students who do not submit assignments on time or are very irregular, a meeting is held with the parents. Separate meetings of challenged students with their parents are arranged to understand the difficulties faced by them. The counsellor speaks to these groups, guiding them about the methods that can be adopted to enhance their academic performance. As a result of these efforts, the College has a negligible drop out rate.

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 blueprint, etc.)

Keeping in the mind the quest for academic excellence, every detail of the teaching-learning and evaluation schedule is planned and organised through the following practices –

Academic Calendar

As per the notification from University of Mumbai, the dates for the first and second semesters of the academic year as well as for summer and winter breaks are communicated to students, staff and other stakeholders through notice boards and the College website. An academic calendar, which is a comprehensive plan of all the academic, co-curricular and extra-curricular activities, is prepared prior to the commencement of the academic year.

With reference to the requisite number of teaching days for lectures, practical sessions and tutorials, the academic calendar is planned. The internal and theory examination dates, assignment/project submission dates, dates of additional examinations are displayed on the notice boards well in advance. The academic calendar takes into consideration the calendar for co-curricular and extra-curricular activities, cultural programmes, sports competitions declared by the University. Annual Days, festivals organised by various departments, and other events are also planned. The College administration coordinates with the Students' Council / Committee

while planning the co-curricular, extra-curricular and cultural activities which are scheduled in such a way that the academic time-table is implemented efficiently.

Teaching plan

The Head of each Department distributes the courses / units / topics of the syllabus among the teachers of the department considering their fields of specialization and interest. The time-table is framed and communicated to the teachers. Every teacher prepares the semester-wise monthly teaching plan at the beginning of the semester and submits it to the Head of the Department. The teaching plan takes into account the number of teaching days available in the term and division of syllabus of each subject into topics, sub-topics and units. It is implemented by the teacher, monitored periodically by the Head of the Department and verified by the Principal at the end of the term / semester. From 2014-2015 onwards, teachers have been given Teacher's Diary to note their daily teaching record as well as other academic activities.

For each class of science faculty, there is a teacher-in-charge for practicals who plans the practical sessions, communicates it to the students through departmental notice board and ensures its meticulous implementation.

For subjects which have projects / seminars as a part of the prescribed curriculum, the concerned teacher-in-charge delivers an orientation lecture about the project work / seminar topic, guidelines for the methodology to be followed, books and other sources of reference materials. The schedule for project report submission/seminar presentation and scheme of its evaluation is also communicated to the students through class room announcements and notice board. A special meeting is held for all those students who appear for additional examination to clarify the doubts regarding syllabi, examination procedure and other relevant information.

Evaluation

As per the guidelines given by the University, the College has formed an Examination Committee which prepares the schedule of examination, declaration of results and all related processes. Since 2011-2012, Credit Based Semester Grading System is being followed in which internal and theory assessment examinations are conducted each semester. Additional examinations are held for the students who could not appear for the regular examinations on valid grounds, as per the discretion of Examination Committee. The students are *Allowed To Keep Terms (ATKT)* as per the guidelines of University of Mumbai.

The sanctity and confidentiality of examinations is maintained in every aspect. The course teachers set question papers in multiple sets for every examination and the question papers are selected randomly. The question paper setter also submits a solution key for each question paper they have set, which ensures transparency and unbiased evaluation.

The strong-room of the Examination Department is well equipped and is kept under CCTV surveillance. The Centralised Assessment Programme and moderation of answerbooks helps in unbiased evaluation of the students. Deadlines are set for the Centralised Assessment Programme to ensure that the assessment is completed well in time. The Unfair Means Inquiry Committee formed as per the guidelines of the University holds a meeting after every semester examination. All the students who have used unfair means during the examination attend the same with their parents. The entire procedure is as per the norms of the University. The students appearing in front of Unfair Means Committee are suggested to approach the College counsellor for study related difficulties.

The results are processed strictly as per the norms of University of Mumbai. Results are declared within 45 days after conduct of the examinations and are made available to the teachers for analysis and necessary action.

The College maintains transparency in evaluation of the students by offering the facilities of revaluation and photocopy of the answersheets to the students on application.

For the Third Year classes, preliminary examinations are conducted at department level. Apart from these, teachers in most departments conduct class tests, set home assignments and provide question banks and small projects to students for their continuous learning and evaluation.

For post-graduate programmes, internal evaluation is based on tests, seminars and projects as per the syllabus.

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

Every academic year, the IQAC interacts with all departments of the College to plan their yearly activities and monitors its implementation periodically. Strength, Weakness, Opportunities and Challenges (SWOC) analysis conducted for the all departments aids in analysing and improving teaching learning. IQAC organises workshops and seminars for enhancing the quality of teaching-learning and administration. Training sessions on use of MOODLE Learning Management System and OMR were conducted for teachers.

The student feedback about the teachers is implemented through the Feedback Committee. This feedback is collected using the OMR sheets and RF Response Cards, analysed and then communicated to the teachers on one to one basis by the Principal. For last two years, feedback about the functioning of the Principal has also been collected from the teaching and non-teaching staff.

Students and teachers are encouraged to take up research projects. The Avishkar Committee promotes research by guiding the students and teachers to present projects at the Avishkar Research Convention at the University and State levels. The IQAC also makes recommendations regarding upgradation of teaching-learning resources.

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?

Learners as the focus, quest for lifelong learning, fostering research, and multi-dimensional personality development of learners are the core values which are enshrined in the Vision and Mission Statements of the College. Every effort is taken to ensure that students receive quality education that ensures *Learning Beyond the Syllabus*. The teachers are aware of the diversity in the aptitudes, intelligence, learning styles, and interests of the students and so, do not believe in the ‘One size fits all’ or ‘One method suits all’ approach. The teachers act as facilitators and mentors, recognising the individuality of the student, stimulating their curiosity, encouraging independent inquiry and providing enriching opportunities for study.

- Conventional lecture method is made more interesting and interactive by the introduction of various tools and the use of ICT techniques. Lectures are not limited to classrooms but are made more appealing by utilizing the facilities on campus such as Seminar Room, *Rupangan*, *Saawli* and the lawn. Teachers adopt innovative teaching-learning techniques according to the suitability / requirement of the subject being taught.
- Teachers use posters, diagrams, graphs, charts, maps, 3-D models, preserved and live specimens in addition to the chalk-talk method as required by the programme. Interactive methods such as presentations, seminars, model-making, mock-interviews, debates, word games, quizzes, worksheets, case studies, discussions of topics in the syllabus and newspaper clippings related to it, reviews of books, role plays, skits and screening of films and

documentaries followed by an expert comments and / or group discussion are used to enhance the learning experience.

- The Department of Marathi invites writers and poets, especially of those books which are part of the syllabi and leading thinkers. Departments of Psychology and Geography also screen films based on their subjects. Department of Management Studies use model making and role plays for teaching Business Environment.
- Talks, seminars, workshops are organised. The students are encouraged to participate in similar programmes organised by other Colleges / Institutions. The notice boards regularly display subject-related information, programmes conducted by the College and other organizations. Guidance is provided to the students who participate in various inter-collegiate competitions.
- The Departments of Botany, Chemistry, Physics, Zoology and Psychology have departmental libraries to give students immediate access to the prescribed and reference books.
- The students are given information about reference lists, new books, e-books regularly. Use of e-books, e-journals and web-based referencing is encouraged.
- Field visits, long and short excursions as well as visits to industries and research institutes are organised by the departments to supplement classroom learning. This promotes awareness about the use of various technologies, the work systems and the demands of skill development. The students are introduced to the significance, applications and recent advancements of the concepts taught in the classroom. This bridges the gap between industry and academia.
- Students are encouraged to engage in small research projects either individually or as a team in the field of their interest under the aegis of Avishkar Research Convention. This helps the students to get acquainted with current trends in the subject. They get an opportunity to interact with their peers and with eminent personalities in the respective fields.
- The College library, enriched and updated with recent books and research journals, enables the students to explore the dimensions of their subject. The spacious reading hall facility with good ventilation and adequate light provides excellent ambience to the students for self study.
- The College and the co-curricular associations organise various activities for the students to orient them towards the various aspects of the subject. The students are encouraged to organise such events which boosts their confidence and inculcates the spirit of teamwork. Many departments conduct departmental festivals like *Arhotsav* for Economics, *Carpe Diem* for

English Literature and *Dot Tech* for IT and CS. The students thereby groom their leadership qualities and event management skills.

- The counselling centre *Suman* conducts group guidance sessions for students on how to enhance their study skills.
- Some departments have a mentorship scheme by which they guide and resolve students' difficulties and monitor their progress.

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 College strongly believes that, for developing a progressive society with skilled human resources, innovative approaches to promote lifelong learning, critical thinking and scientific temper are indispensable. This aim is persistently kept in mind while planning and implementing teaching-learning methodology. Apart from the activities mentioned earlier, the following steps are undertaken by the College to transform the students into life-long learners and innovators:

- The Science Association of the College has been working for the popularisation of science among students and the community. The annual science festival *VIBGYOR* includes a range of activities like mobile planetarium, exhibition of experiments in Physics, lecture series, 3D film screening which are open to the students of nearby schools.
- The monthly programme *Chai and Why* conducted in the College premises in association with TIFR allows students and local citizens to interact with eminent scientists and learn about different scientific concepts.
- Seminars were organised in association with the Khadi and Village Industries Commission to orient students towards entrepreneurship and self-employment. Students of the DLLE Unit conducted an entrepreneurship project in which they prepared and sold candles and decorative earthen lamps. The students of Management Studies run a business for a month, in which they have to make, package and sell a product.
- The College magazine *Imprints* provides a platform to the students and teachers to exhibit their creativity. The students contribute their writings and also form part of the editorial team.
- Group discussions and debates organised in the classroom by the subject teachers as well as lectures by experts organised by the departments and the various associations nurture critical thinking and collaborative learning.

- Students are encouraged to contribute to the departmental notice boards with interesting articles/ newspaper clippings/ anecdotes which ignite creativity and scientific temper in their minds.
- Students are motivated to undertake small research initiatives beyond their curriculum so as to nurture their scientific aptitude and social responsibility.
- Some departments conduct short-term certificate courses, bridge courses and remedial coaching to satisfy the curiosity of the learners.
- Students are encouraged to make working models, posters and participate in collegiate / inter-collegiate exhibitions.
- The programmes, departmental festivals, Annual Day and other functions are organised by the students under the guidance of the teachers. This helps the students to develop soft skills, leadership qualities and time management skills.
- The students' participation in NCC, NSS units and DLLE projects sensitises them towards social issues and helps them to develop their personality.

2.3.5 What are the technologies and facilities available and used by the faculty for effective teaching? Eg: 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.

The College has effectively implemented the use of ICT in teaching-learning and library. All departments are provided with computers with internet connectivity to enable teachers to use ICT to complement their lectures. Powerpoint presentations, animations, documentaries and short films are regularly utilised by the teachers for effective teaching. Students have access to the UGC Resource Center in the College for reference work and research. The Library of the College is creating a digital repository of textbooks, reference books, and research journals, open education resources in the form of notes, question paper, question banks and so on. INFLIBNET is accessible to the teachers and researchers for reference work. Social media platforms like Yahoo Groups, Whatsapp are adopted by some departments for quick communication between the teachers and students. A repository of lectures on specific topics is being created in the ICT laboratory (Room no. 402).

Under NME – ICT programme, College has procured 10 lines of internet with speed of 512 kbps

of each for which MTNL had provided DSL-AMP with fibre optic connectivity. A smart classroom equipped with smart board has been set up. An e-room for content development has been established under DST-FIST grant.

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

In addition to the traditional methods for gaining/ imparting knowledge, the College urges its students and faculty to utilise modern and advanced techniques for honing their skills towards blended learning. Different strategies followed by the College include:

- Organisation of and participation in International and National seminars/ workshops/ conferences.
- Inspiring the teachers and students to participate and present their research work in international and national seminars/ workshops/ conferences.
- Enabling teachers to participate in Faculty Development Programmes organised by the Academic Staff College of the University.
- Inviting eminent personalities from academia and industry to deliver talks in the areas of their expertise.
- Organising visits to Industries / Research Institutions / National Parks.
- Excursions and Field visits.
- Organising short-term courses for the students.
- Subscription to research journals / periodicals / magazines by the library.
- Access to INFLIBNET
- Computer facility with internet accessibility and printer is available in each Department. WiFi is provided in certain areas of the campus.
- Participation of students in collegiate and intercollegiate events.
- Participation of students in small research projects

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

Having strong faith in the holistic progress of students, the College advocates several practices to groom them as ethical and responsible citizens. The wide range of activities adopted by the

College ensures that the students develop leadership skills and awareness of social responsibilities, in addition to their academics.

The counselling centre *Suman* set up in the College offers professional guidance by practising psychologists to the students. The counselor visits the centre twice a week. Students can avail of individual personal counselling sessions as well as group counselling.

The number of students benefitted through individual sessions since 2010 is as follows:

<i>Year</i>	<i>Students</i>	<i>Year</i>	<i>Students</i>	<i>Year</i>	<i>Students</i>
2010-2011	114	2011-2012	156	2012-2013	153
2013-2014	120	2014-2015	131	2015-2016	62

In addition to these, an average of 300 students are benefitted through group counselling every year.

- The Departments of Physics, Chemistry and Zoology have mentorship schemes through which large number of students are benefitted on their academic and personal area. The teachers encourage the students to discuss their academic as well as personal challenges. They ensure that the students are provided required support and guidance.
- Short-term training courses, bridge courses and value-added courses are periodically organised by various departments to supplement their academics. A detailed list of such courses is given in 1.1.7.
- Visits to industries / research institutes / field visits / long and short excursions help in reinforcing the basic concepts of the course taught in the classroom and the application of the subject. Through these activities, students also learn to adjust with and care for their peers.
- The Departments also organise lectures by experts where the students freely interact with the resource persons and learn about the career avenues in their courses.
- The Feedback Committee of the College collects feedback of the teachers from the students in an anonymous and unbiased manner and the scope for improvement of the teachers is communicated to them. A detailed questionnaire covering areas like the teacher's knowledge of the subject, preparation for lectures, method of teaching / presentation style, speed of

teaching, ability to answer students' questions, information and examples given, understanding of the subject by the student, interpersonal communication of the students with the teacher, regularity and punctuality of the teacher, discipline and class control, and overall effectiveness of the teacher is used for feedback. This facilitates the enhancement of the teaching quality, thereby making a positive impact on the academic progress of the students.

- The extension activities conducted by DLLE, NCC and NSS units play a pivotal role in cultivating national pride and social responsibility among the students. These activities help in boosting the students' confidence and inculcating strict discipline and team spirit among the students.
- The Placement Cell makes job opportunities available to the students. Campus interviews are often held by leading companies from Business and IT sectors. Students are guided on how to improve their vocabulary, resume writing and soft skills.
- Deserving students from economically weak background are offered financial assistance to pursue their education.

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?

With a focus on *Learning Beyond the Syllabus*, the teachers use a blend of innovative and conventional teaching approaches.

- Tools like posters, diagrams, graphs, charts, maps, 3-D models, preserved and live specimens are used to enhance the conventional lectures. Interactive methods like mock interviews, viva, debates, word games, quizzes, worksheets enhance the participation and interest of the students.
- ICT tools like multimedia presentations are increasingly being used. Simulations and animations are employed for explaining scientific concepts. PhET and Wolfram Alpha are used by the Department of Physics.
- Leading experts are invited to address the students and to make them aware of the latest developments in different fields. e.g. Mr. Sachin Dedhia, cyber-crime investigator and ethical

hacker; Ms. Neela Satyanarayan, Chief Election Officer, Maharashtra State; Mr Bharat Tripathi, Commissioner of Income Tax.

- Seminars and workshops organised for the students facilitate sharing of ideas and skills. e.g. seminars on *Personality Development* by Ms. Charanya Krishnan, on *Challenges in Human Resource Management* by Mr. Arvind Ambekar, on *Opportunities for Higher Education in Israel* by representatives of five universities from Israel.
- Reviews of books, and screening of films and documentaries followed by expert comments and role plays and skits are used to enhance the learning experience. The Departments of Marathi, English and Political Science mainly use these methods along with presentations, group discussions and debates to promote critical thinking.
- Students are encouraged to make class presentations, thereby promoting independent thinking and developing communication skills.
- A smart board has been installed to engage the learners and to enrich the learning experience. OMR sheets, RF Response Cards and MOODLE Learning Management System are used for testing.
- Visits to important institutions are organized to make students aware of the career avenues and research opportunities in their subject. Visits to Tarapur Atomic Power Station, Bombay High Court, Ellora Caves helped the students of Physics, Political Science and History to learn beyond their syllabi.
- Industrial visits are regularly organized to companies like Coca Cola, Sundaram Multipap and Parle G in order to give students exposure to the world of industry.

In view of the rapid changes in the field of higher education due to globalization and technological advancements, teachers are encouraged to constantly upgrade their knowledge and skills. On behalf of the UGC Academic Staff College, University of Mumbai, the College conducted a three-week Refresher Course on *Use of ICT in Science Education*; three teachers of the College participated in this course. Training sessions on the use of MOODLE-LMS for evaluation were conducted for the teachers by the IQAC. Besides the mandatory Orientation and Refresher Courses, teachers are motivated to attend training programmes in their subject area e.g. Ms. Priti Kharbe from the Department of IT completed an advanced course on Excel at the Computer Society of India; three teachers attended international training programmes on education at Aharon Ofri Centre, Israel.

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

The College Library functions as an excellent resource for teachers and students. The library has the following features:

- More than 1.25 lakh books which include text books, reference books, research journals, magazines, newsletters, technical publications, encyclopedia, pharmacopeia etc.
- A collection of rare first editions of books a unique feature of the library.
- Easy access to the users as the Library remains open from 9 am to 5 pm on all working days and till 8 pm during the examination period. It extends its facility not only to the current students and teachers but also to the alumni, retired teachers and scholars for learning and reference work.
- The Library is well catalogued and computerised. The students use OPAC to browse the collection using key words like author's name, name of the book, subject etc. and select books of their choice.
- The information about the library is available on college website through library web page accessible on any computer in the campus. The process of creating a digital repository is in progress.
- The book bank scheme of the College helps needy and deserving students to borrow text books prescribed in the syllabus.
- The new arrivals in the library are displayed and communicated to the students, teachers and others through exhibits and notices.
- The content page of research journals is regularly sent by email to all teachers.
- A digital repository of question papers is made available to the students.
- Reprographic facility is available for students and teachers.
- Book Exhibitions are regularly organised by the Library.
- In addition to the College Library, the Departments of Physics, Chemistry, Botany, Zoology and Psychology have departmental libraries with text books and reference books to cater for specific immediate reference.

Department	No. of Books	Department	No. of Books
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<i>Botany</i>	50	<i>Psychology</i>	404
<i>Chemistry</i>	332	<i>Zoology</i>	125
<i>Physics</i>	1220		

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 over come these.

The academic calendar is planned for the given time frame in advance to ensure its efficient / timely implementation. Every teacher makes a teaching plan in which the allotted syllabus is distributed within the timeframe by considering the periods of tests, assignments, semester end examinations and other events. In case of unforeseen events, the teacher ensures that the curriculum is completed without compromising the quality of work. Extra lectures, lecture synopsis, seminars are adopted to achieve the target. The College ensures that the academic time is not lost or compromised.

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

The College gives utmost priority to imparting quality education. To monitor the teaching efficiency, the feedback of all teachers is obtained from the students. The teachers maintain a Teacher's Diary wherein they keep a systematic record of their academic activities. The Diary is verified by the Head of the Department the Principal. Teachers submit a declaration at the end of every semester declaring the completion of syllabus within schedule. A self-appraisal form is duly filled by every teacher towards the end of the academic year. It helps the teacher to self-analyze and gives him / her scope to improve. An academic audit was conducted in 2014-2015. The feedback from the external experts was used to improve the teaching-learning process.

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 process of faculty recruitment is systematic and rigorous, strictly adhering to University of Mumbai and Government guidelines. A common roster for teaching faculty is maintained by the Management; it is verified by the General Administrative Department of Government of Maharashtra and the Special Cell of the University of Mumbai. Before the publication of

advertisement inviting applications, its contents are approved by the Special Cell with reference to the roster. A No Objection certificate (NOC) is obtained from the Joint Director of Higher Education, Mumbai Region. The advertisement is then published in national newspapers such as *Indian Express* and regional newspapers such as *Lokasatta* to ensure wide publicity. It is also communicated to the following Government bodies: the District Tribal Development Officer; the Director and Project Officer, Integrated Tribal Welfare Project; the District Social Welfare Officer; the Director of Social Welfare, Samaj Kalyan Sanchalanalay; the Deputy Divisional Employment Officer and the Sub-Regional Divisional Employment Officer, The University Employment Information and Guidance Centre. As per the statutes of the University of Mumbai, a selection committee is constituted of nominees of Vice Chancellor and Management, subject experts appointed by University and the College, Joint Director and the Principal. On the basis of the decisions of the committee, the faculty is selected on the basis of merit.

As per the requirement, based on workload, retirement of teachers and for un-aided courses, teachers are appointed on Ad hoc or Clock Hour Basis till the procedure for regular appointments is completed.

The teachers enhance their skills by attending Orientation and Refresher courses, and the workshops conducted by the Board of Studies in the respective subject when the syllabi get revised. Training sessions are organised by the IQAC to acquaint the teachers with current trends in education. The teachers are motivated to take up research activities.

Faculty strength in 2015-2016

Highest qualification	Professor		Associate Professor		Assistant Professor		Total
	Male	Female	Male	Female	Male	Female	
Permanent Teachers							
Ph.D.	-	-	04	05	03	10	22
M.Phil.	-	-	-	05	02	-	07
PG			01	03	09	08	22
Temporary teachers							
PG	-	-	-	-	19	26	45
Part-time teachers							
PG	-	-	-	-	-	01	01
Total							97

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 offers the self-financing programmes - Bachelor of Management Studies (BMS) and Bachelors and Masters in Information Technology (IT). The availability of expert teachers for these programmes is monitored by the Programme Coordinator along with the senior teachers. A selection committee comprising the Principal, the Vice Principals, the Programme Coordinator and the Registrar interviews the prospective candidates. Visiting faculty is invited from various fields, to impart hands-on skills and domain knowledge to the students. The teachers attend workshops, short term courses in the relevant area. The teacher quality is reflected in the results of these programmes which are always higher than the University results.

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.

Teachers attend orientation and refresher courses, staff training programmes, other development and softskills courses. The details of teachers who have attended these courses in last five years are as follows:

Participation in Orientation Programmes:

2010-11	Mr. Hanumant Lokhande (English) Mr. Mandar Bhawe (Information Technology and Computer Science)
2011-12	Mr. Arvind Ganveer (History)
2012-13	Dr. Kshitij Chavan (Chemistry) Mr. Sandeep Kadam (Philosophy)

Participation in Refresher Courses:

2010-11	Dr. R. K. Jadhav (Botany) Dr. Abhaya Chitre (Mathematics)
2011-12	Dr. Jyoti Patil (Chemistry)

	Mr. Ravindra Netawate (Commerce) Mr. Avinash Kolhe (Political Science) Mr. Nitin Wasnik (Zoology)
2012-13	Dr. Kshitij Chavan (Chemistry)
2013-14	Mr. Sandeep Kadam (Philosophy) Mr. Ganesh Madkaikar (Physics) Mr. Hanumant Lokhande (English) Ms. Anagha Mandavkar (Marathi)
2014-15	Dr. Krishnakant Waghmode (Chemistry) Dr. Rekha Gore (History) Ms. Preeti Kharbe (Information Technology and Computer Science) Mr. Ganesh Madkaikar (Physics)
2015-16	Ms. Gayatri Gadgil (English) Ms. Deepali Bhide (Geography) Mr. Arvind Ganveer (History) Dr. Rekha Gore (History) Mr. Vithal Shinde (Mathematics) Dr. Anupama Muzumdar (Philosophy) Mr. Nitin Wasnik (Zoology)

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

Programmes for the Teaching Staff

- A three-week Refresher Course on *Use of ICT in Science Teaching* was conducted by the College on behalf of the UGC Academic Staff College, University of Mumbai from 29th September – 18th October 2014. Three teachers from the College participated in the course.
- A two day workshop on *Biostatistics in Teaching and Research* sponsored by Lady Tata Memorial Trust was organised for teachers in Life Sciences by the Department of Zoology on 4th and 5th September 2015.
- IQAC organised a seminar titled *Goals and Action Plans* on 21st June 2014 during which each department presented SWOC analysis and one best practice. This was evaluated by external experts, who gave valuable feedback about the performance of each department on.

- IQAC organised a session on training the teachers to enhance student effectiveness, in which a talk on *Healthy Living: Fitness and Diet Basics for Students* was conducted on 20th June 2014.
- IQAC organised a seminar on *Question Paper Formats for Assessment with special focus on MOODLE* in which information was given on various formats of the question papers, with hands on practical training on Moodle software on 28th June 2013
- IQAC organised an interactive talk on *Empowering the teacher to bring dynamic and significant learning in the classroom* by Mr. Rajesh Dalal, Senior Member, Krishnamoorthy Foundation on 9th February 2012.
- A two day workshop on *Bioinformatics* sponsored by Lady Tata Memorial Trust was organised for teachers in Life Sciences by Department of Zoology on 19th and 20th February 2011.
- A workshop on *How and Why to use the Library – a Practical Analysis* organised by the Library on 9th February 2016.

Development programmes for non-teaching staff:

- Workshop on *Use of Excel* conducted by IQAC for the office staff on 25th April 2016.
- Workshop on Use of Vriddhi software for Administration for the office staff on 22nd February 2014.
- Sports Day including management games and team-building exercises is organised for the support staff to improve interaction, communication and morale every year since 2013.
- Non teaching staff were encouraged to attend the two day Certificate courses organised by Department of Physics -
 - *Maintainence of Laboratory Equipment* in August 2014
 - *Know your Household Electrical Appliances* in April 2015
- Workshop on *Stress Management* by Ms. Amruta Padhye in June 2013
- Workshop on *Effective Communication and Soft Skills* by Ms. Gayatri Gadgil in June 2013.
- Training in soft skills at the beginning of the academic year 2011-2012.
- A guidance session on *Writing Effective Business Letters* for the office staff by Ms. Gayatri Gadgil on 6th January 2011.
- A talk titled *Anandi Man Sukhi Jeewan* by Ms. Pratima Havaldar on 31st March 2011.

- A five day workshop in SOUL software for Library staff members from 25th February to 1st March 2013.
- A one-day workshop on *Library: An Introduction* for Library staff members conducted by the Librarian on 1st January 2016.

c) Percentage of faculty

Invited as resource persons in workshop / seminars / conferences organised by external professional agencies:

Year	2010-11	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
% of faculty	21%	22%	14%	20%	18%	22%

Participated in external workshops, seminars, conferences recognised by national, international, professional bodies:

Year	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
% of faculty	27%	30%	10%	11%	22%	18%

Number of papers presented in workshops, seminars, and conferences conducted or recognised by professional agencies:

Type of publication	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016
Papers presented in National Conference	01	05	15	15	16	20
Papers presented in International Conference	06	04	03	04	03	13
Abstracts published in International Conference proceedings	-	-	-	-	03	05
Abstract published in National Conference proceedings	-	-	-	-	02	03

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

- Teachers are granted special leave; adjustments are made in their Time table so as to enable them to pursue research related activity. Teachers can avail the facility of UGC FDP if required.

- Teachers are encouraged to publish and present research papers at seminars, conferences and workshops.
- The College has a Research Committee which coordinates the work related to research. The College also has a Central Research Laboratory, developed from the grants received from UGC, DST - FIST and College, to encourage research in Science subjects. Dr. Madhavi Indap, Professor Emeritus, guides the teachers for research.
- On the recommendation of the Research Committee, the College has initiated the *R-Quest* scheme to offers research grants to the teachers, who cannot avail it under the UGC or recognized bodies, as they are appointed on ad hoc basis.
- Infrastructural facilities for research are made available as per the requirements.
- The information about the various research grants offered by institutions like UGC, ICSSR is conveyed to teachers through the staff notice board, staff meetings and meetings with the Heads of Departments.
- The College Library subscribes to research journals.

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.

The healthy and conducive academic environment in the College, the encouragement given for extra- and co-curricular activities and the access to required facilities has culminated in prestigious awards and recognitions being conferred on the teachers. The following teachers have received awards and recognitions:

- Dr. Madhavi Indap was conferred the fellowship of ***Professor Emeritus*** by UGC in 2011.
- Dr. Nandini Pai, former Head, Department of Chemistry was honored with the ***Best Teacher Award*** by the Government of Maharashtra for the year 2009-2010 in a special function held on 4th September 2010.
- Dr. Tushar Desai, Principal was honored with the ***Best Teacher Award*** by the Government of Maharashtra for the year 2008-2009 in a special function held on 4th September 2010.
- Dr. Vikas Golatkar, Head, Department of Botany was awarded ***Best Teacher Award*** by University of Mumbai by the Honorable Vice Chancellor on 5th September 2012.

- Dr. Nandini Diwan was awarded the *Smt. Savitribai Phule Adarsha Shikshika Puraskar* of the University of Mumbai for 2010-2011.
- Dr. Neeta Tatke was awarded *Hirkani Puraskar* by *DD Sahyadri* for the contribution in the field of Mallakhamb on 26th February 2015.
- Dr. Neeta Tatke received a special recognition letter and trophy from Yoga Forum, Munich, Germany, for her consistent contribution in propagation of Indian Traditional Physical Culture, Mallakhamb in Munich in September 2013.

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?

The College has a Feedback Committee which collects and analyses the feedback from the students.

Feedback about all the teachers is taken at least once in the year. ICT-enabled tools like RF Response Cards, MOODLE and OMR sheets are used to collect feedback. The feedback is analysed and discussed by the Principal with the teachers on one to one basis. This helps the teachers to enhance teaching skills and take measures to improve on the basis of feedback received from the students.

Every teacher maintains a teacher's diary, which consists of detailed teaching plan, the lectures conducted per day, content taught and other academic work. These diaries are monitored by the HOD / Senior teacher. They are submitted to Principal at the end of each semester so that they can be evaluated to meet the learning objectives of the syllabi of the subject.

Apart from the formal feedback process, any parent or student can meet the Principal and the Vice- Principals without prior appointment for their suggestions.

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 entire examination procedure, evaluation system, question paper pattern, ATKT rules are decided by the University and are meticulously followed by the College.

Students: The stakeholders of the institution are made aware of the evaluation processes through

the Notice Board outside Examination Department. Important information about examination system is also printed in the prospectus of the College, which is given to all the students with the admission form. It is also available on the website of the College.

The Credit Based Semester and Grading System was introduced by the University of Mumbai from the academic year 2011 – 2012. Parents of the students of FYBA / BSc / BCom are made aware of the new system of assessment through meetings addressed by the Principal at the beginning of every academic year.

Students of the first year classes are given information about the examination system by the Principal and Vice Principals at the beginning of the year. Subsequently, every teacher informs the students about the question paper pattern, and the evaluation system in the classes they teach and this information is repeated at regular intervals. The students are encouraged to visit the websites of the College / University of Mumbai regularly.

A special meeting of all the students who are appearing under ATKT (Allowed To Keep Terms) is called to make them aware of the examination rules. Regular notices about all these are displayed on the Notice Boards and for all the additional queries and doubts the students approach the examination department or the respective subject teachers.

Sample questions and model answers are discussed with the students to prepare them for the examinations. The question paper sets of the previous examinations are made available to students for reference in the Library.

Teachers: Whenever the pattern of examination is modified, information about it is regularly given to teachers in teachers' meetings and meetings of the Heads of the Departments. The teachers also attend workshops on revised syllabi, discuss about the evaluation pattern and process. Many teachers have formed groups on social networking sites, such as WhatsApp and Google groups; the University circulars and evaluation related process are circulated to members in the group. A large number of teachers are examiners, paper-setters and moderators for University examinations. A few teachers are Chairpersons for their subjects at the University examinations. This also makes teachers aware of the evaluation process, modifications and updates.

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

The Credit Based Semester and Grading System was introduced by the University of Mumbai from the academic year 2011 – 2012. The entire examination, moderation and revaluation is carried out as per University norms.

The College has introduced certain reforms for the smooth conduct of all examinations.

For conducting Class Tests for internal assessment, the College uses ICT tools. Some departments conduct the examination using modern methods like OMR, RF Response Cards and MOODLE. High-end scanner is used for the processing of OMR sheets. These techniques help the students to prepare for various competitive examinations. The students responded enthusiastically to the use of these methods for examination.

Such use of advanced technology not only reduced the time spent in assessment work by teachers, but has also helped in saving paper and thereby following eco-friendly approach. The error-free results are immediately available after the conduct of examination.

The University of Mumbai had prescribed objective questions in the pattern of the Internal Test. To facilitate teachers in the creation of objective, multiple choice tests, a workshop on *Question paper formats for assessment with special focus on MOODLE software for class test in semesters* was conducted by the IQAC on 28th and 29th June 2013. The teachers created a question bank, which is used to generate different question paper for every student.

All the teachers are given an MS Word-based question paper template, which ensures standardization in format and printing of papers.

All the teachers are required to submit a detailed solution key of the question papers they set. This has improved transparency of evaluation. For the semester-end examinations, the teachers are given MS Word-based question paper template, which ensures standardization in format and printing of papers.

The question papers for the examination are submitted through the Head of the Department or a senior teacher to ensure that the the prescribed pattern given by University of Mumbai has been followed.

Some teachers also make use of Excel based in-house developed software for automatic generation of question papers with randomized questions.

The Examination Committee of the College ensures the smooth conduct of the entire examination process from declaration of timetable to the declaration of the results. The Unfair Means Inquiry Committee has been constituted as per the norms of 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?

In 2012 – 2013, the College introduced the practice of printing and photocopying the question papers in-house. This has led to greater confidentiality in the examination process. The Department of Information Technology uses Excel-based in-house developed software for automatic generation of question papers with randomized questions. A reprographic machine and a high-end photocopier were purchased to facilitate in-house printing of question papers. Meetings are held by the Principal to inform the teachers about evaluation reforms made by the University. All the circulars related to examination are available in the Examination Department. Important circulars are sent to every department and are made available in the Faculty common room. Teachers are given detailed guidelines and instructions for assessment in the form of a printed handout.

All the answerbooks are assessed under the Centralised Assessment Programme. The record of answerbooks issued for assessment and total answerbooks assessed per day is meticulously maintained.

A detailed solution key is submitted by the paper setter to the examination department, before the assessment of the answerbooks begins. This solution key is given to the moderators and the external examiners who re-evaluate answerbooks. This ensures uniformity in the assessment pattern.

The data entry of the marks is checked by the examination committee, so that it is error-free. The entire result generation and mark sheet printing process is computerised and all the software has been developed in-house, with the help of the Department of Information Technology. In-house developed Excel-based software has been provided to departments for result analysis. To maintain transparency and confidentiality, the entire work of the Examination Department is carried out under CCTV surveillance.

The entire schedule of the examinations, from time-table to declaration of the results is displayed on the notice boards well in advance. For the last three years, the College has procured the SMS gateway facility to inform parents about the declaration of the results.

Under the Credit Based Semester and Grading System (CBSGS), initially the students were required to submit assignments for all the subjects. The students were encouraged to use variety of innovative and creative methods like application-based studies, surveys, models, reports of the visits, presentations and short films.

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

The College makes an attempt to enhance student potential by focusing on overall personality development through academic, extra-curricular and co-curricular activities. The College has 22 associations, which encourage students to participate in activities, talks, field visits and other programmes organised by them. This helps in developing leadership qualities, soft skills and helps them to learn beyond the classroom. When the Credit Based Semester and Grading System (CBSGS), involved assignments for all the subjects, students were asked to make presentations in the classroom and use innovative and creative methods. The students were exposed to modern methods of giving examinations using MOODLE, OMR and RF Response Cards.

Meetings were held to make the parents aware of the Credit Based Semester and Grading System introduced by the University of Mumbai. Orientation sessions were held for students of FYBA, BCom and BSc to inform them about the importance of obtaining good grades in each semester in order to get a good CGPA. Some departments have a mentoring system, give remedial coaching to students and offer guidance to repeaters. Meeting of the students who have been unsuccessful in one or more subjects in the semester examination is conducted on the result declaration day to give them guidance about the preparation for additional examinations.

2.5.5 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 behavioral aspects, independent learning, communication skills etc.)

As per the guidelines of the University of Mumbai and the Boards of Studies in various subjects, the marks for internal assessment under 60:40 pattern were divided among class test, assignments, class participation and good conduct including attendance. The students and the parents were informed in detail about these procedures. Assignment topics were discussed, submission dates were declared on notice boards. Records about students' attendance,

presentation skills were meticulously kept. The assignment component was withdrawn by the University when the 75:25 pattern was introduced.

The teacher informs the students about the portion for the class test well in advance and also explains the details of the evaluation process. The importance of doing well in internal assessment is emphasised in the parents meeting and during the subject lectures.

Attendance in the class, records of participation in the programmes organised by the departments and College are referred to while awarding the marks for class participation and good conduct. When the students were required to submit assignments, it was ensured that wide variety of topics get chosen in the class, reference work was encouraged and help was extended from teachers to do presentations, for field visits and any other creative method. The entire record of internal assessment marks has been meticulously maintained.

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

The motto of the College is ***For the spread of light***. In accordance with its mission statement, the College aims to create and disseminate an atmosphere of learning and research of a high academic, professional, ethical and ecological standard in which students can gain knowledge and skills encompassing a wide range of disciplines - humanities, physical, biological and social sciences, law, technology, management and commerce - which will result in multidimensional personality development of the students and will enable them to fulfill the needs of industry and the community at large.

The College ensures the attainment of overall development of the student through participation in research, attending workshops, seminars and conferences, participating in programmes on *Learning Beyond the Syllabus*, organizing and assisting in departmental and association programmes. The entire College Day events – the Scholars’ Day and the Gymkhana Day, the other activities of the College are managed by the Students’ Council appointed as per the norms of the University. Different student leaders are appointed to manage participation in intercollegiate activities and festivals.

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

The official mechanism involves moderation of the assessed answer books as per the norms of the University. If the students are not satisfied with the evaluation, they can apply for photocopy, verification or re-evaluation of the answerbook, as per the University norms. The students can approach the Student Grievance Cell established by the College or communicate with the Principal through the Complaint / Suggestion Box. As per the Open Door Policy of the College, the students and parents can directly approach the Principal to verify their marks or to express grievances, which are promptly attended to.

For grievances at the University level, students are assisted in applying to the University for re-evaluation.

After the internal examination, the teachers discuss the performance of the students in the class, although the individual marks are not revealed to the students as per the University norms. Constructive feedback is given to students. If the performance of the student is consistently poor or if major deviations are noticed in the answerbook, the parents of the student are contacted and remedial methods are suggested.

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?

Yes. The College has clearly stated the learning outcomes in its Vision and Mission. The Principal emphasises the learning outcomes in meetings with staff, students and parents.

The Vision and Mission are printed in the prospectus, displayed on the strategic locations of the College and posted on the website. They are clearly stated during the orientation sessions conducted by the Principal, Vice Principals, Coordinators and the Heads of the Departments. The learning outcomes specified by the University in the syllabi are informed to the students at the beginning of the year.

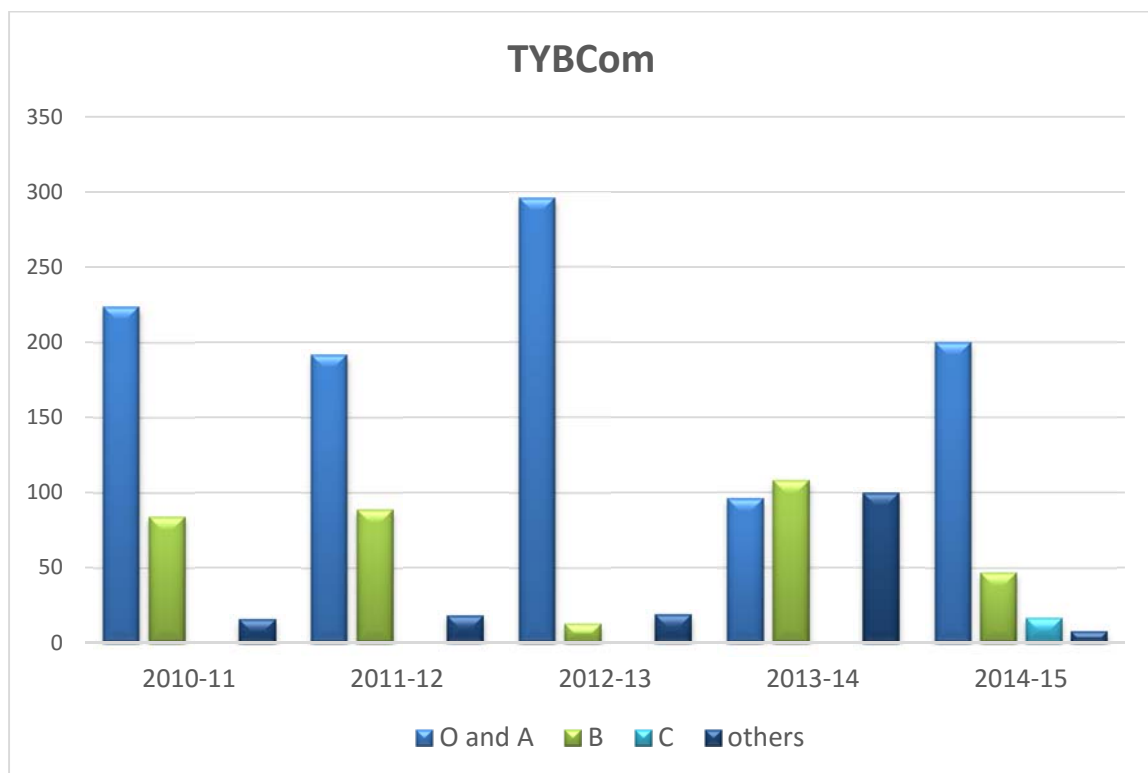
The list of endowment prizes is published in the prospectus. The meritorious students are felicitated on Annual Scholars' Day of the College. In order to promote academic excellence, Modern Education Society felicitates the student standing first subjectwise, with minimum 75% as aggregate score. The photographs of these students are published in the College magazine

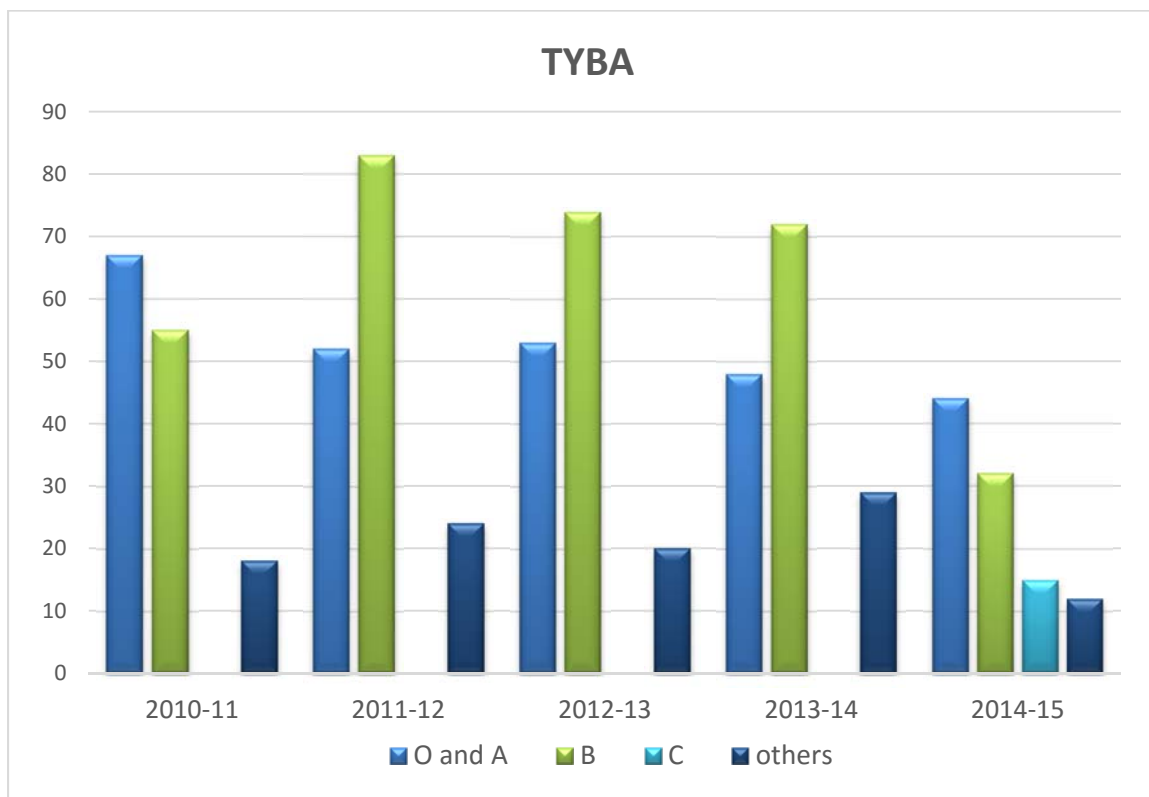
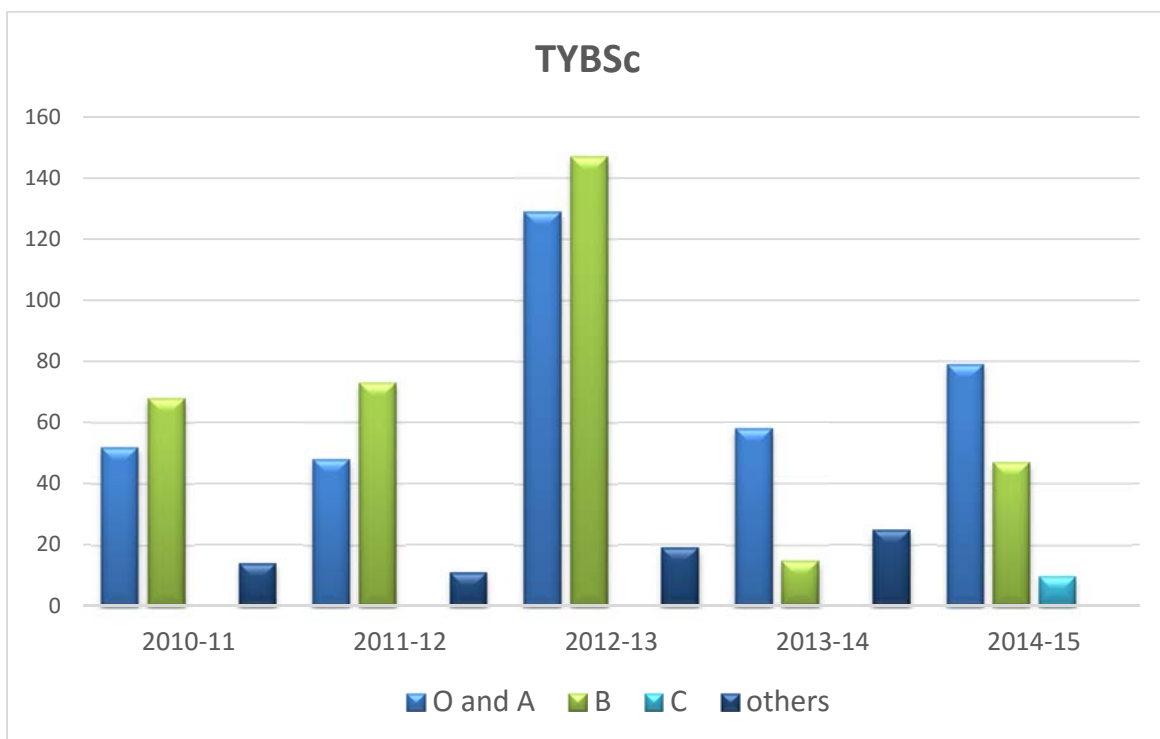
Imprints. A special interaction of meritorious students with the Chief Guest who has been invited to award the prizes on the Annual Scholars' Day is organised.

2.6.2 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 students results / achievements (Programme / coursewise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.

The progress and performance of students is monitored during lectures and practical sessions by taking oral feedback. In certain cases, parents are informed and personal counselling is recommended.

The students' result analysis is given below:





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

The teachers prepare a teaching plan at the beginning of the year. This plan, with the details of the syllabi is communicated to the students. The students are also made aware of the examination schedule and the tentative programme of various extra curricular and co-curricular activities, departmental programmes, inter-collegiate festivals and events and any other activity which is aimed at overall personality development. This helps the students to plan ahead and achieve an appropriate balance in academic and other activities.

The teachers use variety of methods in the classroom including presentations from the students, quizzes, class tests, discussion of model answers, giving sample questions and model answers to help them to assess the students and also to reach out to them keeping in mind their abilities. High performing students are encouraged to take research projects, participate in conferences and seminars.

Separate meetings of low performing students are conducted to make them aware of the effective study skills and evaluation processes. Thus the entire system is oriented to cater to the needs of high, average and low performing students.

2.6.4 What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?

The College conducts a variety of talks, workshops, seminars on issues related to social and economic aspects, career opportunities and to enhance overall development of the students.

The activities of the departments, interactive sessions, seminars and field visits organised help the students to learn beyond the syllabus and to bridge the gap between the academia and work demands through real life experiences. Development of soft skills is emphasised as per the demands of the industry.

The activities of Science Association, DLLE, NSS and NCC units cater to the needs of senior citizens, students from the Municipality Schools and other local citizens. The students perform street plays to create awareness on social issues, projects of social relevance are undertaken; through science exhibitions the College reaches out to several school students helping them to learn basic principles of science.

Keeping in view the demands and pressures of the hectic lifestyle today, special sessions on diet and exercise, and financial planning are conducted for students.

Students are also encouraged and guided to pursue research. Since 2014-2015, through the *R-Quest scheme*, the College funds minor research projects by the students. The 22 co-curricular associations attempt to create interest in different subjects. The activities of the associations are managed by the students, promoting team spirit and event management skills. The students participate in collegiate festivals and events which are aimed at overall personality development. The Annual College Days provide a showcase for the students' talents.

2.6.5 How does the institution collect and analyze data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?

An Excel-based software has been developed at College level to analyse the results in detail. *Effective Study Skills* sessions are conducted for students and remedial teaching is offered where necessary. Though the medium of instruction of the College is English, students who have a major language handicap are allowed to write answers in Marathi wherever applicable.

Students are given feedback about their performance and their parents are also informed if necessary. Student performance is also monitored through class tests, assignments, presentations and other co-curricular activities. Performance is also monitored through discussions on current events, book reviews, and *Learning Beyond the Syllabus* activities. Students are encouraged to participate in College and Inter-Collegiate events and competitions.

The entire result and its analysis are readily available through the use of an Excel-based software developed in-house. The entire result of the student for all the semesters can be accessed by entering the roll number. This helps in giving feedback to the students and the parents and also keeps the Management informed about the performance of the students.

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

The students' attendance, class participation and performance in examination is monitored. A list of defaulters is prepared by every teacher and various methods are used to encourage students to attend lectures regularly. Parents' meetings are conducted to convey the progress of the students. Various classroom methods of teaching, including quizzes, discussions and presentations also help to monitor the learning outcome. Analysis of results is another method used to study the overall trend of results and accordingly extend help through class tests, sample questions and

model answers and remedial coaching. Students are encouraged to take up research projects and participate in a variety of activities to develop soft skills.

2.6.7 Does the institution and individual teachers use assessment/ evaluation outcomes 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

Yes, the institution and individual teachers use assessment / evaluation outcomes as an indicator for evaluating student performance. With the help of the feedback given by the students and their performance in class tests, advanced learners and low performing students are identified. Advanced learners are given extra reference material while low performing students are given remedial assistance. Students are given sample questions and the answers written to them are assessed and feedback is given to them for improvement. Question papers of the College and University examinations are kept in the Departments and are also available in the Library. Remedial coaching, revision lectures, preliminary examinations are conducted.

CRITERION III: RESEARCH, CONSULTANCY AND 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 College has post-graduate and doctoral Research Centres, recognized by the University of Mumbai, for Botany, Chemistry, Physics and Zoology.

For promoting interdisciplinary research in Physics, Chemistry, Botany and Zoology, the College has established a **Central Research Laboratory – Basic and Applied Research** with funding from UGC and DST-FIST.

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

Yes, the College has formulated a Research Committee to boost the research activities. The Principal is the Chairperson of the Committee. The members of the Committee are teachers from different faculties with wide experience and active contribution in research; one of the members, Dr. Madhavi Indap is Professor Emeritus.

Two major recommendations made by the Research Committee were:

- To augment the research activities, the committee recommended that systematic efforts be made to give information to students and staff about scope and avenues for research. Accordingly, talks were conducted to create awareness about the research process. More students were encouraged to participate in research-related activities. There is a substantial increase in research conducted, presented and published by teachers (for details please refer 3.4.3 and Research Profile annexure). Students actively participated and won prizes in Avishkar Research Convention conducted by University of Mumbai with guidance and motivation from the Avishkar Committee of the College.
- The Committee recommended that research grant be provided to the non-permanent teachers and students, as they are not eligible for funding from the University /UGC. The *R-Quest* scheme has been implemented from the academic year 2015-16, wherein the College provides funding for minor research projects. The Research Committee scrutinized the applications received under the *R-Quest* Scheme and made recommendations for financial

assistance. A total grant of ₹ 50,500/- was disbursed for 14 minor research projects.

The detailed list of Minor Research Projects sanctioned under R-Quest scheme for the year 2015-16 is given below:

No	Name of the Researcher	Teacher/ Student	Title of the project	Amount Sanctioned
1	Sagar Tipnis	Teacher (Commerce)	A study of ICT used in Teaching	₹ 2,500/-
2	Rohini Shinde	Teacher (Commerce)	Study of Consumer behavior towards the E-Shopping	₹ 2,500/-
3	Priti Kharbe	Teacher (Information Technology)	Evolutionary Algorithms and Digital Circuit Design	₹ 2,500/-
4	Ujali Shirodkar	Student (TYBSc Zoology)	Role of Visual and Chemical Cues in Feeding Behavior of a Lepidopteron Species.	₹ 4,000/-
5	Bhagyashree Ghag	Student (TYBSc Zoology)	Antibacterial and Immuno-modulatory Potential of a Marine Vertebrate and its Associated Bacteria.	₹ 4,000/-
6	Shraddha Shirsat	Student (TYBSc Zoology)	Bioactive Potential of Marine Invertebrate and Associated Bacteria.	₹ 4,000/-
7	Sailee Sakhalkar	Student (TYBSc Botany)	Effects of Phytocompounds obtained from Laboratory Culture of Phytoplankton Collected along Mumbai Coast.	₹ 4,000/-
8	Omkar Girkar	Student (FYBSc Mathematics)	Primes in Mathematics	₹ 1000/-
9	Rohan Salgaonkar Urvi Nansi	MSc (Physics)	Synthesis of GaSb Thin Film as a Semiconductor Material and its Characterization	₹ 11,000/-
10	Priya Trivedi Akshata Shirodkar	MSc (Physics)	Synthesis of InSbBi thin film as a Thermoelectric Material.	₹ 7,000/-
11	Harikrishanan Nair Atharva Rawte Ravi Gupta Amit Chavan	Students (SYBSc Physics)	Study on Solar Prominence	₹ 2500/-
12	Vishal Upadhyay Vaishali R Swarada M	Students (FYBA Psychology)	To Study the Correlation Between Social Media Usage and Level of Anxiety Among the College Students.	₹ 1500/-
13	Shreeya Rajadhyaksha Siddhi Khapre Ruhi Kadam	SYBA	A Survey of Promotion of health Behaviors in Corporate Offices	₹ 1500/-
14	Ruta Patwardhan	Teacher (Psychology)	Exploring Relationship between Multidimensional Locus of Control and Self-esteem.	₹ 2500/-
	Total			₹ 50,500/-

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

Recognising that research is a crucial component of quality education, the College provides a supportive and conducive environment for research.

The measures used to promote research and facilitate smooth progress and implementation of research schemes/projects are:

Teachers and students are regularly informed about the various schemes of UGC and other funding agencies. This information is displayed on the notice board and also e-mailed to teachers.

- **Autonomy to the principal investigator:**
Yes, autonomy is given to the principal investigator for selection of research topic and implementation of the project.
- **Timely availability or release of resources:** The College supports the teachers in the process of obtaining funds from various agencies in a timely manner and following up in case of delays in the release of funds.
- **Adequate infrastructure and human resources:** The College has adequate infrastructure in the form of laboratories, equipments and instruments, computers and information technology. Laboratory assistants and peons are deployed for support where required.
- **Time-off, reduced teaching load, special leave etc. to teachers:** Adjustments in the timetable are considered as per the needs of teachers pursuing research. Duty leave is granted for participation in seminars, conferences and workshops. Leave under UGC FDP (for Doctoral research) is granted.
- **Support in terms of technology and information needs:** The UGC Resource Center, the faculty room, the library and all the departments are equipped with computers, printers and internet. The Library has subscribed to INFLIBNET.
- **Facilitate timely auditing and submission of utilization certificate to the funding authorities:** The College Office facilitates the timely auditing and submission of utilization certificate to the funding authorities by providing the required documents and information.

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

In accordance with the Mission and Vision of the College, every effort is made to inculcate scientific temper and to enhance the research culture.

- The College has been the venue for organizing Avishkar Research Convention, for University of Mumbai for two years in a row.
- In addition to this, the College funds the research expenses incurred by the students for representing the College in Avishkar Research Convention organised by the University of Mumbai.
- Under *R-Quest* Scheme of the College, funding and infrastructure support is given to students for minor research projects.
- The College also hosts *Chai and Why*, a monthly lecture series in collaboration with TIFR to popularize scientific concepts among the students.
- Numerous talks, activities like poster competition, exhibition on scientific topics are arranged through Science Association.
- Experts from various fields are invited to conduct guidance sessions for students.

Some examples of these guidance sessions are:

- *Use of Statistical Package for Social Sciences (SPSS)* on 4th March 2011 by Department of Statistics.
- Session by Dr. Madhavi Indap, Professor Emeritus on the *Process of Preparing a Research Proposal for Funding*.
- Guidance session for teachers by Dr. Ramesh Sane on *How to Motivate Students to participate in the Avishkar Research Convention*.
- Guidance sessions for students by Dr. Vaishali Rajurkar on *Preparing and Presenting Research Projects for Avishkar Research Convention*.
- Workshop on *Research Methodology* organised by Department of Zoology.
- Workshop on *Research Methodology* organised by Department of Commerce.
- The Department of Management Studies organised a talk by Dr. Sithalaxmi (Vice-Principal, SIES College) on *Pursuing research in Commerce*.

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.

The College offers post-graduate and doctoral research programmes in Botany, Chemistry, Physics and Zoology. For promoting interdisciplinary research in Physics, Chemistry, Botany and Zoology, the College has established a **Central Research Laboratory – Basic and Applied Research** with funding from UGC and DST-FIST.

The list of recognised guides and their students is given below:

2010 - 2011

Subject	Name of the guide	Number of students
Botany	Dr. Sudha Sawant	02 (PhD)
Chemistry	Dr. Nandini Pai (retd.)	06 (PhD)
	Dr. Damodar Shanbhag	01 (Msc)
	Dr. Rajan Rele	01 (MSc)
Zoology	Prof. Madhavi Indap	01 (PhD)

2011 - 2012

Subject	Name of the guide	Number of students
Botany	Dr. Vikas Golatkar	01 (PhD)
	Dr. Sudha Sawant	01 (PhD)
	Dr. Mangala Heble	04 (PhD)
Chemistry	Dr. Nandini Pai (retd.)	02 (PhD)
	Dr. Rajan Rele	02 (MSc)
Zoology	Prof. Madhavi Indap	01 (PhD)

2012 - 2013

Subject	Name of the guide	Number of students
Botany	Dr. Vikas Golatkar	01 (PhD)
	Dr. Sudha Sawant	01 (PhD)
	Dr. Mangala Heble	04 (PhD)
Chemistry	Dr. Nandini Pai (retd.)	03 (PhD)
	Dr. Rajan Rele	04 (MSc) , 01 (PhD)
Economics	Dr. Prakash Salvi	01 (PhD)
Zoology	Prof. Madhavi Indap	05 (PhD)

2013 – 2014

Subject	Name of the guide	Number of students
Botany	Dr. Vikas Golatkar (retd.)	01 (PhD)
	Dr. Mangala Heble (retd.)	04 (PhD)
Chemistry	Dr. Nandini Pai	03 (PhD)
	Dr. Rajan Rele	04 (MSc) , 01 (PhD)
Zoology	Prof. Madhavi Indap	05 (PhD)

2014 – 2015

Subject	Name of the guide	Number of students
Botany	Dr. Vikas Golatkar (retd.)	01 (PhD)
	Dr. Mangala Heble	04 (PhD)
Chemistry	Dr. Rajan Rele	04 (MSc) , 01 (PhD)
Economics	Dr. Prakash Salvi	02 (PhD)
Zoology	Prof. Madhavi Indap	05 (PhD)

2015 – 2016

Subject	Name of the guide	Number of students
Botany	Dr. Vikas Golatkar (retd.)	01 (PhD)
	Dr. Mangala Heble (retd.)	04 (PhD)
Chemistry	Dr. Rajan Rele	02 (MSc) , 01 (PhD)
Economics	Dr. Prakash Salvi	02 (PhD)
Zoology	Prof. Madhavi Indap	05 (PhD)

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.

Numerous initiatives are undertaken by the College to encourage and imbibe research culture among staff and students, a list of which is given below:

Field Visits:

- Department of Botany
 - Visit to Wheat Rust Research station, Mahabaleshwar for students of MSc II in January, 2012.
 - Visit to Forest Research Institute (FRI) and FRI Botanical Garden, Dehradun in November 2011.
- Department of Zoology
 - *Open Day visit of ACTREC* at Cancer Research Centre, Kharghar every year for TYBSc students.
 - Visit to CIFE (Central Institute of Fisheries Education), Versova on 17th August 2013 for TYBSc students.
 - Visit to Marine Biological Research Institute at Ratnagiri for students of SYBSc, TYBSc and MSc on 2nd January 2011.

- Department of Management Studies
 - Visit to Jawaharlal Nehru Library, University of Mumbai for SYBMS students from 22nd January, 2014 to 27th January, 2014.
- Department of Chemistry
 - Visit to Regional AGMARK Laboratory on 6th April 2016.
 - Visit to BARC on 16th February 2016 and 25th October 2012.
 - Visit to Food and Drug Administration (FDA) on 4th April 2015.
 - Visit to Reliance Corporate Park on 15th February 2014.
 - Visit to Common Effluent Treatment Plant (CETP) on 15th February 2014.
- Department of Statistics
 - Visit to Therapeutic Drug Monitoring Laboratory on 3rd September 2015.
 - Visit to International Institute of Population Sciences and Institute of Social Sciences on 17th July 2014.
 - Educational tour to National Environmental Engineering Research Institute.
 - Visits to Dapoli Krishi Vidyapeeth and Aagom Factory of homeopathic medicines from 20th to 22nd January 2012 and from 30th January to 1st February 2011.

Lectures/Workshops:

- Session by Dr. Madhavi Indap, Professor Emeritus on the *Process of Preparing a Research Proposal for Funding*.
- Guidance session for teachers by Dr. Ramesh Sane on *How to Motivate Students to participate in the Avishkar Research Convention*.
- Workshop on *Research Methodology* organised by Department of Zoology.
- A Two-day workshop on *Research Methodology* organised by Department of Commerce on 11th and 12th February 2016.
- A lecture on *Pursuing research in Commerce* by Dr. Sithalaxmi (Vice- Principal, SIES College) organized by the Department of Management Studies.
- A lecture on *Writing a Research project* by Mr. R. B. Wani on 2^{0th} January 2014 organised by Department of Commerce.
- A session on *Neurocognitive Assessment* by Dr. Surabhi Patwardhan (Research Associate, Division of Gynecologic Oncology, St. Joseph's Hospital and Medical Center, Phoenix, Arizona) on 19th December, 2012 organised by Department of Psychology.

- A lecture on *Research Methods with special focus on Primary data collection* by Prof. Shweta Apte on 31st March 2016 organised by Department of Management Studies.
- Interaction with Dr. Jayasuryan, Research Scientist on *How to explore Central Research Facilities* on 19th December 2014.

Workshops/Seminars/Conferences:

- One day seminar on *Career opportunities after graduation*, on 15th January 2011 conducted by Departments of Botany and Zoology.
- Two day intercollegiate workshop on *Bioinformatics* for teachers 19th - 20th February 2011 organised by Department of Zoology.
- A National Workshop on *Use of Statistical Package for Social Sciences* on 4th March 2011 organised by Department of Statistics.
- The College hosted the University level Avishkar Research Convention in the year 2014-2015 and Zonal level Avishkar Research Convention in the year 2015-2016.
- State Level two-day workshop on Research Methodology was organised by department of Commerce on 11th and 12th February 2016.
- A workshop on *How to use the Library* with special reference to OPAC, INFLIBNET was organised by the Library.
- A two day workshop on *Biostatistics in teaching and research* was organised for teachers in Life Sciences by Department of Zoology on 4th and 5th September 2015.

Student Research Projects/Presentations:

- Department of Zoology – Amit Patil, Akshay Nachane, Shashank More and Prachi Salunke worked on *water and sediment analysis (Hydrology) project* as a part of Environment Impact Assessment for Proposed Sewri-Nhava Seva Trans Harbour Sea link (MTHL) under the guidance of Dr. Madhavi Indap for duration of one month 11th December 2011- 11th January 2012.
- Department of Psychology –
 - 14 students conducted and presented papers on 5 research studies on the theme of *Old Age and Related Issue*, in a Research Convention organised by the Department of Psychology of Smt. P. N. Doshi Women's College of Arts, Ghatkopar on 3rd January 2011.

- Under the Avishkar Research Convention, students of psychology presented five research projects in 2014 – 2015 and one research project in 2015 – 2016.
- In a special initiative for students of FYBA, students are encouraged to go to the College library, look up research journals and encyclopedias' to study a political problem. Based on this research, they make a small five minute presentation in front of the class. In the year 2010-11, 30 students participated in this initiative.
- Department of Geography- Three students of SYBA - Akshay Tarfe, Nisha Jacob and Vaidehi Bhujbal presented a research paper titled *Perspective of Society Towards Religion* at the two-day international conference titled *Geography of Change: Contemporary Issues in Development, Environment and Society* organised by K. G. Joshi College of Arts and N. G. Bedekar College of Commerce, Thane, Maharashtra (India) on 11th -12th January 2013. They received the *Young Researcher Award* and their paper was published in the Conference Volume with ISBN No. 978-81-922741-1-9.

Avishkar Research Convention:

- University-level and zonal-level Avishkar Research Convention was hosted in the College premises in 2014 and 2015 respectively.
- Orientation Lecture by Dr. Minakshi Gurav on 18th July, 2014.
- Series of lectures by Dr. Vaishali Rajurkar on *How to Conduct Research Studies* between July 2014 and March 2015.
- Dr. Nandini Diwan, the Department of Psychology, attended a meeting of the *Research Ethics Committee of Super Religare Laboratories (SRL)* and evaluated ethical aspects of research projects on 16th July 2011.

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

<i>Name of faculty</i>	<i>Area of research</i>
Dr. Tushar Desai	<i>Plasma Physics Microcontrollers</i>
Dr. Madhavi Indap, Prof. Emeritus	<i>Marine bio-active compounds and Bio-fuels</i>
Dr. Vikas Golatkar (retd.)	<i>Mycology and Plant pathology</i>
Dr. Sudha Sawant (retd.)	<i>Plant Genetics</i>
Dr. Mangala Heble (retd.)	<i>Mycology and Plant Physiology</i>
Dr. Rajesh Jadhav	<i>Plant Physiology</i>

Dr. Rajan Rele	<i>Analytical method development for assay of drug Impurity profile study of drugs Dissolution study of drugs Particle size determination of drug molecules</i>
Dr. Krishnakant Waghmode	<i>Synthetic organic chemistry</i>
Dr. Kshitij Chavan	<i>Green Chemistry</i>
Dr. Jyoti Patil	<i>Coordination Chemistry</i>
Dr. Vaishali Rajurkar	<i>Coordination Chemistry</i>
Dr. Prakash Salvi	<i>Econometrics</i>
Ms. Deepali Bhide	<i>Gender Geography</i>
Dr. Rekha Gore	<i>Subaltern Studies</i>
Dr. Anagha Mandavkar	<i>Marathi Theatre</i>
Dr. Abhaya Chitre	<i>Combinatorial Mathematics</i>
Dr. Anupama Mujumdar	<i>Religion</i>
Dr. Dilip Maske	<i>Crystal growth and characterization and Thin films</i>
Dr. Mugdha Patki	<i>Biophysics, Thin films and Inter-metallics</i>
Dr. Nandini Diwan	<i>Psychology of Women, Gender Studies</i>
Dr. Neeta Tatke	<i>Sports Psychology</i>
Dr. Meenakshi Sundaresan	<i>Cytology and Toxicology</i>
Dr. Gayathri N.	<i>Marine biotechnology</i>
Dr. Minakshi Gurav	<i>Limnology and Planktonology</i>

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

Eminent scientists from the Tata Institute of Fundamental Research (TIFR) deliver talks and conduct interactive sessions for our students as per the MOU signed with them. The *Chai and Why?* programme for the popularization of science is held in the College premises every month. Research students and faculty from other Institutions visit our Central Research Laboratory for knowledge-sharing.

Every year, an expert academician or researcher is invited as the chief guest for the Annual Scholars' Day of the College. They interact with the meritorious students of the College; they inspire and become role models for students interested in pursuing research.

Furthermore, the departments invite prominent speakers for interactive discussion and idea-sharing about research in different areas.

The academic dialogue on the campus has been enriched by the presence of the following eminent academicians and researchers, who have interacted with the teachers and students:

Scientists: For the promotion of scientific attitude, the College invites leading scientists to inspire the students.

Padmavibhushan Prof. M.M. Sharma; Prof. Tulsi Mukherjee Former Director, Chemistry Group, BARC; Prof. Sourav Pal, Director, CSIR-National Chemical Laboratory, Pune; Prof. S.D. Samant, Institute of Chemical Technology; Prof. D. V. Prabhu, Adjunct Prof., Chemistry, Wilson College; Prof. A.V. Karnik, Head, Department of Chemistry, University of Mumbai; Prof. Brijesh Pare, Madhav Science P.G. College, Ujjain; Dr. Prabodh Chobe, Former Senior GM Development, BASF; Dr. S. Hariharan, Chairperson, Indian Chemical Council (North), JMD, Solaris Chemtech Industries Ltd.; Dr. S.R. Dharwadkar, Adjunct Prof., Chemistry, University of Mumbai; Dr. S. K. Ghosh, Head, Theoretical Chemistry Section, BARC; Dr. B.M. Bhanage, Head, Department of Chemistry, ICT; Prof. Amol Dighe, TIFR; Prof. Unnikrishnan, TIFR; Prof. Vandana Nanal, TIFR; Prof. Shashikant Duggad, TIFR; Prof. Tamizvel, TIFR; Prof. Arnab Bhattacharya, TIFR; Dr. Sanjay Wagh, Central India Research Institute.

Academicians: The presence of senior academicians motivates the students and teachers in their quest for academic excellence. Prof. M.M. Salunke, Vice-Chancellor ,YCMOU; Prof. A.D. Sawant, Former Pro-Vice-Chancellor, University of Mumbai; Dr. Ramesh Sane, former Principal, Ruia College; Prof. N.V. Thakkar, Former OSD, Central University of Rajasthan, Prof. Suresh Kumar Sharma, University of Panjab, Chandigarh; Dr. Pushpadeep Mishra, IIT Mumbai; Prof. Srinath Jaganathan, TISS; Dr. Rajesh Dixit, TMH, Mumbai.

Writers and thinkers: Interaction with leading writers and thinkers fosters a spirit of critical thinking among the students. A unique feature of the College is the fact that all the Presidents of the *Marathi Sahitya Sammelan* in the last five years have visited the College to address the teachers and students viz. Vasant Dahake, Sadanand More, Uddhav Kamble, Arun Sadhu and Sheshrao More. Other writers and thinkers like Govind Pansare, Waman Hoval, and Ashok Naigaonkar have also visited the College.

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

Teachers are given leave for research projects and to enhance their knowledge through faculty development courses e.g. three teachers Prin. Dr. Tushar Desai, Dr. Neeta Tatke and Ms. Gayatri Gadgil were granted leave to attend one month international teacher development courses at the Aharon Ofri Training Centre for Educators at Jerusalem in Israel. Mr. Avinash Kolhe was

granted leave to participate in a research tour to study the political situation in Tripura and for research work at the India-China Study Centre, New Delhi.

3.1.10 Provide details of the initiatives taken up 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 College encourages the teachers and students to present and publish their research in journals to reach out to other researchers.

A seven-day workshop on *Animal Tissue Culture* was organised by Prof. Madhavi Indap under the aegis of Central Research Laboratory which trains the students and researchers in techniques of ATC.

3.2 Resource Mobilization for Research

3.2.1 What percentage of the total budget is earmarked for research?

Give details of major heads of expenditure, financial allocation and actual utilization.

The College being aided and affiliated to the University of Mumbai, there is no budgetary allocation for research and development. Equipments, books, and journals are purchased by the College as per the requirement of the researchers. The College encourages the teachers to apply for major or minor projects from the UGC, University of Mumbai and other funding agencies and the sanctioned amounts are disbursed as per guidelines.

Financial support is given to students to carry out and present research for Avishkar.

In 2015-16, the College initiated *R-Quest* scheme to proactively promote research by funding projects by non-permanent teachers and students.

For details of *R-Quest* scheme please refer to 3.1.2

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?

The College has initiated the process of providing seed money for research on a modest scale. Funding for minor research projects is made available under *R-Quest* scheme. The promotion and propagation of this scheme is planned in the near future. Comprehensive support is given to researchers on need basis in the form of laboratories, materials, equipments, technical assistance and administrative support. The College also facilitates research by granting duty leave to

teachers and by reimbursing registration fees for presentations at conferences and seminars.

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

The College has always encouraged student research projects by providing the laboratory, equipment and technology and materials facility free of cost to the students. This initiative was formalised in the year 2015-2016 by initiating the *R-Quest* scheme. Under this scheme, a separate budget is earmarked for funding minor research projects by teachers and students. For details of *R-Quest* scheme please refer to 3.1.2

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

Prof. Madhavi Indap (Department of Zoology) and Dr. Rajan Rele (Department of Chemistry) are collaborating on a research project, the details of which are given below:

- Name of Project: *Investigation of chemical nature of bioactive compounds from the active fractions of Turbo brunneus extract and to study their mode of action in regulation of osteoclastogenesis*
 - The project is in collaboration with Advanced Center for Training Research and Education in Cancer (ACTREC). Reference no. BT/45/11563.
 - Approved by funding committee: Department of Biotechnology, Govt. of India, New Delhi. Amount sanctioned ₹ 50 Lakhs.
- Under an informal collaboration between Departments of Physics and Chemistry, the following projects are undertaken:
 - *Thin Films by Chemical Bath Deposition*
 - *Growth of Semi-organic Non-linear Crystals and characterization*
- Under the guidance of Dr. Tushar Desai, Dr. Dilip Maske (Department of Physics) and Dr. Rajan Rele and Dr. Krishnakant Waghmode (Department of Chemistry), a group of seven post-graduate students are working on a research project on *Growth of NLO Crystals*.

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

The departments practice collaborative access to and sharing of equipment and research facilities. Students and teachers can access the facilities in other departments with prior permission from the heads of the departments. Additionally, the Central Research Laboratory enables access to researchers in Physics, Chemistry and Life Sciences.

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.

The College received the First Level DST- FIST Grant of ₹. 87 lakhs for the development of Research laboratory. This grant was utilised for developing **Central Research Laboratory – Basic and Applied Research** facility in the College.

The College has received grant of ₹ 24 lakhs under the XI plan of the UGC for equipments, books, postgraduate laboratory development.

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 teachers are motivated to and assisted in securing research funds from various funding agencies. The relevant information is made available through the notice boards and in the meetings conducted and the required administrative support is provided.

The details of the ongoing and completed research projects and grants are as follows:

- **Department of History: Dr. Rekha Gore**
 - Completed a minor research project titled *Socio-economic contribution of Jain community in Mumbai*. The research grant of ₹ 10,000/- was received from the the University of Mumbai for the academic year 2010-2011.
 - Completed a minor research project titled *Development of Metropolitan City New Mumbai (Vashi)*. The research grant of ₹ 60,000/- was received from the UGC for the academic year 2010-2012.
 - Completed a minor research project titled *The study of Satpati village in Palghar Taluka in Maharashtra*. The research grant of ₹ 20,000/- was received for the academic year 2015-2016.

- **Department of Geography:** Ms. Deepali Bhide
 - Completed a minor research project titled *Socio-spatial study of women from the unorganised sector: A case of Mumbai city*. The research grant of ₹ 20,000/- was received from the University of Mumbai for the academic year 2011-2012.
- **Department of Psychology:** Dr. Nandini Diwan
 - Completed a minor research project titled *Need for Social Approval, Locus of Control and Self-esteem of Female College Students*. The research grant of ₹ 14,000/- was received from the University of Mumbai for the academic year in 2009-10.
 - Completed a minor research project titled *Attitude towards and Misconceptions about Psychological Counselling*. The research grant of ₹ 30,000/- was received from the University of Mumbai for the academic year in 2013-14.
- **Department of Marathi:** Ms. Vaishali Jawalekar
 - Completed a minor research project titled *Review of TYBA Marathi syllabus in terms of Job Opportunity*. The research grant of ₹ 50,000/- was received from the University of Mumbai for the academic year in 2013-14.
- **Department of Zoology:**
 - Dr. Gayathri N. was invited to deliver a talk on 'Bioactive protein extracts from octopus salivary glands' at the World Congress of Marine Biotechnology (WCMB) 2014 at BIT Congress, Dalian. The International Travel Grant of ₹ 1,37,052 was received from the UGC for her travel to China.
 - Dr. Meenakshi Sundaresan (Principal Investigator) and Dr. Gayathri N. (Co-investigator) : Ongoing minor research project titled *Biochemical profile of cadmium toxicity in Tilapia mossambica (Peters)* sanctioned by University Grant Commission in March 2015 worth ₹ 4,25,000/-
- **Department of Commerce:** Mr. Ravindra Netawate
 - Completed a minor research project titled *Customer Relationship in Mall Shopping in Navi Mumbai*. The research grant of ₹ 25,000/- was received from the University of Mumbai for the academic year 2014-2015.

3.3 Research Facilities

3.3.1 What are the research facilities available to the students and research scholars within the campus?

The College has recognised Research Centres for postgraduate and doctoral research in Botany, Chemistry Physics and Zoology. To actively promote interdisciplinary research, the College has established a **Central Research Laboratory – Basic and Applied Research** with DST-FIST funding of Rs. 87 lakhs. The students can actualize their research potential by access to advanced equipment and instruments in the Science laboratories e.g. Laser Lab, UV visible spectrometer, Research quality four probe (Kithely), Solar Cell-Based Demonstration Unit, High Performance Liquid Chromatography, Amscope MD 500 Microscope Camera.

The laboratory equipments are properly maintained in a working condition and are upgraded from time to time. Laboratory assistants ensure that the laboratory spaces are neat and clean. Proper safety measures are followed. The undergraduate students get exposure to the postgraduate research equipment, thereby sparking their curiosity in research. The laboratories are made accessible to the researchers even beyond the College working hours, when required. The College Library with a collection of more than 1.25 lakh books and the computer laboratories with internet are valuable resources for the researchers.

3.3.2 What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

The College has identified research as one of the focal points for expansion and has continually planned, upgraded and created infrastructural facilities accordingly.

- Teachers are guided to apply for research projects by the members of Research Committee.
- Development of science laboratories has been carried out utilizing the grant of Rs. 87 lakhs received from UGC and DST-FIST.
- Laboratories are upgraded and equipments are purchased as per the requirements of the researchers.
- The College plans to apply for the Second Level of DST-FIST Grant and avail of the funding by UGC. Industrial Collaboration for the same is also planned.

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.

The College has received DST-FIST grant of Rs. 87 lakhs which has been utilized for setting up a **Central Research Laboratory – Basic and Applied Research**. The instruments purchased under it are:

Acrylic incubator	Printer	Magnetic stirrer	Water bath
Air purifier	Deionizer	Micropipette	Swing-out Centrifuge
BOD Incubator	Digital Thermometer	Microwave	Loop sterilizer
Centrifuge	Distriman (Micro	Mixer	Heating Block
Micro-centrifuge	pipette)	Monopan balance	Multi parameter
Multi spin centrifuge	Double Distillation	Optical microscope	Compound Microscope
Plate Centrifuge	assembly	Oven	Thermal cycler
Refrigerated centrifuge	Double stage rocker	pH meter	Gel documentation
Dissecting Microscope	Electric hot plate	Pipettman (Micro	CO2 Incubator
Imaging Microscope	Electronic Balance	pipette)	Biosafety Cabinet
Inverted microscope	Electrophoresis	Pump	Cryo-can
Stereomicroscope	apparatus	Rocker	Spectrophotometer
Deep freezer (-20°C)	Elisa Plate Reader	Thermostatic	(UV visible range)
Fridge	Filtration assembly	magnetic stirrer	Micro pipette
CO ₂ incubator	Hand Mixer	Two pan Balance	Vertical
Colorimeter	Homogenizer	UV lamp	electrophoresis
Computer	Incubator	Vacuum pump	assembly
	Incubator shaker	Vacuum Cleaner	Air curtain
	Laminar flow	Vortex shaker	
	Lux-meter		

3.3.4 What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?

Our students and research scholars from Life Sciences make use of additional facilities of other research institutes whenever required. They are making use of facilities from Advanced Centre (ACTREC), Haffkine, National Centre for Cell Science (NCCS), Therapeutic Drug Monitoring (TDM), Jaslok hospital, National Facility for BioPharmaceuticals (NFB), Anchrom, IEM, Badische Anilin and Sodafabrik (BASF) and LabIndia.

3.3.5 Provide details on the library/ information resource center or any other facilities available specifically for the researchers?

The researchers can avail of the Library which offers:

- access to 1,30,000 books and 130 periodicals
 - access to INFLIBNET – N LIST for staff and students
 - separate seating section for research scholars
 - e-mails of content pages of journals regularly sent to the departments
- Furthermore, the researchers can use the departmental computers with internet for accessing e-resources.

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 technology etc.

The College has created Central Research Facility for collaborative research in science. The College has a large number of instruments, both classic and sophisticated, for research, the detailed list of which is given in 4.1.2 (b).

3.4 Research Publications and Awards

3.4.1 Highlight the major research achievements of the staff and students in terms of Research inputs contributing to new initiatives and social development:

Department of Geography

- Ms. Deepali Bhide presented a paper titled *A house wife's right to the Personal Space* at the UGC Sponsored *Two Days National Conference on Women's Quest for Equality in India: Promises, Problems and Prospects* organised by the Women Development Cell of K. G. Joshi and N. G. Bedekar College, Thane, Maharashtra (India) from 9th and 10th January, 2015. This paper was published in the Conference Volume with ISBN: 978-81-922741-4-0.
- Akshay Tarfe, Nisha Jacob and Vaidehi Bhujbal (students of SYBA Geography) presented a paper titled *Perspective of Society Towards Religion* presented at the two-day international conference held on 11th and 12th January, 2013 titled *Geography of Change: Contemporary Issues in Development, Environment and Society* organised by K. G. Joshi College of Arts and N. G. Bedekar College of Commerce, Thane, Maharashtra (India). The paper was published in the Conference Volume with ISBN No. 978-81-922741-1-9.

Department of Philosophy

- Ms. Anupama Mujumdar presented a paper titled *Spirituality – The need of the hour* presented at a conference titled *Women's Quest for Equality in India: Promises, Problems and Prospects* at K. G. Joshi College of Arts and N. G. Bedekar College of Commerce, 9th – 10th January 2015.

Department of Zoology

- Dr. Meenakshi Sundaresan presented a paper titled *Effect of Cadmium Chloride on the gill of Tilapia Mossambica (Peters)* presented in the International Conference – *Emerging Trends and Challenges in Science and Technology* organised by Bionano Frontiers and International Society of Technology in association with Sinsil International Limited on 3-4 November 2014 at Bangkok, Thailand.
- Mr. Nitin Wasnik presented a paper titled *FTIR and Raman Spectroscopy – a non-destructive approach to study biomineralisation in Nerita oryzarum (Recluz, 1841)* at the National Conference Emerging Trends in Sustainable Development organised by the Department of Zoology, Kirti College on 23-24 January 2015.
- Dr. Gayathri N. delivered an oral presentation titled *Generation of Electricity from sugarcane and bagasse* in the UGC-sponsored National Conference on Recent Advances in Environmental Sciences organised by Dr. P.R. Ghorey Science College, Dhule.

Department of Physics

- Dr. Dilip Maske presented a poster titled *Compositional Analysis of detached InSb:Bi bulk semiconductor crystal grown by VDS technique* presented at 20th National Seminar on Crystal Growth and Applications organised by BARC, MRSI and IACG from 19th to 21st January 2016.

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 database?

The College does not publish or partner in publication of research journals; however the College plans to publish an interdisciplinary research journal. The proceedings of the National Conference CONCHEM 2014 organised by the College have been published.

The copies of research papers presented and published by the teachers have been compiled for reference. Copies of doctoral theses by teachers have been kept in the Library for access by teachers and students.

3.4.3 Give details of publications by the faculty and students

Summary of publications

Type of publication	2010 2011	2011 2012	2012 2013	2013 2014	2014 2015	2015 2016	Total
Papers in International Journals (Peer Reviewed)	19	13	15	22	46	35	150
Papers in National Journals (Peer Reviewed)	02	02	03	01	02	06	16
Papers in National Journal (Non-Peer Reviewed)	-	02	-	01	02	04	09
Books with ISBN number	01	01	01	01	01	01	06
Books without ISBN number	04	01	01	01	02	-	09
Chapters in Books / Articles	01	-	-	03	05	-	09
Papers in Conference Proceedings (International)	03	04	03	04	03	05	22
Papers in Conference Proceedings (National)	02	04	09	13	12	03	43
Papers presented in National Conference	01	05	15	15	16	20	72
Papers presented in International Conference	06	04	03	04	03	13	33
Abstracts published in International Conference proceedings	-	-	-	-	03	05	08
Abstract published in National Conference proceedings	-	-	-	-	02	03	05

Number of papers published by faculty and students in peer reviewed journals (national / international)

Summary of Indexed Journals

SCOPUS	Google Scholar	Research Gate	EBSCO	Others
68	15	22	03	20

Summary of Impact Factor

Impact Factor	Number of Journals
0 – 1	60
1 – 2	04
2 – 3	02
3 – 4	04
4 – 5	01
5 and above	----

3.4.4 Provide details (if any) Research awards received by the faculty

Department of Geography

- Ms. Deepali Bhide received the Best Research Paper Award for her paper presentation on *A house wife's right to the Personal Space* at the UGC Sponsored *Two Days National Conference on Women's Quest for Equality in India- Promises, Problems and Prospects* organised by the Women Development Cell of K. G. Joshi and N. G. Bedekar College, Thane, Maharashtra (India) from 9th and 10th January, 2015. This paper was published in the Conference Volume with ISBN: 978-81-922741-4-0.

Department of Philosophy

- Ms. Anupama Mujumdar received the Best Research Paper Award for her presentation on *Spirituality – The need of the hour* presented at K. G. Joshi College of Arts and N. G. Bedekar College of Commerce, 9th – 10th January 2015.

Department of Zoology

- Dr. Meenakshi Sundaresan won Best Oral Presentation Award for the paper *Effect of Cadmium Chloride on the gill of Tilapia mossambica (Peters)* presented in the International Conference – Emerging Trends and Challenges in Science and Technology organised by Bionano Frontiers and International Society of Technology in association with Sinsil International Limited on 3rd and 4th November 2014 at Bangkok, Thailand.
- Mr. Nitin Wasnik won Consolation Prize for Best Poster Presentation for the paper titled *FTIR and Raman Spectroscopy – a non-destructive approach to study biomineralisation in Nerita oryzae (Recluz, 1841)* at the National Conference Emerging Trends in Sustainable Development organised by the Department of Zoology, Kirti College on 23-24 January 2015.
- Dr. Gayathri N. won First Prize for Oral Presentation on *Generation of Electricity from sugarcane and bagasse* in the UGC-sponsored National Conference on Recent Advances in Environmental Sciences organised by Dr. P. R. Ghorey Science College, Dhule.

Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally

- Dr. Tushar Desai
 - Recognised as a member co-ordinator / member of NAAC Peer Team.
 - Invited as Peer Team Convenor for pre-NAAC visit to Tribal University.
 - Member, Board of Studies in Applied Sciences at Amity University since 2016.
 - Academic Council Member and Chairperson of ad-hoc Board of Studies, Information

Technology at University of Mumbai from 2010 – 2015.

- Academic Council Member and Chairperson of Board of Studies, Computer Science and Information Technology at Maharashtra State Board of Higher Secondary Education from 2006-2011.
- Received the **Best Teacher Award** by the Government of Maharashtra for the year 2008-2009.
- Dr. Nandini Pai, former Head, Department of Chemistry was honored with the **Best Teacher Award** by the Government of Maharashtra for the year 2009-2010.
- Dr. Nandini Diwan was awarded the **Smt. Savitribai Phule Adarsha Shikshika Puraskar** of the University of Mumbai for 2010-2011.
- Dr. Vikas Golatkar, Head, Department of Botany was awarded **Best Teacher Award** by University of Mumbai in 2012.
- Dr. Madhavi Indap
 - was conferred the fellowship of **Professor Emeritus** by UGC in 2011.
 - is a Reviewer on the panel of National Institute of Science Communication and Information Resources (NISCAIR), CSIR, New Delhi as a subject referee to review research papers and articles in Indian Journal of Experimental Biology (IJEb) and Indian Journal of Marine Sciences (IJMS)
- Ms. Neeta Tatke received a special recognition Letter and Trophy from Yoga Forum, Munich, Germany for her consistent contribution in propagation of Indian Traditional Physical Culture, Mallakhamb in Munich, September 2013.
- Dr. Neeta Tatke was awarded **Hirkani Puraskar** by *DD Sahyadri* for the contribution in the field of Mallakhamb in 2015.
- Dr. Pradip Karnik, Librarian
 - was appointed as Director of Marathi Research Institute in 2015 – 2016.
 - was appointed as Member of Marathi Vishwakosh Nirmittee Mandal, Government of Maharashtra
- Mr. Avinash Kolhe
 - was assigned to translate a book on Gadar Movement into Marathi by National Book Trust of India.
 - was assigned to write the biography of social reformer R.D. Karve by Sahitya Akademi.
 - invited as a member of the study team to analyse the socio-political scenario in Tripura by

Rambhau Mhalgi Prabodhini.

- invited to edit the calendar on Dr. Babasaheb Ambedkar sponsored by Government of Maharashtra from 2010 – 2014.
- is visiting Associate Fellow at the Institute of Chinese Studies, New Delhi.

3.5 Consultancy

- Ms. Vaishali Jawlekar for the examination conducted by Bhaashaa-Sanchaalanaalaya, Govt. of Maharashtra, since 2004.
- Dr. Mangala Heble to Dr. Shruti Sawant of Bhavan's College, Andheri, Department of Microbiology in identification of soil fungi for her minor Research Project.
- Dr. Madhavi Indap
 - Terracon Ecotech Pvt Ltd. on Environment Impact Assessment (EIA) for MTHL, Mumbai Trans harbor link, Dec 2011- Jan 2012
 - Terracon Ecotech Pvt Ltd. on Environment Impact Assessment (EIA) on marine water analysis (chemical and biological) for JNW shipyard project at Dabhol, Vashishthi estuary, May- June 2010.
 - Dr. Debatosh Dutta, Green Care Pvt Ltd., for testing of compounds for angiogenic activity, March – April 2010.
 - Fine Envirotech Engineers on Environmental Impact Assessment (EIA) on Marine Environment for the project 2000 MW gas based power plant (at Dronagirii, NMSEZ Maharashtra, May 2007.
 - Fine Envirotech Engineers on Environmental Impact Assessment (EIA) on Marine Environment for the project Mithapur for water analysis and biodiversity studies. 1997
 - Market analysis for textbook and trade book publishers
 - Reviewer for sanctioning project proposals for Department of Biotechnology, Govt. of India, New Delhi.

3.5.1 Give details of the systems and strategies for establishing institute-industry interface?

The departments identify the potential areas for industry-institute interface and initiates programmes or events for students. Students gain exposure to the industry through the Placement Cell activities and interaction with alumni who are professionals. *Careers after TYBA* organised under the aegis of Open Forum and industrial visits are also helpful in this regard.

3.5.2 What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

The College encourages teachers to appropriately harness their expertise through consultancy. The expertise of the faculty is informally publicised through parent-teacher interaction, alumni meetings, General Body meetings and publications by the faculty.

3.5.3 How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

The College gives independent scope to the teachers to utilize their expertise for consultancy services. They are permitted to use the College infrastructure and facilities if required.

3.5.4 List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years

As per the current policy of the College, most of the consultancy is undertaken on a non-remunerative basis. The revenue generated through consultancy, if any, is ploughed back into research activities. A revenue-sharing system for funds generated through consultancy is under active consideration.

- Dr. Madhavi Indap

Project	Company	Revenue generated (in Rs.)
Environment Impact Assessment (EIA)	JSW Steel Pvt. Ltd.	3,07,000/-
Environment Impact Assessment (EIA)	Terracon Ecotech Pvt. Ltd.	15,750/-
Environment Impact Assessment (EIA)	JSW Steel Pvt. Ltd.	54,000/-

- Ms. Vaishali Jawlekar - Marathi language
- Dr. Mangala Heble - Mycology and plant pathology
- Dr. Meenakshi Sundaresan - Biodiversity
- Dr. Neeta Tatke - Sports Psychology

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?

Most of the teachers undertake consultancy on non-remunerative basis. The remuneration, if any, is retained by the teacher. In future, if the College generates substantial revenue through consultancy it will be utilised to support research activities in the College.

3.6 Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 How does the institution promote institution-neighbourhood- community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

The College proactively promotes social service and good citizenship values through its various outreach programmes. The activities of the NSS, NCC and DLLE units inculcate a sense of social responsibility among the students and also provide them an insight into real world problems and issues.

The NSS unit has been successfully conducting *Umed* – a talent showcase for senior citizens. This initiative is very popular among local residents and has given the senior citizens a sense of self-esteem and belonging to the community.

Some other programmes undertaken are:

- Blood donation camps
- Health awareness campaigns in the surrounding areas – educating people about prevention of polio, AIDS, dengue, malaria and so on.
- Adoption of a tribal village at Karav, Vangani wherein medical camps, cleanliness projects, games and activities for village children are conducted.
- Assisting Mumbai Police in regulating crowds at the time of Ganapati immersion.
- Undertaking education projects in neighbouring Municipal Corporation schools.
- Tree plantation in the College campus and surrounding areas.
- Selling rakhi for assisting mentally challenged children
- Participating in cleaning the Shivaji Park Chowpatty after the Ganapati Immersion
- Gender sensitisation workshops, skits and talks
- Entrepreneurship project by DLLE unit
- Survey of women's status by DLLE unit
- Career Awareness
- Health and educational camps for students of the Ashram School at Karav, Vangani, a tribal village adopted by the NSS unit.

Apart from this, the College makes its lawn available to senior citizens from the neighbourhood for morning and evening walks free of cost.

3.6.2 What is the Institutional mechanism to track students' involvement in various social movements / activities which promote citizenship roles?

The College ensures students' involvement in various social movements/activities which promote citizenship roles through the following mechanisms:

- Enrolment of volunteers for NSS, NCC and DLLE Units.
- Motivating students to participate in college and university level projects.
- Awarding certificates of appreciation for Best NCC and NSS cadets.
- Publicising the social involvement of the students through the college website and reports in the College magazine *Imprints*.

3.6.3 How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

The College gives great importance to feedback from stakeholders and considers it as a valuable input for quality improvement. Feedback is obtained from students about teachers through an annual survey, the suggestions from parents, alumni and other stakeholders are obtained through formal and informal meetings.

3.6.4 How does the institution plan and organize its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.

The extension and outreach programmes are planned by the teachers in-charge after consultation with the Management. The NCC, NSS and DLLE programmes are funded by the University of Mumbai, however, the College grants additional funds to these units if required. The extension activities conducted by departmental associations are funded by the College. The various associations organise skits, institutional visits in order to sensitise students towards the contemporary social issues.

Expenditure for NSS for the last four years:

Year	Amount spent (in Rs.)
2012-2013	32,600/-
2013-2014	38,600/-
2014-2015	25,000/-
2015-2016	35,000/-

Participation in extension and outreach programmes enables the students to develop confidence

and acquire team-building and leadership skills. A list of the activities of NCC, NSS and DLLE Unit has been given in 3.6.1

In addition to these activities, the Department of Physics regularly contributes to the popularisation of science for school children. Every year, talks, exhibitions and film screenings are conducted for students of neighbouring schools during the VIBGYOR festival. The unique concept of setting up a mobile planetarium in the campus was implemented for two years, 2013 and 2015 and it attracted an overwhelming response from students.

TIFR conducts the *Chai and Why* programme for science outreach in the College campus on the third Sunday of every month. Leading scientists including visiting scientists from abroad interact with the students. These programmes have generated interest in science among the students and helped in development scientific temper.

3.6.5 How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International agencies?

The students and teachers are given full encouragement and necessary support to participate in NSS, NCC, and other national/ international agencies by:

- Orientation sessions and enrolment drives conducted by NCC, NSS and DLLE units.
- Departments motivate the students to participate in community-oriented activities.
- Record of extension activities and achievements through the college website, the college prospectus and the college magazine *Imprints*.
- Skits, songs prepared for community engagement are also performed in the college on important occasions like Independence Day, Republic Day and Annual College Days.

3.6.6 Give details 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 society?

All the activities of the extension units are focused on generating awareness about social issues and empowering disadvantaged groups. Some of the initiatives undertaken are:

- Survey of women's status by students of DLLE Unit.
- Gender Sensitisation Workshops in association with MAVA (Men Against Violence and Abuse).
- Institutional visits to homes for the visually impaired and for mentally challenged children.

- Selling rakhis for the benefit of mentally challenged children.
- Performance of skits about prevention of malaria, AIDS awareness and preventing sexual abuse of women.

3.6.7 Reflecting on objectives and expected outcomes of the extension activities organized by the institution, comment on how they complement students' academic learning experience and specify the values and skills inculcated.

In keeping with the Mission of the College to ensure multidimensional personality development and to create good citizens, the students participate in activities beyond the syllabi that broaden their perspective and make them aware of real life issues around them. They develop self-confidence, learn to interact with people from various strata of society and acquire values like sensitivity and responsibility towards disadvantaged groups, providing educational facilities and development in remote areas, issues of social health, care for the elderly, blood donation and environmental issues of current interest.

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 its activities?

The College ensures the involvement of the community in its various outreach activities, the most effective and popular initiative being *Umed* – the senior citizens' talent showcase. Apart from this, schools in the neighbourhood are benefited by the popularisation of science programmes and other programmes carried out by students and teachers of the College. The Science Outreach programme for school children has been arranged for students of the School at Saphale, Dnyanprabodhini Vidyalaya, Saraswati Mandir and Balmohan Vidyamandir.

3.6.9 Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities.

- *Umed* - Talent showcase for senior citizens in the neighbourhood.
- Collaboration with the traffic police by NCC and NSS students during Ganesh Visarjan
- Stree Mukti Sanghatana –Collaboration for setting up vermi-composting project in the campus.
- Various activities like cleanliness drive and educational games for children in the tribal village adopted by the NSS unit at Karav, Vangani.

- St. George Hospital– for organising annual blood donation and thalassemia detection camps
- Neighbourhood schools –educational project conducted by the NSS Unit
- Gender sensitisation programmes in association with MAVA – Men Against Violence and Abuse.
- Nehru Science Centre for volunteer work under Industry Orientation Programme.

3.6.10 Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.

Prizes won by the NSS Unit

2010-2011

Anubhuti - Best College Award

Other prizes:

Event	Prize	Venue
Leadership Training Camp	Best Volunteer	Swanad Yog Dham Ashram, Badlapur
MDACS Singing Competition	First and Second	Sewri
Group Dance	First	Ramnarain Ruia College
Essay Writing Competition	First	
Rangoli	First	
Best Of Waste	Second	
Street Play	Second	
Group Singing	Second	
District Level Poetry Writing	Third	

2013-2014

Anubhuti-Best College Trophy

Event	Prize	Venue
Debate Competition	First	Ramnarain Ruia College
Kurta Painting	First	
Cariacature	Third	
Poetry Writing	First	K.C. College

2014-2015

Event	Prize	Venue
Leadership Training Camp,	Best Leader	Swanad Yog Dham Ashram, Badlapur
Swatcha Bharat Abhiyan	Best Social Project	M.D. College Festival

3.7 Collaboration

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.

The teachers of the College collaborate and interact with various institutions in the course of their research work. The major collaborations are listed below:

- Department of Physics – TIFR Mumbai, Nowrosji Wadia College (Pune)
- Dr. Madhavi Indap
 - Dept. of Chemical Engineering, University Institute of Chemical Technology, Mumbai.
 - Dept. of Molecular Biology, Mainz University, Mainz, Germany.
 - Medical College of Wisconsin, USA.

3.7.2 Provide details on the 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 have been signed with

- Tata Institute of Fundamental Research (TIFR), wherein eminent scientists from the Institute deliver talks and conduct interactive sessions. The *Chai and Why* programme for the popularization of science is held in the College every month.
- IIT Bombay for promotion of Open Source Software.

These collaborations give teachers and students insight into the latest trends in academics and the industry and provide them an opportunity to interact with leading experts and to obtain hands-on training in the subject.

To foster academic and cultural exchange with Israel, the College has an informal alliance with the Israel Consulate in Mumbai. As part of this association, the following activities and events were organised:

- Ms. Orna Sagiv, Consul General of Israel in Mumbai made a presentation on *Technological Developments in Israel* in the College on 28th July 2012.

- Dr. Inbal Kvitty delivered a talk on the *Holocaust* after a screening of a film about the holocaust on 11th November 2013.
- A seminar on *Education Opportunities in Israel* was held in the College with the help of the Israel Consulate in Mumbai on 9th December, 2014. Delegates from the top five universities in Israel interacted with the students. The names of the experts are as follows: Prof. Oron Shagrir, Vice Rector, Hebrew University of Jerusalem; Ms. Dalit Parsser, Marketing Director, Tel Aviv University; Ms. Giselle Rotman; International Officer, Technion Institute; Dr. Eric Zimmerman, Director of Research and Global Engagement ; Ms. Einat Noy Administrative Director, Ben Gurion University.
- An art exhibition titled *Wings of Shakti* featuring works by Israeli and Indian women artists was held in the College from 26th to 28th February 2014. Mr. Jonathan Miller, Consul General of Israel in Mumbai inaugurated the exhibition.
- Three senior teachers from the College were selected to attend capacity-building programmes at the Aharon Ofri International Training Centre for Educators and the International School for Holocaust Studies, Yad Vashem at Jerusalem, Israel.

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 College has effectively leveraged its ties with alumni, industry and other institutions to upgrade the academic and infrastructure facilities. MOUs with TIFR and IIT Bombay, UGC, DST-FIST funding for the Central Research Laboratory, donations from alumni for campus development and renovation are the prominent examples.

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.

Department of Chemistry had organised a UGC sponsored National Conference with the central theme *Societal Impact of Chemistry: Vision 2020* on 12th and 13th September 2014.

Various eminent scientists, academicians, authors and experts have visited the College during the CONCHEM 2014. The list of such visiting experts is given below:

Padmavibhushan Prof. M.M. Sharma

Prof. M.M. Salunke, Vice-Chancellor, YCMOU

Prof. A.D. Sawant, Former Pro-Vice Chancellor, University of Mumbai

Prof. Prabuddha Ganguly (MHRDIPR- Chair Professor at Tezpur University Assam, CEO, VISION-IPR, Mumbai)

Prof. Tulsi Mukherjee Former Director, Chemistry Group, BARC

Prof. Sourav Pal, Director, CSIR-National Chemical Laboratory, Pune

Prof. S.D. Samant, Institute of Chemical Technology

Prof. D. V. Prabhu, Adjunct Prof., Chemistry, Wilson College

Prof. N.V. Thakkar, Former OSD, Central University of Rajasthan

Prof. A.V. Karnik, Head, Department of Chemistry, University of Mumbai

Prof. Brijesh Pare, Madhav Science P.G. College, Ujjain

Dr. Prabodh Chobe, Former Senior GM Development, BASF

Dr. S. Hariharan, Chairperson, Indian Chemical Council (North), JMD, Solaris Chemtech Industries Ltd.

Dr. Sanjay Wagh, Central India Research Institute

Dr. S.R. Dharwadkar, Adjunct Prof., Chemistry, University of Mumbai

Dr. S. K. Ghosh, Head, Theoretical Chemistry Section, BARC and

Dr. B.M. Bhanage, Head, Department of Chemistry, ICT.

Furthermore, a number of scientists have visited the College and interacted with the students and teachers viz. Padmashree Dr. D. B. Phatak IITB; Prof. Amol Dighe, Prof. Unnikrishnan, Prof. Vandana Nanal, Prof. Shashikant Duggad, Prof. Tamizvel, and Prof. Arnab Bhattacharya, from TIFR; Dr. Ramesh Sane, former Principal, Ruia College; Ms. Orna Sagiv, Consul General, Israel; Prof. Sanjay Deshmukh, Vice-Chancellor, University of Mumbai; Dr. Narendra Jadhav; Dr. Avinash Supe.

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 –

The College has linkages and collaborations with various institutions like TIFR and IIT, Bombay

which have resulted in fruitful academic exchange.

- a. **Curriculum development/enrichment:** Some teachers are Members of Board of Studies and Members of Syllabus Committees at the University of Mumbai and they thus contribute to the curriculum development of their subjects.
- b. **Internship/On-the- job training:** Although internship is not mandatory as per the syllabi of the University, many students from Management Studies opt for internships and summer placements during their vacation period.
- c. **Summer placement:** as mentioned above
- d. **Faculty exchange and professional development:** Teachers attend different professional development programmes to enhance their knowledge. Three senior teachers were selected to attend international teacher training programmes at the Aharon Ofri International Training Centre, Jerusalem, Israel under the aegis of MASHAV, Israel's Agency for International Development.
 - Principal Dr. Tushar Desai - International course on *Education for Science and Technology and ICT in Education*
 - Ms. Neeta Tatke – International course on *Educational Methodologies Youth At-Risk: Preventing Student Dropouts and Facilitating Reintegration*
 - Ms. Gayatri Gadgil –
 - International course on *Innovation and Entrepreneurship in Education*
 - Course on *Holocaust Education for Indian Educators* at The Yad Vashem School of Holocaust Education, Israel.
- e. **Research:** Our students and research scholars from Life Sciences make use of additional facilities of other research institutes whenever required e.g. Advanced Centre (ACTREC), Haffkine, National Centre for Cell Science (NCCS), Therapeutic Drug Monitoring (TDM), Jaslok Hospital, National Facility for BioPharmaceuticals (NFB), Anchrom, ILEM, Badische Anilin- and Sodafabrik (BASF) and LabIndia.
- f. **Consultancy:** The teachers productively utilize their expertise by offering consultancy to various organizations. Please refer to 3.4.4 for details.
- g. **Extension:** Community service activities are carried out in collaboration with various NGOs like MAVA (Men Against Violence and Abuse), St. George Hospital and organizations working with senior citizens.
- h. **Publication:** The teachers have contributed research papers to various national and

international journals. For details please refer to 3.4.2.

- i. **Student Placement:** The Placement Cell collaborates with various companies to organise campus interviews for students. For details please refer to 5.1.9.
- j. **Twinning programmes:** Nil
- k. **Introduction of new courses:** The MCom course was introduced in 2014-2015.
- l. **Student exchange:** Nil

3.7.6 Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/ collaborations.

The College regularly invites experts from leading academic and professional institutions, thereby creating opportunities for potential linkages and collaborations.

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 College makes consistent efforts to provide a healthy and conducive learning environment by providing proper infrastructure. The focus is multifaceted; combining the core teaching infrastructure like classrooms with technology and space for extra-curricular activities. The facilities are regularly monitored and upgraded as per the requirement.

The infrastructural facilities were developed, keeping in mind the following factors

- Eco-friendly initiatives
- Use of ICT
- Research facilities – more laboratories were added for interdisciplinary research
- Safe and learner-friendly environment
- Efficient administration and office documentation

The major facilities that were developed during the last five years are:

- The New Building, located at the Ruby Mill gate of the campus became functional in 2011. Four floors with carpet area of approximately 40,000 sq. feet are in use by Departments of Information Technology, Computer Science, and Management Studies. The spacious Library along with reading rooms is located on the ground floor of the New Building.
- A fully-equipped, air conditioned multipurpose hall, with the capacity of 700 is located on the first floor of the New Building.
- A fully-equipped seminar room with a capacity of 60 is located on the third floor.
- A new record room was set up on the second floor of the New Building for storing important documents.
- *Central Research Laboratory – Basic and Applied Research* was established in 2012-2013 to provide a centralised facility for research in Physics, Chemistry, Botany and Zoology. Teachers, doctoral, postgraduate and undergraduate students of the College use the facilities provided by the laboratory. Students from departments of other colleges are permitted to visit the research centre and also to use the facilities.

- IT and computer science laboratories were added. The details about the number of laboratories and computers are given in 4.3.1.
- Separate departmental rooms were allocated for Arts and Commerce departments as per the suggestions of the previous NAAC Peer Team.
- Separate rooms were allotted for IQAC in New Building, Women's Development Cell and DLLE Unit in Science Building.
- Department of Psychology was renovated from funds of Rs. 5,80,250/- donated by their alumni and faculty members.
- The UGC Network Resource Centre has been upgraded to a multimedia centre equipped with a high-resolution scanner, digitizer, video camera, video signal processing cards and mp3 recorder.
- A separate computer laboratory in the Library is used for conduct of examinations, taking feedback and conducting training sessions for teachers and students.
- To maintain a safe environment for students and staff, major areas of the campus are under CCTV surveillance 24x7.
- Students can avail of photocopy and stationery centre on the campus.
- The seminar hall in the Science Building, (2 Sc.) was renovated and newly furnished in the year 2011. It holds a capacity of 100 and is regularly used for talks, meetings, workshops and other activities of the College.
- College Office and Examination Department have been renovated and restructured for more efficient functioning.
- An extension office wing was created for the Scholarship section and the University-related examination work.
- The Centralised Assessment Programme centre was shifted to the spacious hall on the third floor, above the Bank of Maharashtra building to accommodate more examiners.
- The sports grounds and green campus were developed and maintained with the help of the rainwater harvesting project.
- Keeping in mind the green initiative, solar panels have been installed, which provide electricity to the Physics laboratories and Notice Boards in the Science Building. A solar-powered mobile phone re-charging point has been created in the faculty common room, for the recharging of cell phones.

- The tube-lights are being replaced by LED lights.
- In 2013, using pre-used paver blocks, which had been discarded by the Municipal Corporation during the renovation of footpaths, an open air amphitheatre *Rupangan* and activity area *Saawli* were created. Students and teachers use these spaces for studies, meetings, open air lectures, and cultural activity rehearsals and so on.
- In addition to the existing canteen infrastructure, open-air canteen facility was created using pre-used paver blocks.
- The number of sparrow shelters installed in the campus was increased. Bird feeders were installed. A variety of flowering plants and trees were planted to attract butterflies.
- The shooting range in the Gymkhana was modernized in 2013.
- NCC Boys Unit was relocated to the Hostel area and NCC Girls Unit was relocated to Girls' Common Room.
- The approach road to the College from the Ruby Mill gate has been redeveloped.
- A sanitary napkin vending machine and disposal machine has been installed in the Girls' Common Room.

4.1.2 Details of the facilities available for

a. Curricular and co-curricular activities – classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, Animal house, specialised 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.

a. Curricular and co-curricular activities -

- There are a total of 54 well-maintained class rooms in Arts, Science, Annex and New Buildings. Lectures and tutorials are carried out in the classrooms according to the time-table.
- There are a total of 8 IT laboratories equipped with the latest configuration of computers and internet connection with LAN facility.

- The UGC Network Resource Centre allows the staff and students to access ICT tools like a high-resolution scanner, digitizer, video camera, video signal processing cards and mp3 recorder.
- The multipurpose hall and the two seminar halls are used to conduct academic and other programmes of the College. All the halls are fully-equipped with projector, laptop and audio-video system.
- The information regarding laboratories is as follows:

Department	Class / Level	Facility
Physics	UG	One Dark room One computer laboratory with 08 computers
	UG	FYBSc laboratory SYBSc laboratory TYBSc laboratory
	PG	One Dark room MSc laboratory
Chemistry	UG	Balance room Preparation room FYBSc laboratory SYBSc and TYBSc laboratory Physical and Analytical laboratory
		MSc laboratory
		Research laboratory
	Research	Research laboratory
IT and CS	UG / PG	131 latest computers with internet connection, hardware, 50 computers
Management Studies	UG	23 latest computers with internet connection
Zoology	UG	FYBSc, SYBSc and TYBSc laboratory
	PG	MSc laboratory
Botany	UG	FYBSc, SYBSc and TYBSc laboratory
	PG	MSc laboratory
Psychology	UG	TYBA laboratory with 4 Computers
Commerce	UG / PG	Display in the corridor of Science Building
Statistics	UG	Laboratory

Equipment for teaching, learning and research:

A list of the major equipments of the Science departments is as follows:

Department of Physics

- Geiger Muller Counter
- LASER lab
- Microwave demonstration kit
- Milligram single pan balance
- LCR – Q meter
- Muffle Furnace with PID temperature controller
- Digital Storage Oscilloscope
- UV- visible spectrometer
- Vacuum System- 10^{-6} mb, box coater BC 300 (CVD, EBE)
- Research Quality Four Probe (Kithely)
- Metallurgical Microscope (100x)
- Solar Cell Based Demonstration Unit Abbe Refractometer

- Thin film setup using chemical bath deposition
- Thin film setup using electron beam deposition
- Michelson Interferometer
- Constant Deviation Spectrometer
- Hall Effect with Four Probe Method
- LG Plate
- Fabry Perot Etalon
- Hall Effect with Constant Temperature Bath
- Zeemann Effect Apparatus
- Mullikan Oil Drop Apparatus
- Susceptibility Quincke Method
- Optical Benches
- Ballistic Galvanometers
- Wave Propagation demonstration Kit
- Concave Grating
- Polarimeter
- Crooke's Radiometer
- Chladini Plate
- Tesla Coil
- Periscope model
- Heat Engine model
- Ultraviolet Lamp
- Ultrasonic refractometer

Central Research Laboratory

- Acrylic incubator
- Air Conditioner (3)
- Air purifier
- BOD Incubator
- Centrifuge
- Microcentrifuge
- Multi spin centrifuge
- Plate Centrifuge
- Refrigerated centrifuge (2)
- Dissecting Microscope (2)
- Imaging Microscope
- Inverted microscope
- Stereomicroscope
- Deep freezer (-20°C)
- Fridge (2)
- CO₂ incubator
- Colorimeter (2)
- Computer (Desktop)
- Printer
- Deionizer
- Digital Thermometer
- Distriman (Micro pipette)
- Double Distillation assembly
- Double stage rocker
- Electric hot plate
- Electronic Balance
- Electrophoresis apparatus
- Elisa Plate Reader
- Filtration assembly (2)
- Hand Mixer
- Homogenizer
- Incubator
- Incubator shaker
- Laminar flow
- Lux-meter
- Magnetic stirrer
- Micropipette
- Microwave
- Mixer
- Monopan balance
- Optical microscope (2)
- Oven
- pH meter (2)
- Pipettman (Micro pipette)
- Pump (2)
- Rocker

- Thermostatic magnetic stirrer
- Two pan Balance
- UV lamp
- Vacuum pump
- Vacuum Cleaner
- Vortex shaker
- Water bath (2)
- Swing-out Centrifuge
- Loop sterilizer
- Heating Block
- Autoclave
- Oven
- Multi parameter
- Compound Microscope
- Thermal cycler
- Gel documentation
- CO2 Incubator
- Biosafety Cabinet
- Cryo-can
- Spectrophotometer (UV visible range)
- Micro pipette (0.5 -10 ul and 20 to 200 ul)
- Electrophoresis powerpack
- Vertical electrophoresis
- Assembly
- Air curtain

Department of Chemistry

- High Performance liquid Chromatography
- Dissolution Test Analyzer
- UV visible photo spectrometer
- Auto titrator
- Millipore water Purifier
- Electronic Balance with 0.01 mg capacity
- Karl Fischer Titrator
- Ultrasonic heater

Department of Zoology

- Inverted microscope
- Deep freezer (-20°C)
- CO₂ incubator
- BOD Incubator
- ELISA Plate centrifuge
- Binocular microscope with digital imaging software
- ELISA microplate reader
- Refrigerated centrifuge
- Cooling centrifuge
- Laminar air flow (vertical cabinet)
- Vertical Gel Electrophoresis

Department of Botany

- SLR Camera
- Laminar-flow
- Spectrophotometer UV and visible light
- Flame photometer
- Electrophoresis Unit (horizontal and vertical)
- High Speed Centrifuge (for Eppendorff tubes)

Department of Information Technology and Computer Science

- Server Configuration - Intel Xenon Hexa Core Processor Server, 2 Intel Xenon Hexa Core Processor 32 Gb, 5.4 Tb RAID , VmWare Vsphere 5.5 (Virtualized Environment) HDD

Botanical garden

The College has a Botanical garden. The campus has about 450 trees, herbs and shrubs.

B) Extra-curricular activities:

The College has a separate, well-equipped Gymkhana Building and two big sports grounds, with an area of approx. 27,000 sq.ft, with facilities for various sports as under:

Game/Sport	No. of grounds / tables
Kho-Kho ground	2
Kabaddi ground	2
Volley ball court	1
Basket ball court	1
Cricket Box Nets	5
Shooting Range	1 (8 lanes)
Softball ground	1
Baseball ground	1
Carrom	10
Table Tennis	2
Yogasanas	1 hall
Football ground	1

- The College Gymkhana avails various additional facilities in certain sports like swimming, lawn tennis and badminton from external agencies to enable students to practice.
- A separate room is allocated for NSS in Arts Building to carry out NSS work.
- One room in Hostel is allocated to NCC Boys unit to manage and maintain their work.
- Separate space has been allocated to NCC Girls unit in Girls Common Room.
- Routine exercise and drill for NCC cadets are carried out in the campus.
- For cultural activities, a separate room is made available on second floor above Bank of Maharashtra.
- The open air amphitheatre *Rupangan*, and activity area *Saawli* serve as spaces to foster cultural activities, interaction, discussions and rehearsals.
- A fully-equipped, air conditioned multipurpose hall with the capacity of 700 and

seminar room with a capacity of 60 located at the first floor of the New Building are used for conducting extra-curricular and cultural activities. The seminar hall in the Science Building with a capacity of 100 is also used for the same.

4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilised? 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).

The College ensures that classroom facilities and equipments in the laboratories are added or upgraded as per the requirements of revised syllabi from time to time.

Facilities developed during last four years are *Rupangan*, Central Research Laboratory, *Saawli*, Volley ball court, Basketball court and the expenses are as below:

Amount (in rupees) spent during the last four years:

	2012-2013	2013-2014	2014-2015	2015-2016
Building	58,46,628/-	19,47,920/-	19,82,451/-	10,55,641/-
Furniture	2,01,176/-	65,296/-	2,13,407/-	3,42,911/-
Equipment	67,996/-	1,800/-	53,360/-	50,689/-
Computers	1,18,841/-	9,600/-	55,941/-	40,605/-
Any other	1,124/-	1,500/-	61,584/-	51,999/-
Total	62,35,765/-	20,26,116/-	23,66,743/-	15,41,845/-

4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

The College is sensitive to the needs of physically challenged students and all possible efforts are made to provide a supportive and comfortable learning environment to them.

- Ramps are constructed at the entrance of all the buildings.
- Class rooms on the ground floor are provided for these students. A change in the allocation of rooms is made, if required.
- Separate examination blocks are allocated for these students on ground floor.
- A wheel-chair is kept if needed in emergency.
- JAWS software for visually challenged students is available in the UGC Resource Centre.

4.1.5 Give details on the residential facility and various provisions available within them: Hostel Facility for – Accommodation available, Recreational facilities, gymnasium, yoga centre, 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.

College has a Boys' Hostel in the campus that accommodates 70 students. The facilities provided are as follows:

- 35 double occupancy rooms and 6 single occupancy rooms. The rooms are well-furnished with a bed, cupboard, study table and chair.
- A recreational room with a television
- One sports room which consists of indoor games like Table Tennis, Carrom
- The hostel is located in the campus, thus the well-equipped gymnasium and all the sports facilities with a big, well-maintained sports ground is available for the students.
- The students also access the College Library and Reading Hall.
- First aid boxes are available at different locations and the college has a tie-up with Shushrusha Hospital for medical emergencies.
- Two rooms are available as residential facility for the staff in the hostel.
- Two water purifiers ensure that safe drinking water is available.
- Solar panels have been installed on the hostel since 2004 for water heating.
- A CCTV camera has been installed at the entrance of the Hostel.

The safety and security of the students, faculty and the institutional assets on the campus of 10 acres is ensured. The campus is guarded round the clock by a security system which includes female guards. A logbook for all visitors is maintained at both the entrances of the College. After College hours, entrances to all the buildings are closed.

- 50 surveillance cameras have been installed in the College campus.
- Identity cards have been issued to the students, teaching and non-teaching staff members who wear them as long as they are present on the campus.
- Safety in the laboratories is maintained through strict supervision by the faculty and laboratory assistants.
- Fire extinguishers have been installed as per the norms of the fire security services.

- Water purifiers and coolers have been installed at various places in the College buildings.
- The Girls' Common Room is located adjacent to the Vice-Principals' cabins thereby ensuring greater security for female students.
- All the students have been insured under the Group Insurance Scheme.
- Water tanks are cleaned once in a year. All the maintenance norms for elevator, fire extinguishers are strictly followed.

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?

The following facilities are available:

- Basic first aid
- Doctor-on-call facility
- Tie-up with Shushrusha Hospital for medical emergencies.

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, Counselling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

- Dedicated rooms have been allotted for IQAC, Grievance Redressal Unit, Women's Development Cell and Suman- Counselling Centre. Suggestion drop boxes in the office, examination department and faculty common room.
- The College has a spacious Canteen with an area of 3594 sq.ft, which serves a variety of dishes at reasonable rates. In view of their harmful effects on health, aerated drinks are not sold in the Canteen as a College policy.
- Canteen counter is set up for teachers in faculty common room.
- 48" LED TV which screens news channels in the Faculty common room.
- 12 water purifiers and coolers are installed at different locations in the college to provide safe drinking water
- Auditorium and seminar halls are used for conferences, seminars and college programmes.
- Lawns, *Rupangan* – open-air amphitheatre and *Saawli*- activity area are used as recreational spaces by staff and students.

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?

Yes, a Library Committee has been constituted comprising of:

- Chairperson - Principal
- Secretary - Librarian
- Members - Heads of Department or senior teachers from each faculty
- Member – non-teaching staff

The meetings of the Committee are held every year to formulate policies, decide the budget allocation and make future plans.

- The entire functioning of the library is computerised using SOUL 2.0.
- The library scans and e-mails the content pages of periodicals to the teachers. Photocopies of important articles of interest are also sent to the teachers.
- The library has a display section, which displays the new arrivals.
- The library timings are extended beyond the regular working hours for the benefit of the students during the examination period.
- The library has developed *Digital Repository access* by which information about the availability of books is accessible via LAN. In future, the College plans to extend this facility to the internet, so that this information can be accessed from outside.

4.2.2 Provide details of the following:

Total area of the library (in Sq. Mts.): 10,000 Sq.Mts

Total seating capacity:

Reading Hall – 210 students

Teachers – 24 members

Working hours (on working days, on holidays, before examination days, during examination days, during vacation)

Regular working hours : 7.30 am to 5.00 pm

Examination period : 7.30 am to 8.00 pm

Sunday/holiday closed

Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources) – Please refer to annexure.

4.2.3 How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.

The Library ensures constant up-gradation of its resources through purchase of latest books and journals. The Heads of Departments and teachers recommend the purchase of prescribed and suggested books as per revised syllabi. The budget allocation and expenditure report are forwarded to departments twice in the year. Reimbursement is given for relevant books purchased by teachers directly from bookshops, exhibitions and through online shopping. Catalogues from publishers are forwarded to the Departments.

Regular updates about newly published books are sent to teachers through email. Exhibition of new books is arranged in the College Library. If necessary, online resources are used for obtaining current titles, print and e-journals and other reading materials.

The index pages of latest journals are emailed to the teachers regularly. New titles, book jackets, periodicals are displayed in library entrance. The Library organises Book exhibitions to commemorate important occasions like Marathi Bhasha Din, Constitution Day and so on. The relevant collection is displayed to create curiosity and awareness among students about its significance.

Library Holdings	2011-12		2012-13		2013-14		2014-15	
	No.	Total Cost	No.	Total Cost	No.	Total Cost	No.	Total Cost
Text Books	488	26,095	504	1,07,546	635	1,15,844	626	1,27,945
Reference Books	1084	3,63,317	570	2,15,149	599	2,39,075	634	2,80,664
Journals/ Periodicals	128	1,06,699	129	1,11,592	127	1,19,949	129	1,54,450
e-resources	1	5,000	1	5,000	1	5,000	1	5,000
Donation	206	-	334	-	194	-	484	-

Total Cost in Rupees

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection?

OPAC: Through library software SOUL 2.0, OPAC (Open Public Access Catalogue), information regarding the availability of books and resources can be accessed.

Electronic Resource Management package for e-journals: N-List from INFLIBNET gives access to E-Journals and Books

Federated searching tools to search articles in multiple databases: No. Separate webpage for library is linked with college website.

In-house/remote access to e-publication is by Digital Repository access through intranet (In-house): Yes. It is available through SOUL 2.0 integrated library management software developed by INFLIBNET Centre.

Total number of computers for public access: 02 (One for teachers with internet facility)

Total numbers of printers for public access: Service is available in UGC Network Resource Centre.

Internet band width/speed 2mbps / 10mbps / 1gb (GB): 40 mbps

Institutional Repository: Yes (Built on DSpace software, and linked with library webpage) Collection in the repository is as follows and is in process.

- Educational Museum – Handwriting of eminent persons, rare books.
- Publications – College in-house publications, publications through library creative unit.
- Question papers of previous examinations are made available for reference.
- Research papers by faculty members.
- Local history documents.
- Issues of *Imprints* - college magazine.
- Old photographs of College activities.

Content management system for e-learning: No

Participation in Resource sharing networks/consortia (like INFLIBNET): Yes. Member of NLIST consortia.

4.2.5 Provide details on the following items:

Average number of walk-ins: 170 Students

Average number of books issued/returned: Issued = 53 books Returned = 52 books

Ratio of library books to students enrolled : 1: 41

Average number of books added during last three years : 1188 books

Average number of login to opac (OPAC) : 32

Average number of login to e-resources: 05

Average number of e-resources downloaded/printed: 650

Number of information literacy trainings organised: 02

Details of “weeding out” of books and other materials:

In case of lost books, the amount is recovered from the student/teacher and deposited in the College Office. The old and out of syllabus books, damaged books are weeded out from time to time with the permission of the Principal.

4.2.6 Give details of the specialized services provided by the library

- **Manuscripts:** No **Reference:** Yes **Reprography:** Yes
- **ILL (Inter Library Loan Service):** Yes
- **Information deployment and notification:** Yes
- **Download:** Service is available in UGC Network Resource Centre.
- **Printing:** Service is available in UGC Network Resource Centre.
- **Reading list/Bibliography compilation:** Yes
- **In-house/remote access to e-resources:** No
- **User Orientation and awareness:** Yes
- **Assistance in searching Databases:** Yes
- **INFLIBNET/IUC facilities:** Yes
- **Other (Traditional Services) -**
 - Document delivery service
 - Journal Content Pages
 - Catalogues
 - Book exhibitions
 - Books for former students – Yes.
 - Book Bank – Yes. For reserved category as per University norms.
 - College Book Bank– Yes. For needy and economically backward students.
 - Displays – Yes.

4.2.7 Enumerate on the support provided by the Library staff to the students and teachers of the college.

- Book Bank
- Lending-Direct Demand
- OPAC search
- Doctoral students- Guidance about bibliographic services, discussion report/ thesis writing, research methodology, Bibliographic patterns
- Document delivery service
- Display of classification method with classification numbers
- Additional books and reference material is made available for project work, preparation for quiz, elocution and other competitions.

4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons? Give details.

The College Library has some books in Braille. The JAWS software is also available for visually challenged students in the UGC Resource Centre. A ramp has been constructed to provide easy access.

4.2.9 Does the library get the feedback from its users? If yes, how is it analyzed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analyzed and used for further improvement to of the library services?)

In the year 2013-2014 library had conducted a survey of students who are using Book Bank facility. The feedback was used to improve the services.

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)

Number of computers with configuration:

- Eight separate Computer Laboratories are available for BSc (IT), MSc (IT), BSc (CS) and MSc (CS) with 131 computers and 1 server and 4 printers. The details are as follows -

Location No. of Terminals Operating system	Processor	RAM HDD	Peripherals	Printer Scanner
Room No. 401 30 WINDOWS 7	Intel Core i5 Fourth generation 3.0 GHz	8Gb 500Gb	20'' DELL LED Monitor, Keyboard/Mouse, ATX Cabinet	Network Printer
Room No. 402 12 WINDOWS 10	Intel Core i5 fourth generation 8.0 Ghz	8Gb 1TB	20'' Dell ultra HD LED Monitor, Keyboard/Mouse, ATX Cabinet	Network Printer
Room No. 404 30 WINDOWS 7	Intel Core i5 Second generation 3.0 GHz	8Gb 500Gb	20'' Viewsonic LED Monitor, Keyboard/Mouse, ATX Cabinet	Network Printer
Room No. 405 20 WINDOWS 7	Intel Core i5 Second generation 3.0 GHz	8Gb 500Gb	LED Monitor, Keyboard/Mouse, ATX Cabinet, operating system WINDOWS 720'' Viewsonic	Network Printer
Room No. 406 16 WINDOWS 7	Intel Core i3 Second Generation	2Gb 160Gb	15'' LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Network Printer

Room No. 407 23 WINDOWS 7	Intel Core i5 Fourth generation 3.0 GHz	4Gb 500Gb	20'' Dell LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Network Printer
Laboratory for Applied Component of Commerce and Mathematics and Statistics 40 Windows 7	Intel Core to Quad 2.3 Ghz	2Gb 160Gb	LG CRT Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Network Printer
	Intel Core to Quad 2.3 Ghz	2Gb 500Gb	16'' Acer LCD Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet,	4 2
Principal's Office 01	Intel core i5 Second generation 2.5 Ghz	4GB 500 GB	24'' Viewsonic LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Brother multifunction – Printer, copier, scanner
Vice- Principal's Office 1	Intel core i5 second generation 2.5 Ghz CPU	4GB Ram	500 GB Hard Disk, 24'' Viewsonic LED Monitor, DVD RW, Keyboard/Mouse, ATXCabinet	Brother MFC laser Printer
Vice- Principal's Office 2	Intel core i5 second generation 2.5 Ghz CPU	4GB Ram	500 GB Hard Disk, 24'' Viewsonic LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Brother MFC laser Printer
Vice- Principal's Office Jr College	Intel Pentium Dual core 2.5 Ghz CPU	1GB Ram	160 GB Hard Disk, 15'' Samsung LCD Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	HP 1007 Printer
College Office 17	Intel Pentium Dual core 2.5 Ghz CPU	1GB Ram;	160 GB Hard Disk, 15'' Samsung LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Canon LPB 2900 (Total 8)
College Office Extension 05	Intel core i3 3.0 Ghz CPU	4GB Ram	500 GB Hard Disk, 20'' Dell LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Canon LBP 2900 Printer (Total no.4)
Staff Common Room	All in one machine			
Department of Physics 05	Intel core i3 3.0 Ghz CPU	4GB Ram	500 GB Hard Disk, 20'' Dell LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	HP 1020 LaserJet Plus Printer
Department of Physics 05	Intel Pentium Dual core 2.5 Ghz CPU	2 GB Ram	160 GB Hard Disk, 19'' LG LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Canon LBP 2900 Printer
Department of Psychology 02	Intel Pentium Dual core 2.5 Ghz CPU	2 GB Ram	160 GB Hard Disk, 19'' LG LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	
Department of Psychology 01	Intel core i3 3.0 Ghz CPU	4GB Ram	500 GB Hard Disk, 20'' Dell LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Canon LBP 2900 Printer
Department of Psychology 02	Intel core i3 3.0 Ghz CPU	4GB Ram	500 GB Hard Disk, 20'' Dell LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	HP Multifunction Printer
Department of Statistics 03	Intel Pentium Dual core 2.5 Ghz CPU	.1 GB Ram	160 GB Hard Disk, 20'' Samsung LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Canon LBP 2900 Printer

Department of English 03	Intel Pentium Dual core 2.5 Ghz CPU	1GB Ram	160 GB Hard Disk,15'' Samsung LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Canon LBP 2900 Printer
Department of Botany 01	Intel Pentium Dual core 2.5 Ghz CPU	2 GB Ram	160 GB Hard Disk,20'' Dell LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	HP 1007 Printer
Department of Zoology 01	Intel Pentium Dual core 2.5 Ghz CPU	2 GB Ram	160 GB Hard Disk,15'' Dell LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	HP 1007 Printer
Department of Economics 01	Intel core i3 3.0 Ghz CPU.	4GB Ram	500 GB Hard Disk,20'' Dell LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Brother laser multifunction
Department of Marathi 01	Intel core i3 3.0 Ghz CPU	4GB Ram	500 GB Hard Disk,20'' Dell LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Canon LBP 2900 Printer
Department of Commerce 01	Intel core i3 3.0 Ghz CPU.	4GB Ram	500 GB Hard Disk,20'' Dell LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Canon LBP 2900 Printer
Department of Accountancy 01	Intel core i3 3.0 Ghz CPU	4GB Ram	500 GB Hard Disk20'' Dell LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Canon LBP 2900 Printer
Examination Department 02+02	Intel core i3 second generation 3.0 Ghz CPU	4GB Ram	500 GB Hard Disk,20'' Samsung LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Canon LBP 2900 Printer
	Intel Pentium Dual core 2.5 Ghz CPU.	2 GB Ram	160 GB Hard Disk,20'' Samsung LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Epson 2950 FX dot matrix Ricoh Reprographer Ricoh Photocopier
Department of Mathematics	Intel (R) core (TM) i-5-2320 CPU	RAM 4 GB	500 GB Hard Disk,18'' View Sonic LED Monitor, Logitech Keyboard/Mouse, Mercury MS 440	HP Laser Jet P10 07
Library 5 + 5	Intel core i3 fourth generation 3.0 Ghz CPU	4GB Ram	500 GB Hard Disk,20'' Samsung LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	Canon LBP 2900 Printer
	Intel Pentium Dual core 2.5 Ghz CPU	2 GB Ram	.;160 GB Hard Disk,20'' Samsung LED Monitor, DVD RW, Keyboard/Mouse, ATX Cabinet	HP Scanner Canon Xerox machine
UGC Resource Centre 10	Intel Core 2 Duo	2 GB Ram	160 GB HDD, LED Monitor, Keyboard, Mouse, ATX Cabinet	

Computer-student ratio - 1:1 (This is ensured by allocating proper time slots for each batch in each laboratory.)

Stand-alone facility – No, all the computers are connected by using LAN facility.

- Widely spread fiber optics back bone made for the optimum reach of the network.
- Wi-fi facility – available in faculty common room, room number 2 Sc and 301.
- Wi-Fi facility provided as and when required.

Information about Licensed software: Please refer to the Annexure No.

4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?

Most of the departments are provided internet connectivity under NME ICT program with bandwidth of 512 Kbps along with Faculty Common Room, Office and Examination Department. Students are given free internet access in the Library / UGC Resource Centre.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

The deployment and upgrading of IT infrastructure is carried out periodically. The College has developed a computer laboratory with 50 computers in the library section which is used to conduct admission process, online examinations, collect feedback and training programmes.

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)

Year	Number of Computers	Amount Spent
2010-2011	16 Computers	3,60,000 /-
2011-2012	54 Computers, 1 server, 1 printer	16,65,599 /-
2012-2013	10 Computers and upgradation of existing systems	3,45,250/-
2014-2015	51 Computers	15,31,500 /-
2015-2016	1 computer, 3 printers, 1 scanner	60,160 /-

The expenses related to computers have been partly funded through UGC Grants.

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?

- DST funding has been utilised for development of e-resources with ICT resources. (Room No. 402)
- A multimedia centre has been set up to help teachers in recording lectures and preparing instructional material. It is equipped with a high-resolution scanner, digitiser, video camera, video signal processing cards and mp3 recorder. Teachers are encouraged to prepare lectures and electronic teaching material through the UGC Network Resource Centre set up in the College.
- Most departments have computer with internet connectivity. The teachers as well as the students make extensive use of computers for preparing presentations, seminar papers and projects as well as for reference work.
- Two computers with internet access and a laser printer have been provided in the Staff Common Room to assist teachers in preparing for lectures.
- Students have access to the computers in the library and in UGC Resource Centre free of cost.
- Vriddhi software is extensively used for collection of fees and other administrative work.
- Special modules have been developed in Tally package for detailed financial accounting as per the requirements of the College.
- Admission software has been updated as per the guidelines of the University of Mumbai and Deputy Director of Education, Greater Mumbai.
- The new software required for maintaining records of students' results in the form of a credit bank has been entirely developed in-house. The creating and printing of mark sheets in the newly-prescribed University format is also done in-house rather than outsourcing the work.
- The Library uses SOUL software and barcode system.
- An MOU with Consularis was signed in order to train teachers in the use of Google apps. Training sessions were conducted for the same. E-mail ids in the format name.surname@ruparel.edu have been issued to all the permanent staff members (teaching and non-teaching) of the College.
- The teachers were also given training in using MOODLE to prepare question banks and conduct online examination. Since the College uses Vriddhi Package in the office

administration, training sessions were also held for the office staff in the same.

- Thus, there has been a consistent increase in the use of ICT resources for teaching, learning and evaluation.

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.

ICT-enabled teaching-learning tools like ceiling-mounted data projectors, computers with internet connectivity, and open source softwares are made available to make the learning process interesting for the students.

The MOODLE software is used for preparing question banks and conducting internal examinations. Free resource simulations are used for teaching science concepts and experiments. RF response cards have been purchased to aid the testing and scoring processes. A smart-board has been set up in order to make teaching-learning more interesting and informative.

Excel-based programme developed in-house is used for maintaining defaulters' lists and for analysing student progression.

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 ?

Yes. In addition to the existing network, there are 10 Internet connections under NME-ICT (National Mission on Education using ICT) programme with bandwidth of 512 kbps each.

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 up keep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?

The College gives regular attention towards maintenance and upgradation of all its facilities for the benefit of the stakeholders. The water coolers and purifiers, elevators, fire extinguishers and water tanks are serviced at regular intervals. The budget allocated for building, furniture, equipment and computers is as follows,

Year	2012-2013	2013-2014	2014-2015	2015-2016
Amount (in Rs.)	30,00,000/-	75,00,000/-	53,00,000/-	68,00,000/-

4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the college?

The non-teaching staff of the Department of Information Technology and Computer Science has been trained to carry out the maintenance of the computers and accessories. For major or severe faults, the circuit boards are usually sent to the vendors. The non-teaching staff has also been trained to assemble the computer systems. UPS and batteries are covered under the Annual Maintenance Contract (AMC) with the supplier.

Water filters and coolers and the elevators are maintained through AMC. Housekeeping services are carried out by specially appointed staff in the New Building. The equipments and apparatus are repaired through the manufacturers, as and when needed or under AMC. Since the College has a huge campus, cleaning of specific areas is designated to the non-teaching staff, appointed for the same. The Heads of the Department overlook the cleanliness of the departments and the Cleanliness Committee members regularly monitors the work.

4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment / instruments?

The institute takes up calibration and other precision measures of the equipment/instruments regularly. Non-teaching staff of respective departments are trained in equipment maintenance and operation.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?

Power failures are very rare, yet the computer laboratories have a provision of UPS. Other desktop computers have stand-alone UPS wherever required. The College has adequate water supply round the year. For its lawns, gardens and washrooms water supply is ensured through the rain water harvesting.

Any other relevant information regarding Infrastructure and Learning Resources which the college would like to include.

A unique feature of the College is that the non-teaching staff is motivated and trained to carry

out maintenance of IT resources such as printers, networking and computers. This ensures that most of the IT-related maintenance is carried out in-house thereby resulting in saving of time and funds.

Software for processing, printing and analysis of results has been developed in-house.

The campus development projects like construction of the amphitheatre *Rupangan* and the activity area *Saawli* have been accomplished through volunteer efforts put in by the teaching and non-teaching staff of the College.

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?

Yes, annually updated prospectus is published and made available to the students along with the admission forms. At a glance, the prospectus provides information about the academic, sports and the extra-curricular activities of the College. The prospectus also gives information about the following aspects:

- College and its establishment
- Vision and Mission of the Institution
- Programs and Courses offered
- Office working days and timings, fee structure (including payment of fees and refund), rules and regulations about railway concession
- Library, Gymkhana and Boys Hostel
- Rules of discipline
- UGC regulations on menace of ragging
- Various administrative committees which govern the institution's quality and performance as well as provide support to the students. These are:
 - Women's Development Cell
 - Student Welfare Committee
 - Guidance and Counselling Cell
 - Special Advisory Committee
 - Student's Grievance Redressal Committee
 - Placement Cell, Canteen Committee
 - Cleanliness Committee
 - Discipline Committee
 - Anti-Ragging Committee
 - Research Committee
 - Internal Complaint Committee for prevention of sexual harassment at work place.
- Government of India Freeship and Scholarship for students from the reserved category.

- Aided and Unaided programmes / courses offered by the Degree College.
- Scheme of examination and Credit Based Grading System.
- Revaluation of answer books and other important rules of examination.
- List of endowment prizes: academic, co-curricular and extra-curricular activities.
- Information about University of Mumbai website and other websites related to scholarship.

5.1.2 Specify the type, number and amount of institutional scholarships/ freeships given to the students during the last four years and whether the financial aid was available and disbursed

Various prizes and scholarship have been instituted by the College and are awarded to the meritorious students every year on the College Annual Day.

The details of the same are as follows:

Year	No. of students	Total Amount
2011 – 2012	123	57,775/-
2012 – 2013	120	64,347/-
2013 – 2014	122	61,415/-
2014 – 2015	119	65,960/-
2015 – 2016	123	66,450/-

5.1.3 What percentage of students receive financial assistance from state government, central government and other national agencies?

The percentage of students receiving financial assistance from state government is as follows:

<i>Year and Number of students admitted</i>	<i>Percentage of students who have received financial assistance</i>	<i>Amount</i>
<i>2010-11</i> 2844	Freeship Holder – 15.82% Scholarship Holder -12.94%	3157180/- 3652150/-
<i>2011-12</i> 2930	Freeship Holder –10.27% Scholarship Holder – 12.22%	2548863/- 3846347/-

2012-13 2935	Freeship Holder – 10.63 % Scholarship Holder- 11.75 % Open Merit –2.42%	2469607/ 3897080/- 79800/-
2013-14 3162	Freeship Holder -12.11% Scholarship Holder-13.47% Open Merit --1.71%	3986717/- 5008866/- 61800/-
2014-15 3460	Freeship Holder -11.25% Scholarship Holder-12.51% Open Merit --1.59%	2382195/- 2214347/- 63200/-
2015-16 2874	Freeship Holder –12.30% Scholarship Holder- 12.95% Open Merit –1.54 %	2030246/- 3596052/- 50000/-

The College office has a separate section for the processing of scholarships and freeships given by the State Government. This office extends all necessary support to the students to complete the formalities. The information regarding the scholarships and application format, documents required is included in the prospectus. This information is also publicized through the students' notice boards. The students are provided technical support to complete the online form. Information about other Scholarships is also displayed on the notice boards. Apart from freeships, scholarships and open merit scholarship given by the Government, students also apply for scholarships given by local bodies and private institutes, the record of which is not maintained by the College.

5.1.4 What are the specific support services/facilities available for Students from

- *SC/ST, OBC and economically weaker sections,*
- *Students with physical disabilities*
- *Overseas students,*
- *Students to participate in various competitions/National and International,*
- *Medical assistance to students: health centre, health insurance etc.,*
- *Organizing coaching classes for competitive exams,*
- *Skill development (spoken English, computer literacy, etc.),*
- *Support for “slow learners”,*
- *Exposures of students to other institution of higher learning /corporate /business house etc., Publication of student magazines*

➤ ***Students from SC/ST, OBC and economically weaker sections***

- The College strictly adheres to all the admission procedures that are applicable to SC/ST, OBC and economically weaker sections.
- Personal guidance and technical support is provided to the students from the SC/ST, OBC categories to complete the online form for freeship / scholarship.
- In addition to the Book Bank Scheme of the University, the College has its own Book Bank Scheme for needy students.
- The College gives financial support or grants fee waiver for needy and deserving students
- Facility of paying the fees in installments is provided on request.

Students with physical disabilities

- Classrooms and examination halls for differently-abled students are allocated on the ground floor to provide easy access.
- The College makes changes in the time-table and classroom allocation for the ease of access to physically challenged students on a case to case basis.
- Ramps have been constructed at all the entry points in all the buildings of the College.
- Writers are provided to the visually challenged students at the time of examination.
- During examinations, differently-abled candidates are given extra time as per the University rules.
- JAWS software is available for visually challenged students in the UGC Resource Centre to enable them to read study material.
- A separate meeting of the parents and students with the Principal and the College Counsellor is conducted. They are informed about the examination and gracing rules, documents to be submitted for the same, support provided by the College and any other relevant information.
- The College counsellor conducts individual sessions with the parents and students and provides information and counselling in *Effective Study Skills*, other academic and personal areas.
- The examination and gracing rules are meticulously followed.

➤ ***Overseas students***

Hostel facilities are available for male students.

Only one student from Japan had taken admission in the College in the year 2013-2014. He was extended the support to complete the technical and legal formalities for admission. He was guided in academics and to adjust to the College environment.

➤ ***Students to participate in various competitions/National and International***

All the information about various competitions and events is sent to the teachers in-charge and is put up on the notice boards. Students are encouraged to participate in these competitions and events. They are given all the required infrastructural, financial and coaching assistance to participate in sports and cultural activities. In fact, the College also organises various talks, training workshops and interactions with experts so that the students learn the necessary skills in these areas.

➤ ***Medical assistance to students: health centre, health insurance etc.:***

First aid boxes are available in various departments in the Campus. The College has a tie up with the nearby Shushrusha Hospital to provide immediate medical attention to bonafide students and staff members in case of an accident, mishap or any kind of emergency. Emergency help through on call doctor is also available. All the students are covered under Group Health Insurance by the College.

➤ ***Organizing coaching classes for competitive exams***

Department of Physics provides guidance for competitive examinations like NGPE, IIT, NET, SET and GATE. Study and reference books for all these examinations are available in the library. Interactions with the experts and field visits are organised to benefit the students preparing for UPSC and MPSC examinations.

➤ ***Skill development (spoken English, computer literacy, etc.)***

Certificate courses and other value added programmes are conducted by various departments. They are interdisciplinary in nature or of practical importance for students. These courses help in generating interest for the subject and students can plan careers based on their experiences and meetings with experts. The theme for the Department of Management Studies for the year 2015-16 was *Building of Soft Skills*, so all the talks organised were in line with this theme. Detailed information about this has been given in Criterion 1.1.7.

➤ ***Support for “slow learners”***

- Mentoring system - Some departments have initiated mentoring system. They identify students' grasping / learning abilities and difficulties, if they have any, in their studies. Help is provided by the mentor to improve the performance of the student.
- Workshop on laboratory techniques, skill development, and language proficiency are conducted.
- Parents' meetings are held regularly to inform the parents about the progress of the students.

➤ ***Exposure of students to other institution of higher learning /corporate /business house etc.***

Institutional visits, field visits and guest lectures are organised by departments to enhance knowledge of students regarding better prospects of higher learning and career options. Some examples of institutional visits are –

- Indian Meteorological Department (Colaba)
- Marine Biological Research Institute (Ratnagiri)
- Forest Research Institute (FRI) , Dehradun
- Central Institute of Fisheries Education (CIFE).
- Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli
- Sudhir Generators (Silvasa)
- AMUL- Kaira District Co-operatives Milk (Ahmadabad)
- Ceat Tyres (Parihanse)
- Forbs and company Ltd.(Aurangabad)
- Camlin industry (Tarapur)
- Reliance Corporate Park (Mumbai)
- Food and Drug Administration (Mumbai)
- Bhabha Atomic Research Center (Mumbai)
- Tata Institute of Fundamental Research (Mumbai)

Detailed information about this has been given in Criterion 2.2.4.

Publication of student magazines

The College magazine *Imprints* is published every year. Students are members of editorial board and also contribute by writing articles and poems.

5.1.5 Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

To facilitate entrepreneurial skills among the students, various field visits and orientation lectures are organised by the departments. The students play an active role in organizing and managing the programmes of the department and the College. They gain experience about acquiring sponsorship, preparing budget, submission of accounts and event management. The students of BMS celebrate Entrepreneurship Day, wherein they prepare and sell some products.

In 2015, students of DLLE Unit prepared and sold decorative wax candles and lamps before the Diwali Festival.

In association with Khadi Gram Udyog, seminars on entrepreneurship were organised in 2015 and 2016. Students interacted with entrepreneurs and participated in demonstrations of pottery, incense stick making and paper bags making. This has resulted in greater awareness amongst students about self-employment opportunities.

5.1.6 Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co-curricular activities such as sports, games, quiz competitions, debate and discussions, cultural activities etc., additional academic support, flexibility in examinations, special dietary requirements, sports uniform and materials, any other.

The College encourages students' participation in extracurricular and co-curricular activities by providing infrastructural, financial and training support. The various departments and associations organise programmes like talks, workshops, sports, games, quizzes, debate and discussions.

Departmental fests are organised to enhance the interest of the students in the subject e.g.

- Arthotsav – Intercollegiate Economics Festival
- Aarambh – Intra-college Management Festival
- Vibgyor – Intra-collegiate Physics Festival
- Carpe Diem – Intra-collegiate Literary Festival
- Psynergy – Inter-collegiate Psychology Festival
- Dot Tech – Intra-collegiate Information Technology and Computer Science Festival.

The Students' Council / Committee organises various cultural events and actively contributes to the management of Annual Scholars Day and Gymkhana Day. These students are given additional academic guidance as and when needed. Adjustments are allowed in practical conduct, if required.

The College provides financial assistance for the costumes and the back stage requirements for cultural performances. The sports persons are provided the uniform kit and daily allowance.

While declaring the schedule of internal and other examinations conducted by the College as per the University rules, schedule of competitions organised by the University is taken into consideration. For all the students who miss their examination on account of participation in extracurricular and co-curricular activities, additional examination is conducted as per rules of the University.

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/GRE/TOFEL/GMAT/ Central/State services, Defense, Civil Services, etc.

The Department of Physics conducts Entrance Exam in Physics (E²P) programme under which students are guided for various competitive examinations. Every year, an average of 15 students availed of this guidance. Ms. Tanvi Paradkar, a student of Marathi Literature qualified in the UGC NET examination (Library and Information Science) in 2012-2013.

5.1.8 What type of counseling services are made available to the students (academic, personal, career, psycho-social etc.)

Suman - Career Guidance and Counselling Centre provides free of cost support to the students for coping with personal, academic, and career concerns. The Counsellor Ms. Neelima Deshpande, professional psychologists and counsellors from Ascend Psychology organization conduct workshops and give talks which are beneficial for the personality development of the students.

Following are the programmes conducted through *Suman*:

2010 - 2011

- Workshop on *Enhancing Decision Making*
- Talk on *Managing Fear and Anxiety*
- Workshop on *How to Get More out of Your Life*
- Talk on *Enhancing Self-Awareness*
- Workshop on *Enhancing Creativity and Innovation*
- Talk on *Dealing with Difficult People*
- Workshop on *Developing Assertiveness*
- Four workshops on *Effective Study Habits* for students of Physics and 3 workshops for the students of Chemistry.

2011 – 2012

- Workshop on *Developing Conversational and Communication skills*
- Talk on *Dealing with Rejection*
- Workshop on *Developing Optimism*
- Talk on *Self-Acceptance*
- Talk on *Coping with Changes and Challenges*
- Workshop on *Goal setting*

- Workshop on *Emotional Intelligence*
- Talk on *Courses and Careers after BA in Psychology*
- 14 workshops on *Effective Study Habits* for students of Physics, Botany and Psychology
- Two workshops on *Effective Time Management* for the students living in the College hostel

2012 – 2013

- Two workshops on *Effective Study Habits* - for students of Information Technology.
- Two workshops on *Effective Study Habits* - for students of Physics

2013 – 2014

- Workshops for students of Physics on *Effective Study Habits*
- Two group guidance sessions on *Goal Setting* for students of SY and TYBMS.
- A group guidance session on *Fear of Mathematics* for students of FYBMS.
- Two group guidance sessions on *Effective Study Habits* for students of SY and TYBMS.
- Five group guidance sessions on *Nutrition and Fitness* for students of all faculties.
- Two group counselling sessions for students of FYBSc Physics on *Coping with academic demands*

2014 – 2015

- Two workshops on *Effective Study Skills* for FYBSc and TYBSc students of Physics.
- Three group guidance sessions on *Goal Setting* FY, SY and TYBMS students
- Group Guidance session on *Effective Study Skills* for SYBMS and TYBMS.
- Nine group guidance sessions about *Nutrition and Fitness* for students of all faculties.
- Two workshops for TYBSc and SYBSc students of Physics on *Effective Study Skills*
- Eight group guidance sessions for students of Physics, Chemistry, Statistics and Marathi on *Effective Study Skills*
- Presentation by the counsellor to teachers of Statistics and Marathi on *Effective Study Skills*

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its 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. The Placement Cell was started by the College in 2006 – 2007 with a view to expose students of different faculties about the opportunities in the job market. The Placement Cell

informs students about job opportunities through notice boards and co-ordinates the campus interviews held by leading companies from business and IT sectors.

2013 - 2014

Name of Company	Date	Position / Job profile	CTC (PA)	Number of students	
				Registered	Placed
<i>J. P. Morgan and Investment Bank</i>	05/02/14	Team member (Back Office)	2 L +	154	15
<i>Great Place to Work Inst.</i>	18/02/14	Operation Analyst – Consulting	3.28 L +	54	Nil

2014 - 2015

Name of Company	Date	Position / Job profile	CTC (PA)	Number of students	
				Registered	Placed
<i>Reliance Jio</i>	24/02/15	Business Analyst	4 L	120	Nil
<i>Godrej Properties</i>	26/02/15	Marketing and Sales	6.8 L	118	01
<i>Avanti Learning</i>	28/02/15	Marketing Associate	2.5 L +	91	01
<i>Federal Bank</i>	31/03/15	Clerk	3.34 L	100	Nil
<i>Capgemini</i>	1/04/15	System Associate	1.8 L	61	27

2015 - 2016

Name of Company	Date	Position / Job profile	CTC (PA)	Number of students	
				Registered	Placed
<i>Endurance International Group</i>	17/12/15	Web Solution Specialist	3,16,369	62	02
<i>ICICI Prudential</i>	28/01/16	Financial Services Consultant	2,30,000	138	18
<i>Ultima Chemical</i>	17/02/16	Business Development	1.8 L	46	Nil
<i>Directi Group</i>	16/03/16	Business Development Specialist	3,55,060	74	Nil
<i>Directi Group</i>	28/03/16	Research Analyst	2.69.291	26	01
<i>P3 Architectural Solutions</i>	18/03/16	Business Development Executive	2.4 L	35	07
<i>Star India Ltd.</i>	23/03/16	Creative Intern	6 L	102	Result awaited
<i>Capgemini</i>		System Associate	1.8 L		12

5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

Yes, the College has constituted a Students' Grievance Redressal Committee. Senior teachers from all faculties are members of the committee. The names of the members of the committee are displayed on the Notice Board.

No major grievances have been reported to the committee during last five years.

Apart from the formal Redressal Cell, the mechanism of redressal of grievances operates at different levels. The open door policy of the Management facilitates the free expression of concerns and quick resolution of issues.

Suggestion / Complaint Boxes have been installed to enable students to express their grievances to the Principal in writing.

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

The College has constituted a Women's Development Cell, with teaching staff, non-teaching staff, student representative and a legal advisor as its members. The College has also constituted the Internal Complaint Committee for Prevention of Sexual Harassment at Work place (Prevention, prohibition and redressal) according to University norms. The names of the members of this committee are displayed on the students' notice board and also in the Girls' Common Room.

Efforts are made to maintain a healthy academic environment in the College. The College organises programmes to create awareness and sensitise about gender equality. The list of such programmes is given in 2.2.4

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?

Yes. An Anti-Ragging Committee has been constituted to maintain a safe and healthy atmosphere on the Campus. The College prospectus contains the details of anti-ragging rules and ordinances of the University of Mumbai. During the admission process, every student is required to sign an undertaking about their awareness of the same. Not a single instance of ragging has been reported in the last five years.

5.1.13 Enumerate the welfare schemes made available to students by the institution.

The College aims at furthering education for national progress rather than for selfish gains.

- No student seeking admission to the College is denied admission on account of his/her inability to pay the fees.
- Students are permitted to pay fees in installments on request.
- The Students' Mutual Aid Fund and the Students' Welfare Fund provide fees for financially weak students who find it difficult to pay the fees.
- The Book Bank Scheme of the college facilitates deserving students to borrow text books to augment the classroom teaching and learning.
- Students are covered under Group Health Insurance.
- Suman- Career Guidance and Counselling Centre provides guidance and counselling free of cost to students and staff to cope with a variety of personal, academic, and career concerns.
- Sanitary Napkin Vending Machine and Sanitary Napkin Disposal Machine has been installed in the Girls Common Room.

5.1.14 Does the institution have a registered Alumni Association? If 'yes', what are its activities and major contributions for institutional, academic and infrastructure development?

The College can boast of alumni who occupy illustrious positions in academics and the industry. They actively contribute to the development of the College. The alumni association has not been formally registered. The alumni maintain close ties with the College. Alumni meets are organised by the departments and the College. The alumni interact with current students through talks and workshops. They share their expertise with the current students, guide them about career opportunities and enable networking with the industry. Alumni who are professionals guide the students for co-curricular and extra-curricular activities in sports, dramatics and singing. The former students of NCC, NSS and sports attend the Flag Hoisting ceremonies on Independence Day and Republic Day every year. The Department of Psychology was renovated through donations from their alumni. Alumni donations have also enabled renovation of major toilet blocks of the College.

5.2 Student Progression

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlight the trends observed.

Students progression	%
UG to PG	60
PG to MPhil	10
PG to PhD	30
Employed	
• Campus selection	20
• Other than campus recruitment	N.A

5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/ batchwise 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.

Programme	2012-13		2013-14		2014-15	
	College	University	College	University	College	University
TYBSc	82.22	NA	81.29		40.23	56.79
TYBA	82.87	76.05	80.49		71.53	69.74
TYBCom	96.68	81.13	77.67	73.17	89.18	67.34
TYBSc(IT)	69.69	47.70	75.10	56.60	78.85	
TYBMS	85.00	66.14	88.88		69.44	NA
MSc	84.39	NA	81.83	80.11	64.38	71.64
MCom		54.40 (Part I)		81.64	82.14	

Ranks obtained by the students of the College in University Merit list

Year	Class	Name	Rank
2015-16	TYBA - Psychology	Akshata Kulkarni	First
2015-16	TYBSc - Statistics	Vedant Kondkar	First
2014-15	TYBA - Philosophy	Palaya Tejkiran Kaur	Third
2014-15	MSc - Physics	Miss Vidula Angane	First
2014-15	TYBSc - Botany	Miss Nupur Telawane	First
2013-14	TYBSc - Physics	Ms. Sangeeta Dhuri	Third

2012-13	TYBSc - Botany	Miss Ruksar Ansari	Third
2012-13	TYBSc - Botany	Miss Nagma Hazir	Second
2012-13	TYBA - Economics	Ms. Shivali Tiwari	Third
2012-13	TYBSc - Chemistry	Ms. Divya Chenna	First
2012-13	TYBA - Psychology	Ms. Sadaf Vidha	Ninth
2012-13	TYBSc – Statistics	Prajakta Ghadi	Second
2012-13	TYBSc – Chemistry	Divya Ravinder Radha	First
2012-13	TYBA – Philosophy	Tejashree Trimakhe	First
2011-12	TYBA – Philosophy	Kasturi Deshpande	First
2011-12	TYBSc - Physics	Mr. Ajay Lotekar	First
2010-11	TYBA - Psychology	Ms. Poonam Gala	Fifth

5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

The College provides guidance to the students for pursuing higher education or towards employment through the following methods:

- Talks about higher education opportunities by alumni and experts.
- Career guidance was provided free of cost by *Suman* – The Guidance and Counselling Centre till the academic year 2012-13.
- Some seats of postgraduate courses are reserved for in-house students
- The College Library enables students to prepare for competitive examinations.
- The teachers guide the students to apply for higher education courses or jobs.
- The Placement Cell of the College coordinates with companies to organise campus placement interviews.
- The skill development activities and the *Learning Beyond the Syllabus* initiative help the students to discover their potential.

5.2.4 Enumerate the special support provided to students who are at risk of failure and dropout?

Students who are at risk of failure and drop out are supported by the following methods:

- Weak students are identified through result analysis. Remedial coaching is conducted by some departments. Academic guidance is provided to them.
- The Departments of Physics, Chemistry, Botany, Zoology and Management Studies conduct Bridge Course for the students.
- Financially weak students are given support through Students' Mutual Aid Fund, facility

to pay fees in installments or fee waiver on case to case basis. Book Bank Scheme is also available for such students.

- Students with personal and psychological problems are encouraged to visit Suman for counselling. Some departments organise *Effective study skills* sessions for the students, to improve their study skills.
- The Vice-Principals address the students who have failed and inform them about various methods to overcome academic difficulties.

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 programme calendar.

The quest for excellence is reflected in the fact that the College has consistently stood among the **top five Sports rankings** of the University of Mumbai. Three students of the College have won the **highest sports award of Maharashtra State** i.e. *Shiv Chhatrapati Puraskar*.

In keeping with the mission statement of ensuring multi-dimensional personality development of Students, the College has provided facilities or made arrangements for the following sports and games –

Archery	Athletics	Ascend and Descend	Badminton
Baseball	Basketball	Best Physique	Boxing
Chess	Cricket	Cross Country	Cycling
Carrom	Fencing	Football	Gymnastics
Handball	Half Marathon	Judo	Kabaddi
Kho-Kho	Mallakhamb	Power Lifting	Shooting (Air rifle and Pistol)
Softball	Swimming	Table Tennis	Taekwondo
Throw ball	Volleyball	Wrestling	Yoga

The College Gymkhana is well equipped and coaches are appointed for training the students for many games. The Air Rifle and Air Pistol shooting range has been developed with modern equipment like automated targets.

The College has hosted the following Sports Tournaments on behalf of the University of Mumbai:

- University of Mumbai Inter-Collegiate Chess Tournament from 10th to 13th April 2013.
- University of Mumbai Inter-Collegiate Basketball Women's Tournament from 28th to 30th September 2015. The tournament was inaugurated by Honourable Vice-Chancellor Dr. Sanjay Deshmukh.
- University of Mumbai Inter Collegiate Open Side Air Rifle, Peep Side Air Rifle and Air Pistol Shooting Competition from 24th to 29th December 2015.

There are a number of co-curricular and extra-curricular associations to provide a platform for identifying and nurturing the students' talents. The list of such associations is given below:

Cultural

- Nupur (Dance group): to develop the students talent by practicing the various Indian, classical and folk dance forms
- Chitravedha (Film review club): to train students to appreciate cinema as an art form
- Swarsadhana (Music group): to nurture the musical abilities
- NatyaVibhag (Theatre group): to promote acting skills and showcase to wide audience

Co-curricular Associations

AiMS	Association of Management Studies – organise programmes related to BMS
Book Review Club	To make students aware of latest publications
CASSO	Commerce Association – creating awareness about commerce and industry
CHEMARC	Career guidance in Chemistry and interaction with industry
DLLE Unit	Department of Lifelong Learning and Extension Unit
Economica	Organising programmes related to Economics
Genesis	Activities and events related to geography and environmental studies
Maanas	Promoting interest in Psychology
Marathi Vangmay Mandal	Marathi literary association
Open Forum	Stimulating holistic thinking
Science Association	Popularization of science
RUPELA	Fostering interest in English language and literature
Polis	Enhancing awareness about the political system
Tattvadarshan	Promoting critical mind-set through programmes related to philosophy

Community Oriented Activity

- N.C.C
- N.S.S
- DLLE Unit

Every year the College celebrates Annual Days like *Saree Day*, *Tie Day*, *Traditional Day*, *Rose Day*, *NCC Day* and so on with active participation of more than 75% students. The *Annual Scholars' Day* and *Gymkhana Day* celebrations are marked by cultural performances in which more than 150 students participate every year as stage performers. A group of more than 250 students volunteers provides help back stage and overall management of the programme. The audience comprises of more than 1500 students. In addition to this various departments conduct Annual Festivals with programmes related to their subjects like *Psynergy* by Department of Psychology, *VIBGYOR* by Department of Physics, *Carpe Diem* by Department of English, *Arthotsav* by Department of Economics, *IT Fest* by Department of IT-CS and *Aarambh* by Department of Management Studies. These Festivals attract enthusiastic participation of students from all faculties.

Cultural events organised and conducted by the College

Traditional Day, Saree and Tie Day etc.	Third Week of December
Annual Scholars' Day	23 rd December
Annual Gymkhana Day	24 th December
Arthotsav	Third week of November
Cricket Matches	Third Week of December
Psynergy	January / February
VIBGYOR- Science Fest	February
Aarambh	February
DotTech	February
Carpe Diem	February

5.3.2 Furnish the details of major student achievements in co-curricular, extracurricular and cultural activities at different levels: University/State/Zonal/National/International, etc. for the previous four years.

2010-2011

<i>Event / Organiser</i>	<i>Name</i>	<i>Prize</i>
<i>Street Play Competition by Masina Institute of Behavioural Sciences</i>	Kalyani Jadhav and Team	First and a trophy
	Kalyani Jadhav	Special Prize and Trophy
<i>Poster Competition at Udaan - The flight of Extension</i>	Nitesh Choughule	First
<i>Hindi Skit Competition at University of Mumbai M.E.T. Mumbai</i>	Vivek Mishra	Consolation
	Vivek Mishra	Journalist of the year
	Vivek Mishra	RJ of the year
<i>Street Play Competition</i>	College NSS Unit	Consolation Prize
<i>LANG GAUGE – festival conducted by Jhunjhunwala College, Ghatkopar</i>		
<i>Caption Contest</i>	Ishwari Patkar	Second
	Bhavna Suleria	Third
<i>Vocabulary Bonanza</i>	Shivranjani Palkonda	Third

<i>Pick and Talk</i>	Paras Gala	First
	Bhoomi Kothi	Second
<i>MAD HATTERS - Festival Organised by Ruia College</i>		
<i>Extempore</i>	Paras Gala	First
	Raj Daftary	Third
<i>Creative Writing</i>	Neeraja Vaidya	First
	Paras Gala	Second
<i>Group Discussion</i>	Paras Gala	First
	Neeraja Vaidya	Second
	Prachi Chhatre	Third
<i>Just A Minute</i>	Mudhir Shaikh	
	Sameer Bhoite	Second
	Ashutosh Gokhale	
<i>Business Bazigar competition</i>	Vivek Mishra	
	Sandeep Singh	Second
	Jaimala Pandey	
<i>Ad-Mad competition</i>	Sameer Bhoite	
	Ashutosh Gokhale	First
	Mitesh Rakshe	
	Sonali Chavan, Harshad Pebankar	Second
<i>Virtual Stock Market</i>	Harshada	
	Dnyaneshwar Kangane	
	Varsha Sadafule	First
	Prachi Shigam	
	Mihir Chavan	
<i>Being Socially Responsible</i>	Aditi Mahale	Second
	Yashashree Kamerkar	
	Swati Agarwal, Shweta Ambolkar	First
	Smruti Phatak	
	Vivek Mishra	
<i>IPTA Intercollegiate Drama Festival- GHUTAN-</i>	Sandeep Singh	Second
	Jhanvi Vartak	
	Best One Act Play	
	Ranjeet Patil	Best Director
	Onkar Raut	Best Actor (Male)
<i>Direction</i>	Sai Joshi	Best Actor (Female)
	Nakul Joshi	Consolation
	Krunal Rane	
<i>Malabh Uttung Ekankika Spardha</i>		
<i>One Act Play</i>		Second
<i>Writer</i>	Kiran Yadnyapavit	Best Writer
<i>Direction</i>	Ranjeet Patil	Best Director
<i>Acting</i>	Onkar Raut	Best Actor (Male)
	Sai Joshi	Best Actor (Female)
<i>Acting</i>	Onkar Raut	Second for Best Actor (Male)
<i>Chabbis Gyarah Skit Competition (University Youth Festival)</i>	18 Till I Die	Consolation

Sakal Mahakarandak (Mumbai Final)

<i>One Act Play</i>		Second
<i>Direction</i>	Omkar Raut	Best Director
<i>Acting</i>	Tushar Ghadigaonkar	Best Actor (Male)
	Samruddhi Ghumre	Actress (Con. Prize)
<i>Set Design</i>	Nilesh Chavan	Best Set
<i>Writer</i>	Omkar Raut	Consolation

Sakal Mahakarandak (Mega Final and Final)

<i>One Act Play</i>		First
<i>Direction</i>	Omkar Raut	Best Director
<i>Acting</i>	Tushar Ghadigaonkar	Best Actor (Male)
	Samruddhi Ghumre	Best Actor (Female)
	Amol Rewale	Actor(Consolation)
<i>Lights</i>	Omkar Raut	Best Light
		Arrangement

Kirti Antarang

<i>One Act Play</i>		Second
<i>Direction</i>	Omkar Raut	Best Director
<i>Acting</i>	Samruddhi Ghumre	Best Actor (Female)

Mahatma Phule Karandak

<i>One Act Play</i>		Second
<i>Writing</i>	Omkar Raut	Best Writer
<i>Acting</i>	Tushar Ghadigaonkar	Best Actor(Male)

Spandan (Patkar College)

<i>One Act Play</i>		Second
<i>Writing</i>	Omkar Raut	Best Writer
<i>Acting</i>	Tushar Ghadigaonkar	Best Actor (Male)
	Samrudhi Ghumre	Best Actor (Female)

Youth Festival (University of Mumbai)

<i>Marathi Elocution</i>	Deepti Shinde	First
<i>English Elocution</i>	Sushmita Paria	Second

Instrumental and Non-Percussion Competition

Sweekar Katti	Second
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Harsholhas

<i>Dance Competition</i>	Apoorva Undalkar	Third
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2011 – 2012

<i>Event/Organiser</i>	<i>Name</i>	<i>Prize</i>
<i>Youth Festival- University of Mumbai (Contingent leaders: Khushboo Dattani Vinay Vakhare)</i>		
<i>One Act Play</i>	Advait Kadne, Chaitra Ujale Kimaya Mayekar, Sumedh Salvi Rupesh Sawant, Ashutosh Gokhale, Sailee Chaurasia, Sai Joshi	Second Consolation
<i>Skit Competition</i>	Aditya Goregaokar, Sagar Jamkar Ashutosh Gokhale, Deepali Nikalje Mayuresh Pem	Second Consolation
<i>Folk Orchestra</i>	Apoorva Undalkar, Siddhant Jadhav Sandesh Daptare,	Third Prize

	Niranjan Solaskar Ashwini Damle, Rahul Shinde Bharat Thorat	
<i>Group Song</i>	Sayli Mahadik, Mitali Mathure Manasi Deshmukh, Runzun Pandit	First Prize
<i>P.C. Alexander Elocution</i>	Pradya Damle	Second
<i>Debate Competition</i>	Paras Gala	Third
<i>Light Vocal</i>	Rutuja Laud	Third

Harsholhas

<i>Elocution Competition</i>	Pranita Shinde	First
<i>Dance Competition</i>	Sanika Abhyankar, Tushar Kamble	First
<i>Contingent Leader</i>	Yatin Malvankar	Best Contingent Leader
<i>Dance Competition</i>	Tejali Kunte and Ashvini Kusurkar	First

IPTA Awards

Khwaab Shishe Ke - Kaiffee Azmee Jury Award

<i>Actor</i>	Mayuresh Pem	Best Actor
<i>Direction</i>	Kone Eke Kali	Best Direction
		Second Best Play
<i>Actor in comic role</i>	Mayuresh Pem	Best Comic Actor
<i>Light Arrangement</i>	Bhushan Desai	Best Light Arrangement
<i>Actress</i>	Dipali Nikalje	Best Actress (Third)

2012-2013

<i>Event/Organiser</i>	<i>Name</i>	<i>Prize</i>
<i>Youth Festival (University of Mumbai) Contingent Leaders: Mr. Chaitanya Pawar and Ms. Manali Bhandarkar</i>		
<i>Western Instrumental</i>	Sanchit Mhatre	First
<i>Marathi Elocution</i>	Shreyas Mehendale	First
<i>On the Spot Painting</i>	Prathamesh Shirsat	First
<i>Debate</i>	Paras Gala, Carol Chettiyar	Third
<i>Folk Dance</i>	Apoorva Undalkar, Shivani Rajshree, PrachiMadre, Prutha Kadam, Akshay Humne, Tushar Kamble, Kedar Dhond Nilesh Jadhav	First Consolation
<i>Poster Making Competition</i>	Mandar Maskar	Consolation
<i>Indian Light Vocal</i>	Mitali Mathure	Consolation
<i>One Act Play</i>	Mayuresh Pem, Chaitra Ujale Tushar Ghadigaokar	Consolation

IPTA

<i>Acting(Face Off)</i>	Kiran Pavaskar, Sachin Mane.	Consolation
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<i>Acting (Shanti Naresh)</i>	Maitreyee Namjoshi	Third
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2013-2014

<i>Event/Organiser</i>	<i>Name</i>	<i>Prize</i>
<i>Youth Festival- University of Mumbai (Student co-ordinators: Ms. Nupur Handa and Mr. Durgesh Jogal)</i>		
<i>Classical Percussion</i>	Tanay Rege	First
<i>Western Instrumental</i>	Sanchit Mhatre	First
<i>Folk Dance</i>	Prachi Madre ,Ankita Gosale Shivani Rajeshree, Prutha Kadam ,Carol Chettiyar Ruchi Kulkarni ,Bhumika Upadhyay, Bhargavi Kadam Tirtha Tikam, Shivani Kandalgaonkar	Consolation
<i>Debate (Marathi)</i>	Shreyas Mehendale, Gauri Kelkar	Consolation
<i>Actor</i>	Kimaya Mayekar, Sachin Mane Vinayak Kadam	Best Actor (Consolation)
<i>Malhar (St. Xavier's College)</i>		
<i>Gaming</i>	Arko Biswas ,Jayesh Tandel, Kartikeya Saksena	Third
<i>Entertainment Quiz</i>	Arko Biswas, Abhishek Ravishankar	Second
<i>Classical Singing</i>	Priyanka Mayekar	Second
<i>Idea Jallos Festival</i>		
<i>Marathi Elocution</i>	Gargi Kamath Gauri Kelkar	Second Consolation
<i>Photography</i>	Gargi Sawant	Third
<i>Poetry Recital</i>	Darshan Redkar	Consolation
<i>Maharashtra Utsav</i>		
<i>Contingent Leader</i>	Nikhil Mestry Sumedh Salvi	Best Contingent Leader Utsav King
<i>Photography</i>	Tejas Chachad Nikhil Kamble	First Consolation
<i>Cookery</i>	Shraddha Mhatre Sonali Pinge	Third Consolation
<i>Marathi Elocution</i>	Pranita Shinde	Consolation
<i>Lavani</i>	Chaitra Ujale	Third
<i>Improvisation</i>	Kiran Pawaskar (Director) Adwait Kadne, Pranay Tambe, Kimaya Mayekar, Abhijeet Mohite, Nikita Mahadik, Apurva Kadam, Mandar Worlikar	Third
<i>Rock band</i>	Sanchit Mhatre, Siddhant Kamble, Nikhil Kamble	Second

<i>“Samvaad” Marathi Elocution Competition</i> <i>Nee. Go. Panditrao State level Marathi</i> <i>Elocution competition</i>	Gauri Kelkar	First
	Gargi Kamath	Consolation
	Rohit Phalke	Second
	Savani Vaze	Third
<i>Late Jugaldas Modi Memorial Marathi</i> <i>Elocution Competition organised by</i> <i>Jhunjhunwala College</i>	Gargi Kamath	First
	Gauri Kelkar	Second
<i>Late T. V. Bedekar Memorial Elocution</i> <i>Competition</i>	Devika Walawalkar	Second
<i>Marathi Storytelling competition by K. J.</i> <i>Somaiya College</i>	Atharva Chavan	First
<i>Aamod- Intercollegiate Marathi Literary Festival-</i> <i>College (Contingent Leader: Trupti Panchal)</i>	<i>Organised by Marathi Vangmay Mandal of St. Xavier’s</i>	
<i>Monoacting competition</i>	Atharva Chavan	First
<i>Marathi Antaakshari Competition</i>	Aakash Patankar	Second
	Shreyas Mehendale	
<i>Hindi One Act Play competition organised by</i> <i>IPTA</i>	Sachin Mane	Consolation
<i>“Spandan: Marathi One Act play- Organised by</i> <i>Patkar college</i>	Sachin Mane	Consolation
	Vinayak Kadam	
<i>Marathi Mono-Acting Competition,</i> <i>K.J. Somaiya</i>	Atharva Chavan	Consolation
<i>Duet Singing Competition by Raheja College</i>	Kedar Kelkar	First
<i>Marathi Light Vocal Competition</i>	Kedar Kelkar	Third
<i>Lavani – competition in Maharashtra – Utsav.</i>	Manali Patil	Third
	Vedangi Satardekar	Consolation
<i>Aamod- St. Xavier’s College Festival</i>		
<i>Solo Folk Dance Competition</i>	Atharv Chavan	Second
	Manali Patil	Third
	Ruchi Kulkarni	Consolation
<i>Samvaad’ competition, M. L. Dahanukar college</i>	Priya Tarde	Third
<i>Aachaarya Atre Memorial Marathi elocution</i> <i>competition at M.D. College</i>	Priya Tarde	First
<i>‘G. D. Parikh elocution competition’, Ruia</i> <i>college</i>	Shreyas Mehendale	Third
<i>Loksatta ‘Waktaa Dashasahsreshu’ elocution</i> <i>competition</i>	Shreyas Mehendale	First
<i>Kathakathan , K.J.Somaiya College</i>	Atharva Chavan	First
<i>Jaihind College Psychology Fest</i>		Best College Trophy
<i>PSYCHOPHONICS 2015 - SNDT's Psychology</i> <i>Fest</i>	Saniha Rao - Debate on Social	Best Speaker
	Networking impact on teenagers	3rd prize
	Gargi Sawant - Poster Making	Second prize
	Photography on Body Image and Relationships	

2015-2016

<i>Competition</i>	<i>Position</i>	<i>Participant</i>
<i>Indian Classical Vocal</i>	Third	KedarKelkar
<i>Indian Light Vocal</i>	Third	ShrutiSatam
<i>Elocution (Marathi)</i>	First	PriyaTarade
<i>Story Writing</i>	First	Neel Kolhe
<i>Debate(Marathi)</i>	First	Priyanka Mayekar Tanvi Devasthali
<i>Mono Acting (Marathi)</i>	Consolation	Atharv Chavan
<i>Folk Dance</i>	Third	Tirtha Tikam, Sneha Kadam Vedangi Satardekar, Rhea D'souza, Ankita Kamble, Pooja Shirke, Chetali Pandekar, Namrata Bhoir, Aishwarya Dighe

<i>Competition</i>	<i>Position</i>	<i>Participant</i>
<i>Sole Soul</i>	Second	Jayesh Kardak
<i>Instant Karma</i>	Second	Vivek Salunkhe, Mayur Shinde Dattatray Avhad, Apurva Jadhav Siddhi Karade,Rutvij
<i>Jodi Tujhee Majhee</i>	Second	Ruchi Kulkarni Atharv Chavan
<i>Hasya-Ranjan</i>	First	Jayesh Kardak
<i>ShodhKhajinyacha</i>	Second	Sairaj Achrekar
<i>Mono-acting</i>	First	Atharv Chavan
<i>Dance</i>	First	Tirtha Tikam
	Second	Nimisha Walawalkar
<i>Box Cricket</i>	First	Kunal Manohar, Prajakta Cheulkar Sahil Brid,Ashutosh Bhole Himanshu Bidaye,Rohit Ghuge
<i>Paintball</i>	First	Mahesh Garud, Vishwajit Deshmukh, Akash Achrekar Siddhesh Shinde, Sujay Jana
<i>Dodge-a-thon</i>	First	Siddharth Sarawade,Sharan Shetty Harsh Soni, Anwit Talawadekar,Vineet Raut,
<i>Dodge-a-thon</i>	Second	Parth Surve, Girish Maurya, Kamran Sayed, Prathamesh
<i>Import- Export</i>	First	Parth Surve ,Girish Maurya
<i>Hunt-it-Down</i>	Second	Harshal Rao, Prathamesh

		Govind Bang
<i>It's a Maze-in</i>	First	Mahesh Garud
<i>Object Art</i>	Third	Saquib Dalnari
<i>Mono-acting</i>	First	Atharv Chavan
<i>Dance</i>	First	Manali Patil
	Second	Tirtha Tikam
	Third	Atharv Chavan
<i>Antakshari</i>	First	Rachna Mulaye, Shruti Satam
<i>Duet Singing</i>	First	Chinmay Lele
	Third	Sayali Kamble Rachna Mulaye Shruti Satam
<i>Elocution</i>	First	Priyanka Mayekar
<i>Mime</i>	Second	Tirtha Tikam
<i>Object- Painting</i>	First	Namrata Yogi
<i>Photography</i>	Second	Rohit Mahajan
	Consolation	Gauri Dongre
	Consolation	Madhav Chavan
<i>Ad Film</i>	Second	Malvika Rahate
<i>Lavani</i>	First	Manali Patil
	Third	Vedangi Satardekar
<i>Story-Writing (Comic)</i>	Second	Priyanka Mayekar
	Consolation	Asmita Kulkarni
<i>Story-telling</i>	Second	Priyanka Mayekar
	Third	Asmita Kulkarni
	Consolation	Atharv Chavan
<i>Singing</i>	Second	Sayali Kamble
<i>Painting</i>	First	Namrata Yogi
<i>Rangoli</i>	Second	Ankita Hedau
<i>Fashion Show</i>	Third	Rohini Naik, Kajal Mehrol, Anuja Patke, Anvit Talawdekar, Darshan Padaya, Shobhit Shetty, Anukriti Singh Sanika Khanwilkar, Aniket Surve, Riddhi Kambli Kanchi Harchekar
<i>Poetry</i>	Consolation	Janhavi Savardekar, Amruta Bhujbal, Sayali Khanolkar Priyanka Salgaonkar, Mandar Divekar, Sahil Jadhav
<i>Maharashtra-Darshan</i>	Consolation	Tirtha Tikam, Sneha Kadam

Vedangi Satardekar, Rhea
D'souza
Rutuja Khuspe, Pooja Shirke
Chetali Pandekar, Namrata
Bhoir
Nisha Chavan

2010-11 Achievements of the N.C.C. Unit (Girls)

- **Thal Sainik Camp:** 5 senior cadets attended First TSC selection camp in June 2010. JUO Akhila was selected till semi-final round for Malvankar Shooting selection held at the camp.
- Six cadets attended TSC camp held at Uran. Cdt. Deepali Chaugule won Second Prize in Essay Writing.
- Three cadets were selected for further camp in which SUO Pooja Soni was selected for pre-TSE and was the Field Signal Nominee at Pune.
- **Republic Day Camp:** Two cadets attended the camp held at Uran in October, 2010. Cdt. Megha Wagh won Gold medal in Cross Country and Silver medal in Dance. Cdt. Pooja Kadam was selected for further camps and was qualified for Pre-CAT.
- **ATC:** Four cadets attended ATC camp held in September 2010 at Uran. Cdt. Nutan Sawant performed Yoga and won the Gold medal. Seven cadets attended second ATC camp in January, 2011.
- **NIC Camp at Udaipur:** Two junior cadets attended this camp from 19th October to 30th December, 2010. Cdt. Megha Wagh and Cdt. Nutan Sawant won individual Gold medal in Kho-Kho. Cdt. Nutan Sawant performed Yoga and won Gold medal in talent show.

Achievements of the NCC Unit (Boys)

- **Republic Day Camp:** Seven cadets attended the RDC cum GSC (1) Camp held at JNPT, Uran.
- Cadet Sandesh Daptare bagged Silver Medal for anchoring. JUO Amey Bhojane was the RDC Camp Senior.
- Six cadets - JUO. Amey Bhojane, Cdt. Abhijit More, Cdt. Sandesh Daptare, Cdt. Bharat Thorat, Cdt. Krishna Yadav, Cdt. Dilip Makwana attended the prestigious pre-CAT RDC Camp held at Aurangabad, Maharashtra.
- JUO. Amey Bhojane, Cdt. Dilip Makwana, Cdt. Sandesh Daptare were selected for CAT - (1) Camp, Aurangabad, Maharashtra.
- Amey Bhojane was selected for Rajpath Contingent on 26th January 2011 Parade and for PM's Rally.
- **TSC Thal Sainik Camp:** CSM-Gaurav Lad, Cdt. Mohita Nair, Cdt. Sandesh Daptare attended the TSC Camp at Uran.
- **Special Camps: NIC (Chembur):** SUO Nitish Rele and CSM-Vijay Jawale attended the camp at

Chembur, Maharashtra. CSM Vijay Jawale participated in guards of honour given to D.D.G. Brigadier P. C. Roy.

- **Shillong Trek:** CSM Gaurav Lad and CSM. Bhushan Bidye attended camp at Shillong, Meghalaya. CSM Bhushan Bidye bagged Silver Medal in Solo Dance. CSM Gaurav Lad and CSM Bhushan Bidye participated in group dance and group song representing culture of Maharashtra. The Directorate bagged Silver Medal in respective events. CSM. Bhushan Bidye was selected as the pilot in the camp.
- **Avhan Camp:** Five Cadets- CSM. Bhushan Bidye, CSM. Vijay Jawale, CDT. Mohit Nair, Cdt. Kunal Chavan, Cdt. Narayan Motirave were selected to attend the Avhan Camp held at Kalina Campus, Mumbai, Maharashtra. Cdt. Kunal Chavan was awarded as the best in Rapelling Event.
- **Trek Camp:** Seven cadets attended the one day Trek Camp at Karjat, Mumbai, Maharashtra - CSM. Bhushan Bidye, CSM. Gaurav Lad, CQMS. Yash Pathak, SGT. Kaustubh Thawkar, SGT. Tushar Jadhav, CSM. Vijay Jawale CSM. Gaurav Lad ranked third in completing the Trek.

Highest Sports Awards conferred by the Government of Maharashtra

Ms. Sae Shetye Shiv Chhatrapati Award
water-polo

<i>Ms. Puja Surve</i> <i>Rhythmic Gymnastics</i>	Shiv Chhatrapati Award Represented India at the Commonwealth Games, Delhi
<i>Anup Thakur</i> <i>Mallakhamb</i>	Shiv Chhatrapati Award

Sports Achievers 2010-2011

Tanuja Lele Apoorva Kokil Akshada Padhye Cricket (Women)
Prachi Bisht Julli Ballal Meghna Mistry Inter-Collegiate
Niyati Chaudhary Najuka Davane Hemangi Yerzal Gold
Prajakta Shivarvadker Chaitali Khanvilkar

<i>Taneisha Monteiro Shruti Ullal</i> <i>Soniya Jangam Aviya Dharve</i>	Basketball (Women) Inter-Collegiate Gold
<i>Pooja Patil</i>	Kabaddi (Women) All India Inter University Represented
<i>Hitesh Vairale</i>	Shooting (Men) Inter-Collegiate Gold
<i>Radhika Jadhav</i>	Tennis (Women) Inter-Collegiate Gold
<i>Pooja Surve Asmita Rajee</i>	Gymnastics (Women) All India Inter University Represented
<i>Prachi Phanshikar Anup Thakur MadhaviPatil</i>	Mallakhamb - All India Inter University Represented
<i>Pratik Golatkar Hrishikesh Rade</i> <i>Akshay Pujari Aniket Walve</i>	Softball (Men) Inter-Collegiate Gold

Sports Achievers 2011-2012

Tanuja Lele Pranali Gund Najuka Dawane Cricket (Women)
Julli Ballal Mugdha Joshi Rashika Yadav Inter-Collegiate Gold
Tanvi Bhuskute

<i>Ankita Jadav</i>	Tennis (Women) All India Inter University Tournament Represented
<i>Aviya Dharve Soniya Jangam</i> <i>Shruti Ullal Taneisha Monteiro</i>	Basketball (Women) Inter-Collegiate Silver
<i>Mokshadha Hatankar Pradnya Ghadigaonkar</i> <i>Sulbha Vaze</i>	Kho-kho (Women) Inter-Collegiate Bronze
<i>Nutan Sawant</i>	Shooting(Women) Inter-Collegiate Gold
<i>Anagha Patil</i>	Badminton (Women) Inter-Collegiate Silver
<i>Ms. Asmita Raje</i>	Rhythmic Gymnastics (Women) All India Inter University Represented
<i>Madhavi Patil</i> <i>Anup Thakur</i>	Malkhamb (Women) All India Inter University Represented
<i>Dilip Makawana</i>	Artistic Gymnastic (Men) All India Inter University Represented
<i>Abhijit Jadav Akshay Pujare</i> <i>Siddhesh Parab</i>	Softball (Men) Inter-Collegiate Silver
<i>Pratik Golatkar Raj Golatlar</i> <i>Akshay Pujare Siddhesh Parab</i>	Baseball (Men) Inter-Collegiate Silver
<i>Anuja Khaladkar Nutan Savant Madhavi Patil</i>	Yoga(Women) Inter-Collegiate Gold

Sports Achievers 2012-2013

Akshay Pujare Siddhesh Parab Softball(Men)
Inter-Collegiate Gold

<i>Tanmay Sawant Raj Gawankar</i> <i>Omkar Bagal Ronak Jituri</i>	Baseball(Men) Inter-Collegiate Silver
<i>Aviya Dharve Soniya Jangam</i> <i>Shruti Ullal Taneisha Monteiro</i>	Basketball (Women) Inter-Collegiate Gold
<i>Mokshadha Hatankar Sulbha waje</i> <i>Kavita Golambade</i>	Kho-Kho (Women) Inter-Collegiate Silver
<i>Ankita Jadhav</i>	Tennis(Women) All India Inter University Represented
<i>Anuja Khaldkar Akshata Salvi</i>	Yoga (Women) Inter-Collegiate Silver
<i>Mitesh Tanwade</i>	Yoga (Men) All India Inter University Represented
<i>Tanvi Bhuskute Rashika Yadhav</i> <i>Bhakti Tamore</i>	Cricket(Women) Inter-Collegiate Gold

<i>Prathamesh Sonsurkar</i>	Shooting (Men) All India Inter University level Represented
<i>Pranesh Gharat</i>	Swimming (Men) All India Inter University Represented
<i>Vikrant Avati</i>	Cricket (Men) All India Inter University level Represented
<i>Nikita Wagh</i>	Archery (Women) All India Inter University level Represented
<i>Suraj Turte</i>	Gymnastic All India Inter University level Represented
<i>Anagha Patil</i>	Badminton (Women) All India Inter University level Represented

Sports Achievers 2013-14

<i>Nandan Parab Ronak Jituri Deepak Benbanshi</i>	Softball (Men) Inter-Collegiate Gold
<i>Siddhesh Parab Nandan Parab Abhijit Jadhav</i>	Baseball(Men) Inter-Collegiate Gold
<i>Aishwarya Chodankar Rutuja Kalbhor</i>	Basketball(Women) Inter-Collegiate Silver
<i>Poonam Navghare Pradnya Ghadigaonkar</i> <i>Mokshada Hatankar Kavita Golambade</i> <i>Mrunal Kamble</i>	Kho-Kho(Women) Inter-Collegiate Gold
<i>Anija Khaladkar</i> <i>Mitesh Tanawde</i>	Yoga All India Inter University Yoga Tournament Represented
<i>Vikrant Auti</i>	Cricket (Men) Inter-Collegiate Bronze
<i>Rashika Yadav</i> <i>Mugdha Joshi</i>	Cricket(Women) All India Inter University level Represented
<i>Prathamesh Sonsurkar</i>	Shooting (Men) All India Inter University level Represented
<i>Pranesh Gharat</i>	Swimming(Men) All India Inter University Represented
<i>Ms. Anagha Patil</i>	Badminton (Women) All India Inter University Represented
<i>Mr. Suraj Turate</i>	Mallakhamb (Men) All India Inter University Represented

Sports Achievers 2014-15

<i>Kavita Golambade Mokshada Hatankar</i> <i>Mrunal Kamble Pradnya Ghadigaonkar</i> <i>Shubhangi Erande Poonam Navghare</i>	Kho-Kho(Women) Inter-Collegiate Gold
<i>Mr.Sujit Kushe</i>	Cross Country (Men) All India Inter University Represented

Mr. Viplav Kuvale Mr. Siddhesh Mudbhatkal	Badminton (Men) All India Inter University Badminton Represented
Mr. Manprit Sandhu	Handball(Men) All India Inter University Represented
Ms. Nikita Wagh	Archery(Women) All India Inter University Represented
Mr. Nilesh Rane Mr. Nandan Parab Mr. Siddhesh Parab Mr. Abhijit Jadhav Mr. Aakash Panjri	Baseball(Men) Inter-Collegiate Gold
Mr. Durvesh Jogal Mr. Vinit Sakpal Mr. Nandan Parab Mr. Ronak Jituri Mr. Deepak Benbanshi	Softball(Men) Inter-Collegiate Gold
Ms. Rashika Yadav Ms. Mughada Joshi Mr. Vikrant Avti Mr. Sachin Yadav Mr. Pranesh Gharat	Cricket (Women)Inter-Collegiate 4 th Cricket(Men)Inter-Collegiate Bronze
	Swimming (Men) All India Inter University Represented

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?

The alumni of the College play an active role in the quality improvement through informal feedback from graduates and employers. The alumni and employers are invited to deliver lectures in the Departments to share their expertise and knowledge of the industry. The Alumni Meets at College and Departmental level provide opportunities for discussion and feedback from the alumni. They also contribute towards academic and infrastructural improvement; they have also provided financial assistance for such projects. Informal suggestions are also received from the well-wishers of the College who are professionals in different fields.

5.3.4 How does the college involve and encourage students to publish materials like catalogues, wall magazines, college magazine, and other material? List the publications/materials brought out by the students during the previous four academic sessions.

The College magazine *Imprints* is published every year. It is a bilingual magazine with articles in Marathi and English. It contains the reports of the activities and achievements of the associations. It also provides platform for the literary contribution of students such as book reviews, articles, poems and short stories. Student editors are selected to assist in the work of collecting, editing and proofreading the data.

The Department of Physics published an in-house journal *PhysiRup* in February 2016. It contains the articles on various aspects of Physics written by students and faculty.

5.3.5 Does the college have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

- Yes. The College has a Students' Council formulated as per the norms specified by the University of Mumbai. Its composition is as below:
There are 26 student representatives who are nominated on merit basis. The students elect their General Secretary by casting a secret ballot. The Principal is the Chairperson of the Students' Council and he is assisted by nominees and the Programme Officers of the NCC and NSS units of the college. The funding for the activities of the Students' Council is provided by the College. The Students' Council organises and ensures the smooth functioning of various events and activities in the College under the guidance of the Principal and faculty members.
- Since no directives for forming Students' Council were received from the University of Mumbai in 2014-2015 and 2015-2016, the College formed an informal Students' Committee to organise the events like College Annual Days, Cultural Programme and other programmes
- Apart from the Students' Council / Students' Committee, student committees are formed for organizing specific events in the College. For instance, a separate Organizing Committee had been formed for *Vihang* – the intercollegiate festival in 2013-2014.
- Contingent Leaders are appointed for the teams of students participating in intercollegiate events like Youth Festival.
- The associations for co-curricular and extra-curricular activities have student secretaries appointed by the respective associations.

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.

The enthusiastic participation of students in all the activities of the College is evident from their inclusion as members of the following academic and administrative committees:

- Student editors are appointed for the Magazine Committee which publishes *Imprints*, the annual College magazine.
- Student secretaries are appointed by each departmental association to organise and manage the events.
- In 2015-2016, two student representatives were appointed as members of IQAC.
- Various non-statutory committees appointed by the College have student representatives as members.

- Student leaders are appointed to organize and coordinate various events, festivals conducted by the Departments.

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution?

The alumni of the College are actively involved in the curricular and co-curricular activities of the College. Though a formal alumni association has not been formed, the alumni remain in constant contact with their departments. This is made possible through e-mail groups and effective use of social media. Alumni meets are held at the College as well as departmental levels. Alumni who occupy distinguished positions in their fields are invited to deliver talks. They share their experience and expertise with the current students and guide them in their choice of careers. The alumni contribute to the development of the College through financial contribution and donation of books.

The retired faculty members of the College have remained associated with the College through their research projects and guidance of research scholars. Prof. Madhavi Indap (retired Head, Department of Zoology) has been awarded the prestigious title of Professor Emeritus. She is currently guiding various research projects in the Central Research Laboratory of the College.

Some retired faculty members have instituted endowment prizes to encourage and reward the students' achievements in academics, sports and cultural activities. The College maintains cordial relations with former faculty members by inviting them to attend the College Annual Scholars' Day and departmental programmes.

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 vision and mission of the College have been mentioned in 1.1

The College renders service in the field of higher education; its core values define and inspire the vision for the future as follows:

Objectives:

- Continuous efforts to impart to learners knowledge and skills that are relevant to the demands of the changing times.
- Encouragement to the faculty to adopt innovative methods of teaching that will cater to the needs of learners at various levels of study.
- Regard learners as the focal point of all activities and efforts and adopt policies that effectively meet their needs.
- Impart skills which can translate into practical applications in various spheres of life - personal, professional and national.
- Support curricular training with co-curricular and extra-curricular activities aimed at building the overall personality of the learners.
- Provide learner-centric academic and personal enrichment opportunities.
- Empowerment to pursue their goals.
- Guide learners towards self-actualization.
- Enabling critical thinking through freedom of thought and expression.
- Adopting an integrative and inclusive approach towards various disciplines.
- Nurturing talent and creativity.
- Motivating students as well as faculty members to take up research projects.
- Creating a mindset for inquiry.
- Inculcating analytical attitude and scientific temperament.
- Identifying new means of resource generation.
- Optimal deployment of resources.
- Development of infrastructural facilities to compete with leading institutions.

- Participative decision-making process that is effectively communicated to all the stake-holders.
- Transparency in functioning.
- Constant assessment and upgradation of processes to ensure maximum efficiency.
- Development of synergistic alliances with well-known academic, research and consulting institutions.
- Creating an interface with the industry to ensure that the skills imparted to the learners are in consonance with the needs of the industry.
- Sensitizing learners about social, ecological, economic and political issues.
- Endeavoring to find solutions that will benefit society as a whole.
- Positive role modeling in order to create responsible citizens.

6.1.2 What is the role of top management, Principal and Faculty in design and implementation of its quality policy and plans?

In accordance with the democratic outlook of the administration, the perspective institutional plan is created in consultation with the various stakeholders. The plan is shaped by envisaging future local and global needs. The introduction of new job-oriented courses, development of infrastructure, teaching-learning and other related activities forms the base for the formulation of the institutional plans. Staff and students participate at all stages from planning to execution.

While formulating the plan, teachers take into account feedback obtained through constant interaction with students. The perspective plans are then deliberated in the Local Managing Committee, Standing Committee of the College, Board of Life Members and recommended to the Academic Council, Finance Council and finally to the Senate of Modern Education Society for approval before being executed. Regular meetings are conducted by the parent body, Modern Education Society to review the progress of the College.

The Principal supervises the implementation of the plan with the support of two Vice-Principals, Heads / Senior teachers of the Departments, Librarian, Coordinators of Self-Financed Courses and Conveners of various statutory and non-statutory committees. Decisions are taken and work is allotted after meetings with the Heads of the departments who represent the members of their department. The Principal supervises the office administration through the Registrar, who is assisted by the Superintendent, Accountant, Head Clerk, Senior and Junior Clerks.

There is regular interaction among the staff members and the Management ensuring the effective implementation of the plan and the quality policy.

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*
- *Championing organizational change*

The policy statements and action plans for fulfillment of the stated mission:

- The policy statements and action plans are formulated at the beginning of the academic year through discussions among the Principal, Vice-Principals, IQAC members and Heads of Departments. The action plans are reviewed at the end of the academic year.
- A seminar on *Goals and Action Plans* was conducted on 20th June, 2014 and departmental presentations of SWOC Analysis were held on 21st June 2014. Academic Audit was carried out on 27th February, 2015.
- There is active involvement of students' bodies like NCC, NSS, Students' Council and various associations in all programmes of the College.

Formulation of action plans:

- The action plan is prepared by each department and submitted to the Principal at the beginning of the academic year.
- Various statutory committees such as Women's Development Cell, Anti-Ragging Committee and non-statutory committees such as Cleanliness Committee, Canteen committee are constituted to ensure the smooth functioning of the college.
- The academic calendar is prepared including the dates of examination and co-curricular activities.
- Result analysis is carried out after every semester-end examination.

Interaction with stakeholders:

- Regular interaction with teaching and non-teaching staff is maintained through formal and informal meetings.
- The College has an Open Door Policy whereby all stakeholders can meet the Principal and Vice-Principals without prior appointment.
- Internal communication like notices, reports are exchanged through the college email (name.surname@ruparel.edu).
- Parents' Meetings are conducted by the College as well as the departments to inform them about the examination pattern and the progress of the students.
- There is regular interaction with the Alumni by the departments and the College.

Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders:

The policies are planned keeping in mind the needs and suggestions given by the various stakeholders. For instance:

- MCom programme was introduced as per the feedback received from students and parents.
- Additional division for BCom programme was introduced due to increasing demand from students. The College has also applied for additional divisions in BSc and MSc (IT).
- Requirements of the teachers regarding books, journals and equipments as per the revised syllabi are considered while making the purchases.
- Changes are made in the allocation of classrooms considering the needs of physically disabled students.

Reinforcing the culture of excellence:

- The College promotes the culture of excellence through various initiatives like promoting research under the Avishkar scheme as well as by funding small research projects by faculty and students.
- Students who excel in academics, sports or cultural activities are honoured during the Annual Scholars' Day and Gymkhana Day celebrations.

Championing organizational change:

- The changes at the organizational level are visualized and implemented by the Principal in consultation with the staff members e.g. introduction of Teacher's Diary, computer programs for managing data related to attendance and analysis of exam results.
- Avishkar committee was formulated to encourage research orientation among staff and students.
- The administration process is decentralised facilitating the departments to independently conduct their routine work.

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?

- Feedback about the functioning of the College is obtained from students as well as teachers. Students give detailed anonymous feedback about their teachers. The scores and suggestions obtained are communicated to the individual teachers by the Principal.
- A complaint/ suggestion register has been maintained in the College Office for students and staff to convey their problems /difficulties and suggestions to the Management. Complaint / Suggestion boxes have also been installed at different locations in the College.
- For the past two years, feedback about the Principal has been obtained from the teaching and support staff.
- Feedback about departmental functioning is given after the presentation of SWOC analysis by each department.
- In 2014, external experts were invited to provide feedback about SWOC analysis presented by each department.

6.1.5 Give details of the academic leadership provided to the faculty by the top management?

The Principal himself is a Life Member of the Modern Education Society, Pune which was established in 1932 for the service of education in a missionary manner. As a Life member, his acceptance of the responsibility of the College involves committed participation and prioritizing this responsibility over individual benefit. He is the custodian of the College and represents the College in the Management. He considers every teaching and non-teaching

staff member as a part of the College family and follows the tradition of being a ‘gentleman administrator’ - a trademark of the Modern Education Society.

He works on the principles of delegation and decentralization of responsibilities and permits the Heads / Senior Teachers of the Departments, Librarian, Coordinators, Conveners to work independently. He firmly protects the stakes of the College and liaises with the stakeholders. He plays an important role in planning the academic calendar and encourages the faculty for improvement in academic efficiency, motivates them to enhance their qualifications, to pursue research projects and to participate in national and international academic events. He guides the administrative staff for proper execution of administrative responsibilities to the satisfaction of the stakeholders. He ensures control of expenditure and appropriate utilization of fees received. He has contributed to the University recruitment process as Vice Chancellor’s Nominee. He creates opportunities for the faculty and students to interact with eminent academicians, professionals, social workers, literary figures and artists. He initiates team-spirit and sense of dedication in staff and students by having an informal relationship with them resulting into empowerment and heightened levels of involvement. In his capacity as planner, motivator, supervisor, mentor, facilitator, and evaluator, he helps students become responsible citizens. He serves as a role model for the staff as well as the students. He constantly endeavours to inculcate in them values like quest for peace, adherence to truth and right conduct, non-violence, compassion, tolerance, and respect for culture and traditions.

6.1.6 How does the college groom leadership at various levels?

The different programmes and initiatives of the College are co-ordinated by the staff and students under the guidance of the Principal. The Vice-Principals, Chairpersons of Committees, Programme Officers, Chairpersons of associations ensure the effective organization of programmes and events. Student leaders are appointed for organization of festivals and cultural activities.

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?

The administrative work is highly decentralised to make it efficient and effective.

The Principal monitors all the activities in the College with the support of Registrar, two Vice Principals, Heads / Senior teachers of the Departments, Librarian, Coordinators of Self-Financed Courses and Conveners of various statutory and non-statutory committees. Decisions are taken and work is allotted after meetings with the Heads of the departments who represent the members of their department.

There is regular interaction among the staff members and the Management and the open channels of communication lead to excellent collaboration and cooperation.

The Principal supervises the office administration through the Registrar, who is assisted by the Superintendent, Accountant, Head Clerk, Senior and Junior Clerks. Adequate additional non-teaching staff is appointed to handle the work of the self-financed courses or the existing non-teaching staff is given extra remuneration for this additional work.

6.1.8 Does the college promote a culture of participative management? If 'yes', indicate the levels of participative management.

Yes. The College is run by a Teacher-managed Society and thus encourages participative management at different levels. Local Managing Committee has been formed with representatives of teaching and non-teaching staff. It promotes healthy communication between the faculty and the Management. The departments are empowered to function independently as per the guidelines given by the Principal. The various statutory and non-statutory committees look after different activities and make suitable recommendations to the Management. The Students' Council ensures that students play a positive and constructive role in organizing various activities in the College. Since no directives were received from the University of Mumbai regarding formation of Students' Council since 2013-2014 onwards, a Students' Committee is formed at College level to facilitate the participation of students in College programmes. The Staff Academy undertakes various initiatives like health check-ups and cultural programmes for teachers.

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?

The quality policy of the College has been clearly defined in its Mission, Vision and Core Values. All the academic, co-curricular and extra-curricular activities reflect the tradition of excellence which is the hallmark of the College.

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 which is formulated with a focus on the following aspects:

- Encouraging students to learn beyond the syllabus

- Providing soft skills training to the students
- Promoting research by teachers and students
- Upgradation of infrastructure
- Continuing the eco-friendly initiatives on the Campus
- Strengthening the alumni network

6.2.3 Describe the internal organizational structure and decision making processes.

The College administration has an organizational structure of advisory, executive and supervisory bodies for its effective functioning as stated below:

The College established on 15th June, 1952 is managed by the Modern Education Society, Pune which is a teacher-managed Society, founded on 15th February, 1932. The Society manages Nowrosjee Wadia College of Arts and Science, Ness Wadia College of Commerce, Cusrow Wadia Institute of Technology, Neville Wadia Institute of Management Studies and Research, and MES College of Engineering in Pune and New Law College and D.G. Ruparel College in Mumbai. The composition of the Society is as follows:

- *The General Body* comprises of all Life members, retired Life members along with Fellows, Patrons and Benefactors of the Society. It meets every three years and elects the President and Vice Presidents for the triennium. Life members are selected serving teachers of the various institutions, whereas Fellows, Patrons and Benefactors are eminent academicians, industrialists, businessmen.
- *The Senate* comprises of the President, Vice Presidents, Benefactors, the Dean of the Academic Council, the Controller of the Finance Council, all Life Members of the Society and as many persons elected by the Fellows and Patrons of the Society from among themselves as are the Life members. The Senate meets at least twice a year and all decisions taken by the Board of Life members, Academic Council and Finance Council are required to be approved by the Senate.
- *The Academic Council* comprises of five Life members and six representatives of the Fellows and Patrons of the Senate. The Chairperson elect is called the Dean of Academic Council. The Council meets at least four times a year and decisions regarding academic programmes in the various institutions of the Society are taken in its meetings and recommended to the Senate for approval.
- *The Finance Council* comprises of four Life members and five representatives of the Fellows and Patrons of the Senate. The Chairperson elect is called the Controller of Finance Council. The Council meets at least four times a year and decisions regarding finance in the various

institutions of the Society are taken in its meetings and recommended to the Senate for approval.

- *The Board of Life Members* is a body of select teachers enrolled as Life members from all its allied educational institutions. It monitors and executes all academic and financial policies, infrastructure development, and faculty recruitment, performance evaluation of teaching and non-teaching staff, research and extension activities, linkages and examinations in its various institutions. The Board meets at least once a month and all decisions taken are recommended to the Academic and Finance Council for approval which in turn recommends them to the Senate for final approval.
- *The Standing Committee* of the College appointed as per the By-Laws of the Society comprises of six Life members with the Principal as its Convener. It meets at least once a month, generally before the scheduled meeting of the Board of Life members. Decisions regarding various aspects mentioned in the previous paragraph are taken and recommended to the Board of Life members for approval.
- *The Trustees* of the Society are appointed by the Senate and are the custodians of the immovable properties and investments of the Society.

The Senate is the apex body where all academic and financial decisions taken by the Standing Committee, Board of Life members, the Academic and Finance Council are approved. The Board of Life Members authorises the Principal to implement its policies. The Principal is supported by two Vice Principals, Heads/Senior teachers of the Departments, Librarian, Coordinators of self-financing courses, and conveners of various statutory and non-statutory committees. They conduct activities in due consultation with their colleagues. Committees and bodies are formed within the College to fulfill specific duties and requirements. The Convener of each of these committees forms a link between the committee, the Principal, the teaching and non-teaching staff and the Management.

The following are the Principal, Vice Principals, Heads / Senior Teachers / Coordinators of various departments:

Principal: Dr. Tushar Desai

Vice Principals: Dr. Dilip Maske and Dr. Neeta Tatke

Heads/Senior teachers/Coordinators of the Departments:

Heads of the Departments:		
Faculty of Arts	<i>Economics:</i>	Dr. Prakash Salvi
	<i>English :</i>	Ms. Gayatri Gadgil
	<i>Marathi :</i>	Ms. Vaishali Jawlekar
	<i>Philosophy :</i>	Dr. Anupama Mujumdar
	<i>Psychology :</i>	Dr. Nandini Diwan
Faculty of Science	<i>Botany :</i>	Dr. Rajesh Jadhav (in-charge Head)
	<i>Chemistry :</i>	Ms. Apurva Patkar
	<i>Mathematics:</i>	Ms. Jayshree Mehta
	<i>Physics :</i>	Ms. Vidya Patil
	<i>Statistics :</i>	Ms. Vrinda Kanitkar
	<i>Zoology :</i>	Dr. Meenakshi Sundaresan
Faculty of Commerce	<i>Accountancy:</i>	Mr. Nitin Kulkarni (retd)
	<i>Commerce</i>	Mr. Ravindra Netawate

Senior Teachers of the Departments:

<i>Geography:</i>	<i>Political Science :</i>
Ms. Deepali Bhide	Mr. Avinash Kolhe
<i>History:</i>	<i>Librarian:</i>
Mr. Arvind Ganveer	Dr. Pradip Karnik

Coordinators of Self-financed Courses :

<i>Computer Science and Information Technology :</i>	<i>Bachelor of Management Studies:</i>
Mr. Mandar Bhawe	Dr. Neeta Tatke

The various statutory and non-statutory committees are as follows:

Statutory Committees:

- Local Managing or Advisory Committee
- Admission Committee
- Examination Committee
- Unfair Means Inquiry Committee
- Library Committee
- Internal Complaint Committee for Prevention of Sexual Harassment at the Workplace
- Purchase Committee
- Women's Development Cell
- Internal Quality Assurance Cell
- Students' Council
- Attendance Committee
- Anti-Ragging Committee
- Special Cell Advisory Committee

Non Statutory Committees:

- Students' Welfare Committee
- Placement Cell
- Guidance and Counselling Cell
- Special Cell Advisory Committee
- Students' Grievance Redressal Committee
- Book Bank Committee
- Time Table Committee
- Research Promotion Committee
- UGC Grants Committee
- Scholars' Prize Distribution Committee
- Gymkhana Prize Distribution Committee
- Gymkhana Managing Committee
- Annual Day Programme Organizing Committee
- College Magazine Committee
- Office Establishment Assistance Committee
- Discipline Committee
- Canteen Committee
- Staff Academy
- Cleanliness Committee
- Alumni Co-ordination Committee

The College encourages its students to organise and participate in co-curricular and extra-curricular activities under the aegis of various associations which are listed below:

AiMS	Art to Art	Book Review Club
CASSO	Chemarc	Chitravedha
DLLE Unit	Economica	Genesis
History Association	Maanas	Marathi Vangmay Mandal
NCC (Boys and Girls)	NSS	Natyavibhag
Nupur	Open Forum	Photography
Polis	RUPELA	Science Association
Swara Sadhana	Tattvadarshan	

6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following:

Teaching and Learning:

- Student-centric learning is ensured through interactive, collaborative and independent learning methodologies.
- The College provides the necessary infrastructure for effective teaching-learning.
- Teachers are encouraged to constantly upgrade their knowledge and skills by attending workshops and training programmes.
- Regular and systematic feedback about teachers is collected from students.
- Various talks and programmes organized by the departments and various associations help the students to learn beyond the syllabi.

Research and Development:

The College focuses on research as an important aspect of academic excellence. The College has a well-equipped Central Research Laboratory, excellent Library with several books, periodicals, journals and sophisticated computer laboratories. All these facilities are provided free of charge to the students as well as the teachers for conducting research. The teachers are encouraged to present and publish research papers. The Research Cell of the College encourages research activities, particularly among students. The Avishkar Committee guides the students for participation in the Avishkar Research Convention of the University of Mumbai. The College extends full support and help for research related activities.

Community engagement:

The College has NSS, NCC and DLLE units which are actively involved in community projects.

NSS Activities

- *Umed* – talent showcase for senior citizens and disabled persons provides a platform for reaching out to these groups.
- Blood Donation Camps
- Health awareness programmes – creating awareness about AIDS, dengue and malaria in the surrounding areas.
- Teaching the students from nearby BMC schools.
- Adoption of a tribal village Karav near Vangani where various community initiatives are organised.

- The Science Association outreach programme popularises science among students of nearby BMC schools.
- Department of Zoology provided charts about science concepts to students of City of Los Angeles BMC School.
- The DLLE Unit conducts surveys and spreads social awareness through street plays. These are some of the activities through which the College positively impacts the community. Some teachers are associated with NGOs and contribute to community work.

Human resource management:

The College teachers and non-teaching staff share a cordial relationship and are oriented towards the progress of the College. The Open Door policy results in transparent and immediate communication between the Management and the staff. The democratic approach of the Principal and Management ensures participation of all stakeholders in decision making and implementation of policies. Responsibilities are assigned to teachers keeping in mind their abilities and interests. The skills of non-teaching staff are identified and deployed to improve the functioning of the College.

Industry interaction:

The students interact with prominent personalities from the industry who visit the College. The field visits organised by various departments help in broadening the vision of the students.

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 College has a formal system of taking feedback from the students about the teaching –learning process. Results are analysed in detail and information is given to the respective teachers.
- For routine issues, a suggestion / complaint register is maintained in the College Office and suggestion boxes are kept at various places in the College.
- The alumni of the College regularly visit the departments. All this helps in giving adequate feedback about the functioning of the College to the Principal.
- This information is put forth before the Standing Committee of the College and later discussed in the meeting of Board Members held every month.

- The meetings with the members of the Local Managing Committee also help in promoting healthy communication between the faculty and the Management.
- The functioning of the College, its policies, various rules of the University are communicated through notice boards, prospectus and in the meetings with the students and the parents.
- The College has a Management Information System - Vriddhi.
- The College Magazine *Imprints* provides information about the activities and achievements of the College to all stakeholders. This information is also uploaded on the College website www.ruparel.edu.

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 College has several statutory and non-statutory committees of teachers and staff to ensure smooth functioning of administrative, academic, cultural and other activities. The IQAC encourages the participation of teachers in a variety of academic activities.

Since 2013, the Management conducts team-building games and sports for the non-teaching staff during the Christmas break. The democratic approach of the management, conducive and open communication among all helps in efficient and effective management of the College.

6.2.7 Enumerate the resolutions made by the Management Council in the last year and the status of implementation of such resolutions.

For any financial expenses, staff appointments, leaves and regular working policies resolutions are first presented to the standing committee. These resolutions are then passed in the Board meeting and subsequently presented before Academic and Finance Council. Detailed minutes of all meetings are maintained at the respective level. Some examples of resolutions and action taken are as follows:

Standing Committee Meeting (Friday, 18th March 2016)

Letter from University of Mumbai, Affiliation section ICC/2015-2016/23 dated 1st March 2016 regarding immediate installation of Sanitary Napkin vending machine in Girls Common room be noted, and Principal be instructed to purchase the Sanitary Napkin vending machine and install it in Girls Common Room.

A Sanitary Napkin vending machine as well as a disposal unit for the same have been purchased and installed in Girls' Common Room in May 2016.

Standing Committee Meeting (Thursday 2nd July 2015)

Request received from Ms. Yogita P. Deshmukh an FYBSc (S-3061) Computer Science student belonging to ST category, has not filled up the Freeship/Scholarship form and whose father expired recently, asking for concession in fees amounting to Rs. 12,870/- for academic year 2014-2015 be accepted and the same amount be transferred from student welfare account of non-grant course to fee account.

The request was accepted.

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 College is planning to seek autonomy after the third cycle of accreditation is completed.

6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyze the nature of grievances for promoting better stakeholder relationship?

The College has formulated Grievance Redressal Committees for staff and students. The other committees such as Anti-ragging, Special Cell Advisory and the Women's Development Cell maintain a healthy and ragging-free environment in the campus. The CCTV cameras at strategic locations have promoted safe and secure atmosphere on the campus. There have been no complaints except one made to the Grievance Redressal Committee by one faculty member in the year 2015-2016. As per the procedure meetings were taken with concerned parties and the matter was resolved.

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?

There have been no court cases filed by or against the institution in the last four years.

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?

Feedback about institutional performance is obtained informally. The current students and the alumni regularly interact with the Principal and the departments. Their suggestions are considered for improving the functioning of the College.

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?

- The College regularly deputed the teachers for Refresher and Orientation courses, workshops related to syllabi and other areas in their subjects, short and long term training programmes, conferences, workshops and seminars, not only in Mumbai, but also outstation. Three of our teachers have attended training programmes in Israel. The College organises training programmes, talks by experts for the teachers.
- A three-week Refresher Course titled *Use of ICT in Science Teaching* was conducted in the College on behalf of UGC Human Resource Development Centre, University of Mumbai. 38 teachers including three teachers from the College participated in the course.
- The SWOC analysis and Academic Audit conducted in College, training sessions organised by the IQAC focus on the challenges of higher education and preparing teachers for the same.

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?

The teachers are encouraged to participate in orientation, refresher and short term courses, conferences, seminars and workshops, to pursue PhD, postdoctoral research and research projects. Duty leaves are granted for the same. Two teachers have availed UGC Faculty Development Programme in order to complete their doctoral research.

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.

The performance appraisal of the staff is carried out through the following methods:

- Self-appraisal forms submitted by the teachers at the end of every academic year.

- Confidential Report (CR) for every teacher is prepared.
- Teachers' Diary in which they record the details of all the information about the duties they perform.
- Feedback obtained from students about teachers.
- The yearly reports of the departments, associations and various committees.

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 self appraisal reports are reviewed by the Heads of the Departments and the Principal. Teachers are given individual feedback if required. General trends are discussed for improvement in the meetings with the teachers.

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?

- In case of delay from the Government, the salary of entire non-teaching staff is disbursed by the Management. The teachers also get advance on salary, subject to application by them.
- Teaching and non-teaching – employees appointed by the Management are also given the benefit of contributory provident fund.
- The teachers on ad hoc or contractual appointments can avail the same leave and vacation benefits as the permanent staff.
- The services of the counselling center *Suman* are available free of cost to the teaching and non-teaching staff and their children.
- The faculty common room has a television for viewing news channels. National and local, English and Marathi newspapers are made available daily. The canteen counter is equipped with a microwave oven which can be used by all employees.
- Free medical camps are conducted for teachers and non-teaching staff through Staff Academy.
- A Cooperative Credit society for teaching and non-teaching staff members has been established in 2007 and has been functioning successfully since then. Currently 146 staff are members of the Cooperative Credit society. The average dividend at 11.3 % has been declared during last five years. Personal loans up to Five Lakhs (Rs. 5,00,000) and Emergency loan up to Rs. 25,000/- at lower than market interest rates have been disbursed to the members.

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

The College provides excellent infrastructure which ensures professional growth of the employees. The academic and other talents receive support and encouragement from the Management. The facilities, autonomy and flexibility provided by the College have helped in retaining the permanent as well as the ad-hoc teachers.

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?

The Annual Budget of the College is meticulously prepared and is presented in the meeting of Board of Life members, on 15th February every year. It is later passed by the Financial Council of the Society. The budget is also presented to the Local Managing Committee (LMC).

The Principal informs about the budgetary provisions made for each department in the meeting of the Heads. The Departments submit the accounts as per the stipulated dates. The College submits information about any purchases made and money spent in the meeting of Board of Life members held every month. Any out of budget expense has to be first approved by Board of Life members and Finance Council. All the financial transactions are closely monitored by the Principal, Vice-Principals and the Management.

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 and external audit is carried out by external reputed agencies every year. The audited statements are presented to the Senate and approved by them.

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.

Audited income and expenditure statement for four years – enclosed.

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilization of the same (if any).

Additional funding is secured from the following sources:

- UGC grant of Rs. 1,00,60,000 under the XI plan of the UGC, with additional grant of Rs. 5 lakhs for Sport infrastructure development and Rs. 25 Lakhs for infrastructure development.
- First level DST- FIST grant of Rs. 90 lakhs, which was used to develop Central Research Laboratory and other research facilities.
- Donations from well-wishers and alumni – In 2015, the Department of Psychology was renovated using the donations of Rs. 5,80,254/- received from the alumni.
- Giving the classrooms on hire for conducting examinations by outside agencies like UPSC, MPSC, Banking Services.

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 College IQAC was established in 2004 and is actively maintaining the quality and adopting quality measures.

IQAC is instrumental in implementing the various quality policies. Regular meetings of the IQAC are held with the Heads of Departments, convenors of committees and teachers. IQAC determines the quality bench marks to be implemented in various fields like admission, examination, research activities, extracurricular and co-curricular activities among the faculty and students. Administrative and academic activities of the institution are planned and evaluated at the beginning of each academic year. When the college reopens after vacation IQAC members in the presence of the Principal convey to the departments, the strategies to be adopted for the implementation of Total Quality Management. Decisions regarding the regular activities are taken by the Principal, Heads of Departments and IQAC.

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 following decisions were approved and implemented by the IQAC -

Academic:

- introduction of new programme - MCom in 2013-14.
- the College has applied for additional divisions for BSc and MSc (IT) and MCom in the year 2015-16.
- introduction of Teacher's Diary in 2014-15.
- short term value-added certificate courses by departments –Please refer to the list in 1.1.7
- some departments have mentoring system; this activity will be implemented by more departments in the year 2016-2017.
- introduction of MOODLE learning management system for conducting internal test for Foundation Course and other subjects from the year 2012-2013.
- academic audit by external experts – Academic Audit was conducted on 27th February 2015.

Infrastructure:

- Separate rooms were allotted to IQAC, DLLE Unit and Women's Development Cell. The Department of Economics, Marathi, Commerce, Accountancy and Philosophy were also allotted separate rooms.
- Development of Research Facility - Central Research Laboratory was established.

Environment Initiatives:

- Recycling of organic waste through vermicomposting was initiated with the help of Stree Mukti Sanghatana and is being solely managed by the College.
- Installation of solar panels- Department of Physics has installed three solar panels outside their department and the electricity generated by these solar panels is used by the department and for the notice boards in the foyer. The College plans to install more such panels.

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

Yes. The IQAC has three external members:

- Dr. Shobhana Vasudevan, Principal of R.A. Podar College
- Dr. Aniruddha Pandit, Institute of Chemical Technology
- Mr. Umesh Kulkarni, CEO Fine Envirotech Engineers (FEE).

All the experts contribute their specialized knowledge to the quality improvement, academic projects, infrastructure and other development projects.

d. How do students and alumni contribute to the effective functioning of the IQAC?

The students and alumni who are members of IQAC give suggestions and feedback regarding various activities related to students, placements and development.

e. How does the IQAC communicate with and engage staff from different constituents of the institution?

IQAC communicates with the staff through the notice boards and email. The IQAC conducts workshops and programmes for the teaching and the non-teaching staff.

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.

Yes. Academic and administrative quality is maintained through proper planning, providing a conducive environment and various infrastructural facilities to enhance the performance of the students and the teachers. The feedback obtained from the students, teachers and the alumni is constructively used for the holistic development of the students and the College.

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.

Yes. The IQAC conducts workshops every year on academic, ICT and health-related topics for the teaching as well as the non-teaching staff. The teachers are also encouraged to attend programmes on quality management, to enhance their skills. Processes like SWOC analysis, Academic Audit help in maintaining and improving the quality.

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?

External Academic Audit was carried out on 27th February 2015. The IQAC monitored the effective implementation of the suggestions given by the expert to the teachers and the departments. The SWOC analysis of every department was presented in front of two external experts and feedback was obtained for quality improvement.

6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

The College rigorously follows the rules and regulations of the Government, University, UGC and DST. The mandatory processes are implemented.

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?

The following mechanisms are in place to continuously review the teaching-learning processes:

- Departmental meetings, meeting of the staff members with the Principal
- Lesson Plans made by the teachers and Teachers' Diary
- Feedback from the students about teachers

These methods have increased the participation of teachers in various activities, created awareness on variety of teaching methodologies and improved their research orientation.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

The prospectus, the magazine *Imprints* and the website of the College help in communicating the policies, mechanisms and the outcomes to all stakeholders. Meetings of the parents with the Principal and with the departments help in giving information about students' progress. Text messages through SMS and e-mails are also used.

CRITERION VII: INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

7.1.1 Does the Institute conduct a Green Audit of its campus and facilities?

The College has lush green lawns with a large number of trees, and consistent efforts are made to maintain a green, clean and eco-friendly campus. The College has planned to conduct a Green Audit, and the existing efforts reflect the environmental commitment of the College towards better energy efficiency and economising resources.

The College has been the first in the University of Mumbai to implement rain-water harvesting since 2008. Solar Panels have been installed on the Hostel and Vermi-composting for organic waste is carried out.

7.1.2 What are the initiatives taken by the college to make the campus eco-friendly?

Energy conservation

- Replacement of the tube-lights with LED lights.
- Regular planting of trees and maintenance of lawns.
- Installation of walk-in sensors, which prevent unnecessary use of electricity in the washrooms in the New Building.
- Attendants deployed on every floor have been instructed to switch off lights and fans when not required.

Use of renewable energy

- Installation of solar panels in the Boys' Hostel since 2000.
- The Department of Physics has installed three solar panels which provide electricity supply for experiments and for the notice boards in the foyer.
- Solar charging point for cell phones of the faculty and support staff in the faculty room.

Water harvesting:

- The College has a rain-water harvesting project with a capacity of 70,000 litres. The water from the project is used to maintain the huge 10 acre campus and is also used in the washrooms.

Check dam construction: N.A.

Efforts for Carbon neutrality:

- Re-using blank sides of printed papers wherever possible.
- Assuring unpolluted environment by nurturing the greenery on the campus.

Plantation:

- There are about 450 numbered trees and many plants of different varieties planted in the campus
- According to ancient Indian astrology, Nakshatra trees have been identified for each of the 27 constellations. These trees provide ayurvedic medicinal benefits. A total of 15 Nakshatra trees have been planted in the College campus.

Hazardous waste management:

- Proper care is taken for safe disposal of toxic chemicals, biological waste, cultured microorganisms, broken glass and sharp implements.
- Implements used in these processes are autoclaved before reuse or disposal.

E-waste management:

- Conducting periodic inventory management, volume reduction and re-utilisation.

Biodiversity on the campus:

- Maintenance of Botanical / Butterfly garden.
- Installation of bird feeders and sparrow shelters.
- Survey of birds on the campus by Department of Zoology.

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.

In order to cope with the changing demands of the students and the industry, the College strives towards constant upgradation of teaching-learning, infrastructure and administrative processes. Following are some of the innovations introduced during the last four years:

- Establishment of Central Research Laboratory for interdisciplinary research.
- Formation of Research Committee to encourage more students and faculty members to pursue research.
- Introduction of Unique Identity Number (UIN) for first year students from 2015-2016 with the aim of better management of students data for administrative and examination purposes.
- Workshops on Skill Development for the students of Management Studies.
- Conducting regular Parents' Meetings to make the parents aware of the CBSGS.
- Space allotted to departments of Arts faculty along with facilities like desktop computers and printers as per the recommendations of the previous NAAC Peer Team.

- Increase in the use of ICT tools for teaching-learning
- Use of MOODLE and RF Response Cards for conducting internal tests and for collecting student feedback about teachers.
- Upgradation of computers and technology
- Installation of Smart Board in the New Building
- Setting up of weather monitoring instruments on the terrace of Science Building.
- Security surveillance of the Campus through CCTV cameras.
- Use of Clickers/OMR Sheets for class test.
- Conducting several internal exams on MOODLE
- Conducting one month *Proficiency Course in English*.
- Vermi-composting pit has been created.

7.3 Best Practices

7.3.1 Elaborate on any two best practices in the given format at page no.98, which have contributed to the achievement of the Institutional Objectives and / or contributed to the Quality improvement of the core activities of the college.

I) Best Practice

Title: *Nurturing the Environment*

Goal: “We do not inherit the earth from our ancestors; we borrow it from our children” - Native Proverb.

Encapsulating the essence of this proverb, the College has introduced a number of initiatives for conserving energy and economising resources like water, electricity. The college aims to build environmental awareness among the students thereby shaping responsible citizens of the future.

Context: The College has a large green campus located at the heart of the city. It provides the scope for implementing different measures to conserve the environment. There is a need to sensitize students about living in harmony with nature. The College attempts to optimize the use of precious resources like water and electricity.

The Practice: Systematic planning and continuous efforts were made to implement the green measures on the campus. Financial and human resources were allocated accordingly. Wherever possible, recycled materials were used for these projects.

Nurturing the Environment is implemented through the following methods:

- rain water harvesting for continuous water supply to maintain green campus and for washrooms
- solar panels installation to minimize consumption of electricity
- replacement of tube lights with LED lights
- organic waste management through Vermi-composting
- Use of Solar power for charging of cell phones in the faculty common room
- Reuse of paver blocks discarded by Municipal Corporation to develop the amphitheatre, activity area, open air canteen, area near the faculty common room, annex building, bordering of garden space near Arts and Science building, beautification of lawns.
- Bird feeders and sparrow shelters have been installed and water points created.
- Survey of flora and fauna to create biodiversity awareness.

Evidence for success: The electricity bill has reduced to a large extent. The entire campus remains green even in summer and no water scarcity is experienced throughout the year. The compost generated through vermiculture is utilized as manure for the plants in the campus. The implementation of eco-friendly measures like rain water harvesting, solar panels, solid waste recycling, sparrow shelters have turned our College campus into a rich and beautiful oasis in the midst of the urban concrete jungle.

Problems encountered and resources required: The large campus area of 10 acres presents a challenge in terms of development and continuous maintenance of green initiatives. Purchase of materials and equipment has to be planned keeping in mind the financial constraints. Existing human resources have to be efficiently deployed.

II) Best Practice:

Title of the practice: *Learning Beyond The Syllabus*

Goal: This initiative is aimed at enhancing the personality of the student, understanding the scope of the subject, developing global perspective and acquiring skills needed in real-world scenarios. A broader approach is necessary to help students transcend the limitations imposed by the syllabi. It also enables them to bridge the gap between theoretical knowledge and practical applications of the subject. It sparks the students' curiosity to encompass a wider vision beyond the result oriented mindset.

The Context: The syllabi being framed by the University of Mumbai, the College identified a need to align them with the requirements of the students. Also, the students of the College

are from diverse socio-economic backgrounds including first generation learners and students from vernacular medium schools. They need to be imparted skills that will help them cope with the demands of the globalised job market.

The practice: Various co-curricular associations organise their programmes keeping in mind the need to develop a perspective beyond the syllabus e.g. The Book Review Club, Chitravedh and DLLE. Efforts are made to keep the students abreast of the latest developments, to provide them exposure to the domain knowledge and to inculcate social responsibility. All these enrichment activities in various subjects are conducted even though they are not prescribed in the syllabus. Students are encouraged to think out of the box.

Learning Beyond the Syllabus is implemented through the following methods:

- confidence building through class presentations
- institutional and Field visits
- talks by experts on current trends
- film screenings followed by discussion with directors, actors and critics
- interaction with renowned personalities
- exhibitions and poster presentations
- book reviews
- entrepreneurship activities
- competitions like elocution and quiz
- teamwork and event management skills through departmental festivals
- community service activities like *Umed*, health awareness campaigns, gender sensitisation, blood donation camps
- photography based on themes

These programmes range from syllabi to social awareness, personality and skill development.

Evidence of success:

Participation in *Learning Beyond the Syllabus* activities has helped the students to broaden their vision and develop self-confidence. By organizing and managing the events of the associations, students have acquired practical skills of leadership, teamwork, time management, and financial management.

This is evident from the numerous prizes and accolades won by students at inter-collegiate and University level competitions. Large number of our alumni occupies leading positions in industry, media, sports and academics.

Problems encountered and resources required:

Coordinating these activities with the time-tables of the students is a challenge. Due to the high student-teacher ratio in the Commerce faculty, it is often not possible to conduct individual presentations. Students have to be motivated to put in time and effort for these initiatives.

POST ACCREDITATION INITIATIVES

As per the recommendations of the NAAC Peer Team during their visit in August 2010, the following measures were adopted for quality enhancement:

- *Arts, Management and Commerce faculty needs an urgent boost. More teachers may be appointed; post graduate programmes may be initiated with wide choices.*

Departmental cubicles have been allotted to the Heads of the Departments of Arts and Commerce faculties.

For the Arts and Commerce faculties, qualified staff was appointed as per the prescribed procedure of the University and the Government.

MCom programme was introduced in the year 2013-2014. An additional division for Commerce was applied for and started in 2012-2013. Application has been submitted for an additional divisions for the MCom programme.

- *Teaching methods and laboratories require upgradation and modification. Computer proficiency may be encouraged amongst students, teaching and non-teaching staff.*

There is an increased use of ICT in teaching, learning and assessment. New computer laboratories have been set up on the 4th floor of the New Building. A new laboratory for the applied component of Computers in Mathematics, Statistics and Commerce courses has been set up with the potential for creating e-library access. For details, please refer to 4.1.2. Teachers and non-teaching staff have been given email ids (name.surname@ruparel.edu); they are regularly used for internal communication. Workshops on computerization were held for teachers and non-teaching staff e.g. MOODLE for teachers and *Vriddhi* for non-teaching staff.

- *MOUs can be signed with other educational institutions and prospective employers.*

MOUs have been signed with

- Tata Institute of Fundamental Research (TIFR), wherein eminent scientists from the Institute deliver talks and conduct interactive sessions. The *Chai and Why* programme for the popularization of science is held in the College every month.
- IIT Bombay FOSSEE group for promotion of Open Source Software technology at College level.

- *Hostel for girl students may be constructed with the help of UGC. Rest rooms for girl students and female staff may be added on all floors.*

An additional toilet block has been constructed in the Girls' Common Room. A sanitary napkin vending machine and a disposal unit have been installed near the Ladies' toilet

for the convenience of girl students. The existing toilets have been renovated.

- *On the job training with local and neighboring industrial visits may be enhanced for students. Entrepreneurship development programmes may be started. Schemes like 'Learn while you earn' may be popularized for students.*

Many institutional and industrial visits were organised to give the students exposure to real life applications of the subject.

To orient students towards entrepreneurship, a one-day seminar on *Self-Employment* was organised by the Department of Marathi under the People Education Programme of the Khadi and Village Industries Commission on 7th February 2015.

A one-day seminar on Entrepreneurship was organised under the People Education Programme of the Khadi and Village Industries Commission in 2016.

Entrepreneurship development activities were also conducted by Department of Management Studies and DLLE Unit. More departments will be encouraged to start similar programmes.

- *The existing building of the College needs an immediate face-lift. The library building needs equal attention.*

Time bound upgradation, renovation and repairs of the various buildings are being carried out. The seminar hall in the Science Building (2 Sc.) was renovated and newly furnished in the year 2011. The College Office and Examination Department have been renovated and restructured for more efficient functioning. The Department of Psychology has also been renovated with the funding from the alumni of the Department. An extension office wing was created for the Scholarship section and the University-related examination work. As per the recommendations of the Structural Auditor, the Library Building was demolished and the Library has been relocated to the spacious ground floor of New Building.

- *Career and Guidance Cell may be strengthened. Special coaching may be provided for students pursuing CA/CS examinations. New self-finance courses for revenue generation are added.*

Self-financed courses and divisions have been added in view of the increasing demand from students. MCom programme was introduced in the year 2013-2014. An additional division for Commerce was applied for and started in 2012-2013. Applications have been submitted for additional divisions for BSc and MSc (IT) as well as MCom programmes.

- *Efforts may be made to get clearance for making the new building operational.*

Immediate efforts were taken to acquire the necessary clearance for the New Building;

consequently, the Ground + four floors of the New Building have been made operational from 2011-2012. It includes the Library – 10,000 sq.ft, Departments of IT-CS and Management Studies - 30,000 sq. ft and a well-equipped multipurpose hall admeasuring 10,000 sq.ft. and an ICT enabled seminar room.

Quality enhancement is a continuous process; thus, in addition to implementing the recommendations of the previous NAAC Peer Team, the College constantly endeavours to upgrade and optimally utilize resources with the aim of fostering excellence in education.



MODERN EDUCATION SOCIETY, PUNE
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