BHARATI VIDYAPEETH
DEEMED UNIVERSITY, PUNE (INDIA)

SELF-STUDY REPORT - 2016
(3rd CYCLE)
VOLUME – I
(University Profile & Criterion wise Inputs)

SUBMITTED TO

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL (NAAC)

BENGALURU

VOLUME - I

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PREFACE

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I am happy to present the Self-Study Report of the Bharati Vidyapeeth Deemed to be University to the National Assessment and Accreditation Council for third cycle of accreditation. The accreditation and re-accreditation of the University with A grade in 2004 and 2011 and suggestions of the peer teams have enthused the faculty and administration to effect improvements in academic and administrative processes. During the last five years, since its reaccreditation by NAAC, the performance of the University has been reviewed by the Task force set up by MHRD, New Delhi, UGC and various Central Councils and each case the University has achieved highest grades for its performance and academic excellence. Recently, three constituent units of the University – Poona College of Pharmacy, Pune, College of Engineering, Pune and Institute of Management and Entrepreneurship Development, Pune have participated for ranking by MHRD under National Institutional Ranking Framework (NIRF) and received 4, 61 and 46 ranks at national level respectively and 1, 4 and 3 at the state level.

The SSR covers the teaching-learning, research and community engagement activities of the University by the 29 constituent units located on its eight campuses. The improvements to infrastructure, faculty training, stakeholder relationship, governance, and quality enhancement and sustenance efforts together with their impact are documented in the SSR.

I submit the SSR for peer review and look forward to valuable suggestions that help in realizing its vision 'to be a world class University for social transformation through dynamic education'. I take this opportunity to record my sincere thanks to all the staff, both academic and administrative of the University, for their support and help in preparing this comprehensive report.

Pune
Date: July 22, 2016

Prof. Dr. Shivajirao Kadam
Vice Chancellor

EXECUTIVE SUMMARY

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Introduction

Bharati Vidyapeeth University (Institution Deemed to be University) was established in April, 1996 under Sec. 3 of UGC Act, 1956. Today, it is one of the largest multidisciplinary and multi campus Deemed to be Universities. The academic offerings of the University range from certificate to Ph.D programs and aim at imparting instruction in all branches of knowledge. The offerings include programs in Health Sciences, Science & Technology, Architecture, Management Sciences, Pharmaceutical Sciences, Environmental Science, Law, Liberal Education, Hotel Management & Catering Technology, Exercise Science and Social Work. Area of jurisdiction of the University is pan India and its campuses are located at Pune, New Delhi, Navi Mumbai, Kolhapur, Solapur, Karad, Sangli with Headquarter at Pune.

Presently, it is offering 290 programs through 29 constituent units with cumulative enrolment of 20812 for conventional mode and 5028 for distance mode and has a total faculty of 1614. The Vision and Mission statements of the University are clearly defined and represent the distinct characteristics of the University and they are as below:

VISION:

"To be a world class University for Social Transformation through Dynamic Education".

MISSION:

- *To provide inclusive borderless access to higher education and vocational education based on merit.*
- *To offer varied professional, technical, vocational, and general education programs to meet the changing and diverse needs of society in a global context.*
- *To provide quality higher education for liberation of mind and empowerment of hands.*
- *To promote quality research in diverse areas of development and engage in application of knowledge for community development*
- *To develop national and international networks with industry, service sector and other academic and research institutions to meet the expectations of various stakeholders.*
- *To promote extensive use of ICT for enrichment of teaching learning and for effective governance.*
- *To make quality an integral part of all University operations by promoting innovative practices.*

Achievements:

The University is assessed & accredited and re-accredited by National Assessment and Accreditation Council with highest grade 'A' in 2004 and 2011, respectively while its constituent units – Poona College of Pharmacy, College of Engineering and Institute of Management and Research are also assessed and accredited by NBA for respective programs.

During post reaccreditation period, the University has under taken various quality sustenance and enhancement initiatives related to its academic and administrative processes as a result of which in 2012, the Task force of MHRD has placed the University in 'A' category.In 2016, under National Institutional Ranking Framework (NIRF) its constituent units - College of Pharmacy, is figured at 4th place, Institute of Management and Entrepreneurship Development, at 46th place and College of Engineering, at 61^{st}place at national level. The UGC has recognized the University under Sec. 12(B) of the UGC Act, 1956 in 2012.

The Procedure:

The Board of Management has resolved that the University should submit its Self-Study Report to National Assessment and Accreditation Council for third cycle of Assessment and Accreditation. As per the said resolution, the Self-Study Report of The University is prepared in two separate volumes.

The preparation of Self-Study Report involved an elaborate process for collection and validation of information. In order to systematize the work of collection of data, a Steering Committee at the University level and core committees at the constituent units were constituted. The work of these committees was closely monitored by various Authorities, Director of Research & Development, and the Vice Chancellor. The entire activity was coordinated by Prof S F Patil, coordinator IQAC.

The Steering Committee not only met regularly, but also had several meetings with the core groups of the constituent units and senior administrative functionaries. All these meetings were chaired by Vice Chancellor. The draft SSR, based on the collection, validation and revalidation of data was prepared by the Steering Committee and after detailed discussions and deliberations, the final version of SSR is prepared for onward submission to the National Assessment and Accreditation Council. As mandated, the SSR was uploaded on the University website at URL: bvuniversity.edu.in.

The first volume gives the Executive Summary, Quantitative Profile of the University and answers comprehensively to all the core indices/sub-core indices under the seven criteria. The second volume contains the evaluative reports of all the constituent units. Now, the criterion-wise summary of the SSR follows.

Curricular Aspects

In an effort to fulfil its vision that is *to be a world class University for social transformation through dynamic education,* the University, during the last five years, has been regularly revising curricula of various programmes to incorporate contents that reflect national as well as global needs and trends.

The University has formulated a curriculum development policy that provides guidelines for revising curricula of various programmes as well as to develop new programmes and courses. The curricula are being developed or revised based on outcomes of needs analysis, feedback from students and faculty. Experts are drawn from different fields to work together with the faculty on the University's Boards of Studies to bring relevance to the curricula by focusing on the competencies needed at local, national and global levels.

The University being multi-disciplinary, offers a wide range of programmes at the entry level to the students with same eligibility requirements. It has introduced choice based credit system (CBCS) to facilitate learner autonomy and mobility at national and international levels. Academic flexibility is also enhanced by providing many elective options for core, open and general courses.

The University offers 290 programmes of which 130 programmes are in health sciences and 81 programmes are M.Phil and doctoral programmes. Except for the above, all other programme are under semester and credit systems.

As a policy of the University, the curricula of the programmes are reviewed annually and revised once in three-four years. While revising the curricula, the University adapts the model curricula suggested by UGC and other central councils as well as the syllabi of the leading national and international universities. The University has organized 49 curriculum development and implementation workshops during the last five years. The University has introduced 57 new programmes in the same period, of which six are interdisciplinary while

> **Quality enhancement and sustenance measures undertaken**
> - Curriculum development policy
> - Choice based credit system
> - Increase in weightage for internal assessment to 40 percent
> - Courses with 100% Internal Assessment
> - Internships, Project Work, Research Methodology in the curricula
> - Need based value added/enrichment courses at the discretion of the constituent units
> - Stakeholder involvement and inputs in curriculum development
> - Enhanced participation of the faculty in curriculum design
> - Workshops on Curriculum Development

eight are in emerging areas. In addition, the constituent units have designed value-addition or enrichment courses depending on the requirements of their students. The University has taken inspiration from the Skill India Flagship Program of Government of India, and has approved 28 skill development programs of which seven programmes are in consonance with the programmes identified by the healthcare sector skill council.

The University takes formal online feedback from students on curriculum at the end of each term as well as informal feedback from national and in few cases from international faculty. The major feedback on curriculum is taken from the teachers who have taught the courses. Such inputs are conveyed to appropriate authorities for consideration and adaption while revising curricula.

Teaching- Learning and Evaluation

The admissions to all the professional programs offered are based on inter-se merit of the students at the All India Common Entrance Test (AI-CET) conducted by the University at various centers across the country. The admission to the programs under liberal education is based on inter-se merit of the candidates in their qualifying examinations and admission to the programs under management is based on AI-CET merit and GDPI.

The social justice policy is implemented while admitting the students to various programs of the University. For the academic year 2015-16, around 16% enrolments constitute students from disadvantaged communities and 44% constitute women.

The demand ratio for all the programs is encouraging and due to the diversity of programs, students from 46 countries are attracted. Remedial coaching is provided to the academically challenged students. Advanced learners are encouraged to undertake research projects. A significant outcome of these initiatives is that such learners at undergraduate and post-graduate levels have published 78 and 386 papers respectively during the review period. Induction programs are organized for the first year students for their smooth integration into the University system. The University offered 15 remedial courses, 40 add-on courses and four on-line courses. The University also conducts study on the academic growth of the students of disadvantaged communities and the outcome shows a positive trend.

During last five years, the University has taken many initiatives to enhance the quality of the teaching-learning and evaluation processes. Every constituent unit plans and organizes teaching schedules for various programs well before the term starts. The faculty has prepared content in digital format for more than 200 courses in 15 programs and uploaded the same on the University's e-Learning platform. The faculty adapts blended learning method using Open Educational Resources such as NPTEL, epg Pathshala etc.

Mechanisms for mentoring and counseling of students for academic guidance and their personal needs are in place. The faculty uses various innovative teaching methods such as simulations, case studies, role plays, video based demonstrations etc. In all institutes, professionals are involved in teaching some courses.

The University ensures quality of the teaching- learning processes by recruiting highly qualified and experienced faculty from across the country as per the norms of

the UGC and other central councils. The total number of faculty in the University is 1614 of which 62 percent are from other Universities in Maharashtra and 17 percent are from Universities outside Maharashtra. Nineteen percent of the faculty have research degrees and 72.5% of them have post-graduate degrees. During the same period, University has appointed 63 new faculty to meet the requirements of new programs.

During the review period, the University has organized 352 faculty development programs of which 35 are on pedagogy. Further, 21 programs have been organized on use of ICT tools. The University has provided 39 online databases in various disciplines as well as ICT facilities to the faculty for teaching and research. During last four years, 746 faculty have attended faculty development programs organized within and outside the University. Fifty one awards were received by the faculty for their outstanding contributions in teaching, research and extension activities.

The University has large number of academic collaborations with foreign universities for faculty exchange programs. During post accreditation period 13 faculty from the University visited these foreign universities and 16 faculty from these foreign universities visited the University.

The University, during last four years has undertaken extensive examination reforms to make the evaluation process a more reliable testing tool. Some of them are- introduction of Choice Based Credit System for undergraduate and post-graduate programs other than health sciences, development of question banks, setting of three parallel and independent question paper sets with model answers and scheme of marking, central assessment of answer books, moderation of answer books, verification of marks, supply of photocopy

Quality enhancement and sustenance measures undertaken
- Online registration for admission through AI-CET
- Articulation of graduate attributes
- Formulation of learning outcomes for each programme
- Providing research opportunities to advanced learners
- Providing experiential learning through mandatory project work and internships
- Extensive in-service training to faculty on various aspects such as curriculum development, teaching learning methods, use of ICT in teaching, research methodology etc.
- Provision of online open learning resources through NPTEL , epgPathshala, open courseware, internal MOOC's
- Facilitating 24x7 learning environment through University's e-learning environment based on Moodle platform
- Complete automation of examination processes

of answer books, revaluation of answer books, declaration of results within 30 days, automation of the work of examination division from admission to certification with integrated IT platform and grievance redressal mechanism for examination related issues. All these reforms have brought objectivity and transparency in the conduct of examinations.

The University has adopted UGC (Minimum Standards and Procedure for the award of M.Phil /Ph.D. Degrees) Regulations, 2009 in relation to the Ph.D. program right from admission to award of the Ph.D. degree. The student is required to submit a soft

copy of the thesis to the University and thereafter the examination division checks the thesis for plagiarism by using the anti-plagiarism software *'Turnitin'*. The soft copy of the thesis is sent to the UGC for uploading on INFFLIBNET-Shodhganga.

Research, Consultancy and Extension

The University has a research policy that provides impetus to the faculty for conducting research that is interdisciplinary and socially relevant, and to undertake projects in collaboration with institutes and industry. The University has a Research Committee that provides direction in creating an enabling environment for conduct of research. As a proactive mechanism, it provides seed money to its faculty to initiate research work in their respective areas of specialization. During the review period, faculty has undertaken 206 research projects of which 89 are ongoing. The three self-financed research institutions of the University namely Interactive Research School of Health Affairs (IRSHA), Research and Development Centre in Pharmaceutical Sciences and Applied Chemistry (RDCPSAC) and Yashwantrao Chavan Institute of Social Science Studies and Research (YCISSSR), conduct interdisciplinary and socially relevant research.

IRSHA promotes inter-disciplinary research in modern biomedical, ayurveda and other traditional medicine areas and conducts research in critical areas such as mother and child health, breast and cervical cancer, diabetes, obesity and medicinal plants; while RDCPSAC has facilities for carrying out spectral, thermal, chemical and micro structural analysis on Phyto medicines and applications of polymers in drug delivery systems and chemical analysis of reaction by-products on a variety of materials. YCISSSR conducts geriatric research and studies on child welfare. It has completed a funded project on institutional geriatric care in Maharashtra funded by the Ministry of Social Justice and Empowerment.

During the period under review, University has organized 56 research sensitization programs, 99 research workshops and 153 research training programs. On an average University spends around 7 to 8 percent of its budget on research and research related activities. The University gives study leave to its faculty to pursue their research. Further, the University has organized 77 national level conferences and 39 international conferences since reaccreditation at which 139 eminent scientists from the overseas universities attended these conferences.

With emphasis on interdisciplinary research, the faculty of various constituent units of the University have undertaken 101 interdisciplinary projects involving at least two disciplines. The University also has formed faculty of interdisciplinary studies under which Ph.D. programs are offered in Nano-Technology and Hospital Administration.

The University extends all the support to its faculty for filing patents at national and international levels. During last five years, faculty has filed 38 patents of which two were granted. The special recognition and assistance from the national agencies have yielded several significant outcomes.

Research Output
- Patents granted   : 02
- Patents registered   : 36
- Ongoing major projects   : 52
- Ongoing minor projects   : 14
- Grants received for ongoing projects : Rs. 691.84 lakhs
- Ongoing minor projects funded by University: 89
- Number of Research projects sponsored by industry : 56
- Grants received from industry : Rs 386.68 lakhs
- Constituent units recognized by national agencies for research   : 4
- Grants received from agencies   : Rs 1142.78 lakhs
- Research projects completed   : 68
- Grants received for completed projects: Rs 526.59 lakhs
- Number of national level inter-Institutional collaborative projects   : 106
- Grants received   : Rs 147.15 lakhs
- Projects funded by The University   : 206

The study regarding Injectable Polio Vaccine conducted by the Medical College, Pune resulted in a publication in Lancet Journal (impact factor of 39.207) and has helped the Government of India to frame the policy for Polio vaccination in India. Department of Biotechnology received grants form UGC and AICTE for two major research projects on Ayurvedic formulations and the work has led to three patents and three publications.

During the post reaccreditation period, the University has spent Rs. 5703 lakhs to augment existing research facilities and creating new facilities such as research laboratories with state-of-art facilities, libraries, sophisticated instruments and equipment, advanced ICT tools, and e-learning resources. To facilitate quality research in emerging areas, the University has established prominent research centers such as a Center for Composite Materials and Research in Nanotechnology in the College of Engineering and a Food Testing Laboratory in Pharmacy College.

Publications
- Publication in National journals   : 941
- Publication in international journals : 2498
- papers listed in international Databases: 2155
- Citation Index Range   : 0 to 62.5
- Impact Factor range   : 0.35 -9.1
- SNIP range   : 0.042-2.179
- SJR Range   : 0.12-2.79
- Chapters in books   : 115
- Books Edited   : 17
- Books with ISBN   : 230
- h index   : 47

Papers listed in databases
- Web of Science : 298
- SCOPUS   : 575
- EBSCO   : 118
- Medline   : 275
- ENBASE   : 151
- Others   : 999

Further, a Euro-American Legal Study and International Research Center and an International IPR Research Center have been established in the New Law College to cater to the needs of research on foreign laws and IPR laws. Pediatric Clinical Research Unit is established in the Medical College, Pune with the objective of inculcating research culture among faculty. An autonomous unit of the Real World Nutrition Laboratory Foundation (RWNLF) has been established in IRSHA to promote industry institution partnership for the development of innovative products and for validating and marketing the products.

The University has Information Resource Centres located in Medical College, Pune; College of Engineering, Pune and Institute of Management and Research, New Delhi. These IRCs provide access to online versions of journals, e-books, e-journals, digital

databases and open courseware. University is also a member of UGC-INFLIBNET/N-List through which many international journals of repute can be accessed by the researchers. Further, the University has created an e-library which provides links to its digital resources.

The University has a policy for consultancy services and publicizes availability of consultancy services and expertise on its website. The University brings out a brochure giving information about the expertise, areas in which consultancy assignments have been completed etc. Constituent units provide available infrastructure, library resources, software, computing facility and equipment to the faculty to engage in consultancy work. During the last four years, 56 consultancy projects have been undertaken by the faculty and earned revenue of 412.96 lakhs. The University has established a major University-industry cell at Poona College of Pharmacy which is sponsored by AICTE. This cell offers expertise available in the college to find solutions to problems faced by the industry.

Quality enhancement and sustenance measures undertaken
- Framing of Research policy that provides impetus to the faculty for conduct of research that is interdisciplinary, socially relevant
- Sensitisation programmes to promote research culture
- Allocation of separate budget for research
- Organisation of international conferences with participation of eminent scientists from abroad
- Support to file patents
- Orientation programmes to prepare research projects for external funding
- Linkages with industry to obtain sponsorship for research projects
- Support for consultancy
- ICT ecosystem for research

The University organizes various social outreach programmes to sensitize the faculty and students about institutional social responsibility.

Infrastructure and Learning Resources

In its quest for excellence, the University has been uncompromising in meeting the infrastructural requirements of all its academic programmes and research activities. Whenever new programmes are initiated, infrastructural facilities are created as per the norms of the respective Central Councils and UGC.

Physical Infrastructure of the University
- Total Campus area   : 187.91 acres
- Total built up area   : 2.99 lakh sq. mts.
- Total area for playground   : 1.7 lakh sq.mts.
- Number of hostels for men   : 10
- Capacity of men's hostels   : 2018
- Number of hostels for women   : 14
- Capacity of women's hostels   : 2152
- Percentage of students in hostels : 25

All the constituent units have adequate infrastructural facilities and learning resources for the conduct of meaningful teaching- learning, co-curricular and extracurricular activities. All the campuses have barrier free environment. The University has seven multi-speciality teaching hospitals that are attached to Medical, Dental, Ayurveda and Homeopathy colleges in various campuses which provide primary to tertiary level health care facilities to the patients at subsidised rates. These hospitals are extensively used for the teaching health science and pharmacy programs. The administrative

block of the University is located in the heart of the city and is housed in a ten storied building with all modern facilities.

The University has adequate infrastructural facilities to meet the requirements of teaching, research and other co-curricular and extra-curricular activities. Each constituent unit has well equipped classrooms and laboratories, rich library facilities, seminar halls, cubicles for teachers, sufficient space for the administrative staff, workshops, wash rooms for men and women,broadband internet connectivityand other requisite infrastructural facilities. The sharing of the facilities like auditoria, play grounds, libraries, gymnasium, guest house, banks, hostels, etc by the constituent units ensures the optimum utilization. The University has 24 fully catered hostels for men and women that accommodate 4134 men and women. These hostels are provided with 24x7 security.

During the last four years, the University has upgraded its 26 libraries with physical as well as electronic resources with latest books, journals, online databases, e-learning portals etc. In order to provide online access to e-journals, the University has subscribed to 5617 e-journals in addition to 39 different discipline specific on-line databases. During the review period, the University has spent Rs. 2665 lakhs on purchase of books and journals. The expenditure on library resources is increased by 54.8% since 2012-13. The libraries of the constituent units have established more than 90 linkages with libraries of other institutions.

Library Infrastructure, Resources and Utilisation
- Total area of the Libraries : 14,214 sq. mts.
- Total seating capacity of reading rooms : 3488
- Average Library working hours : Ten hours
- Total print (text and reference books) : 5,03,815
- Non Print : 13565
- Special collections (theses and back volumes) : 30430
- International Journals : 664
- National Journals : 874
- Magazines : 321
- Journals on exchange basis : 83
- e-books : 4096
- e-journals : 5617
- Average number no. of walk – ins / month : 77250
- Average number of transactions per month : 54750
- Ratio of Library books to students enrolled : 36:1
- Average number of login to OPAC /month : 816
- Average number of login to e-resources / month : 118
- Average number of downloads /printed / month : 320
- Number of IT literacy trainings organized : 21

The University is in the process of upgrading its IT infrastructure in order to facilitate various student oriented teaching-learning methods and automation of the administration, finance and examination related activities. The efforts include establishment of an ICT centre with the sole objective to develop and deploy latest ICT infrastructure in the University and to oversee its effective and efficient use. It has formulated a comprehensive ICT policy to meet the above objectives. The University has established advanced data centers at various campuses and connected them to National Knowledge Network. It has provided high speed internet connectivity, video conferencing facilities, e-learning environment, content development tools and various administrative tools to make the academic and administrative processes efficient.

All the laboratories and hospitals are fully equipped with state of art facilities that are required for meaningful teaching-learning process and clinical treatment and experiential learning. The simulators, mannequins, e-content development tools, use of various IT platforms for teaching has led to a paradigm shift in the teaching-learning scenario and slowly heading towards 24x7 learning classroom.

The University has 4787 computers, 243 laptops, 28 servers and sufficient number of printers, scanners and photo copying machines. In addition, it has data centers with required hardware and software, campus wide area network and open source technology. During last four years, the University has spent Rs. 1106 Lakhs on up-gradation and deployment of computers and Rs. 655 Lakhs on maintenance of the computers. The ICT infrastructure is maintained through AMC.

Quality enhancement and sustenance measures undertaken
- Policy statement for creation and enhancement of infrastructure
- Constitution of library advisory committee and library committees at the constituent units
- Construction of international students hostel for women
- Provision of internet connectivity in hostels
- Provision of group personnel accident insurance scheme for students
- Optimal utilization of auditorium, gymnasium, other outdoor sports facilities.
- Use of library management software
- Establishment of datacenters and connection to National Knowledge Network
- Facility for elearning, elibrary and content development tools
- Increased spending on eresources
- Significant use of open source software
- Completion of 1st phase of NABH and NABL accreditation for hospitals

The University has full-fledged estate office headed by a civil engineer and supported by other technical and support staff. Infrastructural facilities are maintained through the estate department. Minor maintenance is carried out by the estate office and major maintenance is carried out by inviting the tenders.

Student Support and Progression:
'STUDENT FIRST' is the motto of the Quality Policy of the University. The administration of the University is learner centric and always plays a proactive role in student related activities. Accordingly, it has developed mechanisms to provide academic support and efficient personal services to the students on and off the campuses to ensure their smooth progression from one stage to the next in their pursuits at the University.

Apart from academic activities, the students get ample opportunities to participate in various NSS, sports and cultural events and showcase their skills. In fact, the students have brought laurels to the University by winning many awards at national and international competitions, including the most coveted *Shri Shiv Chhatrapati Award by the Government of Maharashtra*.

The cumulative enrolment for the academic year 2015-16 is 20812 and that of distance mode is 5028.The student profile of the regular programs shows that 73% of them are undergraduate students, 20% are post-graduate, 3.9% are other programs.

The socio-economic profile of the enrolment shows that 43.8% are women, 46.6 % are from outside the state, 2.8 % are overseas students. Similarly 4.7% enrolment constitutes SC/ST, 8.4 % OBC and 2.2 % are DT/NT.

The University admits students from diverse backgrounds and from different regions of India as well as from 45 countries. The diversity of students with respect to motivational levels, pre-requisite knowledge, life-styles, learning abilities and interests is overwhelming and acclimatizing the students to the University environment is a daunting task. In order to meet the challenge and to make the students concentrate on their goals, the University has developed multi-layered systems for mentoring, grievance redressal, career path identification and for their success at examinations and placement interviews.

The constituent unitsmonitor progression of their students at every stage, semester-wise or annually and use the information for offering additional help or remedial courses for those who are having backlogs. Generally, percentage of students passing in minimum stipulated time is 90% in management, law, pharmacy and nursing; 70% in science, 65% in engineering and 60% in health sciences. During the last four years, about 30% of those who appear for NET/SET examinations and 25% of those who appear for GRE have passed the examinations. Further, 133 students have passed in various civil service examinations and during the same period, 3557 students were placed in about 400 companies. Ninety percent of the students of health sciences programmes opt for self-employment.

During last four years, besides the scholarships from state & central governments, the University, out of its own funds has given tuition fee waiver of Rs.1239.0 Lakhs to 3751 students.
The University has developed more than one lakh square meters of play grounds on its campuses. It has international standard football court, 8 lane track and field, and facilities for many other open door and indoor games. The University has established Departments of Sports, Culture and NSS.

Quality enhancement and sustenance measures undertaken
- Student support policy
- Multilayered mentoring and counselling
- Advisory Committee for International Students
- Advisory committee for NSS, sports and cultural activities
- Central placement cell and finishing school
- Physical education directors in constituent institutes
- Departments of Sports and Culture
- Training by reputed coaches to students for participation in competitions

The University organizes inter-collegiate sports events, and cultural festivals such as Youth Festival, Bharateeyam, Sanskruti etc. Students in general and women in particular participate in these events in large numbers. The students have brought many laurels to the University in the form of medals and awards at international, national, zonal and University levels. The University has organized 225 camps and 57,300 people have benefitted in these camps. The contributions of the University

through its NSS activities are well recognized with awards to its programme coordinators, programme officers, student volunteers.

Governance, Leadership and Management

In conformity with the Vision, Mission statements of the University and goals & objectives of the constituent units, the administration is learner centric and always plays a proactive role in realizing its Vision & Mission, Goals and Objectives.

The University is established under Section 3 of the UGC Act 1956 and is governed by the various provisions laid down in the UGC (Institutions Deemed to be University) Regulations, 2010 amended from time to time. It follows the flat hierarchical model of governance. The Chancellor by virtue of his position is the head of the University and presides over the graduate ceremony. The Vice Chancellor is a principal academic and executive officer of the University and presides over the meetings of all authorities.

The policy decisions related to academics, finances and administrations are taken by the authorities and bodies of the University such as Board of Management, Academic Council, Planning and Monitoring Board, Finance Committee, Board of Examinations and Boards of Studies and are implemented by the Vice Chancellor and other administrative functionaries working down the lines.

Conceptually, the Bharati Vidyapeeth University (Institution Deemed to be University) as such has inbuilt flexibility and dynamism which facilitate for quick decision making and their effective implementations. The University follows the approach of participatory management which gives opportunity to the faculty and staff to participate in decision making and its implementation and there by develops a sense of belonging among them.

The governance structure of the University has inbuilt mechanisms for obtaining feedback from the stakeholders on governance related issues thereby, identifying the organizational needs to reinforce the culture of excellence in all its academic and administrative activities.

Presently, none of the top leadership positions are vacant and the constitution and composition of all the authorities and bodies is as per the UGC Regulations 2010. The meetings of the authorities and bodies are held regularly.

During last fouryears, 352 Faculty Development Programs were organizedforwhich on an average, 49 faculty haveattended. The staff development programs are organized for the benefit of non-teaching staff which helped them competently use modern technology in administration. The working of the Examination and Finance Divisions, conduct of All India Common Entrance Tests and functioning of the

libraries are computerized. The extensive use of ICT in teaching-learning process and research is another important dimension of the University.

The welfare schemes such as contributory provident fund, housing and personal loans from the sister institution Bharati Co-Op Bank, healthcare facilities through the seven multi specialty hospitals and tuition fee waiver to their children are available to the faculty and staff. This initiative of the University has helped to attract and retain eminent faculty. The attrition rate of the faculty is about six percent.

The Planning and Monitoring Board, on the basis of national and regional needs, prepares short and long term perspective plans of the University. The perspective plan includes the recommendations related to starting new programs, creation of new infrastructural facilities and purchase of various learning resources and equipment, budgetary provisions, opening of new campuses and like. These plans are implemented in a phased manner depending on the availability of resources.

The University, with the help of external experts/peers, carries out the academic, administrative, gender, and quality audits of the University. This exercise of carrying out the various audits has helped the University to understand the gaps and problems and to know its strengths and weaknesses of the system. Based on the recommendations of these audit reports, the University has taken appropriate actions which has ultimately helped to enhance the quality of the overall functioning of the system.

Quality enhancement and sustenance measures undertaken

- Revision of vision and mission statements
- Framing various policy statements and developing mechanisms for their implementation
- Conducting academic and administrative audits
- Establishment of ICT Center and data centers
- Providing ample opportunities to faculty and students to practice and demonstrate leadership skills
- Primacy for Internal quality assurance cells of The University and constituent units
- Decentralization of authority
- Multilayered internal and external financial audits for optimal allocation and utilization of financial resources
- Performance assessment of faculty through UGC specified Academic performance indicators
- Effective feedback systems for reflection and enhancing processes
- Promotion of the use of ICT in all processes

The UGC (Institutions Deemed to be University) Regulations, 2010 provides for the Grievance Redressal Mechanism both for the faculty and staff. The Grievance Redressal Committee addresses the grievances of the faculty and staff in time and so as such there are no major problems related to the service conditions of faculty & staff. The minor grievances of the staff and students related to the indiscipline are resolved at constituent unit level.

The University, except four constituent units, is self-financing and main source of its income is tuition and other fees. The budget estimates are prepared regularly and placed before the Finance Committee and Board of Management. The audited statements, income-expenditure and balance sheets are prepared well in time and

published after the approval of the Finance Committee and Board of Management as per the UGC Regulations, 2010. The internal and external audit are regularly conducted and there are no major audit objections.

The University has constituted Internal Quality Assurance Cell (IQAC). The constitution and composition of IQAC is as per the NAAC guidelines. The IQAC is mainly responsible for maintaining the quality of the various aspects of the University's functioning. It prepares and sends yearly AQAR to NAAC. In addition, it has constituted IQACs at the constituent units. The recommendations of these IQACs are placed before the IQAC of the University and after detailed deliberations they are placed before the appropriate authorities for its implementation. Except for a few, all the recommendations of the IQAC are implemented.

Innovations and Best Practices

The University lays great emphasis on preservation of the environment and this is reflected in its policies and programs. The University has formulated an *Environment Policy* incorporating suggestions from experts that not only addresses infrastructural concerns but also general awareness about environmental issues. A major recommendation in the policy is to conduct green audits and energy audits with the objective to enhance environmental consciousness among its students, faculty and other stakeholders. For the green audit, all the constituent units were requested to fill up a questionnaire and the same was then analyzed. The outcome of this exercise revealed a significant awareness among employees of the constituent units and their efforts to improve the environmental conditions on the respective campuses. In addition, the University also conducted energy audits of its major buildings and seven hospital buildings.

Based on the recommendations of Green Audit and Energy Audit Committees, the University has taken the following initiatives.

Renewable Energy- Solar heaters in hostels, replacing street lights with solar lights bio-gas units for the hostel mess and canteens.

Water harvesting - all the major campuses have water harvesting facility which has helped to raise the water table and waste water is recycled and used for gardens.
Carbon neutrality-most of the major campuses have been made plastic and vehicle free zones. The existing electric and lighting systems are replaced by energy efficient devices.

Plantation - all the campuses have under taken a massive plantation drive as a result of which all the campuses have become green campuses.

Hazardous and e-waste management - all the hazardous waste of hospitals is disposed through the professional agency and e-waste is also disposed through professional agency.

During the last four years, the University has adapted many best or innovative practices in its various academic and administrative activities. The major ones include organizing curriculum development workshops, providing opportunities for experiential learning to students by including project work and internship in all post graduate programs, teaching research methodology as part of the curriculum, encouraging student research, training faculty in effective use of ICT, facilitating online interactions between faculty and students, interactions between University leadership and stakeholders, student mentoring and counseling, framing of policy statements to enhance the quality of academic and administrative processes and resulting outcomes, adhering to norms and guidelines of UGC and Central Councils, performance evaluation of the faculty and the University etc.

During post accreditation period, every year, all the 29 constituent units report two of their best practices of which two are included in the AQAR. The University strives to institutionalize these best practices to enhance the quality. Apart from 20 innovative practices included in the SSR under respective criteria only two such best practices, which have made significant impact on the overall functioning of the University are included in the SSR. They are

> **Quality enhancement and sustenance measures undertaken**
> - Framing an environment policy of The University
> - Administering a standard questionnaire to the stakeholders to bring awareness
> - Developing eco-friendly campuses and infrastructure
> - Organizing lectures and film shows to bring environmental awareness
> - Use of solar energy, rain water harvesting etc.
> - Institutionalizing best practices as a quality enhancement measure
> - Framing benchmarks for quality enhancement and sustenance

(i) 'Imparting professional knowledge and skills, that is, to enable experiential learning'
(ii) 'Develop and deploy ICT infrastructure and promote its effective use in the University' and
(iii) Development of Flax Bio-village.

The details of practice and their significant impact are given in SSR.

SWOC Analysis of the University:

Strengths:
- Multidisciplinary University that enables interdisciplinary research
- Academic flexibility for students to study courses of their choice
- Proactive leadership and participatory management
- Globally and socially relevant curricula
- Strong support for multi-disciplinary
- Long standing international collaborations with benchmark institutions
- Well-developed ICT applications to support research and teaching-learning processes
- Highly qualified always accessible faculty
- Sports facilities for all-round development of students
- Individual mentoring and counseling for students
- Fully catered hostels with all amenities
- Strong linkages with industry to enhance employability and placements
- Scope for participation in outreach and ISR activities

Weaknesses:
- Lack of meaningful linkages with industry for institutes located in Kolhapur, Karad, Sangli and Solapur
- Lack of sufficient collaborative activities among constituent units
- Non-vibrant alumni association
- Inability to attract distinguished professionals and academicians as visiting and adjunct professors from institutes of national importance

Opportunities:
- Availability of a large pool of overseas students for studying in India
- Availability of international research projects through European union commission
- Availability of latest ICT tools for research, teaching and administration
- Academic and administrative autonomy to constituent units and faculty to experiment and innovate
- Open Educational Resources to provide varied learning experiences to students
- Application of research outcomes for the benefit of society
- Scope for socially relevant research as well as research in emerging areas
- Capacity for internationalization

Challenges:
- Internalization and institutionalization of best practices
- Motivating faculty to gain pedagogy content knowledge and adapt learner centric pedagogy

- To promote blended learning methodologies
- To motivate students for self-learning and promote flipped classroom
- To rigorously implement quality policy
- To modularize courses and make CBCS meet its unique objectives
- Being a deemed University getting external funding for research
- Developing centers of research excellence
- To recruit and retain teachers with requisite expertise in specialized areas.
- Bringing innovations and carving new avenues to modernize teaching and learning processes in almost all disciplines

PROFILE OF THE UNIVERSITY

PROFILE OF THE UNIVERSITY

1.   Name and Address of the University: **BHARATI VIDYAPEETH DEEMED UNIVERSITY**
Bharati Vidyapeeth Bhavan,
Lal Bahadur Shastri Marg,
Pune - 411 030. (India)
www.bvuniveristy.edu.in

2.   For communication:

Name & Designation	Telephone with STD Code	Mobile	Fax	E-mail
Vice Chancellor : **Prof. Dr. Shivajirao Kadam**	O:020-24407187 R:020-25448676	09822008485	24339121	sskadam.vc@gmail.com
Pro Vice Chancellor:	--	--	--	--
Registrar : **G. Jayakumar**	O:020-24407100 R:020-25443706	09822878493	24339121	kumarjaya51@hotmail.com
Steering Committee / IQAC Co-ordinator : **Prof. S. F. Patil**	O:020-24325701 R: 020-25232202	09822307348	24339121	prof.sfpatil@gmail.com

3.   Status of the University:

State University   ☐

State Private University   ☐

Central University   ☐

University under Section 3 of UGC (Deemed University)   ✓

Institution of National Importance   ☐

Any other (please specify)

4.   Type of University:

Unitary   ✓

Affiliating   ☐

5. **Source of funding:**

Central Government ☑

State Government ☑

Self-financing ☑

Any other (please specify) ☐

6. a. Date of establishment of the University:

Date	Month	Year
26	04	1996

b. Prior to the establishment of the University, was it a/an

i.	PG Centre	Yes ☐	No ☑
ii.	Affiliated College	Yes ☐	No ☑
iii.	Constituent College	Yes ☑	No ☐
iv.	Autonomous College	Yes ☐	No ☑
v.	Any other (please specify)	Yes ☐	No ☑

If yes, give the date of establishment:

Date	Month	Year
02	06	1978

7. Date of recognition as a University by UGC or any other national agency:

	Under Section	Date (dd-mm-yyyy)	Remarks (if any)
i.	2(f)	26-04-1996	5 Constituent Units
ii.	12(B)	02-04-2013	Included under 12(B) of the UGC Act, 1956
iii.	3 of UGC Act	26-04-1996	Declared as Deemed to be University
iv.	MHRD, Govt. of India	19-10-2012	Declared 'A' Grade University Status

8.   Has the University been recognized

a.   By UGC as a University with Potential for Excellence?

Yes [   ]   No [✓]

b.   For its performance by any other governmental agency?

Yes [✓]   No [   ]

If yes, name of the agency and date of recognition:

Sr. No.	Name of the Agency	Name of Recognized Institute	Date of Recognition	Remarks
1	NAAC	Bharati Vidyapeeth Deemed University, Pune	03-05-2004	Accredited 'A' Grade
2	NAAC	Bharati Vidyapeeth Deemed University, Pune	30-11-2011	Re-accredited 'A' Grade
3	National Board of Accreditation (NBA)	Poona College of Pharmacy, Pune	01/02/2015	Accredited for five years
4		Institute of Management and Research, New Delhi	06/05/2014	Accredited for three years
5		College of Engineering, Pune	08/11/2012	Accredited for three years
6	National Institutional Ranking Framework (NIRF), MHRD, New Delhi	Poona College of Pharmacy, Pune	04/04/2016	4th in India, 1st in Maharashtra
7		Institute of Management and Entrepreneurship Development, Pune	04/04/2016	46th in India, 3rd in Maharashtra
8		College of Engineering, Pune	04/04/2016	61st in India, 4th in Maharashtra
9	MCI, DCI, CCIM, CCH, NCI, AICTE, BCI, NCTE	Medical, Dental , Ayurved, Homoeopathy, Nursing, Engineering, Pharmacy, Law, Architecture, Physical Education colleges and Institutes of Management and Hotel Management and Catering Technology	Annual inspection	Continuation of recognition

9.   Does the University have off-campus centres?

Yes [   ]   No [✓]

10. **Does the University have off-shore campuses?**

Yes [ ]   No [✓]

11. **Location of the campus and area:**

i. **Main campus area**

	Campus	Location of the Campus	Campus Area in acres	Built-up Area in Sq.Mtrs.
1.	Pune, Dhankawadi	Urban	71.27	1,54,627
2.	Pune, Erandwane	Urban	9.02	24,809

ii. **Other campuses in the country**

	Campus	Location of the Campus	Campus Area in acres	Built-up Area in Sq.Mtrs.
3.	Sangli	Urban	60.31	89,683
4.	Navi Mumbai	Urban	28.14	14,955
5.	New Delhi	Urban	7.63	6,858
6.	Karad	Urban	3.19	2,859
7.	Kolhapur	Urban	5.51	2,317
8.	Solapur	Urban	2.84	3,290

12. **Provide information on the following: In case of multi-campus University, please provide campus-wise information.**

- **Auditorium/seminar complex with infrastructural facilities**
- **Sports facilities**
  - **Playground**
  - **Swimming Pool**
  - **Gymnasium**
  - **Any other (please specify)**
- **Hostel**
  - **Boys' hostel**
    - **i. Number of hostels**
    - **ii. Number of inmates**
    - **iii. Facilities**
  - **Girls' hostel**
    - **i. Number of hostels**
    - **ii. Number of inmates**

   iii. Facilities
- ° **Working women's hostel**
   i. Number of hostels
   ii. Number of inmates
   iii. Facilities
- **Residential facilities for faculty and non-teaching**
- **Cafeteria**
- **Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc.**
- **Facilities like banking, post office, book shops, etc.**
- **Transport facilities to cater to the needs of the students and staff**
- **Facilities for persons with disabilities**
- **Animal house**
- **Incinerator for laboratories**
- **Power house**
- **Waste management facility**

Following is the campus-wise information with available infrastructural facilities.

Dhankawadi Campus, Pune	
Item	Details
Auditorium/seminar complex with infrastructural facilities	• 4 auditoriums • 1 Seminar Hall
Sports facilities	• For Indoor sports
Playground	• Football ground, • Basketball ground, • Athletics track, • Cricket ground
Gymnasium	• Well-equipped gymnasium
Any other (please specify)	• Yoga centre -2500 sq.ft.
Hostel	
Boys' hostel	
Number of hostels	2
Number of inmates	466
Facilities	• 24 hrs. security, • Solar system, • Gymnasium on campus, • Recreational facilities like Table tennis, T.V., carom etc., • Wi-Fi connectivity, • Cyber café,

Dhankawadi Campus, Pune	
Item	Details
	• General Store,
	• Hospital and Ambulance facility,
	• Guest house for parents,
	• Banking facility,
	• Generator backup,
	• Xerox centre.
Girls' hostel	
Number of hostels	6
Number of inmates	1029
Facilities	• 24 hrs. security,
	• Biometric system,
	• Solar system,
	• Gymnasium in campus,
	• Recreational facilities like Table tennis, T.V., carom etc.,
	• Wi-Fi connectivity,
	• Cyber café,
	• General Store,
	• Hospital and Ambulance facility,
	• Guest house for parents,
	• Generator backup,
	• Banking facility,
	• Xerox centre.
Hostel for Intern	Capacity : 90
Hostel for PG students	Capacity : 243
Residential facilities for faculty and non-teaching	• There are seven residential blocks available for teaching and non-teaching staff on the campus.
Cafeteria	• 2 Cafeterias
Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc.	• 923 bedded tertiary care hospital in Dhankawadi campus, Rural Heath Training Centre at Lavale • First aid facility • Outpatient facility • Inpatient facility • Ambulance facility • Emergency care facility • Health centre staff
Facilities like banking, post office,	• Bharati Sahakari Bank, Pune

Dhankawadi Campus, Pune	
Item	Details
book shops, etc.	available in the campus
Transport facilities to cater to the needs of the students and staff	• Buses- 3 • Jeeps- 4 • Tempo traveller- 1 • Van-1
Facilities for persons with disabilities	• Ramps, special lift, wheelchairs are available
Animal house	• Yes, a spacious and independent Animal house with rats, guinea pigs etc. are available for conducting research.Area-2068 sq.ft.
Incinerator for laboratories	• As per MPCB order, biomedical waste is collected by PASSCO
Power house	• 1 Generator 720 kV, • 1 Generator 420 kV, • 1 Generator 250 kV, • 1 Generator 120 kV
Waste management facility	• Biomedical waste given to PASSCO agency, other waste managed as per corporation guidelines.

Erandwane Campus, Pune	
Item	Details
Auditorium/seminar complex with infrastructural facilities	• 3Auditoriums having state of the art facilities with Audio / Visual / Video-conferencing / Multimedia Projectors. • 3Seminar Halls • 1 e-Moot Court Hall with capacity of 110 persons.
Sports facilities	• Facilities for indoor games like: Table tennis, Wrestling, Judo and Chess.
Playground	• 6800 sq. mtrs. Playground with 01 Basketball, 01 Football, 02 Volleyball, 02 Kabaddi, 01 Kho-Kho, 01 Cricket, and 01 Running Track (200 m.)
Gymnasium	• Well-equipped twelve station Gymnasium with Barbells, Dumbbells, 2000 kg free weight

Erandwane Campus, Pune	
Item	Details
	plates and four station multibench (incline and decline) with mirror.
Any other (please specify)	• 1 Guest House
Hostel	
Boys' hostel	
Number of hostels	1
Number of inmates	161
Facilities	• Well furnished rooms with beds, tables, chairs and cupboards. • High tech solar water system. • 24 X 7 hrs. Security service. • Aquaguard for purification of water. • Spacious dining hall with proper water supply, wash basins, cleanliness and hygienic. • Canteen facility on campus is available. • Visiting doctors • Photocopy centre. • Stationery store. • Recreational facilities in hostel/s like gymnasium, yoga centre, etc. • Reading rooms with magazines and newspapers, T.V. Rooms etc. are provided in both the hostels. • Broadband connectivity / Wi-Fi facility in hostels. • Double Occupancy • Reading Area • Cafeteria • Medical Facility • 24X7 Internet Facility • Television with cable connection in common lounge • Movie Screening • Boarding, Lodging and Recreational
Girls' hostel	
Number of hostels	1
Number of inmates	203
Facilities	• Well furnished rooms with beds,

Erandwane Campus, Pune	
Item	Details
	tables, chairs and cupboards.
	• High tech solar water system.
	• 24 X 7 hrs. Security service.
	• Aquaguard for purification of water.
	• Spacious dining hall with proper water supply, wash basins, cleanliness and hygienic.
	• Canteen facility on campus is available.
	• Visiting doctors.
	• Photocopy centre.
	• Stationery store.
	• Recreational facilities in hostel/s like gymnasium, yoga centre, etc.
	• Reading rooms with magazines and news papers, T.V. Rooms etc. are provided in both the hostels.
	• Broadband connectivity / Wi-Fi facility in hostels.
	• Double Occupancy
	• Reading Area
	• Cafeteria
	• Medical Facility
	• 24X7 Internet Facility
	• Television with cable connection in common lounge
	• Movie Screening
	• Boarding, Lodging and Recreational
Residential facilities for faculty and non-teaching	• Available
Cafeteria	• Cafeteria
Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc.	• OPD facility of Homeopathic and Ayurvedic treatments on campus for minor ailments. • Availability of Counseling Psychologist for regular counseling of the students.
Facilities like banking, post office, book shops, etc.	• Bharati Sahakari Bank branch is available on the campus. • Postal services and Book shops are

Erandwane Campus, Pune	
Item	Details
	available in close vicinity of the campus.
Transport facilities to cater to the needs of the students and staff	• The campus is located at the centre of the city and is well connected by public transportation service.
Facilities for persons with disabilities	• Facilities like lift, ramp, wheelchair, specially designed toilets are available for persons with disabilities.
Animal house	• Available and registered with CPCSEA
Incinerator for laboratories	• Bio-waste is handed over to PASSCO Environmental Solutions Pvt. Ltd., Pune for disposal.
Power house	• Power sub-stations are functional at the Campus with 24X 7 Generator Backup facilities. The electric supply is monitored by the Maharashtra State Electricity Board, Pune.
Waste management facility	• Vermi Composting facility is available as well as Pune Municipal Corporation help in waste management.

Sangli Campus	
Item	Details
Auditorium/seminar complex with infrastructural facilities	• 3 Auditoriums
Sports facilities	• Available
Playground	• Available (with Volley Ball court)
Gymnasium	• Available
Hostel	
Boys' hostel	
Number of hostels	3
Number of inmates	518
Facilities	• Reading room, TV room, Sports room, Mess, Canteen • Well-equipped Gymnasium, Laundry, Solar Hot Water system, R.O. water system, Lipton Tea Machine, & Snacks.

Sangli Campus	
Item	Details
	• Security
Girls' hostel	
Number of hostels	5
Number of inmates	610
Hostel for Resident	Capacity : 140
Hostel for Interns	Capacity : 150
Facilities	• Reading room, TV room, Sports room, Mess, Canteen • Well-equipped Gymnasium, Laundry, Solar Hot Water system, R.O. water system, Lipton Tea Machine, Snacks, and Beauty Parlour • Security
Residential facilities for faculty and non-teaching	• Yes, for faculty
Cafeteria	• Available
Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc.	• State-of-the-art hospital • Mobile Van for Dental Camps • First-aid medical kits are available in the Institutes.
Facilities like banking, post office, book shops, etc.	• Branch of Bharati Sahakari Bank along with ATM facility, Consumer store, Post office & book shops are available.
Transport facilities to cater to the needs of the students and staff	• Public Transportation facilities are available outside the campus.
Facilities for persons with disabilities	• Wheel Chair and Ramp arrangement has been made available. Also have lift facility for persons with disabilities.
Animal house	• Yes
Incinerator for laboratories	• Yes
Power house	• Generator facility is available
Waste management facility	• e-waste disposal is carried out by Govt. approved agencies

Navi Mumbai Campus	
Item	Details
Auditorium/seminar complex with infrastructural facilities	• 2 Auditoriums

Navi Mumbai Campus	
Item	Details
Sports facilities	-
Playground	• Yes
Hostel	
Boys' hostel	
Number of hostels	1
Number of inmates	240
Facilities	• Television facility with cable network connection, • Newspapers, Reading room facility, • First aid facility, • Landline facility, • Indoor games facility, • Vehicle parking
Girls' hostel	
Number of hostels	1
Number of inmates	310
Facilities	• Television facility with cable network connection, • Newspapers, Reading room facility, • First aid facility, • Landline facility, • Indoor games facility, • Vehicle parking
Residential facilities for faculty and non-teaching	• Available
Cafeteria	• Available
Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc.	• Available
Facilities like banking, post office, book shops, etc.	• Available
Transport facilities to cater to the needs of the students and staff	• Available
Facilities for persons with disabilities	• Available
Power house	• Available
Waste management facility	• Available

New Delhi Campus	
Item	Details
Auditorium/seminar complex with infrastructural facilities	• 1 Auditorium
Sports facilities	
Playground	• Available
Gymnasium	• Available
Hostel	
Girls' hostel	
Number of hostels	1
Number of inmates	100
Facilities	• Wi-Fi, • Broadband, • Solar Water heaters, • Gymnasium, • In house banking facility, • 24 hrs. security, • Medical Room, Doctor on call available, • Air-conditioned rooms, • Girls common room with Television, • Landline telephone available, • Aqua filter drinking water, • Sports – Indoor, Outdoor, • Mess facility, • Special Yoga facility, • Music Room.
Residential facilities for faculty and non-teaching	• Available
Cafeteria	• Available
Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc.	• Yes , doctor on call available
Facilities like banking, post office, book shops, etc.	• Bharati Sahakari Bank
Transport facilities to cater to the needs of the students and staff	• Metro station just outside the campus.
Facilities for persons with disabilities	• Writer and elevator

Karad Campus	
Item	Details
Auditorium/seminar complex with infrastructural facilities	• 1 Auditorium
Sports facilities	
Playground	• Volleyball
Gymnasium	• Available
• Hostel	
Boys hostel	
Number of hostels	1
Number of inmates	10
Residential facilities for faculty and non-teaching	• Available one for faculty and one for non-teaching
Cafeteria	• Available
Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc.	• First-aid medical kit is available in the Institute.
Facilities like banking, post office, book shops, etc.	• Branch of Bharati Sahakari Bank along with ATM facility, • Consumer store and bookshop is available.
Power house	• On campus generator facility is available
Waste management facility	• e-waste disposal is carried out by Govt. approved agencies

Kolhapur Campus	
Item	Details
Auditorium/seminar complex with infrastructural facilities	• 1 Seminar Hall
Sports facilities	
Playground	• Volleyball
Gymnasium	• Available
Cafeteria	• Available
Health centre – Nature of facilities available – inpatient, outpatient, ambulance, emergency care facility, etc.	• First-aid medical kit is available in the Institute.
Facilities like banking, post office, book shops, etc.	• Branch of Bharati Sahakari Bank. Post office and bookshops available in close vicinity of the campus

Kolhapur Campus	
Item	Details
Power house	• On campus generator facility is available
Waste management facility	• e-waste disposal is carried out by Govt. approved agencies

Solapur Campus	
Item	Details
Auditorium/seminar complex with infrastructural facilities	• 1 Seminar Hall with 500 seating capacity
Sports facilities	
Playground	• Volleyball
Gymnasium	• Available
Cafeteria	• Available
Facilities like banking, post office, book shops, etc.	• Branch of Bharati Sahakari Bank. Consumer store & bookshop is available.
Facilities for persons with disabilities	• Wheel Chair and Ramp arrangement has been made available. Also have lift facility for persons with disabilities
Power house	• On campus generator facility is available
Waste management facility	• e-waste disposal is carried out by Govt. Approved agencies

13.   Number of institutions affiliated to The University.

Type of colleges	Total	Permanent	Temporary
Arts, Science and Commerce			
Law		Not Applicable	
Medicine			
Education			
Management			
Others (specify and provide details)			

14. **Does the University Act provide for conferment of autonomy (as recognized by the UGC) to its affiliated institutions? If yes, give the number of autonomous colleges under the jurisdiction of the University.**

Yes [ ]   No [✓]   Number [ ]

15. **Furnish the following information:**

	Particulars	Number	Number of Students
a.	University Departments Undergraduate Post graduate Research centres on the campus	-	-
b.	Constituent colleges	29	20812
c.	Affiliated colleges	-	-
d.	Colleges under 2(f)	5	-
e.	Colleges under 2(f) and 12B	5	-
f.	NAAC accredited colleges	-	-
g.	Colleges with Potential for Excellence (UGC)	-	-
h.	Autonomous colleges	-	-
i.	Colleges with Postgraduate Departments	-	-
j.	Colleges with Research Departments	-	-
k.	University recognized Research Institutes/Centres	29	677

16. **Does the University conform to the specification of Degrees as enlisted by the UGC?**

Yes [✓]   No [ ]

If the University uses any other nomenclatures, please specify.

17. **Academic programmes offered by the University departments at present, under the following categories: (Enclose the list of academic programmes offered)**

Programmes	Number
UG	40
PG	106

Programmes	Number
Integrated Masters	1
M.Phil.	2
Ph.D.	79
Diploma	37
PG Diploma	14
Others (Fellowship)	11
Total	**290**

List of all academic programmes is given at Point 1.2.

18.   **Number of working days during the last academic year.**

270

19.   **Number of teaching days during the past four academic years.**

2011-12	2012-13	2013-14	2014-15
190	**215**	**193**	**194**

('Teaching days' means days on which classes were engaged. Examination days are not to be included)

20.   **Does the University have a department of Teacher Education?**

Yes [   ]   No [✓]

If yes,

a) Year of establishment

Date	Month	Year

b) NCTE recognition details (if applicable)

Notification No.

Notification No.

Date

Date	Month	Year

c) Is the department opting for assessment and accreditation separately?

Yes [   ]   No [   ]

21.   Does the University have a teaching department of Physical Education?

Yes [✓]   No [   ]

If yes,

a) Year of establishment

Date	Month	Year
01	**09**	**1994**

b) NCTE recognition details (if applicable)

Programme	Notification Number	Date		
		Date	Month	Year
B.PEd.	WRC/9-9NCTE/2003/1350	03	04	2003
M.PEd.	WRC/APP 997/182/2013	20	05	2013

c) Is the department opting for assessment and accreditation separately?

Yes [   ]   No [✓]

22.   In the case of Private and Deemed Universities, please indicate whether professional programmes are being offered?

Yes [✓]   No [   ]

If yes, please enclose approval / recognition details issued by the statutory body governing the programme.

The details regarding approval/recognition to professional programmes offered by the University will be provided during the peer team visit.

23.   Has the University been reviewed by any regulatory authority? If so, furnish a copy of the report and action taken there upon.

- In 2012, the MHRD has placed the University in "A" category.

- The NAAC has accredited and reaccredited the University with "A" grade in 2004 and 2011 respectively.
- The UGC has bestowed 12(B) status to the University in 2012.
- The Poona College of Pharmacy, College of Engineering, Institute of Management and Research, New Delhi have been awarded NBA accreditation for the programmes that are offered at the respective institutes.
- In the first ever rankings of institutions of higher education by MHRD, New Delhi, based on National Institutional Ranking Framework (NIRF), in 2016, the Poona College of Pharmacy has been ranked as fourth at national level and as first at state level; the College of Engineering has been ranked as 61 at national level and 16 at state level; and the Institute of Management and Entrepreneurship Development has been ranked as 46 at National level and as three at state level.
- The constituent units as well as the University routinely are ranked in the top positions in their respective categories in surveys conducted by various magazines.

24. Number of positions in the University

Positions	Teaching faculty			Non-teaching staff	Technical staff
	Professor	Associate Professor	Assistant Professor		
Sanctioned by the UGC / University / State Government					
Recruited	309	367	728	1024	624
Yet to recruit	0	19	82	54	0
Number of persons working on contract basis	-	-	-	-	-

25. Qualifications of the teaching staff

Highest Qualification	Professor		Associate Professor		Assistant Professor		Others		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
Permanent teachers									
D.Sc./D.Litt	01	-	-	01	-	-	-	-	**02**
Ph.D.	66	19	66	25	43	46	10	03	**278**
M.Phil.	-	01	03	-	09	15	02	-	**30**
PG	137	85	160	105	287	272	66	56	**1168**
UG	-	-	07	-	20	36	32	41	**136**
Sub-Total	**204**	**105**	**236**	**131**	**359**	**369**	**110**	**100**	**1614**

Highest Qualification	Professor		Associate Professor		Assistant Professor		Others		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
Temporary teachers									
Ph.D.	-	-	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-	-	-
UG	-	-	-	-	-	-	-	-	-
Sub-Total	-	-	-	-	-	-	-	-	-
Part-time teachers									
Ph.D.	-	-	-	-	-	-	-	-	-
M.Phil.	-	-	-	-	-	-	-	-	-
PG	-	-	-	-	-	-	-	-	-
UG	-	-	-	-	-	-	-	-	-
Sub-Total	-	-	-	-	-	-	-	-	-
Total	**204**	**105**	**236**	**131**	**359**	**369**	**110**	**100**	**1614**

26. Emeritus, Adjunct and Visiting Professors

Emeritus	Adjunct	Visiting	Total
03	173	36	**212**

27. Chairs instituted by the University

No

28. **Students enrolled in the University departments during the current academic year, with the following details.**

Students	UG		PG		Integrated Masters		M.Phil.		Ph.D.		Integrated Ph.D.		D.Litt./ D.Sc.		Certificate		Diploma		PG Diploma		Total
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
From the state where the University is located	3480	3538	1189	1194	67	117	-	-	268	275	-	-	-	-	8	4	141	84	12	30	10407
From other states of India	5067	2640	872	744	19	37	6	-	30	49	-	-	-	-	31	50	79	69	18	7	9718
NRI students	33	40	3	3	-	5	-	-	-	-	-	-	-	-	-	1	-	-	-	-	85
Foreign students	256	136	37	13	1	-	-	-	29	30	-	-	-	-	-	-	14	-	1	-	517
Total	8869	6394	2104	1957	87	163	6	-	327	354	-	-	-	-	39	55	234	155	31	37	**20812**

29. **'Unit Cost' of education**
(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

(a)   including the salary component = | **Rs. 2.09 lakhs** |

(b)   excluding the salary component = | **Rs. 1.06 lakhs** |

30. **Academic Staff College**
Yes, the University has established its own Academic Staff College.

31. **Does the University offer Distance Education Programmes (DEP)?**

Yes | ✓ | No | |

If yes, indicate the number of programmes offered: **18**

Are they recognized by the Distance Education Council/ Distance Education Bureau of UGC?   : **Yes**

32. **Does the University have a provision for external registration of students?**

Yes | | No | ✓ |

If yes, how many students avail of this provision annually?

33. **Is the University applying for Accreditation or Re-assessment?   If Accreditation, name the cycle.**

Accreditation: Cycle 1 | | Cycle 2 | | Cycle 3 | ✓ | Cycle 4 | |

Re-Assessment: | |

34. **Date of accreditation * (application for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)**

- Cycle 1

Date	Month	Year
03	05	2004

- Cycle 2

Date	Month	Year
30	11	2011

35. **Does the University provide the list of accredited institutions under its jurisdiction on its website? Provide details of the number of accredited affiliated / constituent / autonomous colleges under the University.**

There are no accredited constituent units of the University.

36. **Date of establishment of Internal Quality Assurance Cell (IQAC) and dates of submission of Annual Quality Assurance Reports (AQAR).**

- IQAC

Date	Month	Year
30	08	2002

- AQAR

(i)

Date	Month	Year
31	12	2012

(ii)

Date	Month	Year
05	12	2013

(iii)

Date	Month	Year
26	12	2014

(iv)

Date	Month	Year
26	12	2015

37. **Any other relevant data, the University would like to include (not exceeding one page)**

CRITERION-WISE INPUTS

Criterion – I
Curricular Aspects

CRITERION - I: CURRICULAR ASPECTS

1.1   Curriculum Design and Development

1.1.1   How is the institutional vision and mission reflected in the academic programmes of the University?

The Vision and Mission statements of the University are clearly defined and are well reflected in its academic programs. In conformity with the vision and mission statements, the University has been offering academic programs in Health Sciences, Bio-technology, Engineering & Technology, Pharmaceutical Sciences, Law, Liberal Arts, Hotel Management & Catering Technology, Physical Education, Environment Science and Business Management. The University is also offering research degree programs in all branches of knowledge. All these programs have in-built components to ensure high degree employability and thereby contributing to the nation building activities.

The Vision and Mission statements are as below:

VISION:

"To be a world class University for Social Transformation through Dynamic Education".

MISSION:

- *To provide inclusive borderless access to higher education and vocational education based on merit.*
- *To offer varied professional, technical, vocational, and general education programmes to meet the changing and diverse needs of society in a global context.*
- *To provide quality higher education for liberation of mind and empowerment of hands.*
- *To promote quality research in diverse areas of development and engage in application of knowledge for community development*
- *To develop national and international networks with industry, service sector and other academic and research institutions to meet the expectations of various stakeholders.*
- *To promote extensive use of ICT for enrichment of teaching learning and for effective governance.*
- *To make quality an integral part of all University operations by promoting innovative practices.*

The number and diversity of academic programs offered, contemporary curricula, research orientation in curricula, international collaborations, and extensive use of ICT based teaching-learning methods ensured that Mission of the University is being fulfilled through various academic programmes it offers.

- The 29 constituent units of the University are located in cosmopolitan cities such as Pune, New Delhi and Navi Mumbai as well as in semi-urban areas in Kolhapur, Sangli, Karad and Solapur thus providing access to quality higher education programmes to the students of various cross sections of the society within and outside India.
- The University offers 290 academic programmes leading to various degrees, diplomas and certificates.
- Besides imparting sound theoretical knowledge to the students, the programmes aim at providing higher-order skills such as application, analytical, synthesis and evaluative skills through research oriented programs, project work, field work and internship. The academic environment in the University encourages the students to engage themselves in participatory teaching-learning processes through debates, discussions and to express their thoughts and opinions freely.
- The curricula of academic offerings aim at fostering global competencies such as thorough knowledge in core concepts, skills, values and behavior among students.

1.1.2 Does the University follow a systematic process in the design and development of the curriculum? If yes, give details of the process (need assessment, feedback, etc.).

Yes, the University follows a well-defined systematic process for design and development of curriculum. The curriculum design and development process of the University is comprehensive and ensures that curriculum developed is of high quality, contemporary and has social relevance.

The University conducts curriculum development workshops by involving external experts from industry and academics.

In case of the programs under Health Sciences, Engineering & Technology, and Management, the model curriculum developed by the respective central councils and in case of liberal education the model curriculum developed by UGC is placed before the Board of Studies. Depending on the changing needs of the society/industry, the Boards of Studies update the same and prepare course-wise syllabus and if required, get the same validated from the external peers.

The Board of Studies consists of senior faculty, external academic peers and professionals. The Board of Studies, after detailed discussions and deliberations recommend the said curriculum/syllabus to the respective Faculty and Academic Council for final approval.

The academic council, which has a representation of the stakeholders and senior faculty, approves the curriculum/syllabus and the same is implemented.

At the end of academic year, a feedback on curriculum/syllabus is obtained from the faculty, external examiners and students. The feedback so obtained is analysed and placed before the respective committees of the constituent unit which if necessary updates/revises the course content to that extent and recommend the same to the Board of Studies and finally placed before the academic council for its approval.

The major revision of curriculum/syllabus is made once in three to four years and minor revision is done annually on the basis of feedback.

1.1.3 How are the following aspects ensured through curriculum design and development?
- **Employability**
- **Innovation**
- **Research**

The curriculum design and development process of the University ensures that innovations, employability and research components are also addressed appropriately.

- **Employability**

Employability is ensured by introducing programmes and courses that have strong theoretical foundation as well as focus on practical aspects, research orientation and soft skills. Given the diverse nature of jobs that exist, employability skills of the students are being augmented mainly through:

- Updated and relevant curriculum that addresses skills required in newly emerging areas such as Financial Markets, Data Analytics, Business Intelligence, Nanotechnology, e-litigation, Wildlife Conservation, Green Chemistry, Energy Conversion Materials, Food Biotechnology, Fruits and Vegetable Preservation, Gene Therapy, Agricultural Microbiology, Cloud Computing, Computational Genomics etc.
- Strong focus on practical training through laboratory work, short and long duration field work, internships, minor and major project works, research assignments, etc.
- Elective optional courses for imparting thorough knowledge and skills.

- General courses on soft skills, IT skills, entrepreneurship development, project management, English language, foreign languages etc.
- Mandatory internships in all programmes that range from two to 12 months which help the students to get hands-on experience.
- Continuous Industry-Institute interactions in Engineering, Management, Pharmacy, Hotel Management etc.
- Joint Field Work with international students in the case of M.Sc. in Environmental Science.
- Finishing schools that specially focus on bridging the gap between the knowledge and skills imparted as per curricula and those required for employability.

Such diverse components are included in the curricula to enhance learning outcomes of the students to meet national and global requirements.

- **Innovation**
  Due thought to foster innovation has been given in the design and development of curricula by ensuring integration of several new approaches into the teaching-learning process. The mandatory courses on project work and internship are intended to impart skills to solve open-ended problems. The curriculum facilitates the use of teaching methods such as simulations, case analysis, flipped classroom, blended learning and project based learning to foster skills of critical thinking.

  In case of Pharmacy students, they are involved in the process of manufacturing, quality control, quality assurance, and marketing of drugs at its Public Testing Laboratory. These students are also exposed to the latest equipment in Food Testing Laboratory. Similarly, the B.Sc. Biotechnology curriculum has a course on Innovative Ideas in Biotechnology. In this course the students learn how ideas/discoveries and inventions are generated and commercialized; learn to apply the knowledge of biotechnology to find solutions for current issues/problems; and learn to use new skills.

- **Research**
  The research is an integral part of the University's curriculum design and development and teaching-learning process since that helps both faculty and the students to remain contemporary in their disciplines. In view of this, all the programmes at the PG level have a major component of research included in the curriculum. Special courses on Research Methodology are included in the curriculum to equip the students with basic skills necessary for research. Students carry out their research under the supervision of a faculty. The success of this approach is evident from the fact that some students published their work in scientific journals and presented papers at conferences.

Similarly, at the UG level, group work and critical review of published literature are being given as assignments to foster critical thinking skills that are core competencies for research. Special modules on technical writing, statistical analysis using software such as SPSS and use of IT in research are included as part of some UG and PG curricula.

1.1.4 **To what extent does the University use the guidelines of the regulatory bodies for developing and/or restructuring the curricula? Has the University been instrumental in leading any curricular reform which has created a national impact?**

The model curriculum developed by the central councils and UGC are adapted to the extent of 80 to 90 percent while developing/restructuring the new curriculum.

The University has been instrumental in leading some curricular reforms at the national level. Some of them are as below:

- The programmes in Pharmacy and Environmental Education developed by the University have been adopted by other institutions subsequently. The faculty of the College of Pharmacy made significant contributions to the revision of curricula of the D. Pharm. programme which was adapted by Pharmacy Council of India and is being followed at many Universities.
- The Institute of Environment Education and Research (IEER) has set up a portal for teaching-learning of geospatial technologies in close cooperation with the Department of Science and Technology, Government of India. The details are available on the website (http://www.dst-iget.in).
- The environmental studies course which is designed and developed by the IEER has been adapted by the UGC and is taught as a compulsory foundation coursein all UG programmes in India. Similarly, the institute has also restructured a DST's three week summer /winter school training program in geospatial technologies for in-service candidates. The revised program is being followed across the country for the past three years at all summer /winter schools on geospatial technologies sponsored by the DST, thus impacting unit level teaching across the country.
- The Diploma Course in Anti-Corruption Laws was first initiated by the University which is being presently taught by many other universities in India.

1.1.5 **Does the University interact with industry, research bodies and the civil society in the curriculum revision process? If so, how has the University benefitted through interactions with the stakeholders?**

Yes, the University always interacts with its stakeholders while designing and developing/restructuring the curricula of its academic offerings. It has

established strong linkages with industry and research organizations in the country and abroad. These interactions generally have helped in acquiring inputs for curriculum design and revisions.

- The University has established more than 300 linkages with industry, research laboratories, NGO etc., for providing internship training, to help in curriculum development and to share professional skills with faculty and students. Some of the major organisations include National Chemical Laboratories, Tata Consultancy Services, Mahindra and Mahindra, Wipro Technologies, Lupin Ltd., Natco Pharma, Cadila Healthcare, Birla Cement, 3M India, Emerson, ICICI Bank, Bank of Maharashtra, Bajaj Alliance, Precision Camshafts Ltd. These linkages have helped faculty and students to gain insights into professional skills. Often, the personnel from industry conduct training programmes for faculty on latest technologies. They also provide cases and live projects to students. The Institute of Management and Entrepreneurship Development invites industry professionals as guest faculty to teach 20-30 percent of a course emphasizing on the application aspects of the subject.

- The faculty serves as experts on various committees of other Universities and research institutes. They are also invited as resource persons at conferences, seminars, workshops, faculty development programmes etc. Similarly, distinguished scholars from other institutions are invited as experts and resource persons to the University. Further, there are collaborative research programmes, student and faculty exchange programmes with other Universities in India and abroad. Such interactions, to a large extent, also helped in improving the quality of curriculum, teaching-learning processes also.

- The Social Science Centre interacts with NGO's and members working for social causes. These interactions have enriched the MSW programme. For example, the MSW students have to work for 180-200 hours during every semester on field work. The NGO's have provided projects for field work and guide the students. Such NGO's include P.M. Shah Foundation; Unique Education Foundation, International Longevity Centre, India, Pune; Talegaon Dabhade Industrial Association, Pune; TATA Powers Community Development Trust etc.

1.1.6. Give details of how the University facilitates the introduction of new programmes of studies in its affiliated units.

The University is established under Sec. 3 of the UGC Act, 1956, as such it is unitary and does not have power/authority to affiliate the colleges.

1.1.7 Does the University encourage its units to provide additional skill-oriented programmes relevant to regional needs? Cite instances (not applicable for unitary universities).

Yes, the University encourages the constituent units to provide additional skill oriented programs relevant to their disciplines. The 29 constituent units have proposed 108 skill development programs and of this 28 have been approved by the University which will be started from the academic year 2016-17. The details of the skill development programmes are given at Point 1.3.5.

1.2 Academic Flexibility

1.2.1 Furnish the inventory for the following:
- **Programmes taught on campus**
- **Overseas programmes offered on Campus**
- **Programmes available for units to choose from**

- **Programmes taught on campus**

The University offers 290 programmes on its main and satellite campuses including 10 interdisciplinary programmes. Out of these 290 programmes, 40 are offered at UG, 109 are at PG, 37 diplomas, and 14 are at PG Diploma levels. Of the remaining, 79 are doctoral programmes in various subjects and 11 are fellowship programmes.

The level-wise and faculty-wise Self-financed and Grant-in-Aid programmes offered by the University are listed below.

<u>**Self-financing programmes**</u>

Sr. No.	Name of the Programme
	<u>Undergraduate Programmes (34)</u>
	Faculty of Arts, Social Sciences & Commerce (5)
1	Bachelor of Library & Information Science
2	Bachelor of Education (Physical Education)
3	Bachelor of Arts (Dance)
4	Bachelor of Arts (Music)
5	Bachelor of Arts (Tourism Studies)
	Faculty of Science (4)
6	Bachelor of Science (Computer Science)
7	Bachelor of Science (Biotechnology)
8	Bachelor of Science (Information Technology)

Sr. No.	Name of the Programme
9	Bachelor of Science (Animation & Gaming)
	Faculty of Law (1)
10	Bachelor of Laws (B.B.A. LLB) (Five Years)
	Faculty of Medical Sciences (3)
11	Bachelor of Medicine and Bachelor of Surgery
12	Bachelor of Clinical Optometry
13	Bachelor of Audiology & Speech Language Pathology
	Faculty of Dentistry (1)
14	Bachelor of Dental Surgery
	Faculty of Ayurved (1)
15	Bachelor of Ayurvedic Medicine and Surgery(Ayurvedacharya)
	Faculty of Homoeopathy (1)
16	Bachelor of Homoeopathic Medicine and Surgery
	Faculty of Nursing (2)
17	Bachelor of Science (Nursing)
18	Post Basic Bachelor of Science (Nursing)
	Faculty of Management Studies (4)
19	Bachelor of Hotel Management and Catering Technology
20	Bachelor of Science (Hospitality & Hotel Administration)
21	Bachelor of Business Administration
22	Bachelor of Computer Applications
	Faculty of Engineering & Technology (11)
23	Bachelor of Technology (Electronics & Telecommunication)
24	Bachelor of Technology (Chemical)
25	Bachelor of Technology(Civil)
26	Bachelor of Technology (Computer)
27	Bachelor of Technology (Electrical)
28	Bachelor of Technology (Mechanical)
29	Bachelor of Technology (Production)
30	Bachelor of Technology (Electronics)
31	Bachelor of Technology (Biomedical)
32	Bachelor of Technology (Information Technology.)
33	Bachelor of Architecture
	Faculty of Interdisciplinary Studies (1)
34	Bachelor of Business Administration (Hospital Administration)
	Postgraduate Programmes(106)
	Faculty of Arts, Social Sciences & Commerce (9)
35	Master of Commerce
36	Master of Arts (English)

Sr. No.	Name of the Programme
37	Master of Arts (Economics)
38	Master of Arts(Sociology)
39	Master of Library & Information Science
40	Master of Physical Education
41	Master of Arts (Music)
42	Master of Arts (Dance)
43	Master Performing Arts
	Faculty of Science (7)
44	Master of Science (Analytical Chemistry)
45	Master of Science (Organic Chemistry)
46	Master of Science (Environment Science & Technology)
47	Master of Science (Biotechnology)
48	Master of Science (Microbiology)
49	Master of Science (Information Technology)
50	Master of Science (Computer Science)
	Faculty of Law (2)
51	Master of Laws (One Year)
52	Master of Laws (Two Years)
	Faculty of Medical Sciences (26)
53	Doctor of Medicine (General Medicine)
54	Doctor of Medicine (Anaesthesiology)
55	Doctor of Medicine (Paediatrics)
56	Doctor of Medicine (Physiology)
57	Doctor of Medicine (Radiodiagnosis)
58	Doctor of Medicine (Pathology)
59	Doctor of Medicine (Dermatology, Venerology & Leprosy)
60	Doctor of Medicine (Anatomy)
61	Doctor of Medicine (Pharmacology)
62	Doctor of Medicine (Community Medicine)
63	Doctor of Medicine (Microbiology)
64	Doctor of Medicine (Biochemistry)
65	Doctor of Medicine (Psychiatry)
66	Doctor of Medicine (TB and Respiratory Medicine/Pulmonary Medicine)
67	Master of Surgery (Obstetrics &Gynaecology)
68	Master of Surgery (General Surgery)
69	Master of Surgery (Orthopaedics)
70	Master of Surgery (Ophthalmology)
71	Master of Surgery (E.N.T)

Sr. No.	Name of the Programme
72	Master of Science (Medical Anatomy)
73	Master of Science (Medical Physiology)
74	Master of Science (Medical Bio-Chemistry)
75	Master of Science (Medical Microbiology)
76	Master of Science (Medical Pharmacology)
77	Master of Optometry
78	Master of Audiology & Speech Language Pathology
	Faculty of Dentistry (8)
79	Master of Dental Surgery in Prosthetic Dentistry & Crown & Bridge
80	Master of Dental Surgery in Periodontology
81	Master of Dental Surgery in Oral & Maxillofacial Surgery
82	Master of Dental Surgery in Orthodontics &Dentofacial Orthopedics
83	Master of Dental Surgery in Conservative Dentistry & Endodontics
84	Master of Dental Surgery in Oral Pathology & Microbiology
85	Master of Dental Surgery in Oral Medicine & Radiology
86	Master of Dental Surgery in Pedodontics and Preventive Dentistry
	Faculty of Ayurved (15)
87	M.D. - Ayurveda Vachaspati in Samhita & Siddhanta
88	M.D. - Ayurveda Vachaspati in Rachna Sharir
89	M.D. - Ayurveda Vachaspati in Kriya Sharir
90	M.D. - Ayurveda Vachaspati in Dravya Guna Vigyana
91	M.D. - Ayurveda Vachaspati in Rasa Shastra & Bhaishajya Kalpana
92	M.D. - Ayurveda Vachaspati in Rog Nidan avum Vikriti Vigyana
93	M.D. - Ayurveda Vachaspati in Swastha Vritta & yoga
94	M.D. - Ayurveda Vachaspati in Agad Tantra avum Vidhi Vaidyaka
95	M.D. - Ayurveda Vachaspati in Kayachikitsa
96	M.D. - Ayurveda Vachaspati in Kaumarbhritya - Bala Roga
97	M.D. - Ayurveda Vachaspati in Panchkarma
98	M.S. - Ayurveda Dhanvantri in Prasuti avum Stri Roga
99	M.S. - Ayurveda Dhanvantri in Shalya Tantra (with specialization in Shalya Samanya)
100	M.S. - Ayurveda Dhanvantri in Shalakya Tantra with specialization in Shalakya Netra Roga
101	M.S. - Ayurveda Dhanvantri in Shalakya Tantra with specialization in Shiro-Nasa Karna avum Kantha Roga
	Faculty of Homoeopathy (5)
102	M.D. Hom. (Practice of Medicine)
103	M.D.Hom. (Materia Medica)
104	M. D. Hom. (Homoeopathic Pharmacy)

Sr. No.	Name of the Programme
105	M. D. Hom. (Homoeopathic Philosophy)
106	M. D. Hom. (Repertory)
	Faculty of Nursing (5)
107	Master of Science in Medical Surgical Nursing
108	Master of Science in Community Health Nursing
109	Master of Science in Paediatric Nursing
110	Master of Science in Psychiatric Nursing
111	Master of Science in Obstetrical & Gynaecological Nursing
	Faculty of Pharmaceutical Sciences (7)
112	Master of Pharmacy (Pharmaceutics)
113	Master of Pharmacy (Pharmaceutical Chemistry)
114	Master of Pharmacy (Pharmacology)
115	Master of Pharmacy (Pharmacognosy)
116	Master of Pharmacy (Quality Assurance Techniques)
117	Master of Pharmacy (Pharmaceutical Biotechnology)
118	Doctor of Pharmacy (Pharm. D.)
	Faculty of Management Studies (8)
119	Master of Business Administration
120	Master of Computer Application
121	Master of Business Administration (Information Technology)
122	Master of Management Studies
123	Master of Business Administration (Human Resource)
124	Master of Business Administration (Executive)
125	Master of Business Administration (Financial Markets)
126	Integrated MCA programme (IMCA)
	Faculty of Engineering & Technology (9)
127	Master of Technology (Civil-Hydraulic Engineering)
128	Master of Technology (Computer Engineering)
129	Master of Technology (Chemical Engineering)
130	Master of Technology (Electronics VLSI)
131	Master of Technology (Electrical-Power Systems)
132	Master of Technology (Mechanical-CAD/CAM)
133	Master of Technology (Information Technology)
134	Master of Technology (Nanotechnology)
135	Master of Architecture (Sustainable Architecture)
	Faculty of Interdisciplinary Studies (5)
136	Master of Science (Medical Biotechnology)
137	Master of Science (Geoinformatics)
138	Master of Science (Bioinformatics)

Sr. No.	Name of the Programme
139	Master of Science (Wildlife Conservation Action)
140	Master of Hospital Administration
	<u>M.Phil. Programmes (2)</u>
	Faculty of Arts, Social Sciences & Commerce (1)
141	Master of Philosophy (Physical Education)
	Faculty of Management Studies (1)
142	Master of Philosophy (Management)
	<u>Doctoral Programmes (79)</u>
	Faculty of Arts, Social Sciences & Commerce (9)
143	Ph.D. in Library Information Science
144	Ph.D. in Music
145	Ph.D. in Dance
146	Ph.D. in Social work
147	Ph.D. in Sociology
148	Ph.D. in English
149	Ph.D. in Commerce
150	Ph.D. in Economics
151	Ph.D. in Physical Education
	Faculty of Science (13)
152	Ph.D. in Biochemistry
153	Ph.D. in Chemistry
154	Ph.D. in Computer Science
155	Ph.D. in Microbiology
156	Ph.D. in Biotechnology
157	Ph. D. in Bioinformatics
158	Ph. D. in Library and Information Science
159	Ph.D. in Environment Science
160	Ph.D. in Botany
161	Ph.D. in Geography
162	Ph.D. in Physics
163	Ph.D. in Zoology
164	Ph.D. in Geo-informatics
	Faculty of Law (1)
165	Ph.D. in Law
	Faculty of Medical Sciences (9)
166	Ph.D. in Physiology
167	Ph.D. in Pharmacology
168	Ph.D. in Microbiology
169	Ph.D. in Biochemistry

Sr. No.	Name of the Programme
170	Ph.D. in Audiology
171	Ph.D. in Speech Language Pathology
172	Ph.D. in General Surgery
173	Ph.D. in Community Medicine
174	Ph.D. in Obst. & Gynaecology
	Faculty of Dentistry (8)
175	Ph.D. in Orthodontics and Dentofacial Orthopedics
176	Ph.D. in Pedodontics and Preventive Dentistry
177	Ph.D. in Conservative Dentistry &Endodontics
178	Ph.D. in Periodontology
179	Ph.D. in Oral &Maxillofacial Surgery
180	Ph.D. in Prosthodontics and Crown Bridge
181	Ph.D. in Oral Pathology & Microbiology
182	Ph.D. in Oral Medicine & Radiology
	Faculty of Ayurved (14)
183	Ph.D Ayurved Varidhi in Ayurved Samhita and Siddhant
184	Ph.D Ayurved Varidhi in Rachana Sharir
185	Ph.D Ayurved Varidhi in Kriya Sharir
186	Ph.D Ayurved Varidhi in Dravyaguna Vigyan
187	Ph.D Ayurved Varidhi in Rasashashtra & Bhaishjya kalpana Vigyan
188	Ph.D Ayurved Varidhi in Rognidan and Vikriti vigyan
189	Ph.D Ayurved Varidhi in Swasthvrutta
190	Ph.D Ayurved Varidhi in Agadtantra avam Vidhi vaidyak
191	Ph.D Ayurved Varidhi in Prasuti tantra and Stree roga vigyan
192	Ph.D Ayurved Varidhi in Kayachikitsa
193	Ph.D Ayurved Varidhi in Shalya
194	Ph.D Ayurved Varidhi in Shalakya
195	Ph.D Ayurved Varidhi in Kaumarbhritya
196	Ph.D Ayurved Varidhi in Panchakarma
	Faculty of Homoeopathy (4)
197	Ph.D. in Materia Medica
198	Ph.D. in Repertory
199	Ph.D. in Homoeopathic Organon of Medicine
200	Ph.D. in Homoeopathic Pharmacy
	Faculty of Nursing (1)
201	Ph.D. in Nursing
	Faculty of Pharmaceutical Sciences (7)
202	Ph.D. in Pharmaceutics
203	Ph.D. in Pharmaceutical Chemistry
204	Ph.D. in Pharmacology

Sr. No.	Name of the Programme
205	Ph.D. in Pharmacognosy
206	Ph.D. in Quality Assurance Techniques
207	Ph.D. in Pharmaceutical Biotechnology
208	Ph.D. in Pharmacy Practice
	Faculty of Management Studies (2)
209	Ph.D. in Management Studies
210	Ph.D. in Computer Applications
	Faculty of Engineering & Technology (9)
211	Ph.D. in Civil Engineering
212	Ph.D. in Chemical Engineering
213	Ph. D in Computer
214	Ph.D. in Electrical Engineering
215	Ph.D. in Electronics Engineering
216	Ph.D. in Information Technology
217	Ph.D. in Mechanical Engineering
218	Ph.D. in Production Engineering
219	Ph.D. in Architecture
	Faculty of Interdisciplinary Studies (2)
220	Ph.D. in Hospital Administration
221	Ph.D. in Nano-Technology
	Diplomas (37)
	Faculty of Arts, Social Sciences & Commerce (2)
222	Diploma in Banking
223	Diploma in Marketing
	Faculty of Science (1)
224	Diploma in Environment Education
	Faculty of Law (14)
225	Diploma in Taxation Laws
226	Diploma in Labour Laws
227	Diploma in Intellectual Property Law
228	Diploma in Alternative Dispute Resolution System
229	Diploma in Human Rights
230	Diploma in Corporate Laws
231	Diploma in Cyber Laws
232	Diploma Merger &Acquisition
233	Diploma Social Legislation
234	Diploma E-Litigation & E-Learning & Legal Process Outsourcing
235	Diploma Media & Laws
236	Diploma Air & Space Laws

Sr. No.	Name of the Programme
237	Diploma Foreign Investment Laws
238	Diploma Anti-Corruption Law
	Faculty of Medical Sciences (9)
239	Diploma in Obstetrics &Gynaecology (D.G.O.)
240	Diploma in Child Health (Paediatrics) (D.C.H.)
241	Diploma in Ophthalmology (D.O.)
242	Diploma in Anaesthesiology (D. A.)
243	Diploma in Dermatology, Venerology & Leprosy (D.D.V.L.)
244	Diploma in Clinical Pathology (D.C.P.)
245	Diploma in Orthopaedics (D. Ortho.)
246	Diploma in Radio Diagnosis (D.M.R.D)
247	Diploma in Medical Laboratory Technology (D. M.L.T.)
	Faculty of Ayurved (1)
248	Diploma in Naturopathy & Yogic Sciences(.D.N.Y.S)
	Faculty of Management Studies (7)
249	Diploma in Foreign Language
250	Diploma in Marketing Management
251	Diploma in Financial Management
252	Diploma in International Business Management
253	Diploma in Human Resource Management
254	Diploma in Retail Management
255	Diploma in Culinary Arts
	Faculty of Engineering & Technology(1)
256	Diploma in Network Security
	Faculty of Interdisciplinary Studies (2)
257	Diploma in Wildlife Conservation Action
258	Advanced Diploma in Bioinformatics
	Post Graduate Diplomas (14)
	Faculty of Ayurved (6)
259	PG Diploma in Panchakarma
260	PG Diploma in Ayurvedic Cosmetology & Skin Disease
261	PG Diploma in Prasuti & Striroga
262	PG Diploma in Balroga
263	PG Diploma in Netrarogavigyan
264	PG Diploma in Ayurvedic Sangyaharan
	Faculty of Management Studies (8)
265	Post Graduate Diploma in Business Management
266	Post Graduate Diploma in Financial Management
267	Post Graduate Diploma in Marketing Management
268	Post Graduate Diploma in Human Resource Management

Sr. No.	Name of the Programme
269	Post Graduate Diploma in International Business Management
270	Post Graduate Diploma in Computer Applications
271	Post Graduate Diploma in Industry Integrated Business Management
272	Post Graduate Diploma in Retail Management
	Fellowships(11)
	Faculty of Medical Sciences (11)
273	Fellowship in Paediatric Neonatology
274	Fellowship in Paediatric Epilepsy and Neurology
275	Fellowship in Paediatric Endocrinology
276	Dual Fellowship in PICU & NICU
277	Fellowship in Nephrology
278	Fellowship in Critical Care
279	Fellowship in NICU
280	Fellowship in Haemato-onchology
281	Fellowship in Infectious diseases
282	Fellowship in Behavior & development
283	Fellowship in PICU

Grant-in-Aid programmes

Sr. No.	Name of the Programme
	Undergraduate Programmes (6)
	Faculty of Arts, Social Sciences & Commerce (3)
284	Bachelor of Commerce
285	Bachelor of Arts
286	Bachelor of Science
	Faculty of Law (2)
287	Bachelor of Laws (LLB) Three Years
288	Bachelor of Laws (B.A. LLB) (Five Years)
	Faculty of Pharmaceutical Sciences (1)
289	Bachelor of Pharmacy
	Post Graduate Programmes (1)
	Faculty of Arts, Social Sciences & Commerce (1)
290	Master of Social Work

- **Overseas programmes offered on Campus**
  Presently, the University does not offer any overseas programme on the campus.

- **Programmes available for units to choose from**
  All the 290 programmes are available for the students to choose and study at constituent units that conduct those programmes.

1.2.2 **Give details on the following provisions with reference to academic flexibility**
   a) **Core / Elective options**
   b) **Enrichment courses**
   c) **Courses offered in modular form**
   d) **Credit accumulation and transfer facility**
   e) **Lateral and vertical mobility within and across programmes, courses and disciplines**

a) **Core/ Elective options**

Except the programmes under the health sciences and first year of some programmes, core and elective options are provided to the students. Introduction of Choice Based Credit System (CBCS) has facilitated well defined structure of core and elective options.

b) **Enrichment courses**

The University offers variety of enrichment courses to enhance employability of students. The courses include topics such as soft skills, communication skills, IT, research, entrepreneurship development, internship and training, foreign languages, aptitude training, professional skills development, etc. The details of the enrichment courses offered by constituent units are as below:

The institutes in health sciences offer courses such as Emergency medicine, Research methodology, RESCON, Structured DNYS, Practice management and Aesthetic Dentistry program.

The Law College offers enrichment courses such as compulsory international internship program at the end of each semester wherein students get the opportunity to intern at international law firms like SK Thakkar & Co. Dubai etc. Students of the five year law programme are also sent to NGO's in the first year; trial courts in the second year; high courts / Supreme Court/ law firms / corporate houses during the third, fourth and fifth year. The students of Law are also offered various para legal courses such as Air & Space Laws, Cyber Laws, Corporate laws, and Foreign Investment laws etc.

The College of Engineering offers enrichment courses that include Professional Skill Development right from the first semester, Employment Enhancement Programmes (EEP) during third and final years, and mandatory 45 days in-plant training course in industry.

The Institutes of Management offer courses on Cyber Security, Current Affairs and certification courses on Oracle and Java etc.

The B.Arch. programme includes Creativity and Communication, Research skills, Professional practice as enrichment courses.

The Institute of Hotel Management and Catering Technology focuses on development of generic skills and entrepreneurship among its students while the Institute of Environment offers Research Methodology and Entrepreneurship Development. This institute also integrates MOOC courses with regular courses.

Some other enrichment courses include Bioinformatics, Clinical Biochemistry, Food Biotechnology, Plant Breeding, training for UGC- NET examinations and foreign languages.

c) **Programs / Courses offered in modular form**
All courses in various programmes are in modular form. Each course has well defined objectives, learning outcomes, pre-requisites, syllabus, and assessment scheme. Some of the modules may be included in various programmes. Presently, the Institute of Environment Education and Research offers courses on 'Urban Sustainability', 'Environment and Health' and 'Wildlife Law and Trade Control' in modular form. These courses are conducted by faculty from The University of Cologne, Germany, Maastricht University, Netherlands and Wildlife Trust of India, New Delhi respectively.

d) **Credit accumulation and transfer facility**
The University has made provision for credit accumulation and transfer of credits in its curriculum development policy. Presently, the facility is extended to students from other Universities which have a MoU with this University. The University has signed a MoU with The University of Cologne under which the students of both the Universities availcredit transfer facility for courses which they complete at the other University. Thus, credits earned by the students at the Summer School on Sustainability at The University of Cologne, Germany have been accepted by The University.

e) **Lateral and vertical mobility within and across programmes, courses and disciplines**
The facility of lateral and vertical mobility within and across the programmes, courses and discipline is available to the students of the University.

There is a provision available to change the Faculty of Studies. The bachelor degree holders in one discipline may pursue higher studies in another discipline subject to some constraints. Similarly, postgraduate degree holders in one discipline may pursue research degree programmes in other discipline. The facility of lateral mobility is available to the students of the B.Tech and M.C.A. programmes.

1.2.3 **Does the University have an explicit policy and strategy for attracting international students?**

Yes, the University has explicit policy and strategy to attract international students. As a part of the strategy the University has established an International Student Cell (ISC) headed by a Director and an advisory committee to monitor and review the activities of the ISC. In order to attract students, information brochures are published with information relevant to overseas students such as programme options available, fee structures, hostel facilities for international students, services available etc. These brochures are distributed to foreign embassies in India as well as Indian embassies abroad. Every year, the University participates in Annual Educational Fair conducted in Dubai. In those fairs, information about the programmes and facilities available for international students is presented to the visitors in the form of posters and videos. Further, when representatives in India of the embassies of foreign countries visit the University, they are informally briefed about the programmes, facilities, services and guidance available to foreign students.

The outcome of the explicit policy and strategy adopted by the University for attracting international students has helped to attract 602 students from 45 countries.

1.2.4 **Have any courses been developed targeting international students? If so, how successful have they been? If 'no', explain the impediments.**

Yes, The University has developed short term modular courses for international students. The Institute of Environment Education and Research designed a field-work based course for students from the University of Cologne, Germany. Since 2009, every year, fifteen students are joining the institute to complete the said course. The fifteen day course involves pre and post field work analysis with expert inputs and presentations. The institute has also held an international summer school on 'Sustainable Cities' drawing international students to the campus.

The College of Ayurved regularly conducts short term courses for overseas students as per their request. The college has conducted a course on Musculoskeletal Disorder to doctors from Germany during 2011, 2012 and 2013. Also, during 2013, a course on Herbology was conducted for students and doctors from USA. The college has also conducted a course on Fundamentals of Ayurved and Asian Medicine for students from Korea.

The University offers non-credit courses on English and Marathi as a communication skill for the international students, which enables them to interact with local people and patients.

1.2.5 **Does the University facilitate dual degree and twinning programmes? If yes, give details.**

The University does not offer dual degree or twinning programmes. However, students studying in a degree programme are permitted to do a diploma simultaneously.

1.2.6 **Does the University offer self-financing programmes? If yes, list them and indicate if policies regarding admission, fee structure, teacher qualification and salary are at par with the aided programmes?**

Yes. Out of the 290 programmes, 283 are self-financing programmes. The remaining seven programmes are grant-in-aid. The self-financing programs are listed in Point 1.2.1.

The fee structures of all the self-financing programmes are according to the recommendations of the Fee Fixation Committee which is constituted as per the guidelines of the Hon'ble Supreme Court of India. The fee structure is revised once in three years and is applicable only prospectively.

The admissions to all the programmes are made on the basis of inter-se merit of the students in All India Common Entrance Test (AI-CET) conducted by The University. However, from this year the admission to the programmes under medicine and dentistry will be made through National Eligibility Entrance Test (NEET) conducted by Government of India.

The recruitment rules, qualifications, experience and pay scales for the faculty working for self-financing courses is on par with the pay scales prescribed by UGC/State.

1.2.7 **Does the University provide the flexibility of bringing together the conventional face-to-face mode and the distance mode of education and allow students to choose and combine the courses they are interested in? If 'yes,' give operational details.**

Yes, the University provides flexibility for bringing together the conventional mode and distance mode of education and allows students to combine courses from both the streams.

1.2.8 **Has the University adopted the Choice Based Credit System (CBCS)? If yes, for how many programmes? What efforts have been made by the University to encourage the introduction of CBCS in its affiliated units?**

Yes. In order to facilitate learner autonomy and mobility at national and international levels, in 2011, the University has adapted the Choice Based Credit System and implemented the same in phased manner. Initially, in 2011, only four PG programmes, one each in Faculties of Science, Engineering, Management and Social Science were brought under CBCS

pattern. Based on the experience gained, CBCS was extended to all PG programmes in 2014 and all UG programmes in 2015. Presently, 80UG and PG programmes are under credit system. However, because of the requirements of the respective statutory councils, the CBCS is not implemented for programmes in Medicine, Dentistry, Ayurved, Homeopathy and Nursing, which account for 130 programmes.

Since the University is unitary in nature, it has no affiliated colleges.

1.2.9 What percentage of programmes offered by the University follow: Annual system, Semester system or Trimester system?

Out of 290, 45% programmes follow the annual system and 27% are on semester system. 28% programmes are research degree programmes leading to award of Ph.D. and M.Phil. degrees.

1.2.10 how does the University promote inter- disciplinary programmes? Name a few programmes and comment on their outcome.

The University promotes interdisciplinary programmes for which it has constituted a Faculty of Interdisciplinary Studies in 2012. Since then, six more programs have been developed under this faculty. All interdisciplinary programmes are listed below.

1	Bachelor of Business Administration (Hospital Administration)
2	Master of Science (Medical Biotechnology)
3	Master of Science (Geoinformatics)
4	Master of Science (Bioinformatics)
5	Master of Science (Wildlife Conservation Action)
6	Master of Hospital Administration
7	Ph.D. in Hospital Administration
8	Ph.D. in Nano-Technology
9	Diploma in Wildlife Conservation Action
10	Advanced Diploma in Bioinformatics

The outcome of the interdisciplinary programmes helped the students to broaden their knowledge and facilitate them to get jobs. Particularly, the students of M.Sc. Bioinformatics and Medical Biotechnology have been placed in IT industries, health sector and research institutes. The course on Wildlife Conservation Action has provided students with greater job opportunities due to the rapidly expanding biodiversity sector, which requires

interdisciplinary knowledge. The combining of environmental engineering with sustainable management of natural resources provided better employment opportunities to students in multinational companies. Due to its widespread use in every conceivable sector, the students of Geoinformatics with diverse backgrounds have benefitted in making successful careers.

1.3   Curriculum Enrichment

1.3.1   How often is the curriculum of the University reviewed and upgraded for making it socially relevant and/or job oriented / knowledge intensive and meeting the emerging needs of students and other stakeholders?

Normally, the major revision of curriculum takes place once in three to four years and minor revision takes place once in a year. The major or minor revision in the curriculum/syllabus is made on the basis of national & global trends, changing needs of the society and feedback obtained from the stakeholders. These revisions or updations help the University to make its students socially relevant and/or job oriented. Some of the initiatives taken by the Board of Studies and respective Faculties to make the curricula/syllabus contemporary are as below:

- The MBA curricula is revised two times in the last five years by introducing MBA financial markets, electives such as retail and hospitality management, foreign languages and SPSS as part of the curricula.
- In the MSW programme, four new courses were introduced to make the programme socially relevant and job oriented.
- The faculty of Science has introduced new courses such as Energy studies, Biofertilisers, Analytical Chemistry, Sericulture and Apiculture, Toxicology, Medicinal plants, Genetic engineering, Microanalysis etc. in the curriculum during 2015. Different subjects in a given programme meet the requirements of being socially relevant; job oriented, or in emerging areas.
- The B.Arch. curriculum has been revised thrice and the M.Arch curriculum revised twice in the last five years to make them socially relevant and include new developments in the field.
- B.Pharm and M.Pharm courses were revised in 2015 and 2012 respectively. In B.Pharm, course on clinical pharmacy and practical on pharmaceutical engineering were introduced while in M.Pharm curriculum a specialization on drug regulatory affairs was introduced.
- Job oriented entrepreneurship courses were introduced in B.Sc.Biotechnology in 2015.
- The B.Tech. programme has been revised twice and the M.Tech once in the last five years.

- The programmes in Law are updated generally once in 3 years, to keep pace with amendments in laws, introduction of new laws and periodical guidelines from Bar Council of India (BCI) and University Grants Commission (UGC). Some of the recent major revisions include introduction of LL.M one year programme with CBCS pattern, introduction of para-legal courses and skill development programmes, revision of Company Law and updating of diploma & certificate courses in accordance with the changes in law.

1.3.2 During the last four years, how many new programmes at UG and PG levels were introduced? Give details.

- **Inter-disciplinary**
- **Programmes in emerging areas**
  During the last four years, the University has introduced 57 new programmes of which one is UG, 26 are PG, eight are doctoral, 11 diplomas and eleven fellowship.

  Out of these, six programmes, namely, Master of Science (Medical Biotechnology), Master of Science (Geoinformatics), Master of Science (Bioinformatics) and Master of Science (Wildlife Conservation Action), PhD in Hospital Administration and Ph.D in Nano technology are interdisciplinary programmes.

  Out of the above 57 programmes started during last four years, eight programmes namely- M.Sc. (Wildlife Conservation Action), Master of Business Administration (Financial Markets), Master of Technology (Nanotechnology), Master of Science (Medical Biotechnology), Master of Science (Geoinformatics), Master of Science (Bioinformatics),Diploma E-Litigation & E-Learning & Legal Process Outsourcing and Diploma Air & Space Laws are in emerging areas.

1.3.3 What are the strategies adopted for the revision of existing programmes? What percentage of courses underwent a syllabus revision?
The rapidly changing demand of service sector and technology requires new knowledge and pedagogy, so that outgoing graduates become socially relevant and job oriented.

The strategies adopted by the University for the revision/updation of the existing programs and their curriculum/syllabus are as below:

- Adoption of the guidelines and model curricula given by UGC and statutory councils
- Appraisal of the future challenges and needs.

- Benchmarking with the syllabus of reputed institutions both national and international.
- Feedback obtained from academicians, industry professionals and practitioners; and in some cases from international faculty also.
- Incorporation of suggestions of teachers, members of the Board of Studies and Faculty and
- Conducting workshops on curriculum development.

Percentage of courses that underwent a syllabus revision

During last four years, 80 % of the undergraduate programs and 45% postgraduate programs have underwent revision/updation of the syllabus. The syllabi for Pre-Ph.D. courses also underwent revision during intervening period.

1.3.4 What are the value-added courses offered by the University and how does the University ensure that all students have access to them?

The University offers a basic course on "Environmental Science" which is compulsory for all the students of UG programmes. A course on "Cyber Security" is made compulsory for management and engineering students. Value addition programmes such as Communication Skills and Basics of Information Technology are included as part of the curricula of all programmes. Other value added programmes are identified by respective constituent colleges depending on the requirements and demands of the students as well as feedback from stakeholders. The value added programmes offered during the last four years include Foreign Languages; Scientific writing; Consumer Protection; Income Tax Management; Floriculture; Human Values; Bio-entrepreneurship; Network Security; Naturopathy and Yogic Sciences; Bio fertilizer Technology; Gardening and Landscaping; Judicial Examination Training Programme, Communication Skills & soft skills and courses on specific new information technologies.

The University does not charge any additional tuition fee for these programs and they are scheduled as per the convenience of the students. The students get the certificates after satisfactory completion of the courses.

1.3.5 Has the University introduced any higher order skill development programmes in consonance with the national requirements as outlined by the National Skills Development Corporation and other agencies?

Taking inspiration from the Skill India, a Flagship Program of Government of India, the University has identified and developed skill development programs and the same would be started from coming academic year. A committee has been constituted to identify and develop potential skill development courses

that can be started at various constituent units. The constituent units have proposed 108 skill development programmes, in all.

The University has given approval to 28 programmes. The following seven programmes are in consonance with the programmes identified by the healthcare sector skill council:

i) Certificate in Anesthesia Technician, ii) Diploma in Blood Bank Technology, iii) Diploma in Dialysis Technician, iv) Post Graduate Diploma in Emergency Medicine Technology, v) B.Sc. Medical Lab Technology, vi) Fellowship in Diabetology, vii) Regular training for Screening of Retinopathy

The remaining 21 skill development programmes approved by the University are:

i) Basic Life Support and Advanced Life Support, ii) Diploma in OT Assistant, iii) Diploma in Neuro Diagnostics, iv) Diploma in Cath Lab Technician, v) Diploma in Accident & Emergency Medical Technology, vi) Diploma in Urology Technician, vii) Diploma in Respiratory Therapy, viii) Diploma in Biomedical Instrumentation Technology, ix) Diploma in B.Sc. In Imaging Sciences, x) Fellowship in Rheumatology, xi) Fellowship in Development & Behavioral Paediatrics, xii) Court Management, xiii) Counselling and Arbitration, xiv) Diploma in Corporate law and practice, xv) Wet Lab Training for imparting surgical skills, xvi) National Tuberculosis Control Training Programme (RNTCP), xvii) Neonatal Resuscitation Training Programme (NRP), xviii) Integrated Management of Neonatal and Childhood Illnesses Training Programme (IMNCI), xix) Midwifery Skill Stations, Aids/Tuberculosis and Malaria (GFATM) Training Programme, xx) Vermicomposting and Nature guide development, xxi) Basic Geospatial Technologies (data building)

1.4   Feedback System

1.4.1   Does the University have a formal mechanism to obtain feedback from students regarding the curriculum and how is it made use of?

Yes, the University has formal mechanism to obtain feedback from the students on curriculum. At the end of the academic year, feedback is obtained from the students and other stakeholders and same is analysed and outcome is placed before the respective departmental committees. The outcome is discussed in the departmental committees, if required, the syllabus is revised to that extent. A few examples where feedback on curriculum is obtained from the students and acted upon are as follows:

- The undergraduate students of the College of Engineering have offered suggestions such as that professional skill development should be made part of the curriculum and to include new electives on latest emerging areas in software industry. Necessary changes have been made to the curriculum by incorporating the suggestions.
- Similarly, students of the institute of Hotel Management and Catering Technology have requested for various specialisations in hotel operations. Such suggestions by students have been considered and incorporated in the revised curricula.
- Based on the suggestions of the students of Rajiv Gandhi Institute of IT and BT, job oriented entrepreneurship courses were introduced in the Biotech curriculum.
- In the management discipline, the students have requested for additional elective in retail management and courses in foreign languages which have been incorporated in the curriculum.
- Based on the suggestions of the students of the Y. M. College, the Faculty of Science has introduced soft skills and ICT as elective courses with extra credits and student presentations as compulsory component for the internal assessment.
- In the case of Nursing, the number of tutorials has been increased for the first year course.
- The M.Arch students have requested for courses on advanced simulation and internship. Advanced simulation has been introduced as a course in every semester. Also a course on Internship has been included in the curriculum.
- In MSW programme, four new courses were introduced based on the student feedback.

This exercise aims at improving the curriculum/syllabus and make it contemporary and socially relevant so that outgoing graduates become employable.

1.4.2 Does the University elicit feedback on the curriculum from national and international faculty? If yes, specify a few methods such as conducting webinars, workshops, online discussions, etc. and its impact

Yes, the University, wherever possible, does elicit feedback on the curriculum from national and international faculty. The model curriculum prescribed by the UGC and/or Central Councils is developed by involving the experts from within and outside India. The University obtains the feedback on the existing curriculum/syllabus from the visiting faculty from within and outside India. In some cases, the University also conducts online discussions and obtained the feedback from the faculty at national and international level. These initiatives taken by the University has helped to improve the curriculum of B.Sc.

Biotechnology, B.Tech and M.Tech, B.Arch. and M.Arch. M.B.A., M.C.A., B.Sc. Botany, B.Com, M.Sc. Microbiology, M.Sc. Chemistry and M.Sc. Computer Science etc.

1.4.3. Specify the mechanism through which affiliated institutions give feedback on curriculum enrichment and the extent to which it is made use of.
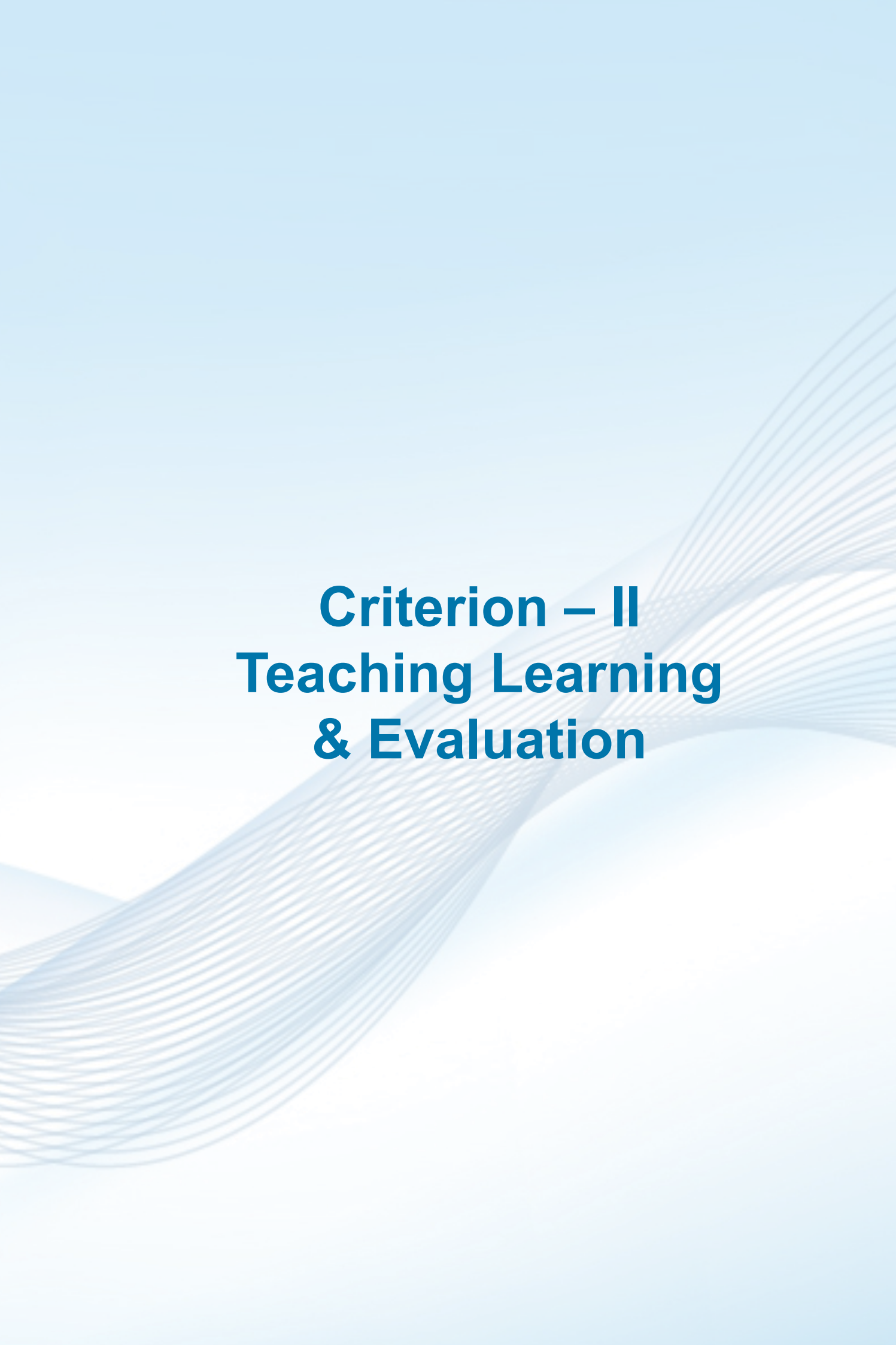
The University is established under Sec. 3 of the UGC Act, 1956, as such it is unitary and does not have power/authority to affiliate the colleges.

1.4.4 What are the quality sustenance and quality enhancement measures undertaken by the University in ensuring the effective development of the curricula?

The re-design and re-development of curriculum or revision and updation of the syllabus of various academic offerings is a continuous process which helps the University to remain socially relevant and contemporary. The present structure of Board of Studies, Faculties and Academic Council ensure the development of effective curricula.

Some of the initiatives taken by the University for Quality Sustenance and quality enhancement for development of effective curricula are as below:

- Nominating distinguished professionals and academicians on the departmental committees, Board of Studies and academic council.
- Organising workshops, seminars for curriculum development.
- Consideration of model curriculum developed by UGC, Central Councils as well as the curriculum of benchmarked universities from outside the India.
- Encouraging the development of flexible curricula to enable minor deviations in its implementation and adaption of student-centric methods.
- Formulation of proto-type curriculum development policy which facilitates to monitor and improve the process curriculum development.

Criterion – II
Teaching Learning
& Evaluation

CRITERION - II: TEACHING-LEARNING AND EVALUATION

2.1   Student Enrolment and Profile

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

The entire process of admission is fully automated and includes online receipt of application, printing of admit cards, assessment of answer sheets, result processing, preparation of merit list, etc. Automation of the admission process has brought objectivity, transparency and eliminated human interventions.

The admission process for all programmes of the University conforms to the guidelines of the University Grants Commission (UGC) as well as to the norms of respective Statutory Councils.

The University gives wide publicity to the admission process through various means that include display of information and procedures on the University's website, advertisements in leading local and national newspapers and through social media. Hard and soft copies of the information brochure for various programmes are made available to the candidates. The information brochure contains detailed information about the University, each constituent unit that offers the respective programmes, eligibility criteria for admission to the programmes, programme structure, fee structure, fee refund rules, and syllabus for the All India Entrance Test, due dates for application, dates for declaration of merit list and counseling dates.

Information about the University and various programmes is also published in educational sections of newspapers and magazines throughout the year. For some programmes, online media such as shiksha.com, MBA Universe and social media such as Facebook and WhatsApp are used to disseminate the necessary information to prospective candidates.

All India Common Entrance Tests for various academic offerings is conducted at various centers across India and merit lists are declared on the University website within 20-25 days after the entrance test. Open counseling sessions are conducted in constituent units as per pre-declared programme to admit the students to the courses as per the merit list. The entire admission process is monitored and supervised by the admission committee.

However, from the current academic year the admission test for the programs under health sciences will be conducted by the Government India through National Entrance Eligibility Test (NEET).

2.1.2 **Explain in detail the process of admission put in place by The University. List the criteria for admission: (e.g.: (i) merit, (ii) merit with entrance test, (iii) merit, entrance test and interview, (iv) common entrance test conducted by state agencies and national agencies (v) other criteria followed by the University (please specify).**

The steps involved in the process of admissions are as below:

- Admission Cell at the University level is in place.
- Constitution of the Admission Committee at each constituent unit to oversee the admission process. .
- Wide publicity is given through advertisements in newspapers such as all editions of Times of India, Dainik Bhaskar, as well as through the University portal.
- The information brochures are made available for each programme online as well as in print form.
- Applications for entrance tests are made available online as well as in the print form.
- Three sets of question papers for each test are prepared and one of them is selected randomly. Four versions of the selected question paper are prepared by permuting the questions and are printed outside the state. This ensures that students sitting adjacent do not get the same version of the question paper.
- The merit list prepared on the basis of marks obtained in the entrance test is displayed on the University website.
- As per the AICTE norms, weightage is given to written test as well as group discussion and interview for admission to MBA programmes.
- Grievance Redressal Mechanism to address the issues related the admission is in place.

Criteria for admission:

- **Merit**
  Admission to the programs under liberal arts is based on inter-se merit in the qualifying examinations. Social justice policy of the state is implemented.

- **Merit with entrance test**
  Admissions to programmes in health sciences, Pharmaceutical Sciences, Law and Engineering are made through an All India Common Entrance Test conducted at various centers across the country. The merit list for each course is prepared based on marks obtained at the Common Entrance Test (CET) examination.

- **Merit with entrance test and interview**

  Admission to programmes offered under the Faculty of management Studies is through Common Entrance Test (CET) followed by Group Discussion and Personal Interview.

  Admission to Ph.D. program is through a Common Entrance Test (CET) followed by Personal Interview. The merit list is prepared based on the overall marks obtained by the candidates.

- **Common entrance test conducted by the State**

  From the current academic year, admission to undergraduate programs under health sciences will be made through National Entrance Eligibility Test (NEET) conducted by the State.

2.1.3 Provide details of admission process in the affiliated colleges and the University's role in monitoring the same.

The University is established under Sec. 3 of the UGC Act, 1956, as such it is unitary and does not have power/authority to affiliate the colleges.

2.1.4 Does the University have a mechanism to review its admission process and student profile annually? If yes, what is the outcome of such an analysis and how has it contributed to the improvement of the process?

Yes, the University has mechanism to review its admission process and student profile annually. The AI-CET Cell reviews the admission process and implements measures for its improvement. It is done annually. The emphasis is on making the entire process student friendly, reliable and accessible to all irrespective of the students' demography.

The outcome of the review process is that the procedure for applying and registering online for entrance test has been developed and implemented. As a result, the number of applicants has reached the figure of 31,774 during 2015-16. Similarly, centers for the entrance test are changed depending upon demand from various locations in the country.

2.1.5 What are the strategies adopted to increase / improve access for students belonging to the following categories:
- **SC/ST**
- **OBC**
- **Women**
- **Persons with varied disabilities**
- **Economically weaker sections**
- **Outstanding achievers in sports and other extracurricular activities**

The University has adapted several strategies to increase/improve the access to the students belonging to various categories. The social justice policy of state government and government of India is implemented for various academic offerings of the University. Some of the steps taken are summarised below:

- **SC/ST/OBC:** Admission to students of this category to various programmes is given as per the norms prescribed by the state government and the various statutory councils. 10% relaxation in the marks in eligibility criteria is given to these students seeking admission to courses in the discipline of health sciences, while 5% relaxation in marks is given for admission to all other programmes. Remedial coaching, extra classes, book bank facility, mentoring, hostel facilities, tuition fee waivers, scholarships, etc. are provided to them.

- **Women:** The facilities like fully catered hostels, 24x7 security in all women hostels, tuition fee waivers, etc. are made available to them.

- **Persons with varied disabilities:** Students coming under this category are admitted and provided with free extra coaching. They are given additional time during the University examinations. Helpful peers, teachers and office staff create conducive learning environment for the differently-abled students. Barrier free environment is provided on the campus for these students.

- **Economically weaker sections:** Students from economically weaker sections studying in aided colleges gets EBC scholarships from state governments. Those students who are unable to get scholarships are given fee concession by the University. Further, students are allowed to pay fees in installments in deserving cases. Earn and Learn Scheme facility is available for the students of nursing colleges and under this scheme, UG students get Rs. 7,000/- and PG students get Rs. 10,000/- per month.

- **Outstanding achievers in sports and other extracurricular activities:** In the case of outstanding achievers in sports and extracurricular activities, those who miss the regular schedule of internal examinations, are given an opportunity to appear for said examinations at a later date. They are awarded five additional grace marks at the University examinations. They are also awarded cash prizes, merit certificates and mementos on the University foundation day, for their noteworthy performances. They are provided free sports kits and blazer.

2.1.6   Number of students admitted in University departments in the last four academic years.

The number of students admitted in various categories is shown in the following table:

Category	2011-12		2012-13		2013-14		2014-15		2015-16	
	M	F	M	F	M	F	M	F	M	F
SC	343	254	325	305	330	301	415	351	435	400
ST	36	33	64	44	62	33	74	34	103	46
OBC	878	440	783	444	800	474	1061	584	1083	674
General/ Open	8912	6133	8713	6229	8835	6565	8998	6949	9422	7570
DT/NT	153	94	150	110	171	108	223	160	279	198
Foreign Students	318	225	366	242	321	188	296	167	374	228
Total	**10640**	**7179**	**10401**	**7374**	**10519**	**7669**	**11067**	**8245**	**11696**	**9116**
Total	**17819**		**17775**		**18188**		**19312**		**20812**	

2.1.7 Has the University conducted any analysis of demand ratio for the various programmes of the University departments and affiliated colleges? If so, highlight the significant trends explaining the reasons for increase / decrease.

Yes, the University conducts analysis of the demand ratio every year. The demand ratio for UG programmes is about 1:6 and 1:2 for PG programmes, while, the demand ratio for programmes in health sciences is 1:14. It has been observed that the number of applicants to UG programme has increased by 17.8 % during the last four years, while there is a decrease of 17% for PG programmes. In the case of demand ratios, there is a decrease of 12.3% for UG programmes and 17% for PG programmes.

2.1.8 Were any programmes discontinued /staggered by the University in the last four years? If yes, please specify the reasons.

During last four years, the University has not discontinued any programs.

2.2 Catering to Student Diversity

2.2.1 Does the University organize orientation / induction programme for freshers? If yes, give details such as the duration, issues covered, experts involved and mechanism for using the feedback in subsequent years.

Yes, the University organizes orientation/induction programs to facilitate smooth integration of fresher's into the system. The induction programmes

range from two days in the case of health sciences to a maximum of 12 days for management programmes.

- During the induction programmes, Vision & Mission of the University, Goals & Objectives of the respective constituent unit, graduate attributes, and learning outcomes of the programmes are explained to the students. Faculty, infrastructure facilities, student support services offered and rules of discipline, etc. are introduced. The students are briefed about the anti-ragging policy, prevention of sexual harassment, grievance redressal mechanism. They are informed about the co-curricular and extracurricular activities.
- The students are provided inputs on course structure, syllabus, teaching-learning methods, and evaluation methods.
- In some cases, distinguished professionals are invited to address the students during induction programs.
- Visits to industry are also organized during the orientation program by management institutes during which professionals and alumni in the organisations explain the nature of the work, skills required, etc.
- Efforts are made to alleviate the fear of ragging by encouraging a formal dialogue between the senior and the junior students. Because of such efforts, there are no cases of ragging and sexual harassment during the last five years.
- In some cases, senior students are encouraged to mentor the fresher's in the hostels so as to make their stay in the hostels comfortable.
- Feedback on induction programme is obtained from the fresher's and outcomes are used to improve the induction program.

2.2.2 Does the University have a mechanism through which the "differential requirements of the student population" are analysed after admission and before the commencement of classes? If so, how are the key issues identified and addressed?

The differential requirements of the students are gathered through counseling sessions, personal interviews, profiling, psychometric analysis, general aptitude tests, and also through clinical assessments of students in the case of health sciences during induction programmes. The mentors are assigned to groups of students and they assess the learning abilities of the students within the first one or two weeks of the first term during mentor-mentee meetings. As an outcome, the following key issues were identified.

- Lack of clarity of goals and domain knowledge leading to dis-interest in learning process,
- Medical and health needs,

- Inability to use internet and presentation and word processing software, and

- Lack of basic knowledge of mathematics, statistics, Sanskrit (essential for students of Ayurved), English and Marathi for effective communication.

Above issues are addressed by organizing special programs for students with differential requirements so as to bring them on par with other students.

2.2.3 Does the University offer bridge / remedial / add-on courses? If yes, how are they structured into the time table? Give details of the courses offered, department-wise/faculty-wise?

Yes, the University offers bridge, remedial and add-on courses. The University offers four bridge courses namely elementary algorithms, database management systems, discrete structures, object oriented analysis and design for students who have taken lateral admissions to MCA program. Students are allowed to complete these courses simultaneously. These courses are non-credit in nature, however, students are required to pass these courses. The faculty wise remedial and add-on courses offered by the University are given below:

Remedial courses offered

Sr. No.	Name of Course	Name of the Constituent College
	Faculty of Arts, Social Science and Commerce	
1	Mathematics	• YashwantraoMohite College of Arts, Science and Commerce, Pune
2	Accountancy	
3	English	
	Faculty of Law	
4	Contract Drafting	• New Law College, Pune
	Faculty of Management Studies	
5	Management Concepts & Applications	• Institute of Management, Kolhapur
6	Financial & Management Accounting	
7	Economics for Business	
8	Organizational Behaviour	
9	Communication Skills.	
	Faculty of Dentistry	
10	English	• Dental College and Hospital, Pune
11	Marathi	
	Faculty of Pharmacy	
12	Mathematics	• College of Pharmacy, Pune
13	Biology	
14	Pharmacotherapeutics.	
	Faculty of Engineering and Technology	

Sr. No.	Name of Course	Name of the Constituent College
15	Remedial teaching is conducted for all courses	• College of Engineering, Pune

Add-on courses offered

Sr. No.	Name of Course	Name of the Constituent College
	Faculty of Science	
1	Yoga and Meditation	• Rajiv Gandhi Institute of Information Technology and Bio-technology, Pune
2	English for Scientific purpose	• YashwantraoMohite College of Arts, Science and Commerce, Pune
3	Basics of Information Technologies	
4	Cyber Security	
5	Clinical Bio-chemistry	
6	Soft Skills	
7	Bioinformatics	
	Faculty of Arts, Social Science and Commerce	
8	Consumer Protection	• YashwantraoMohite College of Arts, Science and Commerce, Pune
9	Soft Skills	
10	Income Tax Management	
	Faculty of Law	
11	Diploma in Foreign Investment Laws	• New Law College, Pune
12	Diploma in Mergers & Acquisition	
13	Diploma in Air & Space Laws	
14	Diploma in Media & Law	
15	Diploma in Social Legislation	
16	Diploma in Anti-Corruption Laws	
17	Diploma in E-Learning, E-Litigation & LPO	
18	Diploma in Cyber Forensic and Cyber Security	
	Faculty of Management Studies	
19	Cyber Security	• Institute of Management & Entrepreneurship Development, Pune • Institute of Management and Rural Development Administration, Sangli • YashwantraoMohite Institute

Sr. No.	Name of Course	Name of the Constituent College
		of Management, Karad • Institute of Management, Kolhapur • Abhijeet Kadam Institute of Management and Social Sciences, Solapur • Institute of Management and Research, New Delhi
20	Foreign Language	• Institute of Management & Entrepreneurship Development, Pune • Institute of Management and Rural Development Administration, Sangli • YashwantraoMohite Institute of Management, Karad • Institute of Management, Kolhapur • Abhijeet Kadam Institute of Management and Social Sciences, Solapur • Institute of Management and Research, New Delhi
21	Oracle Certification Training	• Abhijeet Kadam Institute of Management and Social Sciences, Solapur
22	Java Certification	
23	MS Office Suite	• Institute of Management and Research, New Delhi
24	Unix	
25	Data Analysis using MS-Excel	• Institute of Management & Entrepreneurship Development, Pune
26	Data Analysis using SPSS	
27	Environmental Studies	• Institute of Management & Entrepreneurship Development, Pune • Institute of Management, Kolhapur
28	Taxation	• Institute of Management & Entrepreneurship Development, Pune
29	Business Analytics	
30	Foreign Language	
31	Disaster Management	

Sr. No.	Name of Course	Name of the Constituent College
32	Enterprise application	
33	Applied C programming	
34	PHP Programming	
35	Aptitude Training	
	Faculty of Dentistry	
36	Environmental Science	• Dental College and Hospital, Pune
	Faculty of Ayurved	
37	Spoken English,	• College of Ayurved, Pune
38	Marathi	
39	Diploma in Naturopathy and Yogic Science	
	Faculty of Engineering and Technology	
40	Cyber Security	• College of Engineering, Pune

Online courses offered

Sr. No.	Name of Course	Name of the Constituent College
	Faculty of Law	
1	Introduction to Legal Writing	• New Law College, Pune
2	Contract Drafting	
3	Intellectual Property and the Internet	
4	Introduction to the Banking Sector Regulations and Banking Transactions	

2.2.4 Has the University conducted any study on the academic growth of students from disadvantaged sections of society, economically disadvantaged, physically handicapped, slow learners, etc.? If yes, what are the main findings?

Yes, the University conducts detailed study of the incremental academic growth of the students from disadvantaged sections of the society, economically disadvantaged, physically handicapped and slow learners.

After completion of the admission process, socio-economic profile of these students is prepared at the constituent unit level and marks obtained by them at the entry point i.e. in the qualifying examination are recorded in a format. At the end of every semester or annual examination their performance is again recorded. This process of collecting data on the performance of these students continues till they pass out.

This exercise is carried out in few institutions where students from the specified categories are more. The outcome of this process indicates that 75% students from economically disadvantaged category have improved their performance in the final examination, 85% of the SC/ST/OBC students of liberal arts completes their course in the prescribed time frame. Around 30% of SC/ST/OBC students of MSW program pass the final examination in first class within prescribed time frame. The outcome of the analysis shows that students belonging to these categories have improved their percentage of marks at the exit point as compared to entry point.

2.2.5 How does the University identify and respond to the learning needs of advanced learners?

The University identifies theneeds of the advanced learners on the basis of their performance in the qualifying examinations and are mentored by a teacher who helps them to excel further. These advanced learners are encouraged to participate in curricular, co-curricular and extra-curricular activities.

The University facilitates advanced learners to self-study advanced topics and give seminars, undertake additional project work, conduct literature surveys and write reviews, present their papers in conferences and also publish papers in the journals. They are given financial assistance to attend conferences, seminars etc., so that they gain from varied learning experiences.

A significant outcome of these initiatives is that such learners at undergraduate and postgraduate levels have published 78 and 386 papers respectively during the last four years.

2.3 Teaching-Learning Process

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

The University plans and organizes the teaching, learning and evaluation schedules with the help of academic calendars, teaching plans, evaluation blue prints etc.

Every year, the University prepares and publishes an updated academic calendar which includes the dates of beginning and end of the terms, teaching days, schedule of internal examinations, co-curricular and extra-curricular activities, holidays and vacation, preparation holidays, dates of mid-term, and

tentative dates of end-of-the-term examinations. This academic calendar is made available to faculty and students.

The faculty, on the basis of academic calendar, prepares their teaching plans. These teaching plans are discussed in the departmental meetings and finalized. The heads of the departments and Principal/Directors of constituent units conduct monthly meetings to review the teaching-learning process of all the programmes based on the teaching plans. A major outcome of this process is that the faculty normally complete the course work in time at a desired pace.

The academic calendar also includes the dates of various tests/examinations conducted during the academic year. At the beginning of the academic year, the Controller of Examinations prepares the detailed time table of the semester and annual examinations and probable dates of declaration of their results and, gets it approved from the Board of Examinations. This time table is communicated to heads of the constituent units for their information and necessary action. The details of the time table of examinations and probable dates of declaration of their results is also posted on University website and students are also kept informed by email or sms alert.

2.3.2   Does the University provide course outlines and course schedules prior to the commencement of the academic session? If yes, how is the effectiveness of the process ensured?

Yes, the University provides course outline and course schedules prior to the commencement of the academic session. The course structure and schedule is available "online" for all the courses which can be accessed by the faculty and students. On the basis of course outline and course schedule, faculty plans their teaching, internal tests, pedagogy and evaluation methods. The effectiveness of the implementation of teaching plan is ensured through review meetings conducted at regular intervals by the heads of the institutions. The impact of this has a positive effect on the classroom attendance as well as on success rate of the students at University examinations.

2.3.3   Does the University face any challenges in completing the curriculum within the stipulated time frame and calendar? If yes, elaborate on the challenges encountered and the institutional measures to overcome these.

Normally, the University does not face any difficulty or challenge in completing the curricula/syllabi within the stipulated time frame. In case, if lectures are not held due to unforeseen holidays or due to the leave of the faculty, the same is being completed by taking extra lectures.

There exists strong internal monitoring and co-ordination mechanism in the University which facilitate the smooth functioning of the University and constituent units. The heads of the department monitor the teaching-learning

process rigourously and the same is also monitored by the heads of the constituent unitsfrom time to time. It may be mentioned that, during the last five years, there were no disruptions of any kind in the University that disturbed the planned schedules of teaching and evaluation activities.

2.3.4 **How learning is made student-centric? Give a list of participatory learning activities adopted by the faculty that contributes to holistic development and improved student learning, besides facilitating life-long learning and knowledge management.**

The teaching learning process of the University is made learner centricand participatory by including mandatory laboratory work, project work, field work and/or internshipetc. The classroom teaching is made largely interactive and participative during which teacher poses questions and guides discussions; students ask and answer questions. Tutorial sessions are used for discussions and problem solving. ICT is being used to explore, illustrate concepts, generate simulations, and to promote collaboration between peers. Other student-centric learning methods adapted include group projects, research-based learning, case analysis etc. that develop application of knowledge and analytical skills.

2.3.5 **What is the University's policy on inviting experts / people of eminence to deliver lectures and/or organize seminars for students?**

In order to add value to the teaching-learning process, experts/people of eminence are invited to share their expertise, knowledge and experiences in the core field as well as about current trends with students. The University promotes such approaches by providing necessary resources and funds to the constituent units. This initiative of the University has facilitated the students to learn from the experiences of professionals and the institutes to develop linkages with industry.

2.3.6 **Does the University formally encourage blended learning by using e-learning resources?**

Yes, the University encourages blended learning by using e-learning resources. As a part of Digital India initiative, the University facilitates blended learning through the following:

- Provides access for faculty to digital content on MOOC, NPTEL, YouTube etc., so that faculty can select and critically evaluate the content and embed the same in teaching-learning process.
- Encourages faculty to contextualize content on Open Educational Resources (OER).
- Encourages faculty to develop digital resources on their own or undertake collaborative projects for developing high quality digital learning material.

The digital resources include documents, presentations, animations, audio recordings and video clips.

- Create appropriate online learning space through Learning Management System (LMS) to share the learning modules created by the faculty with students.
- Facilitate synchronous and asynchronous communication between faculty and students for off-campus academic discussions as well as for peer learning.
- Provide real time sessions across the campuses through webinars and virtual classrooms.

2.3.7 What are the technologies and facilities such as virtual laboratories, e-learning, open educational resources and mobile education used by the faculty for effective teaching?

The University is continuously upgrading ICT infrastructure to enhance the quality of its academic and administrative processesso as to make the teaching-learning process learner centric. The University's ICT infrastructure includes more than 4500 computers; 2 to 12 MBPS internet connectivity and Wi-Fi in the constituent units; latest general and discipline specific software and video-conferencing facilities. The University has also been connected to National Knowledge Network (NKN) of the National Mission on Education through ICT (NMEICT) through 1 GBPS bandwidth network.

The facilities used by the faculty for effective teaching include multimedia smart boards; learning management system; personal blogs; WhatsApp groups; online survey tools; research tools; online databases like IEEE, EBSCO, ProQuest; data analysis tools like SPSS, PSPP, SOFA, WEKA; Slide share/ Google docs etc.

Open Educational Resources are effectively used in teaching-learning processes. Besides, the libraries of the constituent units have various learning resources in electronic formats.

2.3.8 Is there any designated group among the faculty to monitor the trends and issues regarding developments in Open Source Community and integrate its benefits in the University's educational processes?

Yes, there is a voluntary group among the faculty to monitor the trends and issues regarding developments in Open source community and integrate its benefits with the teaching learning process. The University has a comprehensive ICT Policy. One of the objectives of ICT policy is to promote the use of open source technologies. The ICT center continuously monitors developments in Open Source Resources and trains the faculty to use the same.

The ICT centre has built its e-learning environment on the Moodle platform. Further,faculty and research scholars were extensively trained in using about 27 Open Source tools that include Mendeley, Endnote, Lime Survey, SOFA, PSPP, Viper, Open office etc. These tools are useful for their research.

Faculty from some of the constituent units have formed a voluntary group to monitor the trends and issues regarding developments in Open Source Community and to integrate the benefits of Open Source Software in the educational processes of the University.

2.3.9 **What steps has the University taken to orient traditional classrooms into 24x7 learning places?**

In order to orient traditional classrooms into 24x7 learning spaces, the University, through its ICT Centre has facilitated migration of content from paper-based to on-line. The ICT services provided to faculty include:

- A customized Learning Management System based on Moodle,
- An e-Library where easily accessible links are provided to learning resources such as NPTEL, e-pgpathshala,
- An online testing system,
- A content creation software,
- Discipline specific digital repositories,
- Synchronous and asynchronous communication channels between faculty and students, and among peers,
- Smart boards in the class rooms;
- Simulation software etc.

The University has created an e-learning environment and provided access to it via a link on the University's website: www.bvuniversity.edu.in. In addition, faculty is encouraged to interact with students through personalized blogs.

A partial list of web resources which the faculty has used in teaching-learning processes, the courses for which they have uploaded content on Universities e-learning platform and websites/blogs/ that they created for interaction with students are given below.

a) Web sources that are used in the teaching learning processes

Sr. No.	Name of the Constituent Unit	Web resources
1	Dental College & Hospital, Sangli	• "Final Protocol in Endodontics" by Dr. AneeshNaware • Webinar: "Implant Failures" by Dr. Kumar Swami • Webinar: "Ethics in Dental Practice" Dr. Kumar Swami from www.colgateoralhealthnetwork.com
2	College of Pharmacy, Pune	• You Tube • Google scholar • drug.com • PubMed. • Micromedics and Idis for modules in Adv Pharmacology and Chemistry for M. Pharm., Pharmacotherapeutics and clinical pharmacy (Pharm D) • APH • Pharmacology (B. Pharm)
3	Rajiv Gandhi Institute of Information Technology and Bio-Technology, Pune	• E-learning portal of BVDU • NPTEL, • J-Gate • Google group for Biotechnology (UG) M.Sc. Bioinformatics(PG)
4	New Law College, Pune	• Google doc/google group, • Video conferencing. • College also provided practical training of various sites and uses blogs For Research Activities. ICT Paper is included as part of Regular Curriculum. These learning methods were utilised for modules like: Diploma in E-Learning, E-Litigation & LPO, Cyber law, cyber security, Research methodology. E-learning resources like Westlaw, Manupatra, SCC Online, Lexis Nexis, AIR Online and Inflibnet are also used for blended learning.
5	YashwantraoMohite College of Arts, Science and Commerce, Pune	• BLAST *(Basic Local Alignment Search Tool used in bioinformatics)*. This method is available on onnih.ncbi website that provides demonstration for the Microbiology students. It is also used by (B.Sc. Microbiology) students to study microbial diversity

Sr. No.	Name of the Constituent Unit	Web resources
		of various environments specially gene sequence analysis. College also uses INFLIBNET online notes, epg*pathshala, shodhganga, shodhgangotri for courses like* M.A. (English),M.Com, M.Sc. (Chemistry, Microbiology, Computer Science). These e-learning recourses are accessible in addition to e-books and e-journals to students.
6	Institute of Management &Entrepreneurship Development, Pune	• LMS with URL: learnatimed.com that offers course content on Java Programming, Object oriented Analysis and design, PHP Programming and Design patterns and HCI. MOOC courses on Web application security testing and Risk Management have been made available on the e-Learning portal of The University.
7	Institute of Management & Research, New Delhi	• Coursera, edx, Udemy, Eduonix, Futurelearn.com for courses like: Marketing Management, E-Business & Decision Support System and Financial Management
8	College of Architecture, Pune	• Google Maps, Climate websites, Ecotect Software and Simulation Software in Architectural Design course

b) List of Courses for which the faculty has uploaded content on University e-Learning Platform

Sr. No.	Name of the constituent unit	Programme	Course/Module	Number of Students who accessed the content
1	Dental College & Hospital, Pune	BDS	ICT enabled teaching methods for student- centric learning. ICT for students to download or access power points presentations of the respective dental subjects over the website and give online exams were started implementing.	250

Sr. No.	Name of the constituent unit	Programme	Course/Module	Number of Students who accessed the content
2	College of Ayurveda, Pune	UG	Power point presentations and video clips	82
3	College of Ayurveda, Pune	PG	Power point presentations and video clips	27
4	College of Nursing, Pune	B.Sc. Nursing 1st Year	Fundamental of Nursing	65
5	College of Nursing, Navi Mumbai	BSc Nursing	Course material, Assignment and evaluation format, time table, rotation plan and objectives of the posting	50
6	College of Pharmacy, Pune	B Pharm	All courses mentioned in the syllabus	255
		Pharm D	All courses mentioned in the syllabus	85
		M Pharm	All courses mentioned in the syllabus	103
7	Rajiv Gandhi Institute of Information Technology and Bio-Technology, Pune	UG and PG	Microbiology, Genetics, Biochemistry, Applied Biotechnology, Genetic engineering	120
8	New Law College	LL.B 3 Years Course	Cyber Law	60
		LL.B 3 Years Course	Criminal Law	60
		LL.B 5 Years Course	MOOC Programmes	60
		LL.B 5 Years	Drafting & Pleading	60

Sr. No.	Name of the constituent unit	Programme	Course/Module	Number of Students who accessed the content
		Course		
9	YashwantraoMohite College of Arts, Science and Commerce, Pune	B.Sc. (Computer Science)	Notes on crystal Report Open Source Technology References	24
		M.Sc. (Computer Science)	Remote Method Introduction Advanced Data Structures	10

c) List of websites/blogs initiated/created by faculty

Sr. No.	Name of the constituent unit	Faculty Name	URL Details for blog/ website	Course/ Module	Average no. of students accessing in a semester
1	College of Ayurveda, Pune	Dr. Sachin Kulkarni	www.arogyamayurved.com	Fundamental	78
2	College of Ayurveda, Pune	Dr. Santosh Chavan	www. indiapanchakaram.com	Panchakaram	90
3	College of Ayurveda, Pune	Dr. Yogesh Badve	www.piles-fistulaclinicpune.com	Anorectic diseases	80
4	College of Ayurveda, Pune	Dr. Prasad Pandkar	www.prana-ayurved-com	Basic concepts of prana	82
5	New Law College, Pune	Prof. Dr. MukundSarda	http://drsardamukund.blogspot.in/ http://sardamukund.blogspot.in/	All UG and PG Programs	9338
6	New Law College, Pune	Asst.Prof. Jayashree Khandare	http://Jayashreekhandare.blogspot.com		3300
7	New Law	Asst.Prof.	http://anisashaikh19		19

Sr. No.	Name of the constituent unit	Faculty Name	URL Details for blog/ website	Course/ Module	Average no. of students accessing in a semester
	College, Pune	Anisa Shaikh	81.blogspot.com		
8	Institute of Management Kolhapur	Dr. Nitin Nayak	http://www.nitinnayak.com/index.php	HRM	259

2.3.10 Is there a provision for the services of counsellors / mentors/ advisors for each class or group of students for academic, personal and psycho-social guidance? If yes, give details of the process and the number of students who have benefitted.

Yes, the Universityfollowsa mentor system and also academic and personal counseling. The details are as below:

- At the beginning of year, each faculty is assigned a group of 15 – 20 students for regular interactions. The faculty frequently interacts with their wards and enquires about their academic and personal problems and offer suggestions and remedies. If necessary, their problems are brought to the notice of the higher authorities for necessary action.
- The faculty, who is a class coordinator is concerned with the academic progress of the students and tries to resolve the issues related to academics. Counseling for weaker students is carried out on regular basis and if required, the parents are called and matters are discussed.
- The faculty mentors, class coordinators, Department of Student Welfare andInternationalStudent Cell of the Universityguide and give academic counseling and address their personal problems and issues.
- The outcome of this effort is that around 830 Indian students and 100 international students benefitted.

2.3.11 Were any innovative teaching approaches/methods/practices adopted/put to use by the faculty during the last four years? If yes, did they improve learning? What were the methods used to evaluate the impact of such practices? What are the efforts made by the institution in giving the faculty due recognition for innovation in teaching?

Yes, the faculty has been using many innovative teaching methods, approaches and practices some of which are as below:

- Department of Physiology, Medical College Pune has introduced computer assisted teaching through DVDs, prepared in-house, of Clinical

examination of all human systems and amphibian experiments. This method was effective and improved students understanding.

- Use of mannequins for hand on experience of giving injections and replacing animal experiments with the use of simulated techniques were adopted by department of Pharmacology.

- OSPE, OSCE, MCQs, PBL were introduced by few departments in the Medical College.

- The orthodontic department of the Dental College and Hospital, Pune uses visualizer and orthodontic software in clinical demonstrations and patient analysis. Phantom head simulators are used in Prosthodontics and Conservative Dentistry to provide real clinical experiences to the students.

- The Institute of Management and Entrepreneurship Development, Pune invites industry experts for teaching 20-30 percent of the syllabus of a course. This practice provides practical exposure of contemporary development in respective domains to the students.

- The Poona College of Pharmacy, Pune provides training of computer applications, enabling students to use drug discovery software effectively and to analyse simulated case studies. The college also provides training on industrial practices to its students in its Food Testing Laboratory, Public Testing Laboratory and Manufacturing unit.

- The New Law College, Pune has adopted e-learning and video conferencing methods for classroom & court room teaching. The students are also trained in e-court procedures and filing of cases online. The procedures for arbitration, online writ petitions, public interest litigations etc., are taught with the help of e-experts.

In general, the above methods have contributed in enhancing the learning outcomes of the students. The impact of the adopted methods is observed in the performance of students at internal assessments, practical examinations, field work assignments and oral examinations.

2.3.12 How does the University create a culture of instilling and nurturing creativity and scientific temper among the learners?

The University creates a culture of instilling and nurturing creativity and scientific temper among the learners through the following initiatives:

- The essential basic values such as spirit of inquiry, courage to question, objectivity, honesty and truthfulness are inculcated to students by creating opportunities for them to work in teams.

- The curricular activities that the student undertakes during the course of study such as project work, group discussions, game playing, using ICT for presentations provide scope for creativity.

- In order to nurture scientific attitude, the students are encouraged to:

- ° Undertake industry projects jointly with faculty,
- ° Work on ICMR sponsored projects for under graduate students in medicine,
- ° Publish papers jointly with faculty,
- ° Attendseminars, workshops and conferences and even present papers,
- ° Participate in quiz competitions, moot court competitions, paper presentation competitions and tech fests,
- ° Organize activities such as debates and talks by experts on behalf of study circles, journal clubs and forums.

The students are encouraged to participate in various extra-curricular activities as committee members of organizing committees of sports and cultural events, seminars and conferences or as members of editorial committees of college magazines etc., to opportunities for develop creativity in them.

2.3.13 Does the University consider student projects mandatory in the learning programme? If yes, for how many programmes have they been (percentage of total) made mandatory?
- **Number of projects executed within the University**
- **Names of external institutions associated with the University for Student Project Work**
- **Role of faculty in facilitating such projects**

Yes, as per the curriculum development policy, every post-graduate programme has a mandatory project component. Some under-graduate programmes also have project work as part of their curricula. Under Choice Based Credit System, minimum two or three credits are allotted to the project work.

During the post accreditation period, students have completed 6471 projects and 2382 industry projects.

Names of some external institutions associated with the University for Student Project Work are:

- National Chemical Laboratory , Pune
- Hindustan Antibiotics Ltd. Pune
- Serum India, Pune

- Sai Life Sciences, Pune
- Micro Labs, Bangalore

- Mahindra and Mahindra, Mumbai

- Wipro Technologies, Pune
- Kirloskar Brothers Ltd., Kirloskarwadi

- Natco Pharma Hyderabad
- Cadila Healthcare, Ahmedabad

- National centre for Cell Sciences, Pune
- Vasantdada Sugar Institute, Manjare (Bk),Pune
- Samrudhi Industries Ltd., Sangli.
- E-Vook2 Learning Solutions Pvt. Ltd., New Delhi
- Lotus Computers, Sangli
- HDFC Bank, Sangli
- Progon, Bangalore
- GemIT Solutions, Hyderabad
- 3M India Ltd., Noida
- Lupin Ltd, Pune

- Hindustan Spinning and Weaving Mills Ltd., Karad
- Bajaj Alliance Life Insurance Company, Kolhapur
- Cherry Hill Interiors Ltd., New Delhi
- BPTP Ltd., Gurgaon

- Mass Climb Consultants, New Delhi
- Café Coffee Day, Bangalore and New Delhi

- Nature Care Fertilizer Pvt. Ltd, Vita
- Mitcon Bio Pharma Centre, Pune

- Career Launcher, Gurgaon
- Re-define Dimensions Consulting, New Delhi
- ICICI BANK , Sangli
- Bank of Maharashtra, Kolhapur
- Verus IT Services,Pune
- Birla Cement, Solapur
- Indus Biotech, Pune
- Emerson Climate Technologies (I) Ltd., Karad

- Reliance Life Insurance Company, Kolhapur
- Precision Camshafts Ltd, Solapur

- Better Option Propmart, New Delhi
- My Grahak Online. Com Pvt. Ltd., New Delhi

- Panacea Testing, New Delhi

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- **Role of faculty in facilitating such projects**

  The faculty is assigned to every student for supervising the project work. The faculty helps the student in identifying the topic, monitors the progress and assists in compilation of the report as per the norms of the University. The faculty also acts as one of the examiners for evaluation.

  For projects conducted outside the University, the faculty works as an internal guide and helps to identify appropriate organization/ industry, moderates the topic, monitors the progress and assists the student in compilation of the report. In this case, the project reports are evaluated by a panel of two examiners of which one is from the industry/ organization and the other is the internal guide.

2.3.14 Does the University have a well-qualified pool of human resource to meet the requirements of the curriculum? If there is a shortfall, how is it supplemented?

Yes, the University has well-qualified pool of human resources to meet the requirement of the curricula of its various academic offerings. The faculty is appointed as per the UGC Regulations 2010 and respective central councils. There is no shortfall of the faculty for any of the programs offered by the University.

2.3.15 How are the faculty enabled to prepare computer-aided teaching/ learning materials? What are the facilities available in the University for such efforts?

The University encourages faculty to prepare computer aided teaching learning material by providing hardware and software, library facility, internet connectivity and necessary training. Besides, the faculty has been provided access to a learning management system based on Moodle platform developed by the University. The faculty, during intervening period, has prepared content for 250 courses in 15 programmes in e-Learning mode.

In respect of health science programs, live videos of important operations are prepared by the faculty and uploaded on e-library of the University. Similarly, the health science students can watch the live operations through CCTV.

Content development resources such as Raptivity and Darim e-studio are also made available. The classrooms are equipped with audio-video and internet facilities. Thirty one smartboards are installed in classrooms for multimedia interaction during lectures. Physical and digital resources are made available to the faculty for reference while preparing study material.

The outcome of these initiatives has helped the University to make teaching learning process interactive and meaningful and has also increased the classroom attendance.

2.3.16 Does the University have a mechanism for the evaluation of teachers by the students / alumni? If yes, how is the evaluation feedback used to improve the quality of the teaching-learning process?

Yes, the University has a mechanism in place for the evaluation of the teachers by the students and alumni.

The University has developed a format for obtaining feedback on teaching. At the end of semester or end of academic year, online feedback is obtained from the students. The feedback so obtained is analysed by using appropriate software and outcome is communicated to the concerned teacher.

The outcomes are not used for punitive action but used to enhance the professional competency of the faculty. Based on the feedback, faculty is deputed for appropriate faculty development programs.

2.4   Teacher Quality

2.4.1   How does the University plan and manage its human resources to meet the changing requirements of the curriculum?

The University has appointed highly qualified and experienced faculty as per the UGC Regulations 2010 and respective central councils. The cadre ratio is also maintained.

In order to meet the changing requirements of the curriculum, The University organizes faculty development programs, orientation programmes, training programmes and seminarsfor the faculty to get acquainted with recent trends and thus keep themselves abreast with latest developments in their discipline specific knowledge and skills as well as pedagogy to improve the quality of teaching.

Whenever new topics or major changes are made in the syllabus / curriculum, orientation workshops are conducted for the faculty members. Sometimes, experts in the field are invited as adjunct professors to teach courses during which regular faculty also participate.

2.4.2   Furnish details of the faculty

Following are the details of the faculty:

Highest Qualification	Professor		Associate Professor		Assistant Professor		Others		Total
	Male	Female	Male	Female	Male	Female	Male	Female	
D.Sc/D.Litt.	01	-	-	01	-	-	-	-	02
PhD	66	19	66	25	43	46	10	03	278
M.Phil	-	01	03	-	09	15	02	-	30
PG	137	85	160	105	287	272	66	56	1168
UG	-	-	07	-	20	36	32	41	136
Total	**204**	**105**	**236**	**131**	**359**	**369**	**110**	**100**	**1614**

2.4.3   Does the University encourages diversity in its faculty recruitment? Provide the following details (department / school-wise).

Yes, the University encourages diversity in its faculty recruitment. The details of constituent unit-wise diversity of faculty is as below:

Department Name	% of faculty from the same institution	% of faculty from other institutions within the State	% of faculty from institutions outside the State	% of faculty from other countries
Medical College, Pune	13	81	6	-
Medical College and Hospital, Sangli	5.2	82.5	12.4	-
Dental College & Hospital, Pune	7.69	71.42	18.68	2.20
Dental College & Hospital, Sangli	7	47	45	-
Dental College & Hospital, Navi Mumbai	7.69	71.42	18.68	2.20
College of Ayurved, Pune	30.77	56.41	12.82	-
Homoeopathic Medical College, Pune	61.1	32	6.91	-
College of Nursing, Pune	35.29	35.29	29.41	-
College of Nursing, Sangli	44.58	44.58	10.4	-
College of Nursing, Navi Mumbai	35.29	35.29	29.41	-
Poona College of Pharmacy, Pune	40.54	32.43	27.03	-
Institute of Environment Education & Research Development, Pune	-	100	-	-
Rajiv Gandhi Institute of Information Technology and Bio-Technology, Pune	12.5	68.75	12.5	6.25
Research and Development Centre in Pharmaceutical Sciences and Applied Chemistry, Pune	0	75	25	-
College of Engineering, Pune	41.61	44.72	10.55	3.1
New Law College, Pune	0.5	75	32	2.5
Yashwantrao Mohite College of Arts, Science and Commerce, Pune	2.7	98	2.7	-
Social Science Centre, Pune	80	10	10	-

Department Name	% of faculty from the same institution	% of faculty from other institutions within the State	% of faculty from institutions outside the State	% of faculty from other countries
Institute of Management & Entrepreneurship Development, Pune	10	79	11	-
Institute of Management & Rural Development Administration, Sangli	15.38	76.93	7.69	-
YashwantraoMohite Institute of Management, Karad	-	91.30	8.70	-
Institute of Management, Kolhapur	16.66	72.23	11.11	-
Abhijeet Kadam Institute of Management and Social Sciences, Solapur	15.38	84.65	-	-
Institute of Management & Research, New Delhi	35	27	38	-
College of Physical Education, Pune	0	62.5	37.5	-
College of Architecture, Pune	30	30	30	10
Institute of Hotel Management and Catering Technology, Pune	-	93	7	-

2.4.4 How does the University ensure that qualified faculty are appointed for new programmes / emerging areas of study (Bio-technology, Bio-informatics, Material Science, Nanotechnology, Comparative Media Studies, Diaspora Studies, Forensic Computing, Educational Leadership, etc.)? How many faculty members were appointed to teach new programmes during the last four years?

The University ensures that qualified faculty is appointed to teach new programs or programs in emerging areas. While introducing a new programme or programme in an emerging area, the requirement of faculty with appropriate qualifications and experience is also considered and approved in the Board of Studies and Academic Council. Accordingly, the faculty with appropriate specialization and expertise are appointed following the University procedure as laid down in UGC Regulations 2010. The existing faculty is also trained to

teach new courses by organizing special faculty development programs or by deputing them to such programmes.The details of the faculty appointed for new programmes or programmes in emerging areas during last four years are as below:

Name of College	New courses introduced since last accreditation	Number of new faculty appointed/ trained to teach the new courses
Medical College, Pune	Emergency Medicine	03
Medical College, Sangli	Cardiology	03
	Nephrology	02
	Urology	02
	Plastic Surgery	02
Dental College Sangli	Prosthodontics and Crown & Bridge	04
	Conservative Dentistry & Endodontics	04
	Orthodontics &DentofacialOrthopaedics	04
	Paediatric& Preventive Dentistry	04
	Oral & Maxillofacial Surgery	04
College of Nursing, Sangli	MSc. Nursing programme	11
College of Nursing, Navi Mumbai	PBBSc	03
Poona College of Pharmacy, Pune	M Pharm in Drug regulatory Affairs	01
New Law College, Pun	LLM (1 year)	03
	MOOC Courses	05
Yashwantrao Mohite College of Arts, Science and Commerce, Pune	M.Sc.(Organic Chemistry)	06

Name of College	New courses introduced since last accreditation	Number of new faculty appointed/ trained to teach the new courses
Interactive Research School for Health Affairs (IRSHA), Pune	Diabetes research group	01
	Obesity research group	01
Total faculty appointed for new courses		**63**

2.4.5 How many Emeritus / Adjunct Faculty / Visiting Professors are on the rolls of the University?

The University invites/appoints adjunct faculty/visiting professor/ emeritus professors depending on needs and nature of the programs. Presently there are three Emeritus Professors, 36 Visiting Professors and 173 Adjunct Faculty appointed by the University. The adjunct and visiting faculty also participate in curriculum development, teaching-learning process and evaluation of students.

2.4.6 What policies/systems are in place to academically recharge and rejuvenate teachers (e.g. providing research grants, study leave, nomination to national/international conferences/ seminars, in-service training, organizing national/international conferences etc.)?

The University has well defined policy in place to academically recharge and rejuvenate the faculty. The University organizesin-service training programmes for the faculty to improve their domain specific knowledge in thrust areas of research, pedagogy content knowledge, research skills, etc. During last four years, 96 such programmes of six days duration have been organized. Besides, 256 programmes of 1-3 days duration have been also organized by various constituent units.

In addition, the faculty is also encouraged to attend such programmes conducted at other Universities, particularly, UGC approved Academic Staff College programmes.

- The University provides study/duty leave and also meets travel expenses of the faculty who is deputed to attend the conferences/seminars and workshops outside the University.
- The University provides seed money to junior faculty for encouraging them to undertake minor research projects. The experience gained during the completion of minor research project is useful for submitting the major research proposals to various funding agencies. During last four years, the University has provided seed moneyto 206 minor research projects.

- The University has instituted Best Teacher Award as well as Best Researcher Award to recognize outstanding contributions in teaching and research made by the faculty. This award is given during the Foundation Day of the University.
- The faculty is encouraged to participate and present research papers in national/ international conferences/ seminars by providing duty leave, registration fees, travel grants etc.
- The University supports the constituent units for organizing national and international conferences. During the last four years, 77 national conferences and 39 international conferences have been organized.
- The University has provided 39 online databases in various disciplines as well as ICT facilities to the faculty for teaching and research.

2.4.7 How many faculty received awards / recognitions for excellence in teaching at the state, national and international level during the last four years?

During the last four years, a total of 51 awards were received by faculty for their achievement in academic and other curricular activities, of which six were awarded at National level, four at State, 13 at University level and the rest by organizations at regional / local level.

2.4.8 How many faculties underwent professional development programs during the last four years? (add any other program if necessary)

The number of faculty who underwent professional development programmes during the last four years is shown in the table below.

Nature of Academic Staff Development programmes	2012-13	2014-15	2013-14	2015-16
FDPs conducted by the University	509	668	752	441
UGC Faculty improvement programmes	46	190	79	55
Orientation programmes	82	303	65	39
Summer/Winter school workshops etc.	157	406	187	152
Seminars and Conferences	191	131	112	312

2.4.9 What percentage of the faculty have been invited as
- **Resource persons in Workshops / Seminars / Conferences organized by external professional agencies?**
- **Participated in external Workshops / Seminars /Conferences recognized by national / international professional bodies?**

- **Presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies?**
- **Teaching experience in other universities / national institutions and other institutions?**
- **Industrial engagement?**
- **International experience in teaching?**

The details of the percentages of faculty invited undervarious categories are as under:

Resource persons in Workshops/ Seminars/ Conferences organized by external professional agencies	23.1 %
Participated in external Workshops/ Seminars/Conferences recognized by national / international professional bodies	65.0 %
Presented papers in Workshops/ Seminars / Conferences conducted or recognized by professional agencies	57.4 %
Teaching experience in other universities/ national institutions and other institutions	20.5 %
Industrial experience	27.3 %

2.4.10 How often does the University organize academic development programmes (e.g.: curriculum development, teaching-learning methods, examination reforms, content / knowledge management, etc.) for its faculty aimed at enriching the teaching-learning process?

The organization of academic development programs is a regular feature of the University. Workshops are conducted before designing and developing the curriculum and during the process of its implementation. The training programmes/ workshops are organized on the themessuch as teaching-learning processes, implementation of choice based credit system, use of ICT, e-Learning and the use of online databases. The details of various programmes organized are furnished below:

Academic Development Programmes	2011-12	2012-13	2013-14	2014-15	2015-16	Total
Curriculum Development	8	10	8	11	12	49
Teaching-learning methods	5	7	6	9	8	35
Evaluation methods	7	6	8	12	10	43
Content/Knowledge management	13	14	12	14	11	64
Others	1	1	2	1	2	7
Total	**34**	**38**	**36**	**47**	**43**	**198**

2.4.11 Does the University have a mechanism to encourage:
- **Mobility of faculty between universities for teaching?**
- **Faculty exchange programmes with national and international bodies?**
  If yes, how have these schemes helped in enriching the quality of the faculty?

Yes, the University has a mechanism to encourage faculty mobility within and outside Indiathrough faculty exchange programs.

The University has signed MoU's with seven benchmarked Universities abroad for faculty exchange and under these schemes ten faculty of the University were sent on various exchange programmes to North Carolina University, USA; European Universities like Cologne University, Germany, Malardalen University, Sweden, Vistula University, Warsaw, University of Warsaw, Poland, Linneaus University, Sweden. In the same manner 12 faculty members from these Universities as well as BPP University (Brierley Price Prior University, Manchester - UK), visited Bharati Vidyapeeth University.

Details of participating institutions and the number of faculty availed the facility is given below:

Institute	Participating Institution	Number of BVU faculty participated	Number of days	Number of faculty visiting BVU	Number of days
Institute of Environment Education and Research	University of Cologne, Germany	2	15	2	15
College of Engineering	North Carolina University, USA	1	-	2	3
College of Nursing, Pune	MalardalenUniversity, Sweden	1	21	1	2
New Law College, Pune	Vistula University, Warsaw	2	30	1	15
	University of Warsaw, Poland	1	30	1	15
	BPP University, UK	-	-	2	5
Social Science Centre, Pune	MalardenUniversity, Sweden	1	21	1	21
Institute of Management and Entrepreneurship development, Pune	LinneausUniversity, Sweden	2	7	2	5

2.5   Evaluation Process and Reforms

2.5.1   How does the University ensure that all the stakeholders are aware of the evaluation processes that are in place?

At the beginning of the academic year, the Controller of Examinations prepares a detailed schedule of various theory and practical examinations to be conducted during the academic year alongwith their probable dates of declaration of the results. This examination schedule is placed before the Board of Examinations for its approval. After its approval, the said schedule of examination is posted on the University website and is communicated to the heads of the constituent units.

The faculty and students are also informed about the examination schedule well in advance. This helps the faculty to complete their teaching well in time and helps the students to prepare for their examinations. The details of information related to grievance redressal mechanism and revaluation are also posted on the website of the University and constituent units.

2.5.2   What are the important examination reforms initiated by the University and to what extent have they been implemented in the University departments and affiliated colleges? Cite a few examples which have positively impacted the examination management system.

The process of examination reforms is continuous and ongoing. All efforts are made to make the examination process objective and transparent. The use of technology at all stages of examination process has minimized human intervention.

During the intervening period, the University has undertaken following examination reforms and they are implemented.

- Grievance Redressal Mechanism to redress the grievances of the students related to conduct of examinations.
- Supply of photocopy of answerbooks to the students on demand.
- Automation of the work of all stages of examination process from admission to certification and use of latest technology for result processing.
- Introduction of Choice Based Credit system for undergraduate and postgraduate programs with due weightages for internal assessment.
- Declaration of the results of examinations on University portal and sending sms alerts to the students.
- Digitization of the records related to examinations.
- Printing of students' photo on the transcripts.
- Single window system to address all examination related queries.

Examination reforms in process

- Delivery of question papers to the remote centres in encrypted format.
- Printing of customized answer books
- On screen assessment of answer books
- Development of Question Bank and automatic generation of question papers through software.
- Creation of a data centre
- Digital lockers for the students and faculty.

2.5.3 **What is the average time taken by the University for Declarationof examination results? In case of delay, what measures have been taken to address them? Indicate the mode / media adopted by the Universityfor the publication of examination results (e.g. website, SMS, email, etc.).**

The results of all the examinationsare invariably declared within 30 days from the last day of respective examination. In some cases they are even declared within two weeks. There was no delay in the declaration of the results during the last five years.

The examination results are declared on the websites of University and constituent units and students are also informed through Electronic Bulk Message System (EBMS). The statement of marks is given to the students in their constituent units on the date of declaration of results.

2.5.4 **How does the University ensure transparency in the evaluation process? What are the rigorous features introduced by the University to ensure confidentiality?**

The University ensures transparency in the process of evaluation right from preparation of panel of examiners and paper setters to the declaration of results. The internal and external examiners are appointed as per the norms of the respective Central Councils by the Board of Examinations out of the panel prepared by the respective Board of Studies.

The paper setters are requested to set three parallel equivalent paper sets for each course with model answers and scheme of marking. The question papers, model answers and scheme of marking are moderated by Chairman of Board of Paper Setters and then handed over to the Controller of Examinations in sealed covers.

The Vice Chancellor selects one set at random and the same is printed in necessary copies. The printed question papers are kept under safe custody of Controller of Examinations. Question papers are delivered to the centres in sealed containers.

Examinations are conducted under strict vigilance and the answer books are collected and sealed in packets and sent to the Director, Central Assessment Program (CAP).

At the CAP centre, all the containers are opened and answer books are counted, masked and bundles containing 30 answer books are prepared.

After completion of assessment, answer books are demasked and marks are entered against the seat number of the candidates and result is processed through software. After the result is declared, all the answer books and related records are sealed and kept in the custody of Controller of Examinations.

A moderation system is adopted for greater transparency. Thus the entire process of conduct of examinations is highly confidential and at the same time objective and transparent.

2.5.5 Does the University have an integrated examination platform for the following processes? Pre-examination processes – Time table generation, OMR, student list generation, invigilators, squads, attendance sheet, online payment gateway, etc. Examination process– Examination material management, logistics, etc. Post-examination process – Attendance capture, OMR based exam result, auto processing, generic result processing, certification, etc.

Yes, the University has an integrated examination platform to cover all the processes related to the conduct of examination and declaration of their results. An integrated system for the entire process of examination is in place and tested. It will be put to use from winter 2016 onwards. The functionality of the software pertains to:

- Procure student data and inputs from constituent unit and process data
- Provision of login ids for students and also PRN, which will be available online
- Confirmation of eligibility of students after document verification
- Online entry of examination forms by students who will upload photograph, digital signature, course details and all relevant educational details. Fee details made available through the system for immediate payment of fees
- Generation of hall ticket/admit cards for easy printouts by constituent unit / students
- Programme wise generation of reports with details of students who have filled the examination forms, students appearing for examinations, list of students appearing for backlog courses, course wise summary etc. .
- Filling of and submission of revaluation and verification form by students.

- Bar Coding of answer books
- Formats of forms required for CAP work
- Online submission of convocation forms by students
- Application for duplicate mark sheets and for name correction

Presently the following functions are automated.

- Installation of high end IBM server (X3400) has resulted in faster processing of examination results.
- Declaration of examination results on the University portal for ease of access by students and parents
- Digitization of examination records through the use of document scanning system which includes maintaining scanned copies ofresult registers, statement of marks and passing certificates and ledgers.
- Use of 'Black Box', a high capacity data storage device for maintaining digitized records and backup of documents.
- Use of Paper Setting Software for automation of all tasks related to paper setting.
- Printing of question papers is done in house with printers having automatic counters, which give exact figure of total prints taken on that day.
- Printing of student's photo on mark sheets so as to prevent tampering.
- Digitalized Question papers for reference by paper setters
- Use of e-payment system to speed the process of payment of remuneration to the examiner.
- Use of software for inward and outward system of documents
- Dissemination of question papers online half an hour before the commencement of examinations of Medical sciences.

2.5.6 Has the University introduced any reforms in its Ph.D. evaluation process?

- The University strictly follows the UGC (Minimum standard and procedure for award of PhD degree) -Regulations 2009 in relation to the admission to certification of M.Phil and Ph.Ddegrees.
- Admissions to the Ph.D degree programme in 79 subjects is strictly based on the inter-se merit of the students at AI-CET conducted by the University and followed by an interview.
- The pre-Ph.D course has been made mandatory during which the students are required to study andsuccessfully pass three subjects namely (i) Research Methodology and use of ICT in research, (ii) a specialized course based on the subject of research and (iii) presentation and viva, based on literature survey on the topic of Ph.D research, conducted by a panel of internal and external examiners appointed by the University. After successful completion, the student is allowed to register for Ph.D programe.

- The progress of the Ph.D. student is continuously and rigorously monitored during the span of research work through presentations before an expert committee. Prior to submission of the thesis, a student is expected to give three presentations based on the progress of his/her research work.

- Before submission of thethesis, it is mandatory for the students to publish at least oneresearch paper in an indexed journal.

- The student is required to submit a soft copy of the thesis to the University and thereafter the examination division checks the thesis for plagiarism by using the anti-plagiarism software 'Turnitin'. The soft copy is sent to the UGC for uploading on Inflibnet-Shodhganga.

- The student and his Ph.D. supervisor are required to give an undertaking that the work included in the thesis is original in nature and not submitted for award of any other degree.

- The thesis is adjudicated by two experts not connected with the University, nominated by the Vice Chancellor from a panel of six.

- If both the examiners reject the thesis, the student is declared to have failed in the Ph.D. programme.

- If one of the examiners recommends the rejection of the thesis, it is sent to a third expert from the panel. The decision of the third examiner is considered as final.

- If both the examiners recommend the acceptance of the thesis, an opendefence viva-voce is conducted and candidate has to defend his research work before a panel consisting of the guide, the dean of the faculty, one external examiner, other students and faculty.

2.5.7 Has the University created any provision for including the name of the college in the degree certificate?

Since, the University is established under Sec. 3 of UGC Act 1956 and is unitary in nature, hence not applicable.

2.5.8 What is the mechanism for redressal of grievances with reference to examinations?

The University has evolved a compressive mechanism to redress the grievances of the students related to examination. A two-stage Grievances Redressal Mechanism is available for studentsfor redressalof their grievances related to the examinations.

The common grievances of students are about the question papers such as that the questions being set outside the syllabus, the question papers are too lengthy, questions being not clear etc. In such cases, the Controller of Examinations seeks the opinion of the paper setter and a senior faculty in the subject and based on their opinion/advice takes an appropriate decision.

A student who feels that he/she has got less marks, may apply for the verification of marks by paying the prescribed fee. The process of verification of marks is completed within 7 days and outcome is communicated to the student.

If student is not satisfied withthe process of verification of marks then he/she may request for photocopy of answerbook by paying prescribe fee.

After going through the answers book, if he/she feels that the answer book is not properly assessed, then he may challenge the evaluation and request for revaluation of the answer book by paying prescribed fee. The process of revaluation is completed within 21 days.

Grievance Redressal procedure for internal assessment:
- Students after knowing their marks ininternal examinations can meet individual faculty and seek clarifications. If not satisfied, they can approach the course coordinator or head of the department or the Principal/ Director to bring out their grievances and seek to resolve the grievances.

2.5.9 What efforts have been made by the University to streamline the operations at the Office of the Controller of Examinations? Mention any significant efforts which have improved the process and functioning of the examination division/section.

The Controller of Examinations (COE) works directly under the control of the Vice Chancellor and is responsible to the Board of Examinations. He is responsible for the smooth conduct of University examinations and timely declaration of their results. He meticulously plans and conducts the entire examination process consisting of activities related to pre-examination,on-examinations and post-examination as per the rules of the University.

In order to streamline the functionsof the office of the Controller of Examinations, the examination section has been automated to a large extent. Major efforts taken by the examination section are given below.

- As mentioned earlier, an integrated examination platform is in place which enables online registration for University examinations, verification of eligibility of students, generation of examination forms, printing of admit cards etc., all the way up to award of degrees.
- The pre-examination tasks such as preparation of panels of paper-setters and examiners, appointment of paper-setters and examiners, preparing schedules of examinations, preparation of and printing of question papers have been automated thereby simplifying the work, while maintaining secrecy.

- All operations related to result processing such as data entry of marks, cross checking of data entry, ledger preparations, cross checking the ledgers, printing of mark sheets, analysis of results and declaration of results are automated.
- Installation of a document scanning system has facilitated in maintaining all examination related records in digital format which in turn enables fast access to the documents for verification.
- Provision of a black box, a data storing device helped in maintaining voluminous backup of data and retrieving the data very fast. The backups are being taken twice a day. The black box is waterproof, fireproof and shockproof and has a capacity of 3TB for storage of data.
- Software for streamlining paper setting work has been developed and installed on an IBM server; because of this the paper setting work has been simplified and secrecy has been enhanced.

2.6 Student Performance and Learning Outcomes

2.6.1 Has the University articulated its Graduate Attributes? If so, how does it facilitate and monitor its implementation and outcome?

Yes, the University has articulated graduate attributes and expects its students to be:

- A problem solver with in-depth knowledge in his discipline and related professional skills.
- An individual with competency in using technology.
- Highly adaptable and ability to work in teams.
- Ethically and socially aware.
- A lifelong learner and
- An independent and critical thinker.

The curriculum design and development policy of the University mandates that the learning outcomes for every programme consider and incorporate the spirit of the graduate attributes. Corresponding to each graduate attribute, the academic, personal and transferable outcomes are identified so that it is easy for curriculum developers to incorporate the same in the curriculum. The teaching-learning process and process of evaluation are aligned to the graduate attributes as well as to the learning outcomes. The individual constituent units have reinterpreted the graduate attributes depending upon the nature of the programme.

The University facilitates adoption of various teaching-learning methods and corresponding evaluation methods to ensure that the above mentioned graduate qualities and generic skills are acquired by its students. For example,

- The teaching-learning methods include didactic lectures, practical exercises, simulation exercises, seminars, tutorials, case presentations, small group teaching, industrial visits, exposure to real life situations etc.

- Professional inputs are facilitated through student engagement in workshops, group exercises and debates, development of presentation and communication skills through seminars, journal clubs, inter-departmental meets and case presentations.

- Opportunities to work as student representative on different committees, debate club, various forums, and participation in conferences and quizzes at state and national level help in making them a successful professional.

- Group based learning activities are adapted to develop team work skills. Due emphasis is given on project based learning, and practical exposure through internships and problem based learning. Institutional inputs are facilitated through constantly monitoring students, assignment of mentor to group of students to identify and help them overcome their weaknesses. Similarly, social inputs are facilitated through inculcating empathy and a sense of social responsibility in students, encouraging participation in social awareness and in different community services etc.

Implementation is monitored through assessment of student performance in practical settings and outcome is monitored through feedback from various stakeholders, like recruiters, parents, patients/relatives (in case of health science institutes), alumni, supervisor at field work etc.

There are various other indicators used by the University to gauge the implementation and outcome of efforts in achieving graduate attributes, like success rate in examination, placement of students in reputed organizations, research publicationsby students in peer reviewed journals, participation in extension and outreach activities, awards won by students in various competitions and tournaments taking place across the country and outside etc.

2.6.2 Does the University have clearly stated learning outcomes for its academic programmes? If yes, give details on how the students and staff are made aware of these?

Yes, the University has a clearly statedlearning outcomes for all its academic offerings. As per the curriculum development policy of the University, the learning outcome must be explicitly stated in the curriculumat programme as well as at course level.

The graduate attributes and learning outcomes of various programmes are brought to the attention of the students during induction process. The copies of the syllabus which are made available to the students contain the learning outcomes of all courses.

The faculty is made aware of the learning outcomes during curriculum implementation workshops as well as departmental meetings. The IQAC of each constituent college discusses with the faculty about the various ways and means to achieve learning outcomes.

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

The teaching-learning and assessment strategies of the University are structured in such manner that they facilitate to achieve the intended learning outcomes some of which are as follows:

- Inclusion of topics on research methodology, project work, field work, internships as compulsory componentin the curriculum of many programmes.
- Provision of domain specific software for simulations of complex scenarios and experimentation. For example, programmes in medicine, dentistry and management use such software.
- Use of interactive multi-media tools, emphasis on project work, internships, field work, and case studies.
- Use of blended and flipped learning methodologies.
- Use of in-basket exercises wherein students are provided scenarios for prioritisation of tasks and decision making.
- Online databases in various disciplines for research, analysis and synthesis by students.
- Providing access to pre-identified learning resources from NPTEL, You Tube, e-pgPathshala and other portals.
- Encouraging students to join associations and industry forums
- Conducting of workshops by professionals to impart professional skills.
- Provision for undergraduate research.

2.6.4 How does the University collect and analyze data on student learning outcomes and use it to overcome the barriers to learning?

The evaluation system consists of internal assessment as well as end of the term University examination with weightage of 40% and 60% respectively. For some courses, the internal assessment is 100%.

In many cases, classroom interactions and mentor feedback provide information on student learning and identification of barriers to learning. Some common barriers identified are: lack of pre-requisite knowledge, problem with language, peer pressure, absenteeism, insufficient formal assessments, delay in providing feedback on performance, non-availability of

faculty outside classroom, non-availability of alternate learning resources and in-sufficient time for personal attention from the faculty.

The strategies adopted to overcome these barriers include provision of bridge / remedial courses, extra sessions for students with learning barriers, conducting courses on business English, scientific English etc., group assignments, making available class notes on University's e-learning portal, revision of lectures, tutorial sessions for problem solving, counselling by teacher mentors to reduce absenteeism etc. In some programmes, English language is included as part of the curriculum.

2.6.5 What are the new technologies deployed by the University in enhancing student learning and evaluation and how does it seek to meet fresh/ future challenges?

In order to enhance student learning and evaluation, the University has made available the following technologies to its faculty and students:

- The technology infrastructure provided to facilitate teaching and learning include leased line internet connection, Wi-Fi connectivity, multimedia smartboards and audio video facility in classrooms etc.
- A customized e-Learning environment is developed based on Moodle platform that facilitates interaction between faculty and students, sharing learning material, submission and evaluation of assignments, conduct of online examinations, quizzes, online submission of projects, video based learning and to monitor attendance of students.
- Links are provided to online learning resources such as NPTEL
- Faculty is provided with Darime-Studio for content development and creating high quality videos
- Simulation software is made available to Institutes in Health sciences
- Interactive e-Learning tools such as "Raptivity" is made available to teachers
- Extensive training is provided to faculty in the use of tools such as Blogs and Google Docs.
- Varieties of open source software is being customized such as R, PSPP, SOFA, Mendeley, Lime Survey etc., for use by faculty and students
- 'Turnitin' antiplagiarism software is made available.

The University proposes to facilitate development of MOOC versions of the present courses as well as new programmes so that the regular students can have alternate learning experiences and benefit. It is also proposed to enhance the quality as well as scope of video based learning. Developing virtual classrooms for synchronous and asynchronous learning at any time is another priority for the University.

Criterion – III
Research, Consultancy
& Extension

CRITERION - III: RESEARCH, CONSULTANCY AND EXTENSION

3.1   Promotion of Research

3.1.1   Does the University have a Research Committee to monitor and address issues related to research? If yes, what is its composition? Mention a few recommendations which have been implemented and their impact.

Yes, the University has constituted a Research Committee to monitor and address issues related to research in the University. The composition of the research committee is as below:

i)	Vice Chancellor	: Chairperson
ii)	Director, Research and Development	: Member
iii)	Directors of the three research institutes	: Member
iv)	Two Deans of Faculties of Studies (by rotation)	: Member
v)	Two external experts nominated by the Vice Chancellor	: Member
vi)	Registrar	: Member Secretary
vii)	Principal/ Director of the respective constituent unit	: Invited member for discussions concerning the respective constituent unit
viii)	Dean of the Faculty of Studies	: Invited member for discussions concerning the respective Faculty
ix)	Chairperson of the Board of Studies	: Invited member for discussions concerning the respective Board/ Subject
x)	One subject expert nominated by the Vice Chancellor	: Invited member for discussions concerning the respective Board/ Subject

- A sub-committee of the Research Committee consisting of members shown against ii), viii), ix) and x) constitute a Research and Recognition Committee for the faculty for the respective subject with Director, Research and development as chairman.
- Besides the above, Research Committees are constituted at the constituent units level for the scrutiny of the research proposals, monitoring the Ph.D programs and for effective implementations of the recommendations of the University level Research Committee.

Recommendations Implemented:

Following are some of the important recommendations made by the Research Committee which are implemented.

- Implementation of the UGC Regulations 2009 for the M.Phil./PhD programme.
- Providing seed money to junior faculty through University funding for undertaking research.
- Developing new collaborations and strengthening existing collaborations with international universities, institutions of national importance and industry.
- Identification of thrust areas of research in various disciplines
- Organization of national and international conferences to create a pool of knowledge
- Granting of two additional increments for teachers who obtained Ph.D degree
- Deputation of faculty to international universities and institutions of national importance for Ph.D. program.
- Encouraging and rewarding faculty to publish research papers in peer reviewed journals with high impact factors and to file output of research as intellectual property/ patents.
- Promoting student research.
- Procuring e-books, subscription to e-journals and online databases along with physical resources in the library.
- Organization of orientation sessions for faculty to disseminate research related information regarding potential funding agencies, drafting research proposals, awareness regarding ethical issues, plagiarism, submission of reports and audited statements of expenditure, publications and patents.
- Training the faculty and research scholars in using ICT tools effectively in the research process.

The outcomes of implementation of the recommendations are:

- Significant rise in the number of approved major and minor research projects. (During the review period, 68 funded research projects were completed, 66 funded major and minor projects are ongoing, while 89 minor projects funded by the University are ongoing).
- Increase in the total number of patents filed and granted (two patents are granted and 36 patents are registered).
- Increased number of publications in peer-reviewed journals of national and international repute with good impact factors (2498 research papers were published in international journals and 941 in national journals during the review period).

- Increased enrolment of students to Ph.D. degree programme (677 students are presently registered for Ph.D in various faculties).
- Enhanced participation of faculty and students in conferences. Increase in the number of awards and recognitions conferred upon the teachers and students at state/ zonal/ national and international levels (143 faculty and 88 students received awards and recognitions for their research work).

3.1.2 What is the policy of the University to promote research in its affiliated / constituent colleges?

The University is established under Sec 3 of the UGC act 1956, hence not applicable

3.1.3 What are the proactive mechanisms adopted by the University to facilitate the smooth implementation of research schemes/ projects?

In order to facilitate the smooth implementation of research schemes/projects, the University has put in place the following mechanism:

- After the proposal is approved by the respective funding agency, the University opens a joint account in the name of the Principal Investigator and the Registrar to facilitate timely use of funds.
- If the release of subsequent installments of funds is delayed by the funding agency, the University advances the necessary funds for smooth implementation of the research project.
- The University has formulated a simple and systematic procedure for taking approvals for purchase of equipment and consumables as needed for research.
- The University gives full freedom to the principal investigator to utilize contingency and travel grant of the sanctioned project.
- The accounts related to the research project are audited by an internal auditor of the University as well as by a statutory auditor.
- The University ensures timely submission of progress reports, project reports and utilization certificates as per the requirement of the funding agencies.

As a proactive measure, the University provides seed money to its faculty to initiate research by the young faculty in their respective areas of specialization. The objective of the grant is to provide financial support for pilot studies and to prepare major research proposals for funding by external agencies, such as UGC, DST, DBT, ICMR, ICAR, AICTE etc. The proposals submitted for seed money are also scrutinized by the Research committee of the University and suitable proposals are supported with grants.

3.1.4 How is interdisciplinary research promoted?

In order to promote interdisciplinary research, the University has established three self-financed research institutions namely Interactive Research School of Health Affairs (IRSHA), Research and Development Centre in Pharmaceutical Sciences and Applied Chemistry (RDCPSAC) and Yashwantrao Chavan Institute of Social Science Studies and Research (YCISSSR). These institutes undertake interdisciplinary research that involves several disciplines. The various constituent units of the University have undertaken 101 interdisciplinary projects during the review period.

To cite an example, the faculty from medical sciences are actively involved in undertaking basic research in mother and child care involving scientists from life sciences in IRSHA. In fact, because of the involvement of medical teachers and the scientists from bio chemistry, microbiology, pharmacy, the research in the area of mother child care is internationally recognized. Similarly, the faculty from dental sciences and Ayurveda are also actively involved in undertaking research in collaboration with scientists from IRSHA.

Further, the different departments of the College of Pharmacy have internal collaborations between departments of Pharmaceutical Chemistry, Pharmaceutics, Pharmaceutical Analysis, Pharmaceutical Biotechnology and Pharmacology for interdisciplinary research.

Students enrolled for the Ph.D. degree programme are encouraged to undertake interdisciplinary research involving two or more faculties. The University has made a special provision to appoint co-guide to carryout interdisciplinary research. The University also has formed faculty of interdisciplinary studies under which Ph.D. programmes are offered in Nano-Technology and Hospital Administration.

In addition, some faculty and their Ph.D. students from Institute of Environment Science, Management Institutes, Law and Social Sciences conduct research on topics which need techniques, perspectives, concepts, tools and theories from various disciplines.

The post graduate students are also motivated to undertake interdisciplinary projects as a part of the curriculum. The students from Poona College of Pharmacy, Pune conduct joint projects with the scientists from IRSHA.

3.1.5 Give details of workshops/ training programmes/ sensitization programmes conducted by the University to promote a research culture on campus.

During the intervening period, the University has organized 99 workshops, 153 training programmes as well as 56 sensitization programmes to promote research culture in its campuses. The workshops and training programmes have been conducted primarily on preparing research proposals, research methodologies, statistical analysis, software tools for research and advancements in the respective disciplines, which have benefited the faculty. The sensitization programmes are basically aimed at bringing awareness about recent developments among students.   The details are given below.

Academic Year	Workshops	Training Programmes	Sensitization Programmes	Total
2011-12	15	37	12	**64**
2012-13	19	36	13	**68**
2013-14	34	42	15	**91**
2014-15	31	38	16	**85**
Total	**99**	**153**	**56**	**308**

3.1.6 How does the University facilitate researchers of eminence to visit the campus as adjunct professors? What is the impact of such efforts on the research activities of the University?

The University invites eminent persons as adjunct professors to teach pre-PhD courses on Research Methodology and specialized courses on the topic of research. They are also invited to evaluate progress of the Ph.D students based on presentations made by them from time to time during their Ph.D work and offer constructive suggestions on methodology, design of experiments, data analysis, interpretations and discussions.

Eminent researchers who are invited for workshops and faculty development programmes interact with faculty and students, and share their knowledge and skills. Such interactions have enhanced the quality of research conducted at the University.

3.1.7 What percentage of the total budget is earmarked for research? Give details of heads of expenditure, financial allocation and actual utilization.

On an average 7 to 8 percent of University budget is earmarked for the research and research related activities. The details of budgetary allocation and its actual utilization for the financial year 2014-15 is as below:

Academic Year	Total Budget of University (Rs in Lakh)	Budget allocated for Research	Percentage allocation for research	Actual Utilization (Rs in Lakh)	Percentage utilization of allocation for research
2014-15	35764	2752	7.6	1931.07	70.1

The major heads of expenditure under research are the following:

- Salaries of the scientists and supporting staff of the three self-financing research institutes in health, pharmaceutical and social sciences
- Subscriptions to national and international journals and online databases
- Specialized equipment for advanced researchand its maintenance
- Organizing national / international seminars and conferences
- Publication grant and deputation of faculty to conferences and seminars
- Provision of seed money to young faculty for minor projects

3.1.8 In its budget, does the University earmark funds for promoting research in its affiliated colleges? If yes, provide details.

Being a deemed University, it has no affiliating colleges. However, allocations are made in the annual budget of each constituent unit for promotion of research.

3.1.9 Does the University encourage research by awarding Post-Doctoral Fellowships/Research Associate ships? If yes, provide details like number of students registered, funding by the University and other sources.

Yes, Post-Doctoral Fellows and Research Associates are encouraged to join The University and conduct their research by providing infrastructural and laboratory facilities. Over the last four years, 73 scholars have joined the University with Research Associateship from various agencies such as AICTE, CSIR, UGC, DRS, and DST.

3.1.10 What percentage of faculty have utilized the sabbatical leave for pursuit of higher research in premier institutions within the country and abroad? How does the University monitor the output of these scholars?

The University extends the facility of study leave to its faculty for pursuit of research as well as advanced studies in India and abroad. During the review period, one percent of the total faculty have been granted leave for such purposes. The output is monitored in terms of publications, research grants received, guidance to the research scholars for Ph.D. and contribution to development of research activities in the University.

3.1.11 Provide details of national and international conferences organized by the University highlighting the names of eminent scientists/scholars who participated in these events.

The University organizes national and international conferences with participation from eminent scientists and scholars as resource persons, keynote speakers, panel discussants. During the review period, 77 national conferences and 39 international conferences were organized by the University. In all 136 eminent scientists from universities abroad and 294 scientists and academicians from India had participated in these events.

The details of eminent scientists/ scholars who participated in 16major international conferences are given below. The details regarding eminent scientist participated in national conferences will be provided to the peer team.

Sr. No.	Name of the International Conference	Details of the Eminent Scientist / Scholar who participated in the Conference
		2012
		Poona College of Pharmacy, Pune
1	The Poly Tech	• Prof. Yasuhiko Tabata– Chairman, Kyoto University, JAPAN. • Prof. Giovanni Camino - Chairman,Politechnic of Torino, Italy • Prof. Anthony – Chairman, Advanced Materials Center, USA. • Dr. Sunil P. Lonkar and Philippe - Chairman, University of Mons, Belgium. • Prof. S. Thayumanavan– Chairman, University of Massachusetts, Amherst, USA • Dr. AtulChaudhari& Michael A. Morris- Co-Chairman, Tyndall National Institute, Cork, Ireland • Mr. Vijay Kumar Rana - Co-Chairman, Swiss Federal Institute of Technology, Switzerland • Dr. B. Kumar - Co-Chairman, European University of Brittany (UEB), France. • Prof. ToyokoImae - Co-Chairman, National Taiwan University of Science and Technology, Taiwan. • Dr. Garima Agrawal – Speaker, Aachen University, Germany • Prof. Zengshe– Speaker, Liu, Bio-Oils Research, USA.

Sr. No.	Name of the International Conference	Details of the Eminent Scientist / Scholar who participated in the Conference
		• Dr. DilipDepan– Speaker, University of Louisiana, USA • Prof. Kohji Tashiro - Speaker, Toyota Technological Institute, Japan • Prof. J. Annamalli– Speaker, CNEP, France • Ms.Sananda Nag – Speaker, Tenasi Tech Pty Ltd, Australia • Prof.Ajit D. Kelkar - Speaker, School of Nanoscience and Nanoengineering, Greensboro, USA, Prof. Ram Mohan – Speaker • School of Nanoscience and Nanoengineering, Greensboro, USA • Prof. H.S.Ganapathy– Speaker, Kumamoto University, Japan • Prof. J. M. Guenet– Speaker, University of Taiz, Taiz, Yemen. • Mr.S. N. Chowdhury – Speaker, Srassbourg, France • Dr. Paul J. Jones – Speaker, European University of Brittany, France. • Dr. Katrina M. Knauer– Speaker, Mississippi, USA • Dr. Charles Easterling – Speaker, Mississippi, USA • Dr. Hannah R. Brown – Chairman, Mississippi, USA • Prof. RoberLochhead– Chairman, Mississippi, USA • Prof. Jules A.W. Harings- Co-Chairman, Eindhoven University of Technology, The Netherlands • Dr. Sanjay Rastogi - Co-Chairman, Loughborough University, U.K.
		College of Engineering,– Pune
2	NANOCON 012 "The Second International Conference on Nanotechnology-	• Dr. ChritopherKepley - Keynote speaker, North Carolina A & T state University, USA • Dr. Barry Burks - Keynote speaker, North Carolina A&T State University, USA. • Dr. YeshayahuTalmon – Plenary Speaker, The

Sr. No.	Name of the International Conference	Details of the Eminent Scientist / Scholar who participated in the Conference
	Smart Materials, Composites, Applications and New Inventions"	RusselellBerrie Nanotechnology Institute, Israel • Dr. ReshefTenne − Session Chairman, Israel Academy of Science, Israel • Dr. Shaik Jeelani - Keynote speaker, President, Tuskegee University, USA • Dr. James Ryan - Keynote speaker, North Carolina A & T state University, USA • Dr. Shinichi Kikkawa - Keynote speaker, Hokkaido University, Japan • Pro. Fabio Biscarini - Keynote speaker, CNR-ISMN, Italy • Dr. Yun-Hae Kim - Keynote speaker, The Korean Society for Engineering Education, Korea, Dr. Anna Axxelson - Keynote speaker • Imperial College, London • Dr. Katia Vutova - Session Chairman, Bulgarian Academy of sciences • Dr. Mahesh V. Hosur - Keynote speaker, Tuskegee University, Albama, USA • Dr. AjitKelkar − Session Chairman, North Carolina A & T state University, USA • Dr. Pankaj Koinkar - Session Chairman, The University of Tokushima, Japan • Prof. JaumeVeciana - Session Chairman, CIBER-BBN, Spain • Dr. Toshihiro Moriga - Session Chairman, The University of Tokushima, Japan • Dr. ConcepcioRovira - Keynote speaker, ICMAB, Spain • Dr. Alla Zak − Session Chairman, Holon Institute of Technology, Israel • Dr. Eugenio Coronado - Keynote speaker, Molecular Universidad, Valencia, Spain • Dr. AmanullahFatehmulla - Keynote speaker, King Saud University, Saudi Arabia • Dr. Vijay Kumar Rangari - Keynote speaker, Centre for Advanced Materials, Tuskegee, USA
		New Law College, Pune
3	International	• Dr. Mithen - Resource Person, University of

Sr. No.	Name of the International Conference	Details of the Eminent Scientist / Scholar who participated in the Conference
	Conference on "Human Rights Law & its Future Prospects"	Reading, UK • Ms. Anne Thies - Resource Person, University of Reading, UK • Mr. Mahesh Yanabakkam - Resource Person, University of Reading, UK • Mr. Pradeep Saxena - Resource Person, Vistula University, Warsaw Poland • Prof. Cantu - Resource Person, St. Mary University, Texas, USA
	Homoeopathic Medical College, Pune	
4	'Interrogating the Core'	• Brian Kaplan – Guest Speaker, UNICEF – UK
	Medical Collge, Pune	
5	Recent Advances in life science education & research	• Dr.J.C.Tan, ADI instruments, Australia
6	30th Temporal Bone Dissection Workshop	• Dr. SafaAlhuraih – Resource Person, Al Kadimiya Teaching hospital, Iraq • Dr Ali Majid – Resource Person, Al Kadimiya Teaching hospital Iraq • Dr. Ahssan Saeed – Resource Person, Al Kadimiya Teaching hospital Iraq • Dr. MuthanmaSaleem – Resource Person, Al Kadimiya Teaching hospital Iraq • Dr. Khalid Khashan – Resource Person, Al Kadimiya Teaching hospital Iraq • Dr. NaserNaser – Resource Person, Al Kadimiya Teaching hospital Iraq • Dr. Abdul Al-Shamary – Resource Person, Al Kadimiya Teaching hospital Iraq • Dr. Ali Abdul Idrees – Resource Person, Al Kadimiya Teaching hospital Iraq
	2013	
	New Law College, Pune	
7	'Justice P.N. Bhagwati 3rd International Moot Court	• Prof. Dr. David A. Jones - Resource Person, University of Warsaw, Poland • Prof. Jerzy Pawel Gieorgica - Resource Person, University of Warsaw, Poland

Sr. No.	Name of the International Conference	Details of the Eminent Scientist / Scholar who participated in the Conference
	Competition on Human Rights'	• Prof. Henry J. Steiner - Resource Person, Harvard Law School, Cambridge, USA
	College of Nursing, Pune	
8	Global Nursing (International Conference)	• Dr. Sr. Callista Roy – Guest Speaker, Boston College, USA • Mrs. Shreedevi Balachandran – Guest Speaker, QaboosUniversity, Oman • Ms. Sheemol Barrett – Guest Speaker, Sydney, Australia • Mrs. NilimaPandit – Guest Speaker, Cork University, Ireland
	College of Nursing, Sangli	
9	Changing demands and improving quality outcomes in nursing- A global perspectives	• Ms. Irene Camlin - Resource person, Stanford University, U.S.A • Ms. Alexis Barab - Resource person, Scripps college, California U.S.A • Ms. Alyssa Dill - Resource person, Elon University, U.S.A • Mr. Daniel Birru - Resource person, Sultan QaboosUniversity, Muscat • Ms.Shriffa Al-Jabri - Resource person, Oman Nursing & Midwifery Council.
	2014	
	College of Engineering,– Pune	
10	NANOCON 014 "TheThird International Conference on Nanotechnology-Smart Materials, Composites, Applications and New Inventions"	• Dr. Susumu Kagawa - Chief Guest, President, The University of Tokushima, Japan • Dr. Barry Burks - Keynote Speaker, North Carolina A&T State University, USA. • Dr. James Ryan - Keynote Speaker, Founding Director, JSNN, North Carolina A & T state University, USA • Dr. Eugenio Coronado - Keynote speaker, Scientist Director, Institute de Sciencia Molecular Universidad, Valencia, Spain • Dr. Neil Coville - Keynote speaker, University of Witwatersand, South Africa • Dr. Ron Naaman - Session Chairman, The Weizmann Institute of Science, Israel • Dr. Li-Chyong Chen - Session chairman, National

Sr. No.	Name of the International Conference	Details of the Eminent Scientist / Scholar who participated in the Conference
		Taiwan University, Taiwan
		• Dr. Yeng Ming Lam - Session Chairman, Technological University, Germany
		• Prof. Ram Mohan - Session Chairman, JSNN, North Carolina A & T state University, USA
		• Dr. MikitoYasuzawa - Session Chairman, The University of Tokushima, Japan
		• Dr. Katia Vutova - Keynote speaker, Bulgarian Academy of sciences
		• Dr. AmanullahFatehmulla - Session Chairman, King Saud University, Saudi Arabia
		• Dr. Nakagaito Antonio Norio - Keynote speaker, The University of Tokushima, Japan
		• Dr. Pankaj Koinkar - Session Chairman, The University of Tokushima, Japan
		• Dr. DiasukeYonekura - Keynote speaker, The University of Tokushima, Japan
		• Dr. Mahesh V. Hosur - Keynote speaker, Tuskegee University, Albama, USA
		• Dr. Lia Addadi - Keynote speaker, The Wezimann Institute of Science, Israel
		• Dr. Yun-Hae Kim - Keynote speaker, The Korean Society for Engineering Education, Korea
		• Dr. Alva Tontowi - Session Chairman, Industrial Engineering UGM JI, Indonesia
		• Dr. AjitKelkar – Session Chairman, JSNN, North Carolina A & T state University, USA
		• Dr. Toshihiro Moriga - Session Co- Chairman, The University of Tokushima, Japan
		• Dr. Tae Gyu Kim - Session Chairman, Pusan National University, Korea
		• Dr. Masao Nagase - Keynote speaker, The University of Tokushima, Japan
	Medical Collge, Pune	
11	38th Temporal Bone Dissection Workshop	• Dr. Uday Kale - Guest speaker, Oxford University, UK
12	2nd International workshop on	• Dr. Amit Gupta - Guest speaker, Oxford University, UK

Sr. No.	Name of the International Conference	Details of the Eminent Scientist / Scholar who participated in the Conference
	Focused Assessment of sick neonate by Point of care Ultrasonography FAS-POC-USG	
	New Law College, Pune	
13	International Workshop on 'Academic Excellence and Potential International Partnerships"	i. Mr. Laura Graham - Resource Person, Durham University UK • Mr. Robert Lee - Resource Person, University of Exeter UK • Mr. Martin Smith - Resource Person, University of Law UK • Mr. SubhajitBasu - Resource Person, University of Leeds UK • Mr. HodsonLoveda - Resource Person, University of Leicester UK • Mr. Alexander Fischer - Resource Person, SOAS University of London UK • Ms. Sarah Nield - Resource Person, University of Southampton UK • Mr. John Linarelli - Resource Person, Swansea University UK
14	Workshop on 'Digital Media Rights'	• Prof. Nick Scharf - Resource Person, University of East Anglia, UK
	Social Sciences Centre, Pune	
15	International Welfare Lab – In collaboration with MalerdalenUniversity, Sweden (Attended by 13 international Resource Persons)	• Dr. Roland - Chief Guest, Dean, MalerdalenUniversity, Sweden • Dr. Mats Ekermo- Resource Person, Head of Social Work Dept, • Dr. Elinor Brumberg- Resource Person, Research Scientist
	Poona College of Pharmacy, Pune	
16	Solid Waste Management and	• Prof. M.-C. Choi – Chairman, Pusan National University, Republic of Korea

Sr. No.	Name of the International Conference	Details of the Eminent Scientist / Scholar who participated in the Conference
	Technology	• Prof. I.K. Paik – Chairman, Korea Institute of Footwear & Leather Technology, Republic of Korea • Dr. Sunil P. Lonkar – Co-chairman, The Petroleum Institute, Abu Dhabi, UAE • Dr. Namrata S. Tomer – Co-chairman, Mayo Clinic, Rochester, MN, USA • Dr. M. Changez Khan – Chairman, Gwangju Institute of Science and Technology, S Korea. • Mr. Vijay Kumar Rana – Co-chairman, Swiss Federal Institute of Technology, Switzerland • Dr. B. Kumar – Co-chairman, University of Chicago, Chicago, USA • Dr. Dilip Depan – Speaker, University of Louisiana, Lafayette, USA • Dr. Pratheep Kumar Annamalli – Speaker, Tenasi Tech Pty Ltd, Australia

3.2 Resource Mobilization for Research

3.2.1 What are the financial provisions made in the University budget for supporting students' research projects?

There is no provision made explicitly for supporting students' research projects. However, each constituent unit provides, to the students, all the facilities such as fabrication of equipment, infrastructural facilities, workshop, chemicals, glassware, media, computational facilities and software for conducting research projects. Additionally, students are also supported financially to attend seminar / conferences / workshops and present their research work.

3.2.2 Has the University taken any special efforts to encourage its faculty to file for patents? If so, how many have been registered and accepted?

Yes, the University extends all the support to the faculty for filing patents at national and international levels. It organizes awareness workshops on procedures for filing copyrights and patents and also makes arrangements for formal meetings of the applicants with experts from patenting agency to shortlist patentable inventions. The cost of filing and examination of invention disclosures is entirely borne by the University. During the period under

review, two patents are granted and 36 patents are registered. The following table shows the list of filed and granted patents.

List of Patents granted during the last five years

Sr. No.	Title of the Patent	Patent Number
	College of Engineering, Pune	
1	A microcontroller based precision agriculture system and a method thereof	3520/MUM/2011N
2	Method for determining optimum joinery for two or more elements.	1761/MUM/2012A

List of Patents registered / filed during the last five years

Sr. No.	Title of the Patent	Patent Number
	Rajiv Gandhi Institute of Information Technology and Biotechnology, Pune	
1	Herbal Topical Composition For Treatment of Acne Vulgaris	2556/MUM/2014
2	A method of preparation of ZNO Nanoparticles by co-precipitation method using Black Tiger Prawns (Penaeus monodon)Extract	2422/MUM/2013(INDIA)
3	Method of Synthesis of Zinc Oxide Nano-particles using OscillatoriaAlgae	2146MUM2013 (INDIA)
4	A Method for Bio-synthesis of Mono-Dispersed Spherical Silver Nanoparticles (AGNPS) by using Aqueous Bio-reactants from Withaniasominifera	764/MUM/2014
5	A method for obtaining silver nanoparticles from metallic silver containing waste	1649/MUM/2012A
	College of Engineering, Pune	
6	Biosynthesis of Silver Nanoparticles using *BryoniaLaciniosa* for Biological and Pharmaceutical Applications	2810/MUM/2013
7	Microsmart grid model for rural India by using analysis of implementable renewable energy sources	873/MUM/2013
8	Modeling and dynamic behavior of variable speed wind turbine wing doubly led indication generator (DIIG)	498/MUM/2013
9	An FPGA based crop control system and a	1475/MUM/2013

Sr. No.	Title of the Patent	Patent Number
	method thereof	
	Medical College, Pune	
10	Cinematographic Film on Clinical Examination of All Systems	CF3633/2013
	Interactive Research School of Health Affairs, Pune	
11	Composition for chicken feed for production of Omega-3 Chicken and method thereof.	1971/MUM/2012
12	Fortified omega-3 ghee and process for preparation thereof	3719/MUM/2013
13	*In vitro* production of Glycyrrhizic acid using root cultures of *Tavernieracuneifolia*(Roth) Arn.	2986/MUM/2012
14	Bioconversion of flax alpha-linolenic acid (ALA) into long chain polyunsaturated fatty acids (LCPUFA) by oleaginous fungi.	841/MUM/2012
15	Long chain polyunsaturated fatty acids (LCPUFA) production in recombinant *Lipomycesstarkeyi*	3501/MUM/2012
16	Food supplements formulation for treating disorders in which glutathione levels are affected	1905/MUM/2014
17	Omega-3 supplement feed composition for omega -3 eggs production	2193/MUM/2014
18	A novel phytocompound TC-1 isolated from in vitro root clutures *Tavernieracuneifolia* (Roth) Arn	877/MUM/2015
19	A novel herbal formulation (OA-F2) for use in osteoarthritis	2509/MUM/2014
20	Novel formulation, 'DF2112' for the management of tissue inflammation	207/MUM/2015
	Poona College of Pharmacy, Pune	
21	Polymer surfactant nanoparticles for ocular drug delivery	3049/MUM/2011
22	Applications of different Yeasts isolated from flowers of Woodfordiafructicosa	150/MUM/2012
23	A Modified process for manufacturing different Asava/Arishta's and alikeAyurvedic and herbal fermented formulation.	2987/MUM/2012

Sr. No.	Title of the Patent	Patent Number
24	Anticancer and antimicrobial lipopeptidebiosurfectant isolated from marine sources	2985/MUM/2012
25	Novel method for dry powder inhalation comprising anti-asthamatic drug	1502/MUM/2013
26	Solvent free method of extraction of herbals	E-11/47/2014-MUM 1040/MUM/2014
27	Z-4-hydroxy-But-enol:A novel biotransformed product of curcumin fermentation	2868/MUM/2013
28	Biosynthesis of colloidal silver nanoparticles using BryoniaLaciniosa extract for Biological and Pharmaceutical Applications	2810/MUM/2013
29	A novel phytocompound (Ashv-I) obtained through yeast fermentation in Ashvagandharishta	2508/MUM/2014
30	Facile sterioselective total synthesis of notch-1-sparing-γ--secretase inhibitors	203034/MUM/2015
	YashwantraoMohite College of Arts, Science and Commerce, Pune	
31	'Invention of improved process for obtaining Piper longum derived product having distinct properties with respect to enhancement of spermatogenesis process.	1632/MUM/2013
32	'InventionofPicrorrhizakurroa derived product having distinct properties with respect to aug mentation of spermatogenes is process'	1633/MUM/2013
33	'Novel product obtained from Chlorophytumborivilianum, Piper longum, Picrorrhizakur- roa, by using innovative steps and the unique blending process for enhancement of spermatogenesis process'	1634/MUM/2013
34	'Invention of Chlorophytumborivilianum derived product having distinct properties with respect to enhancement of spermatogenesis process.	1635/MUM/2013 A
35	Invention of mast stabilizing properties of Piper longum, Aloe vera, Cynodondactylin and	1803/MUM/2015 6/5/2015A

Sr. No.	Title of the Patent	Patent Number
	Cymbopogoncitratus Application No.	
36	Hydroamination of phynylacetatecatalyzed by Cu/Mo/SiO2 mixed oxide catalyst	2021/MUM/2014

3.2.3 Provide the following details of ongoing research projects of faculty:

The faculty of various constituent units are active in undertaking research projects with funding from external agencies. Presently, the faculty have 52ongoing major projects and 14 minor projects funded by external agencies. In addition, there are 89 ongoing minor projects funded by the University. The total grants received for all ongoing projects is to the tune of Rs. **691.84** lakhs. A list of ongoing research projects funded by external agencies is mentioned below.

Major ongoing Research Projects (International)

Sr. No.	Name of Project	Name of Funding Agency	Total Grant Received (Rs. in Lakhs)
1	Health challenges in the emerging megacity of Pune	University of Cologne, Germany	28.68

Major ongoing Research Projects (National)

Sr. No.	Name of Project	Name of Funding Agency	Total Grant Received (Rs. in Lakhs)
1	Modelling the impedance and mortality location of wildlife using GIS	DST	17.00
2	Strengthening Capacity building through developing a unique portal for Geospatial Education and Training.	DST	5.00
3	Earth Watch – Research Program	Earthwatch Institute India Trust	5.00
4	Disturbed maternal one carbon cycle in preeclampsia increases risk for cardio-metabolic variables in children	DBT	49.80
5	Regional differences in neurotrophin regulation of vascularization in	ICMR	15.12

Sr. No.	Name of Project	Name of Funding Agency	Total Grant Received (Rs. in Lakhs)
	preeclamptic placentae		
6	Chemical Diversity and Nutraceutical Potential of Indian Propolis	SERB	39.12
7	Evaluation of Triphala and Trimad for their effects on adipocytes biology and lipid metabolism	Ayush	28.32
8	A Study Of Green Human Resource Management Practices And Its Relationship With Employee Motivation, Job Satisfaction And Organizational Commitment	UGC	4.26
9	Typology of Socially responsible consumers " An empirical findings from India"	ICSSR	3.40
10	Study of work life balance among Indian women in higher education	UGC	3.91
11	Studies on design of 8, 10 shagaols loaded nano formulations for anti-cancer activity	DST	18.00
12	Design of novel nanoformulation of Psoriliacordifolia Linn. As targeted anticancer agent	UGC	12.60
13	A novel solid-liquid circulating fluidized bed reactor: Hydrodynamic and Mixing studies	DST	28.04
14	Inspire Faculty Award	DST	19.00
15	Design of software Testing Laboratory Using Software Reliability growth Model with concurrent SDLC	UGC	11.85
16	Women Entrepreneurship and empowerment	ICSSR	18.06
17	Management Education & social responsibilities	AICTE	11.50
18	Women empowerment	ICSSR	5.95
19	Micro-propagation & commercialization of few medicinally important plants under NAIP 2013-15	ICAR	14.00

Sr. No.	Name of Project	Name of Funding Agency	Total Grant Received (Rs. in Lakhs)
20	Strengthening Capacity building through developing a unique portal for Geospatial Education and Training.	DST	16.00
21	Developing landscape specific guidelines relating to hotspecks of Biodiversity and identification of hotspecks in Reserved Forests and other areas outside Forest Lands in the Western Ghats of Maharashtra.	Maharashtra State Biodiversity Board	10.50
22	Initiate a Rusty Spotted Cat ex – situ conservation breeding center at Sanjay Gandhi National Park and zoo for rehabilitation of wild population	Department of Forest, Government of Maharashtra	21.84
23	Exploring the efficacy of omega 3 fatty acid supplementation to a maternal high fat diet deficient in vitamin b12 in ameliorating the risk for impaired brain development and metabolic syndrome in the offspring.	ICMR	20.78
24	'Media Trial: Role of Media under the Indian Constitution'	UGC	6.84
25	A study of women entrepreneurs in India: Problems and Prospects	ICSSR	7.00
26	New formulation development and stability studies of Zingibarofficinale (ROSCOE) &Cymbopogoncitrares (SPTRNH) as tea mix	AICTE	14.00
27	Studies on design of nano-particulate formulations of Propolis for anticancer activity	UGC	14.40
28	Biotechnological strategies for the production of bioactive compounds from cell cultures of Alpinia species	UGC	15.50
29	Design of novel nanoparticulate herbal formulation for rheumatoid arthritis and studies on inflammatory pathways	UGC	12.76

Sr. No.	Name of Project	Name of Funding Agency	Total Grant Received (Rs. in Lakhs)
30	A smart simulated hybrid resources sharing cloud for University education system	TEQIP-II	2.00
31	Process optimization and cycle time reduction of polyunsaturated fatty acid synthesis using marine microorganisms	DST	15.83
32	Studies on impact of nutraceuticals on diabetic nephropathy	DST	20.72
33	DNA Club Program	DBT	18.61
34	Preparing a database on echolocation of calls of microchiropteran bat species of the western ghats region and adjoining areas of Maharashtra	DST	11.35
35	Strengthening Capacity building through developing a unique portal for Geospatial Education and Training.	DST	6.50
36	Capacity Building Programme for Social Science Faculty	AICTE	7.06
37	Role of Management Education in Creation of Socially Responsible Citizens	AICTE	5.67
38	Contribution of ICT in Indian Education for Green Management Practices	AICTE	3.15
39	Formulation Development and Scale up Techniques of Novel Drug Delivery Systems (MODROB)	AICTE	6.50
40	Enhancement of Nutritional Value of Indian Bee Polen.	UGC	6.24
41	Ligand/structure based design, synthesis & pharmacological evaluation of new chemical entities as antidepressants	UGC	8.15
42	DNA Club Program	DBT	33.50
43	Preparing a database on echolocation of calls of microchiropteran bat species of the western ghats region and adjoining areas of Maharashtra	DST	6.00

Sr. No.	Name of Project	Name of Funding Agency	Total Grant Received (Rs. in Lakhs)
44	Modeling the impedance and mortality location of wildlife using GIS	DST	10.00
45	Investigation and exploration of newer application of ayurvedic based fermentation	UGC	10.37
46	Sequestration of CO_2 from industrial combined heat and power plant by evolution of solid sorbents as a retrofit technology.	AICTE-RPS	5.30
47	Integrated rouge access point detection system in wireless network	AICTE-RPS	4.50
48	A Study of Science fiction in India English Literature.	UGC	4.77
49	Chemical, structural & biological investigation of the metal chelates of 1,2napththoquinone oximes.	UGC	8.80
50	Physicochemical investigation of some anti allergenic indigenous plants.	UGC	10.71
51	Effect of Bacoside A on various organs of mouse during aging.	UGC	12.80

Minor Research Projects (International)

Sr. No.	Name of Project	Name of Funding Agency	Total Grant Received(Rs. in Lakhs)
1	Dissemination of national training of trainer module and follow up activities	GIZ, Germany	3.68

Minor Research Projects (National)

Sr. No.	Name of Project	Name of Funding Agency	Total Grant Received (Rs. in Lakhs)
1	Chemical, structural and biological investigation of some transition metal chelate of 1, 2 Naphthoquinone oximes.	UGC	3.95
2	Digital Media Law & Media Trial	UGC	0.75
3	Supreme Court Guidelines on right	UGC	1.00

Sr. No.	Name of Project	Name of Funding Agency	Total Grant Received (Rs. in Lakhs)
	to reject and its implication		
4	Monitoring of Pashan Lake	Pune Municipal Corporation	2.82
5	Evaluating the anti-neoplastic potential of Panchavalkala, an Ayurvedic formulation, in cervical cancer-an in vivo study	Bharat SevaSansthan, Lucknow.	1.50
6	Pseudothrombocytopenia- cause and incidence.	STS-ICMR	0.10
7	Differentiation of round cells in semen-correlation with total sperm count and sperm motility.	STS-ICMR	0.10
8	Entamological investigation of Ipomoea carnea leaves	UGC	0.85
9	Issues and Challenges of E-Commerce	UGC	0.85
10	Exploring software cost estimation techniques for small sized projects SR	UGC	0.81
11	Isolation and characterization of marine yeasts and selection of cultivation media for production of PUFA	UGC	0.65
12	Linking Biodiversity & Faunal values to cultural Visual Heritage as a tool for Biodiversity Conservation in Maharashtra	Maharashtra State Biodiversity Board	5.90
13	Electoral Reforms in India : Issues and Challenges	UGC	0.8

3.2.4 Does the University have any projects sponsored by the industry / corporate houses? If yes, give details such as the name of the project, funding agency and grants received.

Yes, the University has linkages with reputed industries and corporate houses. During the last four years, it has resulted in 56 research projects with a grant of Rs. 386.68 lakhs from various industries.

Sr. No.	Title of the Project	Name of the Industry / Corporate House	Total Grant Received(Rs. in Lakhs)
2011-12			
1	H1N1 Case Control-A case Control study to assess effectiveness of Nasovac® (Pandemic influenza	Serum Institute India Ltd	1.16

Sr. No.	Title of the Project	Name of the Industry / Corporate House	Total Grant Received(Rs. in Lakhs)
	vaccine (human, live attenuated) A/H1N1 2009).		
2	MSD RotaSurvillence - A multicentric study to determine disease burden, impact and causative rotavirus strain in Rotavirus Gastro Enteritis (RVGE) among children < 5 years with acute gastroenteritis attending outpatient departments of private urban pediatric clinics in India'.	MSD	1.60
3	Clinical trial of 'Limiron Granules' in Pregnancy for Maternal &foetal Nutrition	S.G. Phyto Pharma PVT LTD.	6.09
4	Professional Advancement Training Programme on Continuing Legal Education	International Bar Association &Milat Cle Chair, NLSIU, Bangalore	1.50
5	A phase IIIb, open, randomised, multicentre, primary study in healthy children, to establish the non-inferiority of GlaxoSmithKline (GSK) Biologicals' MeMuRu-OKA vaccine (administered at 9 and 15 months of age) versus Priorix™ (9 months of age) and Priorix™ co-administered with Varilrix™ at 15months of age (comparator) and also to evaluate the non-inferiority of Priorix™ (9 months of age) and MeMuRu-OKA vaccine (15 months of age) versus the comparator, all administered subcutaneously as two-dose primary vaccination course	(GSK) GlaxoSmithKli ne Biologicals	2.87
6	A Phase II, Randomized, Double-Blind, Placebo Controlled Study to Assess Safety and Tolerability of RotaVac Vaccine (Live Attenuated Bovine-Human (UK) Reassortant	Serum Institute India Ltd	4.35

Sr. No.	Title of the Project	Name of the Industry / Corporate House	Total Grant Received(Rs. in Lakhs)
	Pentavalent Rotavirus Vaccine)		
7	A randomized, multicenter, open label, comparative study to evaluate the immunogenicity and reactogenicity of a new fully liquid Hexavalent DTwP-HepB-Hib-IPV vaccine (EasySixTM, Panacea Biotec Ltd.) with Pentavalent DTwP-HepB/Hib vaccine (Tritanrix-HBTM reconstituted with HiberixTM, GSK) co administered with Imovax Polio® (Salk Based Inactivated Polio Vaccine; sanofipasteur India Pvt. Ltd.) in Healthy Infants.	Panacea Biotec	2.09
8	A phase III, open study in children previously enrolled in study 10PN-PD-DIT-037(111188) to assess the immunogenicity, safety and reactogenicity of GlaxoSmithKline (GSK) Biologicals' 10-valent pneumococcal conjugate vaccine when administered as a booster dose at either 9-12 or 15-18 months of age in primed children or when administered as a catch-up vaccination (2+1shedule) in primed children during the second year of life	(GSK) GlaxoSmithKline Biologicals	2.43
9	Biochemical and Molecular analysis of T2DM fasting samples (Serum Vitamin D, Adiponectin, Leptin, Vitamin B 12 Levels in type 2 DM).	IRSHA	5.00
10	ASIP - A surveillance of invasive disease caused by S. pneumoniae or H. influenzae or N. meningitidis in children <5 years of age in India.	CMC Vellore	3.48
11	BE Pentavalent- A multicentric double blind single arm randomised phase-IV study to evaluate the safety, reactogenicity and lot consistency of	Biological E	3.42

Sr. No.	Title of the Project	Name of the Industry / Corporate House	Total Grant Received(Rs. in Lakhs)
	three production lots of BE's combined liguidpentavalentDTwP-rHepB-HIB vaccine administered at 6-10-14 weeks schedule to 6-8 week old healthy Indian infants.		
12	Seasonal Flu - A Phase Ii/III clincal trial to assess safety and immune response of Trivalent, Live Attennuated Seasonal Influenza vaccine of SIIL Adults,Elderly and Peduatric Populations	Serum Institute India Ltd	5.07
13	Pharmacological Research in isolated compounds	Indus Biotech Pvt Ltd	0.62
14	Efficacy studies of VasolYogiraj hair oil	Hygenic Research	4.79
15	HPV Vaccine - A Phase III Clinical Trial to Study the Immunogenicity, Tolerability and Manufacturing Consistency of V503 (A Multivalent Human Pappilomavirus [HPV] L1 Virus-Like Particle [VLP] Vaccine) in Preadolescents and Adolescents (9 to 15 year olds) with a Comparison to Young Women (16 to 26 year olds)	MSD	27.88
	2012-13		
16	Ecological study of Mahad Industrial area with special emphasis to Common Effluent Treatment Plant (CETP) Mahad	MMA-CET Co-operative Society Ltd., Mahad	16.00
17	Pharmacological evaluation of IBIS on streptozotocin induced diabetic complications in laboratory animals	Indus Biotech Pvt. Ltd.	3.50
18	MMRV Study - A phase IIIb, open, randomised, multicentre, primary study in healthy children, to establish the non-inferiority of GlaxoSmithKline (GSK) Biologicals' MeMuRu-OKA vaccine (administered at 9 and 15 months of	(GSK) GlaxoSmithKline Biologicals	3.37

Sr. No.	Title of the Project	Name of the Industry / Corporate House	Total Grant Received(Rs. in Lakhs)
	age) versus Priorix™ (9 months of age) and Priorix™ co-administered with Varilrix™ at 15months of age (comparator) and also to evaluate the non-inferiority of Priorix™ (9 months of age) and MeMuRu-OKA vaccine (15 months of age) versus the comparator, all administered subcutaneously as two-dose primary vaccination course		
19	InfanrixHexa - A Phase III, open-label, randomised, multicentre study to evaluate the immunogenicity and safety of GlaxoSmithKline Biologicals' combined DTPa-HBVIPV/ Hib vaccine (Infanrixhexa) administered to Indian infants according to a 6-10-14 weeks and a 2-4-6 months schedule	(GSK) GlaxoSmithKline Biologicals	13.96
20	Herbal drug standardization	Green Chem	0.52
21	Herbal drug formulation	RasayaniBiochemicals	0.09
	2013-14		
22	Clinical Trials of Lucronil	Baidyanath company, Nagpur	2.38
23	A study on identification of community needs in selected villages of Mulshi and Maval blocks of Pune district.	Tata Power Ltd, Mumbai	3.35
24	Need assessment survey of selected villages	TalegaonDabade Industrial Association, Pune	0.20
25	Pharmacological Research in isolated compounds	Indus Biotech Pvt Ltd	0.29
26	Efficacy studies of VasolYogiraj hair oil	Hygenic Research	1.80

Sr. No.	Title of the Project	Name of the Industry / Corporate House	Total Grant Received(Rs. in Lakhs)
27	MenV0- A Phase 3, Multi-center, Open-label study to evaluate Immunogenicity and safety of Novartis Meningococcal ACWY conjugate vaccine (MenACWY-CRM) in healthy subjects from 2 to 75 years of age in India	Novartis Health care Ltd.	11.77
28	Shan 5- Safety, Immune, Lot-to-Lot Consistency and Non Inferiority of Shan 5 (DTwP-HepB-Hib) Vaccine in comparison to Pentavac SD when administered as a Single Booster Dose at 15-18 months and Three Doses at 6-8,10-12 and 14-16 Weeks of Age in Healthy Indian Children and Infants	ShanthaBiotec Ltd.	10.11
2014-15			
29	Evaluation of the efficacy and safety of Cap GBS in patients suffering FROM Cholelithiasis: An open clinical study.	Baidyanath pharmacy, Nagpur	1.90
30	Environment Education for Sustainable Development for schools in Maval&Mulshi	Tata Power Company	8.52
31	Environment Action Program	Lawkim, Godrej & Boyce Mfg., Co. Ltd.	5.92
32	Publication of a book on 'Folk Cultures of India' – Then and Now	Sir Dorabji Tata Trust	26.86
33	Effect of Lucronil tablets in the patients with Leucorrhea : An open clinical trial	SiddhayuAyurvedic Research Foundation Private Limited, Nagpur	2.67
34	Evaluation of the efficacy and safety of Capsule Longvida® Optimized Curcumin in knee osteoarthritis: A randomized double-blind controlled clinical study	Pharmanza Herbals Limited, Gujrat	7.98

Sr. No.	Title of the Project	Name of the Industry / Corporate House	Total Grant Received(Rs. in Lakhs)
35	Efficacy and safety of hydroxychloroquiine and methotrexate combination in treatment of juvenile rheumatoid arthritis: A double randomized comparison with methotrexate alone (Multicenter).	IPCA Lab	1.25
36	A randomized, open label, multicentric, phase II clinical trial to assess the immunogenicity and safety of Measles vaccine (Live) (Freeze-dried) of M/s Cadila Healthcare Ltd. in healthy pediatric subjects aged 9-12 months	Cadila Healthcare Ltd.	1.40
37	A randomized, open label, multicentric, phase II clinical trial to assess the immunogenicity and safety of Measles, Mumps and Rubella (MMR) vaccine (Live) (Freeze-dried) of M/s Cadila Healthcare Ltd. in healthy pediatric subjects aged 15-18 months	Cadila Healthcare Ltd.	1.50
38	A Phase 3, Multi-center, Open-label study to evaluate Immunogenicity and safety of Novartis Meningococcal ACWY conjugate vaccine (MenACWY-CRM) in healthy subjects from 2 to 75 years of age in India	Novartis Health care Ltd.	0.26
39	GSK (FLU-D-QIV): 'A phase III, observer-blind, randomized, multi-country, non-influenza vaccine comparator-controlled study to demonstrate the efficacy of GlaxoSmithKline Biologicals' quadrivalent seasonal influenza candidate vaccine GSK2321138A (FLU D-QIV), administered intramuscularly in children 6 to 35 months of age.	(GSK) GlaxoSmithKline Biologicals	25.53

Sr. No.	Title of the Project	Name of the Industry / Corporate House	Total Grant Received(Rs. in Lakhs)
40	Synflorix Booster - A phase III, open study in children previously enrolled in study 10PN-PD-DIT-037(111188) to assess the immunogenicity, safety and reactogenicity of GlaxoSmithKline(GSK) Biologicals'10-valent pneumococcal conjugate vaccine when administered as a booster dose at either 9-12 or 15-18 months of age in primed children or when administered as a catch-up vaccination (2+1Schedule) in primed children during the second year of life	(GSK) GlaxoSmithKli ne Biologicals	12.73
41	Hexaxim - Immunogenicity and Safety of Sanofi Pasteur's DTaP-IPV-Hep B-PRP-T Combined Vaccine Given at 6, 10 and 14 Weeks of Age in Infants from India Who Previously Received a Dose of Hepatitis B Vaccine at Birth. (A3L33)	Sanofi Pasteur	22.59
42	Cadila Measles- A randomized, open label, multicentric, phase II clinical trial to assess the immunogenicity and safety of Measles vaccine (Live) (Freeze-dried) of M/s Cadila Healthcare Ltd. in healthy pediatric subjects aged 9-12 months	Cadila Healthcare Ltd.	2.37
43	Cadila MMR- A randomized, open label, multicentric, phase II clinical trial to assess the immunogenicity and safety of Measles, Mumps and Rubella (MMR) vaccine (Live) (Freeze-dried) of M/s Cadila Healthcare Ltd. in healthy pediatric subjects aged 15-18 months	Cadila Healthcare Ltd.	2.58
44	FLU D QIV- A phase III, observer-blind, randomized, multi-country,	(GSK) GlaxoSmithKli	25.53

Sr. No.	Title of the Project	Name of the Industry / Corporate House	Total Grant Received(Rs. in Lakhs)
	non-influenza vaccine comparator-controlled study to demonstrate the efficacy of GlaxoSmithKline Biological' quadrivalent seasonal influenza candidate vaccine GSK2321138A (FLU D-QIV), administered intramuscularly in children 6 to 35 months of age	ne Biologicals	
45	Jet MMR vaccine study: A Phase IV, Non-Inferiority, Observer Blind, Randomized Clinical Study Comparing Safety And Immunogenicity Of Measles-Mumps-Rubella (MMR) subcutaneous vaccination by Disposable-Syringe Jet Injector To Vaccination Needle And Syringe For The Administration In Healthy Infants In Indian Aged 15 To 18 Months.	Serum Institute India Ltd	3.72
46	Jet Pentavac vaccine study: A Phase IV, non-inferiority, observer blind, randomized clinical study comparing safety and immunogenicity of DTP-HB-HIB vaccination by disposable-syringe jet injector to vaccination by needle and Syringe in Healthy infants in India.	Serum Institute India Ltd	3.95
47	Human Biological Pentavalent Vaccine- A Phase I/II (Pilot) Trial to Evaluate the Safety and Immunogenicity of HBI Pentavalent (DTwP-Hb-Hib [Liquid]) Combination Vaccine in Two Groups of Healthy Subjects from 16 Months to 24 Months of Age and Two Years to Five Years of Age.	Human Biologicals	1.17
48	Cadila Measles Phase III - A prospective, randomized, single blind, parallel, active controlled,	Cadila Healthcare Ltd.	1.22

Sr. No.	Title of the Project	Name of the Industry / Corporate House	Total Grant Received(Rs. in Lakhs)
	multicentre, non-inferiority, phase III clinical study to evaluate the immunogenicity and safety of single-dose and multi-dose vials of Measles vaccine (Live) (Freeze-dried) of M/s Cadila Healthcare Limited compared to Measles vaccine (Live) (Freeze-dried) of M/s Serum Institute of India Limited in healthy paediatric subjects aged 9-12 months		
49	Rotavirus - 'A phase III study to evaluate immune non inferiority and safety of the all in one liquid formulation of a live attenuated tetravalent (G1-G4) Bovine-Human Reassortant Rotavirus Vaccine (BRV-TV) to a licensed vaccine RotaTeq when administered as three dose series to Indian Infants concomitantly with other routinely recommended vaccines for the age'.	ShanthaBiotec Ltd.	11.31
50	BE - JE vaccine study: A Multicentric open label non-interventional post marketing Surveillance study to evaluate safety and tolerability of BE's inactivated vero cell derived Japanese Encephalitis vaccine in ≥ 1 to ≤ 3 year old healthy children in a two dose schedule.	Biological E	2.95
51	Pre-clinical screening for efficacy and toxicity of drugs	Etika, Clin Pharma Raipur	3.46
52	Development of novel dosage forms	Celistea Pharmaceuticals, US	6.00
53	Pharmacokinetics studies	TATA Chemicals	8.98
54	Absorption Studies of Arrchitol	Abbott Healthcare India Ltd	3.60

Sr. No.	Title of the Project	Name of the Industry / Corporate House	Total Grant Received(Rs. in Lakhs)
55	Biodiesel and high-value fine chemicals from microalgae	Reliance, Ind, Mumbai	46.00
56	Pharmacological Research in isolated compounds	Indus Biotech Pvt Ltd	5.04

3.2.5 **How many departments of the University have been recognized for their research activities by national / international agencies (UGC-SAP, CAS; Department with Potential for Excellence; DST-FIST; DBT, ICSSR, ICHR, ICPR, etc.) and what is the quantum of assistance received? Mention any two significant outcomes or breakthroughs achieved by this recognition.**

Four constituent units have been recognized by various national level agencies for their research and received Rs1142.78 lakhs as a financial assistance. The details of the institute, agencies and quantum of assistance received are given in the following table.

Sr. No.	Name of the Constituent Unit	Name of the Agency (UGC-SAP, CAS etc.)	Quantum of assistance received (Rs. in Lakhs)
1	Poona College of Pharmacy, Pune	DRS Phase-II, UGC-SAP	75.00
2	Medical College, Pune	Clinical trials for drug and vaccine testing and development supported by Pharmaceutical industries	229.00
3	College of Engineering, Pune	DST	95.00
4	College of Engineering, Pune	Science and Engineering Research Board (SERB), DST, Government of India.	28.04
5	IRSHA and Medical College, Pune	Indian Council for Medical Research (ICMR) for Centre of Excellence in Mother and child health	700.00
6	IRSHA	Indian Council of Agricultural Research (ICAR)	15.74

The special recognition and assistance from the national agencies have yielded several significant outcomes of which two major ones are the following.

1. Department of Pediatrics of the Medical College Pune as one of the centers in India worked jointly with the World Health Organization to conduct multicentric clinical trial in 2013. The results of the study have shown that giving bivalent Oral Polio Vaccine (bOPV) along with one dose of Injectable Polio Vaccine (IPV) to the babies in primary vaccination schedule works effectively for our country.

   This study, **published in Lancet Journal**(impact factor of 39.207) in September 2015, **helped the Government of India to frame the policy for Polio vaccination in India**.

   Accordingly, polio vaccination is switched over from trivalent Oral Polio Vaccine (tOPV) to bOPV on April 25, 2016 which is National Switch Day. Also, soon, a single dose of IPV will be given along with the third dose of DPT/ Pentavalent vaccine in National Immunization Program. Further, as an outcome of clinical trials conducted by Department of Pediatrics for development of Pentavalent (DPT-Hib-Hep B) vaccine, it is observed that this vaccine is useful for prevention of diseases caused by Diphtheria, Pertussis, Tetanus, H. influenza and Hepatitis B. and is safe and immunogenic in comparision with that available in private market. As a result of which, Government of India has now planned to introduce this vaccine in National Immunization Program in a phased manner.

2. Department of Biotechnology received grant form UGC and AICTE for two major research projects on Ayurvedic formulations Asava and Arishta and chronic diseases like arthritis and diabetes. The work on Asava /Arishta lead to three patents and three publications. Isolation and characterization of yeast cultures form flowers of Woodfordia fruticose flowers by process optimization is the key solution for the current problems in industrial production of these formulations. Further, a novel chemical compound named as Ashv-1 was purified through this fermentation process, which has low cellular toxicity and potent anti-inflammatory activity.

3.2.6 List details of
  a. **Research projects completed and grants received during the last four years (funded by National/International agencies).**
  b. **Inter-institutional collaborative projects and grants received**
    i. **All India collaboration**
    ii. **International**

  a. **Research Projects completed**
     During the last four years, 68 research projects have been completed by the faculty of the University. The University has received Rs. 526.59 lakhs as

grants from national and international agencies for the research projects. The details are given below.

Sr. No.	Title of the Project	Funding Agency	Total Grant Received (Rs. in Lakhs)
	2011-12		
1	Gene Specific Methylation Patterns of Angiogenic Factors in Preeclampsia	ICMR	23.37
2	MODROB in pharmacology laboratory	AICTE	14.75
3	Computer Aided Design, Synthesis and Evaluation of Topoisomerase Inhibitors: A potential target for anticancer agents	AICTE	12.50
4	Aero biodiversity in relation to aerophycology and its role in environmental management at Pune City.	UGC	9.56
5	Synthesis and characterization of solid acid catalysts based on supported Nano-crystaline ceria and Molybdenum / silica oxide and study their catalytic activity.	UGC	8.45
6	Establishment of theoretical computation and calculation of naphthoquione oxime and its derivatives.	UGC	7.68
7	A Study of influence of the Ramayana and the Mahabharata on Indian English literature.	UGC	6.66
8	Screening & evaluation of intestinal microbiota in breast feeded neonates and Potential probiotics.	UGC	6.25
9	Entrepreneurship development Cell (EDC)	AICTE	5.85
10	Impact analysis of allergenic mites and mycobiota from Intramural environment and its management at Pune.	UGC	5.16
11	Development of new series of isomeric juglonates and study of	UGC	3.97

Sr. No.	Title of the Project	Funding Agency	Total Grant Received (Rs. in Lakhs)
	their chemical structure & biological properties.		
12	Barriers for Early Detection of Cancer amongst Urban Indian Women	STS-ICMR	0.10
13	Analysis of Gains & Pains of India Wineries in Global.	UGC	3.48
14	Design and evaluation of silver nanoparticles as potential wound healing agents	UGC	2.00
15	Development and evaluation of novel in-situ gelling hydrogels for cancer therapy	UGC	1.90
16	Pharmaceutical innovation for domestic and advanced market: a path dependent regulatory approach	UGC	1.45
17	Modern aspects of pharmacognosy	UGC	1.00
18	"Assessment Study on Family Strengthening Programme"	SOS Balgram Village, Pune	0.98
19	Study of immuno modulating and antiviral properties of plants	UGC	0.65
20	An experimental analysis of pulse electrochemical Machining	Institute of Engineers, India(IEI)	0.60
21	An innovative application of postal stamps for the popularization of communication of science to society.	UGC	0.45
22	Synthesis of metal (Zn, Sn, Fe) oxides thin filling by chemical spray.	UGC	0.17
	2012-13		
23	Epigenetic regulation of matrix metalloproteinases in preterm placenta	DST	39.94
24	Multigenerational effects of vitamin B12 deficiency /supplementation on brain development and metabolic syndrome variables in a rat model	DST	40.05
25	Preparing a database on echolocation of calls of microchiropteran bat	DST	26.85

Sr. No.	Title of the Project	Funding Agency	Total Grant Received (Rs. in Lakhs)
	species of the western ghats region and adjoining areas of Maharashtra		
26	Refinement and dissemination of national training of trainer module and follow up activities	GIZ Germany	26.68
27	Bioprospecting of Amarkand, traditionally used tubers as a functional food	DST	20.50
28	The DNA Club program	DBT	18.61
29	Regulation of fatty acid desaturases and transport protein in pregnancy	ICMR	16.90
30	Dual sensitization of hydrothermally grown TiO2 for efficient solar cell.	UGC	5.89
31	A cross Sectional study of Adolescent boys about their Perception and Attitude towards females.	STS-ICMR	0.10
32	Need assessment survey of selected villages	Talegaon Dabade Industrial Association, Pune	2.00
33	Application of analytical techniques for standardization of polyherbal formulation	UGC	2.00
34	Development of dry emulsions for delivery of pharmaceutical actives	UGC	2.00
35	Isolation, purification and characterization of restriction enzyme from actinomycetesnocardiopsis Sp.B4	UGC	1.95
36	Formulation and evaluation of transdermal gel containing niosomes for drug delivery of thiocolchicoside	UGC	1.95
37	Comparative evaluation of pharmacokinetic and antihyperlipidemic profiles of ezetimibe and gemfibrozil as co-drug therapy over monotherapy	UGC	1.90

Sr. No.	Title of the Project	Funding Agency	Total Grant Received (Rs. in Lakhs)
38	Herbal formulation development for treatment of ageing	UGC	1.82
39	'Implication of Right to Education on the Woman Empowerment: A Constitutional Study'	UGC	0.90
40	'Protection of Human Rights: Assessment of the Working of the National Commission of Human Rights'	UGC	0.90
41	'Right to Fair Trial: Issues & Challenges in India'	UGC	0.87
42	'Intellectual Property Protection and Protective Software for Database at International & National level'	UGC	0.80
43	Cost effective use of resources for sugarcane cultivation in Walava Tehsil of Sangli District of Maharashtra.	UGC	0.75
44	Mathematical analysis of non linear motion.	UGC	0.53
45	Sangliparisaratil gram devataanilokgite	UGC	0.19
	2013-14		
46	Maternal micronutrient status, inflammatory markers and Risk for non-communicable diseases in the offspring in a preeclamptic rat model	DBT	37.62
47	Micro-propagation of high yielding quality planiting material of strawberry for commercial cultivation in Maharashtra	ICAR	9.18
48	Effective utilization of winery and vineyard waste: an eco-friendly approach for value addition in wine industry	MoEF	5.80
49	A study on identification of community needs in selected villages of Mulshi and Maval blocks of Pune district.	Tata Power Ltd, Mumbai	3.35

Sr. No.	Title of the Project	Funding Agency	Total Grant Received (Rs. in Lakhs)
50	'Addressing Mobility and assessability Issues In Pune's Urban Core.'	Shastri Indo-Canadian Institute, Calgary, Canada	2.50
51	Study of removal /degradation of organic pollutants using hybrid techniques	TEQIP-II	2.40
52	Synthesis using Esterification reaction	TEQIP-II	2.20
53	'Envisioning Pune's Future Growth in Socially and Environmentally Responsible Ways.'	Shastri Indo-Canadian Institute, Calgary, Canada	1.50
54	Efficacy and safety of hydroxychloroquiine and methotrexate combination in treatment of juvenile rheumatoid arthritis: A double randomized comparison with methotrexate alone (Multicenter).	IPCA Lab	1.25
55	Investigations of TiO2 thin films for solar cell applications using chemical bath deposition method.	UGC	0.82
2014-15			
56	WHO Polio- Comparative evaluation of immunogenicity and reactogenicity of bivalent oral poliovirus vaccine (bOPV) and trivalent oral poliovirus vaccine (tOPV) in the standard EPI schedule, with or without inactivated polio vaccine (IPV) administration at DTP3 contact: A randomized controlled trial	WHO	19.93
57	Bioprospecting of *Amarkand*, traditionally used tubers as a functional food	DST	35.00
58	Process optimization and cycle time reduction of PUFA synthesis using marine microorganisms	DST	15.00

Sr. No.	Title of the Project	Funding Agency	Total Grant Received (Rs. in Lakhs)
59	Studies on glycation induced modification in diabetes	DBT	13.85
60	Modernization of Thermal lab	AICTE MOBROBS	13.50
61	Modernization of Metrology and Quality Control Lab	AICTE MOBROBS	13.00
62	Investigation of glycation induced changes along with receptors for advanced glycation end products (RAGE) in diabetes.	RSSDI	7.15
63	Synthesis of polymide 66 Nanofibres by using electrospinning method with different densities on the glass fabric to increase the compressive strength of the composite	DRDO, R&D	5.20
64	Pseudothrombocytopenia- cause and incidence. Name of Investigator: Miss. UjjwalaTulluri, Department of Pathology	STS-ICMR	0.10
65	Differentiation of round cells in semen-correlation with total sperm count and sperm motility.	STS-ICMR	0.10
66	A study to know the incidences of obesity in medical students and its correlation with sleep patterns.	STS-ICMR	0.10
67	Computer aided design of circular micro strip patch antenna	TEQIP II	3.00
68	Study of dynamic behavior of the doubly fed induction generator used in wind power application under grid fault condition	TEQIP-II	2.98

b. Inter-institutional collaborative projects and grants received.

i) During the last four years, the faculty has undertaken more than 100 inter-institutional collaborative projects at the national level of which four projects have received grants to the tune of Rs.147.15 lakhs. The other collaborative projects are undertaken for joint research from which there is no revenue. Further, nine inter-institutional collaborative projects at the international level have been completed. The details of few such projects are given below.

i) National level

Sr. No.	Name of the Collaborating Institute	Title of the Project	Total Grant Received (Rs. in Lakhs)
	Medical College, and Hospital, Pune and Medical College & Hospital, Sangli		
1	Bill and Melinda Gates Foundation	Pneumonia research initiative in Rural areas and Urban slums of Maharashtra - Amulti centric study	125.00
	Rajiv Gandhi Institute of Information Technology and Bio-Technology, Pune		
2	NCAOR, Goa	Process optimization and cycle time reduction of polyunsaturated fatty acid synthesis using marine microorganisms	15.00
3	National Chemical Laboratory, Pune	Effective utilization of winery and vineyard waste: an eco-friendly approach for value addition in wine industry	5.80
	Yashwantrao Mohite College of Arts, Science and Commerce, Pune		
4	National Toxicology Center, Pune.	Study of Immunomodulating and antiviral properties of plants.	1.35
5	National Toxicology Center and SGM College , Karad,	Invention of mast stabilizing properties of Piper longum, Aloe vera, Cynodondactylin and Cymbopogoncitratus	-
6	Agharkar Research Institute	Acinetobacter variabilis NIPH 2171(T) 16S ribosomal RNA gene partial sequence	-
7	Agharkar Research Institute	Exiguobacteriummexicanum 8N (T) 16S ribosomal RNA gene partial sequence	-
	Poona College of Pharmacy, Pune		
8	National Centre for Cell Sciences, Pune.	Anti-diabetic activity of some natural products	-
9	TilakAyurvedMahavidyalaya, Pune	Indian system of alternative medicine	-
10	National Chemical Laboratory, Pune	Application of phosphodiesterse-4 (pde4) inhibitor in lithium induced	-

Sr. No.	Name of the Collaborating Institute	Title of the Project	Total Grant Received (Rs. in Lakhs)
		polyuria in swiss albino mice	
11	Wishbon Pharmaceuticals, Kolhapur.	Study of anti-hypertensive activity of WB101 in 2-kidney 1-clip (2K1C), 1-kidney 1-clip (1K1C) and L-NAME induced hypertension model in wistar rats	-
12	Wishbon Pharmaceuticals, Kolhapur.	Study of hypolipidemic activity of WB101 on Triton WR-1339 induced hyperlipidemia in Wistar rats	-
13	Birla Institute of Technology, Ranchi	Antioxidant and anticancer activities	-
14	National Chemical Laboratory, Pune	Towards Total Exploitation of Genomic Resources in Flax	-
	Research and Development Centre in Pharmaceutical Sciences and Applied Chemistry, Pune		
15	CSIR-National Chemical Laboratory, Pune.	Polymer degradation and stabilization	-
16	Agharkar Research Institute, Pune.	Preparation of bioactive compounds from plant extract	-

ii) International

Sr. No.	Name of the Collaborating Institute	Title of the Project
	Poona College of Pharmacy, Pune	
1	Royal Society, UK and Japanese Society of Promotion of Science Japan	Particle engineering
2	Ayur-Core Inc., USA	Herbal drug research
3	FF Corporation Japan, Advanced biochemicals, Snehal Foods and Feeds	Formulation Development and evaluation.
4	Dynamis Therapeutics Ltd, U.S.A. , Inrex company, U.S.A.	Pharmacological and Toxicological evaluation

Sr. No.	Name of the Collaborating Institute	Title of the Project
	Poona College of Pharmacy, Pune and Medical College, Pune	
5	World Health Organization	Drug utilization study in primary healthcare level of Pune district
	Research and Development Centre in Pharmaceutical Sciences and Applied Chemistry, Pune	
6	Pusan National University, Bhusan, South Korea	Nanosciences
7	University Blaise Pascal, Clermont-Fd, France	Polymer degdradation
8	TaizUniversity, Republic of Yemen, Yemen	Polymer modifications
	Yashwantrao Mohite College of Arts, Science and Commerce, Pune	
9	N.C.C.S. Pune and NCBI UK	Studies of the role of microorganisms in health sector and environment

3.3   Research Facilities

3.3.1   What efforts have been made by the University to improve its infrastructure requirements to facilitate research? What strategies have been evolved to meet the needs of researchers in emerging disciplines?

During the post accreditation period, the University has spent Rs. 5703 lakhs to provide researchers with state-of-the-art research laboratories, departmental libraries, sophisticated instruments and equipment, advanced ICT tools, e-learning resources and mentoring support. New buildings have been constructed where necessary.

In order to facilitate quality research in emerging areas, the University has established prominent research centers such as:

- A center for Composite Materials and Research in Nanotechnology is established in the College of Engineering, Pune in collaboration with North Carolina A & T State University, USA. The center for composite material is now equipped with all the facilities to synthesize and characterize nanoparticles and composites. The research facilities include Atomic Force Microscope, Spin Coater, Electro spinning setup, Particle

Size Analyzer, FTIR, SEM coater, Viscometer, Vortex shaker, Microwave etc.

- Research and Development Center in Advanced Pharmaceutical Sciences and Applied Chemistry has been established for research in collaboration with College of Pharmacy. The college also has a Food Testing Laboratory is equipped with GC MSMS, HPLC MSMS, ICPS etc. and accredited by APEDA and NABL.

- The Euro-American Legal Study and International Research Center and International IPR Research Center have been established in the New Law College to cater to the needs of research on foreign laws and IPR laws respectively.

- Pediatric Clinical Research Unit is established in the Medical College, Pune with the objective of inculcating research culture among faculty and students in collaboration with various pharmaceutical companies.

- An autonomous unit of the Real World Nutrition Laboratory Foundation (RWNLF) has been established in IRSHA to promote industry institution partnership for the development of innovative products, for validating and marketing the products. The objective is to make available fully tested and proven technologies for full scale commercial exploitation and achieve the desired impact on the welfare of the society. So far, by resourcing omega-3 fatty acid from Flaxseed (linseed), Omega-3 enriched health products (omega-3 enriched egg, milk, ghee, chicken etc), are developed and validated by RWNLF for commercialization.

- The University has built a modern buildingfor IRSHA with state-of-art equipment and facilities having 50,000 sq.ft. space. In addition, it is provided with new furniture, full capacity generator back up, Wi-Fi access, and laboratories with sophisticated scientific equipment.

Further, in various constituent units, the University has provided high-endequipment, computing machinery as well as soft computing tools for experimentation, analysis and assessment of the resulting data. The advanced equipment provided include Cooling incubator, Laminar Flow Cabinate, Reverse TrancriptasePolymarase Chain Reaction (RTPCR), Mini Transeblot and Electrophoresis Cell, Fluorescence Microscope, Inverted Microscope, ELISA PLATE Reader, DNA Sequencing, High Pressure Liquid Chromatography, X liquid Chromatography, High Pressure Thin Layer Chromatography, Liquid Chromatography Mass Spectrometry, Gas Cromotography Mass Spectrometry, UV Spectrophotometer, Super Critical Fluid Chromatography, Fourier Transform Infrared Spectroscope.

Out of the total expenditure mentioned earlier on research facilities, Rs. 23.35 crores has been spent on physical and e-resources in the libraries of the

constituent units. These resources include national and international journals and 39 online databases and high bandwidth internet facilities.

The University has evolved following strategies to meet the needs of researchers in emerging disciplines.

- The University encourages organization of advanced level conferences in emerging areas to enable researchers become aware of current research in the respective area through discussion with experts
- Deputes researchers to conferences on emerging areas by providing leave and necessary funds
- Initiates Ph.D programme in the emerging areas
- Develops advanced laboratories for research in emerging areas.
- Facilitates collaborations with Universities and research laboratories specifically working in emerging area and encourage mutual exchanges
- Financially supports publications and patent registration in emerging areas
- Permits reduction in teaching load of faculty working in emerging areas.

3.3.2 Does the University have an Information Resource Centre to cater to the needs of researchers? If yes, provide details of the facility.

Yes, the University has Information Resource Centre located in Medical College, Pune; College of Engineering, Pune and Institute of Management and Research, New Delhi. These IRCs provide access to online versions of journals, e-books,e-journals, digital databases and open courseware. University is also a member of UGC-INFLIBNET/N-List through which many international journals of repute can be accessed by the researchers. Further, the University has created e-library which provides links to its digital resources that include

- Online databases such as ASCE,ASME, IEEE, McGraw Hill, ASTM Digital library, Elsevier, JGate, Springer, EBSCO, ASTM Digital, ProQuest Management Collection, LexisNexis, Manupatra, medIND, Sage Online journal, Westlaw etc.
- Research databases such as Web of Science, SCOPUS, PubMed and Google Scholar is available for faculty and students to know the quality of their publications.
- Anti-plagiarism software to improve the quality of research articles and theses.
- Drug Information Centre where the complete profile of any drug is made available at the tip of a finger through Micromedex Drug Information Database.

3.3.3 Does the University have a University Science Instrumentation Centre (USIC)? If yes, have the facilities been made available to research scholars? What is the funding allotted to USIC?

Presently, the University does not have separate University Science Instrumentation Centre (USIC).

However, the Interactive Research School of Health Affairs (IRSHA), Pune has all the sophisticated equipment required for research in life sciences. College of Pharmacy, Pune also has latest equipment to cater to the needs of researchers in Pharmaceutical Sciences and Chemical Sciences. Equipment available in these two constituent units are made available to research scholars as per their needs. Further, other constituent units have specialized equipment needed for the discipline specific research to meet the requirement of research scholars. Most of the equipment is purchased from the University funds.

3.3.4 Does the University provide residential facilities (with computer and internet facilities) for research scholars, post-doctoral fellows, research associates, summer fellows of various academies and visiting scientists (national/international)?

Yes, the University provides hostel accommodation with all necessary facilities to research scholars. Visiting scientists are provided accommodation in the University guest house.

3.3.5 Does the University have a specialized research center/ workstation on-campus and off-campus to address the special challenges of research programmes?

Yes, the University has three specialized research institutes, namely, (i) Interactive Research School of Health Affairs (IRSHA), Pune; (ii) Research and Development Centre in Pharmaceutical Sciences and Applied Chemistry, (RDCPSAC) Pune; and, (iii) Yashwantrao Chavan Institute of Social Science Studies and Research, Pune to address the special challenges of research programmes.

For example, IRSHA promotes inter-disciplinary research in modern biomedical, ayurveda and other traditional medicine areas and conducts research in critical areas such as mother and child health, breast and cervical cancer, diabetes, obesity and medicinal plants. While RDCPSAC has facilities for carrying out spectral, thermal, chemical and micro structural analysis on Phyto medicines and applications of polymers in drug delivery systems, chemical analysis of reaction by-products on a variety of materials.

Yashwantrao Chavan Institute of Social Science Studies and Research, Pune conducts geriatric research and studies on child welfare. It has completed a project on institutional geriatric care in Maharashtra funded by the Ministry of Social Justice and Empowerment and received funding to the tune of Rs. five lakhs. The institute has collaborated with International Longevity Centre, India and conducted a survey on rural ageing in Maharashtra. It has also

collaborated with International Institution on Ageing, Malta University, Malta for conducting training programmes in social gerontology. Recently ICSSR has sanctioned a major research project "Corporate social responsibility and its contribution to community development" with a funding of about seven lakhs.

3.3.6 Does the University have centres of national and international recognition/repute? Give a brief description of how these facilities are made use of by researchers from other laboratories.

Yes, the University has centers within the constituent units as listed below:

- **IRSHA** is a nationally and internationally recognized centre for research in life sciences. The institute has developed fortified eggs, chocolates and chicken with omega-3 content.
- **Department of Pediatrics** (Medical College, Pune) is recognized for its work on vaccination. Many vaccine trials have been conducted in collaboration with Pharma companies
- **Centre of Excellence for Mother and Child Health & Pre-Eclampsia** in Medical College, Pune is in the last phase for approval by Indian Council of Medical Research (ICMR), New Delhi.
- **Department of Obstetrics and Gynecology** in Medical College, Pune along with FOGSI is a recognized center to train Medical officers of Government of Maharashtra. The department has conducted many workshops for Medical officers. It has been observed that the medical officers, particularly in rural areas,could manage patients, prevent certain complications better and could advise on proper selection of contraceptives.
- **Department of Otorhinolaryngology** in Medical College, Pune is a recognized center for Temporal Bone Dissection, a complex procedure, for training the faculty from all over the country. Workshops are conducted for practicing ENT surgeons to enhance surgical skills for temporal bone dissection.

Presently, facilities available at these centers are being used by the researchers in various constituent units.

3.4   Research Publications and Awards

3.4.1 Does the University publish any research journal(s)? If yes, indicate the composition of the editorial board, editorial policies and state whether it/they is/are listed in any international database.

Yes, the University publishes three research journals, namely, (i) Bharati Vidyapeeth Deemed University Research Journal, (ii) BVIMR Management Edge, and (iii) Journal of Management and Social Research.

The composition of the Editorial Boards of the three journals are as follows:

i) **Bharati Vidyapeeth Deemed University Research Journal (ISSN : 2231 – 0975)**

Chief Editor	:	Prof. (Mrs.) R.R.Melinkeri
Executive Editor	:	Prof. M.G. Bodhankar
Associate Editor	:	Prof. (Mrs.) AsmitaWele
Other members of the Editorial Board	:	Prof. AnandBhalerao, Prof. Nitin Nayak, Prof. (Mrs.) Kirti Mahajan

ii) **BVIMR Management Edge   (ISSN : 0976 – 0431)**

Chief Editor	:	Dr. VikasNath
Editor	:	Mrs. PreetyWadhwa
Other members of the Editorial Board	:	Dr. Ashutosh Gaur, Dr. Navneet Gera, Dr. Daljeet Singh Bawa, Dr. L. K. Tyagi, Dr. Anoop Pandey, Dr. Aparna MarwahBawa, Dr. BrotoRauth Bhardwaj, Dr. A. Sajeevan Rao, Dr. Ajay Shani, Dr. Meenakshi Gandhi, Dr. Neetu Jain, Dr. PrachiMurkute, Dr. A. K. Srivastava, Dr. Shallu Singh, Dr. Pankaj Saini, Dr. S. Manocha, Dr. Anjali Sharma, Dr. Ashima Bhatnagar, Dr. R. K. Sharma, Dr. Atul Kumar, Dr. Ritu Bali

The journal 'BVIMR Management Edge' is listed and indexed in EBSCO, Ulrich and ProQuest.

iii) **Journal of Management and Social Research   (ISSN :0975 - 8429)**

Chief Editor	:	Dr. Sachin S. Vernekar
Editor	:	Prof. B. U. Sankaye, Prof. Santosh Bothe
Co-Editor	:	Prof. (Mrs.) SuchetaKanchi

The editorial policies of these journals are similar to the policies of international journals and adhere to double blind peer review, standard formats such as APA / MLA etc. The editorial policy and author instructions are printed in every issue of the journals published by the University.

3.4.2 Give details of publications by the faculty:
Number of papers published in peer reviewed journals (national / international), Monographs, Chapters in Books, Books edited, Books with ISBN with details of publishers, Number listed in International Database

(For e.g. Web of Science, Scopus, Humanities International Complete, EBSCO host, etc.), Citation Index – range / average, SNIP, SJR, Impact Factor – range / average, h-index

The University has contributed to creation of new knowledge through qualityresearch done by its faculty during the post accreditation period. The number of research papers published in peer reviewed journals with relevant information is given below year wise:

Particulars	2011-12	2012-13	2013-14	2014-15	Total
National journals	234	221	244	242	**941**
International journals	492	655	624	727	**2498**
Number of papers listed in international Databases	426	583	571	575	**2155**
Citation Index Range	0 to 62.5				--
Impact Factor range	0.515 -7.73	0.16 -9.12	0.12 -8.99	0.35 -9.1	--
SNIP range	0.06-1.648	0.127 -1.866	0.042-2.179	0.245 -1.967	--
SJR Range	0.116-1.390	0.114 -1.79	0.117 -1.20	0.12-2.79	--
Monographs	--	--	--	--	--
Chapters in books	22	11	33	49	**115**
Books Edited	02	02	08	05	**17**
Books with ISBN	46	60	60	64	**230**
h index	47				--

Number of papers listed in various international databases, database wise are as below.

Database	2011-12	2012-13	2013-14	2014-15	Total
Google Scholar	96	219	257	285	**857**
Web of Science	78	78	64	78	**298**
SCOPUS	111	177	148	139	**575**
EBSCO	31	20	26	41	**118**
Medline	81	77	64	53	**275**
ENBASE	43	45	36	27	**151**
Others	92	214	296	397	**999**

Same paper might have been listed in more than one database.

3.4.3 Give details of

- **faculty serving on the editorial boards of national and international journals**
- **faculty serving as members of steering committees of international conferences   recognized by reputed organizations / societies**

In all, the faculty of the University have served on 85 Editorial Boards of national and international journals. Some of the faculty working on Editorial Boards of reputed journals are given below:

Sr. No.	Name of the Faculty Member	Name of the Journal Publisher and Place
	Dental College and Hospital, Pune	
1	Dr. R.S. Deshmukh	• Journal of Advanced Clinical and Research Insights, *Incessant Nature Science Publishers Private Limited, Bangalore, India*
2	Dr. Amol Patil	• Journal of Orthopedics, Rheumatology and Sports Medicine, *Elyns Publishing Group, New Jersey, USA* • Journal of Dentistry and Orofacial Pain, *Omnics Group, Los Angeles, USA*
	Dental College and Hospital, Navi Mumbai	
3	Dr.VirajKharkar	• Journal Of Maxillofacial & Oral Surgery, *Springer* • *International journal of oral & maxillofacial Surgery, Elsevier*
	College of Nursing, Pune	
4	Mrs. Lily Podder	• International Journal of Nursing research and Practice, *United Publication for Health and Tech Research*
	Interactive Research School of Health Affairs, Pune	
5	Dr. Sadhana Joshi	• Journal of Nutrition & Intermediary Metabolism", *Elsevier*
6	Dr. SupriyaBhalerao	• Journal of Ayurveda & Integrative Medicine, *Medknow*
	Medical College and Hospital, Sangli	
7	Dr. Limaye R. P.	• Oxford Journal of Alternative Medicine, *Oxford Journal*
	Poona College of Pharmacy, Pune	
8	Dr K. R. Mahadik	• International Journal of Integrative Medical Sciences
9	Dr S R Dhaneshwar	• American Journal of Modern Chromatography, *Columbia International Publishing*
10	Dr. Mrs. S. S. Dhaneshwar	• Pharmacologia, *Karger Publishers, UK*
	Yashwantrao Mohite College of Arts, Science and Commerce, Pune	
11	Dr. M. G. Bodhankar	• Peer reviewed Bio Med Central open access journal- BMC Research Notes, *Bio Med Central,The open access Publisher, UK*
	Institute of Management and Entrepreneurship Development, Pune	
12	Santosh Bothe	• IEEE Intelligent Systems
	Institute of Management and Research - New Delhi	
13	Dr. Broto R.Bhardwaj	• Benchmarking: an International Journal, *Emerald Journal, UK.* • Journal of Management, *Emerald Journal, Europe*

Sr. No.	Name of the Faculty Member	Name of the Journal Publisher and Place
	Institute of Management, Kolhapur	
14	Dr. A. T. Gaikwad	• American Journal of Information Systems, USA
	College of Engineering, Pune	
15	Dr. AnandBhalerao	• IEEE Transactions on Nanotechnology • Material Today Proceedings, *Elsevier*
16	Prof. S. H. Patil	• International Journal of Engineering Technology and Applied Research,*Elsevier*

- **faculty serving as members of steering committees of international conferences recognized by reputed organizations / societies**
  The faculty of the University has together worked on steering committees of 70 international and national conferences. The details of the faculty serving on national and international committees and editorial boards are provided in the departmental evaluation reports of respective constituent units at Point Number 26.

3.4.4 Provide details of
- **research awards received by the faculty and students**
- **national and international recognition received by the faculty from reputed professional bodies and agencies**

- **Research awards received by the faculty and students**
  In all, the faculty and students have received 143 and 88 awards respectively. The details of some of the faculty awardees are given below. The details of the awardees are provided in the departmental evaluation reports of respective constituent units at Point Number 29.

- **National and international recognition received by the faculty from reputed professional bodies and agencies**
  In all, 73 recognitions have been achieved by the faculty from nationally and internationally reputed professional bodies and agencies, some of which are mentioned below.

  - Prof. Dr. Shivajirao Kadam has been honoured with Gold Star Award by Bar Council of India
  - Prof. Dr. Mukund Sarda has been conferred D.Litt. (Honoris Causa) APS University, MP
  - Dr. Erach Bharucha has received 'Earth Hero Award' for his lifetime contribution to environment conservation in India by Royal Bank of Scotland and also the Green Teacher Award by Kirloskar Foundation. He

has also been invited as Visiting Professor University of Cologne, Germany

- Dr. Shamita Kumar has been invited as Visiting Professor at University of Cologne, Germany during the last three years. She has also received Fulbright Nehru scholarship.
- Dr. Sadhana Joshi has been reviewer of project grants from countries like France and Netherlands as well as reviewer for several International Scientific Journals. She is also a member of the task force of the Department of Bio Technology
- Dr. M.G. Bodhankar has been invited as Visiting Professor by Birla Institute of Technology And Science, Dubai, University of Rahuna, University of Peradeniya, and Universityof Colombo, Sri Lanka
- Dr. Suneela Dhaneshwar has received an award from LEK Consultants San Francisco USA and Dr. A.P Pawar has received an award from Indian Pharmaceutical Association.
- Dr. Rahul Hegde has received Star Pedodontist Award by ISPPD
- Dr. R. P. Singh has been nominated by Government of India as a governing council member, UPSC
- Prof. Sandip Bankar has been elected as Fellow, Maharashtra Academy of Sciences.

3.4.5 **Indicate the average number of successful M.Phil. and Ph.D. scholars guided per faculty during the last four years. Does the University participate in Shodhganga by depositing the Ph.D. theses with INFLIBNET for electronic dissemination through open access?**

The average number of Ph.D. students per research guide is 2.9, while the average number of successful Ph.D. scholars per research guide is 2.1.

Yes, the University participates in SHODHGANGA and deposits soft copy of Ph. D. thesis with INFLIBNET for Electronic dissemination.

3.4.6 **What is the official policy of the University to check malpractices and plagiarism in research? Mention the number of plagiarism cases reported and action taken.**

The University is committed to undertake original research with impeccable scientific integrity and in conformity with the accepted code of principles on Good Research Practices. The University has constituted an Ethics Committee for the subjects in life sciences. The University also takes the undertaking about copyright declaration / academic integrity from the Ph. D. / M. Phil. Scholars/Research supervisors.

The University uses TURNITIN software, an internet based plagiarism prevention service created by iParadigms, LLC, USA, for detecting

plagiarism. Turnitin checks for potential unoriginal content by comparing submitted research articles, theses, dissertations etc. to several databases using a proprietaryalgorithm. While verifying for plagiarism, Turnitin considers publications available inits own databases, other proprietary databases and with databases of 5640 publishers and gives a report with sources from which plagiarism has occurred.

Because of the strict procedure followed by the University and use of latest software, no case of plagiarism is reported during last four years.

3.4.7 Does the University promote interdisciplinary research? If yes, how many interdepartmental / interdisciplinary research projects have been undertaken and mention the number of departments involved in such endeavours?

Yes, the University promotes interdisciplinary as well as interdepartmental research. Presently, 101 interdisciplinary research projects have been undertaken and the number of constituent units involved in interdisciplinary research is nine.

3.4.8 Has the University instituted any research awards? If yes, list the awards.

Yes, the University has instituted three research awards to encourage and appreciate the outstanding contribution of its faculty towards research and academics. These awards are given on the eve of Foundation Day of the University, i.e. 26th April, every year.

The constituent units of the University have also instituted awards to promote research.TheCollege of Ayurved, Pune has instituted **National Ayurved Scholar Awards** in three categories:

- Best thesis for degree of Ph.D. in Ayurved at all India level- This award includes certificate of merit and Rs. 51,000/- .
- Best dissertation for MD/MS in Ayurved at all India level. This award includes certificate of merit and Rs. 31,000/- .
- Best thesis/ dissertation from within the Faculty of Ayurved, BVU, includes certificate of merit and Rs. 21,000/-

Medical College, Pune has instituted awards to its faculty and students for Best Oral and Poster Presentations and Best Models designed which are presented at the Annual Research Society Conference (RESCON).

3.4.9 **What are the incentives given to the faculty for receiving state, national and international recognition for research contributions?**

The University recognizes research contribution of the faculty by way of giving letter of appreciation along with two increments. Their achievements are also considered while promoting the faculty to higher grades.

3.5   Consultancy

3.5.1 **What is the official policy of the University for structured consultancy? List a few important consultancies undertaken by The University during the last four years.**

The University has well defined official policy for consultancy services which includes fees to be charged and the revenue sharing between the University and the faculty offering the consultancy. The details are as below:

- 50 percent of revenue generated is for the development of constituent unit
- 15 percent of revenue generated is for the University
- 10 percent of the revenue generated is for maintenance of hardware
- 25 percent of the revenue generated is distributed among those who are involved in the programme.

Constituent units provide available infrastructure, library resources, software, computing facility and equipment to the faculty to engage in consultancy work.

During the last four years, 56 consultancy projects have been undertaken by the faculty and earned more than four crores rupees as revenue. Some of the major consultancy projects undertaken by the University are as under.

- Poona College of Pharmacy, Pune has undertaken a consultancy for Reliance Industries, Mumbai on "Collection and isolation of micro-algae as a potential source of lipids" and generated Rs. 46.00 lakhs as revenue.
- Institute of Environment Education and Research, Pune has undertaken a consultancy for German House for Innovation and Research, New Delhi on "Capacity building of city planners for planning smart cities" and generated Rs. 18.58 lakhs as revenue.
- Above institute has undertaken consultancy for Ministry of Environment and Forests to conduct seven "National Nature Camping programmes" for school students and "National Green Corps Programmes" and generated Rs. 13.63 lakhs as revenue.

- College of Engineering has provided consultancy to Research and Development Establishment (Engineers), DRDO, Pune for manufacturing of nano fibers and earned Rs. 5.20 lakhs.
- The Centre of Food Testing located in RDCPS&AC, Pune has earned Rs. 1.62 crores as revenue during last three years by providing consultancy and testing facility to industries such as Sahyadri Farmers Association, Eurofruits, Sunshine Fine Chemsol, Freshtrop etc. for exporting fresh and processed foods and vegetables.

3.5.2   Does the University have a University-industry cell? If yes, what is its scope and range of activities?

Yes, the University has established a major University-industry cell at College of Pharmacy which is sponsored by AICTE. This cell offers expertise available in the college to find solutions to problems faced by the industry. For example, Reliance Industry uses the services of the college to collect different marine algae cultures for bio-diesel production. Also, the college undertakes consultancy projects related to specific industrial problems which typically become themes of research of students at PG and Ph.D levels.

In addition, the college has FDA-approved public testing laboratory for analysis of allopathic and ayurvedic products to cater to the needs of various industries in and around western region of Maharashtra. The laboratory offers problem solving as well as analytical facility to the industry and academia. Further, the APEDA, ISI/NABL-certified Food testing laboratory is equipped with a state of art instrumentation to cater to the needs of agro / food industries and others.

3.5.3   What is the mode of publicizing the expertise of the University for Consultancy Services? Which are the departments from whom consultancy has been sought?

The University publicizes availability of consultancy services and expertise on its website. Reports about the work completed and ongoing are also published in the media. Frequent visits of industry professionals to the campuses and visit of faculty to the industry are additional means of publicizing expertise of the faculty for consultancy services. Also, the University brings out a brochure giving information about the expertise, areas in which consultancy assignments have been completed etc.

To mention a few:
- Poona College of Pharmacy is engaged in consultancy services to companies such as Reliance Industries Pvt. Ltd., TATA Chemicals, Abbott Industries, Indus Biotech Pvt. Ltd., Pune, Emcure Pharmaceuticals, Pune, Hygienic Research Institute, Mumbai, SRP Laboratories, Raj Biotech Pvt. Ltd., Pune,

Bajaj Orchards, Mumbai, Elder Pharamceuticals, Mumbai, and Vamsi Labs, Solapur in the field of Pharmaceutics, Pharmaceutical Chemistry, Phytochemistry, Pharmacology, and Pharmaceutical Biotechnology.

- College of Engineering offers consultancy in the field of Hydraulic Structures, Geological investigations, Electronic product testing etc. to DRDO, Khare–Tarkunde &Associates, Bhutan- Infra-Plan Engineers, Pvt. Ltd., Q-log control Pune etc.

- Department of Obstetrics and Gynecology of Medical College, is a consultant for NARI on HPV vaccine. Also, the Department of Pulmonary Medicine and Department of Pathology are recognized by the Government of Maharashtra for RNTCP and part of National Cancer Registry Programme started by ICMR, respectively.

- Institute of Environment Education and Research offers consultancy in design and implementation of Nature Interpretation Centers which are developed for Kannan Pendhari Zoo. It is also appointed as resource agency by Ministry of Environment and Forest to provide technical support to Nodal Agency in conducting Environment Awareness programmes in schools across the state.

- New Law College engages in consultancy services to the poor and needy people in the areas of disputes in revenue matters, family matters, criminal matters, consumer matters, human rights, women empowerment, environmental issues, right to information, IT & law and constitutional matters.

- Social Sciences Centre offers consultancy to NGOs and industry on community needs assessment at villages for Tata Power Ltd., TalegaonDabhade Industrial Association, Pune, International Longevity Centre India, Pune.

3.5.4 **How does the University utilize the expertise of its faculty with regard to consultancy services?**

The University recognizes the skills and competency of the faculty for consultancy services. The expertise is used in,

- Undertaking projects from government as well as private sector.
- Increasing internal revenue generation and filing of patents.
- Conducting training programmes for enabling younger faculty to undertake consultancy assignments.
- Undertaking socially relevant projects.

3.5.5 **List the broad areas of consultancy services provided by the University and the revenue generated during the last four years.**

The University provides consultancy services in various areas through which revenue to the tune of Rs 412.96 lakhs is earned during the post-accreditation

period. The following constituent units are mainly involved in consultancy services.

- Poona College of Pharmacy - Pharmaceutics, Pharmaceutical Chemistry, Phytochemistry, Pharmacology, and Pharmaceutical Biotechnology
- Institute of Environment Education and Research - design and implementation of Nature Interpretation Centers
- College of Engineering - Hydraulic Structures, Geological investigations and Electronic product testing
- Medical College, Pune – standard treatment protocols for diseases, Pediatric vaccine trials
- Social Science Centre - Community needs assessment
- New Law College - disputes in revenue matters, family matters, criminal matters, consumer matters, human rights, women empowerment, environmental issues, right to information, IT & law and constitutional matters

3.6 Extension Activities and Institutional Social Responsibility (ISR)

3.6.1 How does the University sensitize its faculty and students on its Institutional Social Responsibilities? List the social outreach programmes which have created an impact on students' campus experience during the last four years.

The University organizes various social outreach programmes to sensitize the faculty and students about institutional social responsibility. As a matter of routine, every constituent unit engages in many extension activities.

Elements of social responsibilities are mainly inculcated through NSS activities. The University has 26 NSS units with 1782 enrolled volunteers. The NSS Cells of the constituent units of the University organize special winter camps in the adopted villages for a specified period. Programmes such as computer literacy, women empowerment, awareness on social issues, health checkup, scavenging activities, road safety awareness, blood donation, cleanliness drive, eradication of superstition, yoga, jaldindi, human rights, jagarjaniwancha etc. are conducted.

The faculty and students work towards fulfilling social responsibilities in collaboration with NGOs, orphanage centres, old age homes and other social organizations. They are also motivated towards ISR activities by organizing lectures of eminent social workers, scientists, educationalists, naturalists &

philosophers through Science Association, Ladies Association of Y. M. College (LAY), nature club, vocational guidance programmes etc.

In addition, following measures are taken to sensitize students about social responsibility.

- New Law College, Pune has established a Legal Aid Cell which undertakes activities that include legal empowerment of construction workers and assistance in plea bargaining to under-trial prisoners in Yerwada Jail at Pune. During the year 2014-15 alone, the cell received 668 applications for assistance regarding matrimonial legal issues out of which 415 cases were resolved. The chart below shows the number of cases resolved for various categories of legal issues. Social justice was ensured through arbitration, negotiation and meaningful counseling upholding the cell's principle of settlement by dialogue and not by litigation.

Various types of disputes and number of cases addressed by the Legal Aid Cell are given below:

Type of Dispute	Cases Addressed	Cases Resolved
Matrimonial Disputes	300	165
Issues relating to children	49	25
Live in Relationship	22	10
Pre Marriage Counseling	51	29
Re Marriage	10	10
Guardianship	15	10
Post-Divorce	40	18
Senior Citizen	25	10
Issues of family members	140	122
Will & others	16	16
Total	**668**	**415**

The social justice was ensured through arbitration, negotiation and meaningful counseling upholding the cell's principle of settlement by dialogue and not by litigation.

- The students and faculty of health sciences are involved in various community outreach activities and conduct health surveys in rural areas and urban slums. For example, Medical College and Hospital, Sangli has established well-equipped rural health training centers at Turchi village and Sangliwadi. These centers not only cater to the health needs of the surrounding villages / slums but also provide excellent opportunities to the faculty and students to understand the needs of the community and

develop empathy for the society and community. Students, during their internship in community medicine compulsorily spend one month in the above outreach community centers.

- College of Engineering, Pune organizes special programmes under the banner of Engaging People with Science & Technology. In these programmes, groups of faculty and students educate school children (up to X class) about use of technology in day to day life.
- The Institute of Environment Education and Research, Pune conducts an intensive program in 9050 schools across the state of Maharashtra in its capacity as Resource Agency for the state. This involves conducting orientation workshops and monitoring and documenting green initiatives. Students are involved in this activity which provides an insight into ground realities of implementing an environment awareness program besides developing skills of documenting and mentoring.

  It also conducts a very intensive program in sustainability in 50 schools near Pune. The students are involved in design of educational modules as well as implementation of field trips for the school students building their own knowledge of natural history as well as communication.

In addition to the above, the following social outreach programs are conducted by various constituent units:

- Conducting community awareness programmes on various topics such as, Swatchh Bharat Abhiyan, drug abuse, human rights and rights of senior citizens.
- Organizing health checkup camps for screening, for counseling regardingosteoarthritis, diabetes, blood pressure, asthma detection, oral cancer detection, hemoglobin, anemia and special counseling for girls.
- Conducting 'SUDAMA' - Computer Literacy Mission for school students of slum locality by Institute of Management, Kolhapur.
- Participating in Nirmalya Sankalan (seperation of dry and wet waste initiative) in association with Pune Municipal Corporation.

3.6.2 How does the University promote University-neighbourhood network and student engagement, contributing to the holistic development of students and sustained community development?

To promote University-neighbourhood network and provide students with opportunities for community engagement, the NSS cell of constituent units organize camps in neighbouring rural areas. The camps span for 10 days during which students participate in community services such as medical health check-ups, cleanliness drive, educating school children about

environment, water conservation and use of computers. The Health science institutes adopt villages to conduct medical checkups and provide primary health services by involving their students.

Additionally, students carry out awareness campaigns during festival occasions to inform the society about the benefits of eco-friendly ways to celebrate the festival.

In order to inculcate the values of community service, as a part of the curriculum, students of B.Sc. Nursing programme are posted in urban and rural slums for two months. During this period, students do regular home visits and provide first aid for minor ailments as well as comprehensive nursing care, if required.

3.6.3 How does the University promote the participation of the students and faculty in extension activities including participation in NSS, NCC, YRC and other National/ International programmes?

The University promotes the participation of the students in extension activities by awarding five additional marks in the University examination to the students who successfully complete the requisite hours of NSS activities or participate in state/national level sports/cultural activities. Further, the students who complete one special winter camp and 120 hours per year of social work for two continuous years, the University has a provision of awarding 10 grace marks to achieve first class in the University examination along with a certificate.

Extra practical and theory lectures are conducted for students who participate in extension activities. Further, they are also provided financial assistance for participation in cultural and sports activities.

The faculty who actively participate in extension activities are given weightage in the Academic Performance Index (API).

3.6.4 Give details of social surveys, research or extension work, if any, undertaken by the University to ensure social justice and empower the underprivileged and the most vulnerable sections of society?

In order to ensure social justice, and to understand the needs of the community, following surveys and research studies are conducted.

- The Medical College, at Pune and Sangli conducts house to house family health surveys in slum areas. The family health surveys are followed by health education programmes and rallies in these areas to create awareness about health related issues. Some of the key areas of health education are Dengue, Malaria, H1N1, water sanitation, personal hygiene, addiction etc.

- During Wari i.e. the old tradition in Maharashtra where lakhs of devotees of Lord Vitthal walk to Pandharpur from various parts of the state, the warkaris (commonly farmers) stay in Pune for two days before proceeding to Pandharpur. The Medical College, Pune with the help of undergraduate and postgraduate students and interns conduct health camp for warkaris, distribute free medicines and educate them about various preventive measures like hygiene, sanitation etc.

- The Dental College and Hospital, at Pune, Sangli and Navi Mumbai conducts dental survey through screening camps at many villages.

- Institute of Environment Education and Research (IEER), Pune carried out a survey of traditional art and craft practices among the indigenous tribals of Maharashtra. As an outcome of the survey which documented traditional arts, a skill development program for budding tribal artists was conducted at IEER. Master trainers were drawn from the tribal community themselves especially those who are successful commercial artists. The programme not only focused on building capacities among the tribal groups but also emphasized the need for conservation of biodiversity and natural resources which forms the base of their arts and livelihood.

- IEER in collaboration with the University of Cologne, Germany conducted a survey among the general medical practitioners in Pune for understanding their knowledge, attitude and practices for treating non communicable diseases (NCD) under the project, 'Towards an effective NCD surveillance system for the city of Pune'. A team of 105 doctors and PMC medical officers participated in this yearlong survey.

- IEER along with Kirloskar Vasundhara Film Festival, has conducted an yearlong program on 'Green College Clean College' where 120 college youth were motivated to conduct a green audit and implement measures for greening their institutions with the support of their teachers and management. The event culminated in a conference where the best performing colleges were presented the green award. This innovative outreach has ensured the spread of the message of conservation beyond the University.

- With an aim to uplift vulnerable sections of the society, the Interactive Research School for Health Affairs conducted a research project on "Sustainable livelihood of Farmers in Nagpur, Chandrapur, Gadchiroli and Yeotmal Districts of Maharashtra" The study was part of the ICAR-NAIP III project to examine the impact of growing linseed crop. The study found that the adoption of improved varieties of linseed has improved productivity, reduced cost, better value addition of omega 3, high crop intensity, and high market price thus resulting in significant increase in the income of the farmers of these regions.

- The social science centre has undertaken three projects namely, (i) "A study on identification of community needs in selected villages of Mulshi

and Maval blocks of Pune in collaboration with Tata Power Ltd. Mumbai; (ii) conducted need assessment surveys for selected villages with Talegaon Dabhade Industrial Association, Pune; (iii) survey of nomadic tribes along with All India Institute of Local Self Governance, Pune.

Further, the University has established a Centre for Development of Women's Creativity – 'Shashwati' to help develop creative abilities in women. The centre is headed by Dr. Aruna Dhere who is a renowned writer and poetess in Marathi. The core objectives of the centre are to provide a platform for creative expression of women, organize seminars and workshops, create and publish literature and material concerning women empowerment, gender equality etc.

Some of the activities conducted by the centre are:

- The first volume of Marathi novels consisting of 11 articles by various scholars was published on the occasion of Women's Day on 8th March, 2013.
- The centre along with School of Performing Arts organized a choreography programme on "Image of Rahda perceived in Dance" on 1st March, 2013
- The centre has published three books namely, '*Durga Bhagwat-Life Thought and Work*', '*Tichi Zep, Tiche Awakash*', and '*Paul Pudhe Padatana*', These literary work are on the stories of lives of women who have devoted their lives for the noble cause of cultural and social upliftment of Indian women.
- A seminar was organized on 'Changing image of women in visual media' wherein eminent personalities from media were the resource persons.
- A discussion on 'Empowerment of women' was aired on All India Radio.
- The centre has entered into MoU's with Women's colleges, institutions and Public charitable trusts engaged in activities for women upliftment.
- In addition to the above, the centre has undertaken the following work :
  - ° A research project to explore the role of women who are engaged in activities relating to preservation and protection of environment.
  - ° Compilation of a dictionary of various NGO's, Unions, Clubs and Associations devoted to the cause of women all over Maharashtra which will serve as a comprehensive guide for all concerned with the noble cause.
  - ° Preparation of three volumes on Women's writing in Marathi: 1950 to 2010 which will be a bilingual publication in Marathi and English.

3.6.5 Does the University have a mechanism to track the students' involvement in various social movements / activities which promote citizenship roles?

Yes, the University has a mechanism to track the students' enrolment in various social movements and/or activities to promote citizenship role in the society. All constituent units maintain records of the students participating in various social activities that help in promoting citizenship roles. The staff in charge of the extension activity provides regular feedback about the student's participation to the Principal/ Director. Additionally, informal feedback about the regularity, sincerity, and the quality of participation of the students during extension work is taken from the community leaders and villagers.

NSS Cell of the University keeps the record of students involved in NSS activities through NSS Cell of respective constituent units. Students are supposed to write the report of the activities in the NSS Diary and get it duly signed by the Program Officer. Every month, the Program Officer of each unit submits the monthly activity report to the University coordinator, who compiles and sends to the Government bodies.

3.6.6 Bearing in mind the objectives and expected outcomes of the extension activities organized by the University, how did they complement students' academic learning experience? Specify the values inculcated and skills learnt.

The values inculcated and skills learnt through the conduct of various extension activities complement the academic learning experiences of the students by making them:

- socially responsible citizens,
- possess values like compassion and empathy,
- aware about the complex socio economic issues,
- sensitive to local concerns and participate in solving community problems,
- undertake surveys and research projects on issues of social relevance,
- acquire organizational skills at all stages from planning to execution and evaluation,
- have values like ethics, democracy, peace, justice, tolerance, compassion, equality, pluralism and co-operation, and
- experienced in various clinical skills.

3.6.7 How does the University ensure the involvement of the community in its outreach activities and contribute to community development? Give details of the initiatives of the University which have encouraged community participation in its activities.

The University organizes various activities which are aimed to resolve the burning problems of society which includes eradication of superstition, literacy movements, awareness against pollution and global warming, deforestation and its detrimental effects, health problems like HIV infection / AIDS, etc. To address these issues, the institute organizes lecture series, street plays, winter camps, blood donation camps etc. During such activities, local leaders, social workers, governmental officials and villagers are involved. With the cooperation of society and participation of community members, the prevailing problems are either resolved or their intensity is minimized by cumulative efforts of community, faculty and students.

New Law College, Pune involves villagers in surveys to find their judicial matters which are pending in courts. Accordingly, the institute provides free legal advice with the help of retired judges and senior advocates.

Eye donation drive is another example of involvement of the community. In last four years, nearly 2548 people have pledged to donate cornea after death.

As a token of gratitude for their significant contributions for the welfare of the society, The University felicitates distinguished professionals, educationists, and social workers, with Lifetime Achievement Award during University's Foundation Day function.

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

The University participates in various extension activities which are acknowledged by many organizations. The NSS units of the University have bagged six national awards / prizes and 45 state level awards / prizes for its programme coordinator, programme officers, volunteers, etc., during post accreditation period. The details of some significant awards are as under.

National Level Awards

Sr. No.	Name of the Awardee and Constituent Unit	Details of Award
		2011-12
1	Mr. Jay Shah Homoeopathic Medical College, Pune	First Prize in Declamation Contest in the 14th National Integration Youth Camp held by Foundation for Amity & National Solidarity, New Delhi
2	Prof. Vijay Phalke	"Best Team Leader Award " by Foundation for Amity & National Solidarity, New Delhi

Sr. No.	Name of the Awardee and Constituent Unit	Details of Award
	2012-13	
3	Dr. M. V. Hegde	Certificate of Appreciation for outstanding contribution in Sustainable rural livelihood security in Backward Districts of Maharashtra by ICAR-NAIP, New Delhi
4	Prof. Shivcharan Singh	Leader of Contingentof Maharashtra and Goain Republic Day Parade by Ministry of Youth Affairs and Sports, Government of India, New Delhi
5	Mr. Jay Shah	First Prize for presentation on Gandhian of our Times in 39thKamalnayan Bajaj National Inter University Competition, held at Shiksha Mandal, Wardha, Maharashtra
	2014-15	
6	Prof. Dr. E. Bharucha	RBS Earth Hero Award by Royal Bank of Scotland

State Level Awards

Sr. No.	Name of the Awardee and Constituent Unit	Details of Award
	2012-13	
1	Ms. Chetana Kirad	First Prize in Inter-University Elocution Competition organized by Anti Dowry Movement, Mumbai
	2013-14	
2	NSS Unit of the University	First Prize in Report of Celebration of NSS Publicity Week, by NSS Cell-Government of Maharashtra
3	NSS Unit of the University	First Prize in Poster Competition at Utkarsha, organized by NSS Cell- Government of Maharashtra
4	NSS Unit of the University	First Prize in Road Show at Utkarsha organized by NSS Cell- Government of Maharashtra
5	Ms. Vaishnavi D. Kirad	First Prize in Creative Dance at Utkarshaorganised by NSS Cell- Government of Maharashtra
6	Mr. Tongbram Mahendra Singh	First Prize in Essay Competition on *Aththi Devo Bhavo*organized by NSS Cell-

Sr. No.	Name of the Awardee and Constituent Unit	Details of Award
		Government of Maharashtra,Mumbai University, Mumbai, and State Tourism Development Corporation
7	NSS Unit of Institute of Management and Entrepreneurship Development, Pune	First Prize in Road Safety Drive organized by NSS Cell & Dept. of Road Safety, Government of Maharashtra
8	Bharati Vidyapeeth University, Pune	Best University Award from NSS Cell-Government of Maharashtra
9	Prof. K. V. Mohite	Best Programme Coordinator Award from NSS Cell-Government of Maharashtra
10	Bharati Vidyapeeth University, Pune	Appreciation Award for Innovation Impacting Rural Livelihoods and their Invaluable contribution in improving lives of Rural Poor in Maharashtra by Maharashtra Rural Livelihood Innovation Forum, Government of Maharashtra
11	Prof. S.G.Pawar	Best Program Officer Award from NSS Cell-Government of Maharashtra
12	YashwantraoMohite College of Arts, Science and Commerce, Pune	Road Safety Drive Award from Dept. of Road Safety, Government of Maharashtra
13	Vijay Phalke	Best NSS Program Officer Award from NSS Cell- Government of Maharashtra
	2014-15	
14	NSS Unit of Abhijit Kadam Institute of Management and Social Sciences, Solapur	First Prize in Road Safety Drive from NSS Cell & Dept. of Road Safety, Government of Maharashtra
15	NSS Unit of the University	First Prize in Road Show at Utkarsha organized by NSS Cell- Government of Maharashtra, and Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
16	Ms. Vedanti Gulhane	First Prize in Poem Competition at Utkarsha organized by NSS Cell- Government of Maharashtra, and Dr. Babasaheb Ambedkar Marathwada University, Aurangabad
17	Institute of	Econs Education Excellence Award for

Sr. No.	Name of the Awardee and Constituent Unit	Details of Award
	Management and Research, New Delhi	contribution in Value Education by Confederation of Education Excellence, New Delhi
18	Institute of Management and Research, New Delhi	Bharat Nirman Award for Outstanding Contribution towards Corporate Social Responsibility from Bhawna Kala Mandir, New Delhi
19	Institute of Management and Research, New Delhi	Gold Zone Award for recognition of voluntary contribution for the empowerment of people with visual challenges from Indian Association for the Blind, Madurai
20	Prof. K.V. Mohite	Road Safety Drive Award from Dept. of Road Safety, Government of Maharashtra
	2015-16	
21	NSS Unit of The University	First Prize in Street Play Competition at Utkarsha organized by NSS Cell- Government of Maharashtra, and Mahatma Phule Krishi Vidypeeth, Rahuri

3.7   Collaboration

3.7.1   How has the University's collaboration with other agencies impacted the visibility, identity and diversity of activities on campus? To what extent has the University benefitted academically and financially because of collaborations?

The University has collaborations with several universities from abroad and research institutes in India thus creating positive impact on research activities. It has established collaborations with international universities such as North Carolina A&T State University Greensboro USA, University of Cologne, Germany, BPP University, UK, University of Reading, UK; research organizations at national level such as Zim Laboratories Ltd, Kamleshwar, Nagpur, Wamsi labs, Solapur, and renowned industries such as ZensarTechologies, TCS, Reliance Industries Limited, Mumbai, Tata Chemicals, Abbott Healthcare, Mumbai, Sciformix Technologies Pvt. Ltd., Anderi, Mumbai etc.

The collaboration with North Carolina University has helped the College of Engineering, Pune in creating an identity in the area of Composite materials and Nanotechnology. This collaboration has helped in organizing international conferences on nanotechnology in association with international universities and in creating a brand image of the University at international level.

The collaboration between Medical College, Pune and the state government resulted in getting a large number of clinical trials due to which faculty got an opportunity to work as experts on the project 'Standard Treatment Protocols' of Government of Maharashtra. This has positively impacted on the identity of the University.

The Institute of Environment Education and Research, Pune has undertaken interdisciplinary research projects in collaboration with University of Cologne, and University of Augsburg, Germany. The collaborative research includes 'impact of climate change and land use change on the water resources of the Mula and Mutha rivers catchment upstream of Pune', 'designing a health monitoring system – the example of the Indian megacity of Pune', and 'Modeling the effects of land use and climate change upon in-stream hydraulics in mountainous streams in rapidly urbanizing regions of the Western Ghats'. The institute is also involved with a four nation study on "Education for Sustainable Development" (ESD) through its collaboration with Internationale Zusammenarbeit (GIZ), Germany along with experts from Universities and the Governments from Germany, South Africa, Mexico and India wherein policies for mainstreaming ESD in each country are being developed.

Outstanding collaborative research activities have increased the visibility of research potential of faculty and created an identity of the University at national and international level. Few of the significant activities includes the development of immune-modulator drugs, isolation of pathogens from subway foods, community water and contraceptives, probiotics research, mushroom cultivation, biomedical waste management, gardening and landscape design etc.

As a result, the University features at NCBI Database, Bethesda, European Molecular Biology laboratory (EMBL) and DNA Database of Japan (DDBS).

Academic and Financial Benefits:
The University has 42 collaborations with industry and 41 collaborations with institutes involving 76 and 106 projects respectively. Out of all theseprojects, 56 projects are funded by industry and four projects are funded by the institutes. These collaborations have resulted in around 100 research publications and one patent.The Industry Institute Partnership Cell has helped

the students to be aware of their prospects in various industries. Further, the students get an opportunity to work on 'live projects' with industries. The total outlay of these collaborations is Rs.533.83 lakhs.

3.7.2 Mention specific examples of how these linkages promote Curriculum development, Internship, On-the-job training, Faculty exchange and development, Research, Publication, Consultancy, Extension, Student placement, Any other (please specify).

Curriculum development

Barring languages and humanities, every Board of Studies of the University comprises of members from the industry. The industry experts have contributed in curriculum development of various courses especially in the Faculty of Engineering and Technology, Faculty of Pharmacy, Faculty of Science and Faculty of Management Studies etc. The expertise of these members has contributed in developing the curriculum as per the requirements of the industry.

Internship and on-the-job Training

The constituent units of the University have established linkages with 396 industries and institutions of higher learning such as Tata Consultancy Services (TCS), Zensar, Tata Power Ltd, Mumbai, Maastricht University, Netherlands, University of Cologne, Germany, HSBC, Berger Paints, Tata Chemicals, Abbott Pharma Mumbai, NCCS Pune, NCBI UK, IDRL, CMET and National Toxicological centre etc. for internship and implant training.

Linkages with the industry provided opportunities for internship and on-the-job training to the students exposing them to real job scenarios and industrial culture, thus enhancing placement opportunities. With this objective, the University has made internship/ implant training/ industrial training as integral part of the curriculum. The duration of the internship / on-the-job training ranges from 45 days to one year depending on the discipline.

Faculty exchange and development

Exchange of faculty has promoted research in the identified thrust areas between The University and the collaborating universities/institutions. Some examples of exchange of faculty from the University are given below.

- Under the collaboration between College of Engineering, Pune and North Carolina A&T State University, USA, every year one faculty member is deputed to NCAT University. Mr. Shrikant Jadhav is deputed for Ph.D. program in year 2013.

- The University has deputed Prof. Sunita Jadhav to ICT UGC Networking Resource Centre-Summer Research Fellowship, in 2012-13 for 14 months under the collaboration with Institute of Chemical Technology (ICT).
- Ms. Shamla N. Shinde, Assistant Professor in Chemical Engineering, has been deputed to work with Dr. Sanjay Mahajan at IIT Bombay to carry out research in the field of Reactive distillation for two months in 2013.
- Ms. Veena Shinde, Assistant Professor in Chemical Engineering, undertook research in collaboration with NCL Pune.
- Prof. Toshihero Moriga and Prof. Pankaj Koinkar of Tokushima University, Japan, delivered lectures on Nanoscience and Nanotechnology for M.Tech Nanotechnology course in College of Engineering, Pune.
- Prof. Erach Bharucha in 2013-14 and Prof. Shamita Kumar in 2012-13, 2013-14 and 2014-15 were invited as visiting professors at the University of Cologne, Germany.
- Prof. Sneha Pitre has visited Malardalen University, Swedenfor 3 weeks for teaching and gaining clinical experience as well as to plan for further collaborations.

Research and Publications

University has conducted 182 research projects in collaboration with industries and other institutions such as Praj Laboratories, Baidyanath Pvt.Ltd. Nagpur, National Chemical Laboratory Pune, Maharashtra State Biodiversity Board, TATA Power Ltd. Mumbai, ICSSR Delhi etc. These collaborations resulted in around 100 research publications.

Consultancy

Due to linkages, the University has earned more than four crores through 56 consultancy projects in the last four years. For example in 2014-15, College of Pharmacy has earned Rs. 46 lakhs by providing consultancy to Reliance Industries, Mumbai on exploring green algae as a potential source for anticancer drugs; Institute of Environment Education and Research has earned Rs. 18.58 lakhs by providing consultancy to German House for Innovation and Research on capacity building of city planners for planning smart cities; and College of Engineering, Pune has earned Rs. 5.2 lakhs by providing consultancy to DRDO.

Extension

The linkages with Industries, Government agencies, NGOs, etc., promote extension activities that are directly beneficial to the community in terms of health awareness programs, education of the rural masses etc. Linkages with Government of Maharashtra have helped Medical College and Hospital, Pune to initiate implementation of Rajiv Gandhi Jeevandayee Arogya Yojana and recognition as a centre for treatment of H1N1. This has also helped in

organizing CME programmes for medical officers working in tribal areas of Maharashtra.

Student placement

The Institute of Management and Entrepreneurship Development, Pune and the Institute of Management and Research, New Delhi and College of Engineering, Pune have several linkages with industry for internship and on-the-job training. These activities resulted in the placement of students in reputed industries such as Tata Consultancy Services (TCS), Zensar Technologies, Berger Paints, Jay Biotech, HSBC, Café Coffee Day etc.

3.7.3 Has the University signed any MoUs with institutions of national/international importance/other universities/industries/corporate houses etc.? If yes, how have they enhanced the research and development activities of the University?

The University has signed 38 MoU's with national and international institutions/universities. Some MoU's that have resulted in significant outcomes are listed below.

- Medical Colleges in Pune and Sangli have received a grant of Rs.110 lakhs from Bill and Melinda Gates Foundation (Through INLCLEN Trust) for a multi-centric collaborative research project in rural areas and urban slums of Pune and Sangli

- Medical College Pune has organized a national symposium on Integrated Research: What and How, in 2013 and an international conference on Advances in Asian Medicine in January 2016 in collaboration with IASTAM.

- A collaborative research project between Medical College Pune and Indian Institute of Tropical Meteorology on Air Quality has been resulted in publications.

- The Medical College Pune has received a research grant of Rs. 229.23 lakhs through 10MoU's it signed with WHO and Pharma companies such as GSK Biological, MSD, Novartis India, Shanta Biotech and Sanofi Pasture etc. for conducting clinical trials.

- The College of Ayurved has received Rs. 1.8 lakhs to conduct drug trials from Baidyanath, Nagpur.

- The MoU between Rajiv Gandhi Institute of Information technology and Biotechnology and Jay Biotech Pune for developing bio-organic products for agriculture has helped to develop research in the area of agricultural microbiology.

- IRSHA's collaboration with Green Vision, Pune for a study on prevalence of Cervicities in Bhor block of 3300 women has resulted in research publications.

- IRSHA's collaboration with Ensign Dietcare, Pune for development of dietary products and Rich and Healthy, Pune for use of Omega-3 in food chains has

facilitated development of different products such as Fortified eggs, Omega-3 chocolates and Chicken.

- Another collaboration between IRSHA and Natural remedies Pvt. Ltd., to develop a standardized herbal anti-inflammatory product for management of osteoarthritis has resulted in joint publications.
- The Institute of Hotel Management and Catering Technology has entered into a MoU with Global Education Management Services, UK to facilitate internships and placements which has resulted in placement of students at international hotels.

3.7.4   Have the University-industry interactions resulted in the establishment / creation of highly specialized laboratories /facilities?

Yes, the University-industry interactions have resulted in establishment of facilities for research in the University. The College of Engineering, Pune has set up Lubrication Condition Monitoring Laboratory with SKF India Ltd., Pune. The Medical College, Pune along with Serum Institute of India has undertaken development and trials of vaccines such as MMR, HPV, BE Pentavalent, Rota virus surveillance, Menvo A, Quinvaxem, H1N1

Criterion – IV
Infrastructure &
Learning Resources

CRITERION - IV: INFRASTRUCTUREANDLEARNING RESOURCES

4.1   Physical Facilities

4.1.1   How does the University plan and ensure adequate availability of physical infrastructure and ensure its optimal utilization?

The University plans and ensures adequate availability of physical infrastructure to its constituent units as per the norms of UGC and various statutory councils. During last five years University has stared 57 new programs referred in 1.3.1 of which 26 are at post-graduate level. Most of the masters programs are under health sciences, biotechnology and allied sciences. The Universityhas created new infrastructural facilitiesand learning resources which are required for meaningful teaching- learning processes. These facilities include buildings, equipment, hardware and software, ICT infrastructure, library books and also subscribed to research journals.

The optimum utilization of infrastructural facilities is ensured by sharing some of the facilities like seminar halls, auditoriums, play grounds, guest houses, hostels, etc. The University has School of Distance Education (SDE) which offers variety of programs and courses. The study centers of the SDE are located at the constituent units and these study centers utilize the infrastructural facilities on Saturdays and Sundays and also during the winter and summer vacations.

4.1.2   Does the University have a policy for the creation and enhancement of infrastructure in order to promote a good teaching-learning environment? If yes, mention a few recent initiatives.

Yes, the University has a clearly definedpolicy for the creation and enhancement of infrastructure in order to promote good teaching-learning environment on all the campuses.

When a new academic program is proposed or major revisions are made to the existing programs, necessary infrastructure and resources are created at the constituent unit for satisfactory conduct of the program. In many cases, the infrastructure is developed strictly according to the norms prescribed by the Statutory Councils, UGC and State Government.

Few recent initiatives implemented by the University to promote good teaching-learning environment on all the campuses are as follows:

- Establishment ofmain data centre at Dhankawadi campus, Pune and satellite data centres at Navi Mumbai and Sangli campuses. Within the campuses the institutions are connected by fiber optic cables.
- All the class rooms are made ICT enabled with smart boards, internet connections, and also provided with CCTV surveillance, Language Laboratory and Computer Laboratory as per requirement of each constituent unit.
- The libraries are enriched with physical as well as electronic resources such as digital databases, e-books and e-journals, library management software.
- A simulation laboratory has been established at Medical College, Pune to provide experiential learning to the student by using simulators.
- During last four years many super-specialty courses are introduced in medical colleges and accordingly new facilities like super-specialty OPD, HDU, Cardiac Cath lab, Pathology laboratory have been created. Hence the infrastructure in the hospital has been augmented by purchasing new equipment, upgrading technology and by renovating many facilities like Pediatric ward, Surgery ward, Medicine ward & clinic rooms etc. Up gradation of hi-tech equipment's of ICU, NICU, PICU and other Critical areas, dialysis unit, Physiotherapy department etc. has been done. Endoscopy, ESWL sections etc. have been started.
- Food Testing Laboratory accredited by NABL and APEDA has been developed with sophisticated instruments at Poona College of Pharmacy.

4.1.3 How does the University create a conducive physical ambience for the faculty in terms of adequate research laboratories, computing facilities and allied services?

The University provides a conducive physical ambience for faculty to plan and implement appropriate student centered teaching-learning processes as well as conduct meaningful research. For this, faculty is provided dedicated space, modern computing systems with uninterrupted power supply, high speed internet connectivity and access to e-resources.

All the research laboratories are equipped with sophisticated instruments which are made available to the faculty to conduct research and consultancy in identified thrust areas. For example, food and drug testing laboratory of College of Pharmacy is equipped with sophisticated instruments such as LC MS MS, GC MS MS, ICP MS etc. The college also has a drug design laboratory equipped with modern computational software's for designing new drug molecules. The libraries of each constituent unit are equipped with latest reference books, journals and digital databases.

4.1.4 Has the University provided all departments with facilities like office room, common room and separate rest rooms for women students and staff?

Yes, the University has provided spacious and well-furnished administrative offices, offices for heads of the constituent units, rooms for heads of the departments, staff room for the faculty, separate common rooms for the men and women students and all the buildings have sufficient number of rest rooms for women students and staff.

4.1.5 How does the University ensure that the infrastructure facilities are disabled friendly?

All buildings of the University have been designed to create a barrier free environment so that differently-abled persons can move within the campus without any help. The constituent units ensure that adequate infrastructural facilities like lifts, ramps, wheel chairs etc., are made available to the disabled. Differently abled persons are provided accommodation on the ground floor in the hostels.

Special assistance is provided to differently abled persons in the librariesto search for books, journals or any other material in the libraries. In laboratories also, the disabled students are provided with facilities that enable them to do the work comfortably.

4.1.6 How does the University cater to the requirements of residential students? Give details.

There are 24 fully catered hostels on various campuses, out of which 14 are for women and 10 are for men. The total capacity of residential accommodation is 4170, out of which 2152 are in women hostels and 2018 in men hostels. Thus the University is providing hostel accommodation to the 25% of its enrolment. The details of the hostels along with the respective capacities are given below:

Sr. No.	Campus	Men's Hostels		Women's Hostels		PG/ Intern Hostel		
		No.	Capacity	No.	Capacity	No.	Capacity	
							PG	Intern
1	Dhankawadi, Pune	2	466	6	1029	1	243	90
2	Erandawane, Pune	1	161	1	203	-	-	-
3	Navi Mumbai	1	240	1	310	-	-	-
4	New Delhi	-	-	1	100	-	-	-
5	Sangli	3	518	5	610	1	140	150
6	Karad	1	10	-	-	-	-	-
	Total	**8**	**1395**	**14**	**2152**	**2**	**383**	**240**

Further, construction of a women's hostel for international students with occupancy for 500 is about to be completed in the next four months. This hostel is 13 storied with all modern facilities of international standards.

The facilities provided in all these hostels include well furnished rooms with broadband connectivity, cots, tables, chairs and cupboards; solar water system; 24 x 7 security service; safe drinking water, hygienic food and spacious dining hall with proper water supply. Recreational facilities like gymnasium, yoga room, reading rooms with magazines and newspapers, T.V. room etc. are also provided in all the hostels. Canteen, photocopy centre, stationary store, etc. are available on each campus.

Thus the University is making all efforts to see that students feel comfortable during their stay on the campus.

The University has a large number of international students from 45 countries. A dedicated international hostel for women students with a capacity of 500 is under construction at the Dhankawadi campus, Pune.

4.1.7 **Does the University offer medical facilities for its students and teaching and non-teaching staff living on campus?**

There are seven multi specialty teaching hospitals attached to each of the seven constituent units- two medical colleges, three dental colleges, one ayurvedic and one homoeopathic college. These hospitals are equipped with state of the art facilities which are available to the teaching and non-teaching staff and the students.

The health services are provided to all the staff and the students at nominal charges. Free medical check-up is organized every year for all the students admitted in the first year. Group personnel accident insurance scheme is in place for all students with a total sum insured to the tune of Rs. 180 crores at a premium of Rs. 4 lakhs per annum. Special clinic centers are established by the ayurvedic and homoeopathic hospitals at Erandwane campus, Pune for the benefit of students and staff.

At New Delhi campus, a medical consultant and trained staff visit the campus for two hours from 4 pm to 6 pm every day except Sunday. In all the institutes, first aid boxes are kept handy.

4.1.8 **What special facilities are available on campus to promote student's interest in sports and cultural events / activities?**

On all the campuses, the University has provided facilities to promote students 'interest in sports and other extra-curricular activities. The campuses have facilities for both outdoor and indoor sports.

For outdoor sports activities there are well maintained grounds for cricket, football, hockey, kabbadi, volleyball and basketball courts admeasuring 1,16,736 sq. mtrs. Facilities for indoor sports such as chess, carom, aerobics, badminton court, table tennis, and gymnasium are also made available to the students on all the campuses.

All the campuses have well equipped auditoria, to conduct cultural activities. The campus at New Delhi has also an amphitheater. The University has a full-fledged sports department. The University has appointed a Director of Physical Education at each campus to provide guidance and coach the students to participate in sports activities.

The University encourages the students to participate in inter-collegiate, inter-University, inter-state, national and international sports and cultural events / activities. Every year in the month of September, the University organizes 'Bharti Youth Festival' and inter-collegiate sports tournaments during January to March to enable the students to exhibit their hidden talent in cultural and sports activities. The constituent units also conduct their annual sports and cultural meets. Students involve in these events either as participants or as members of the committees that organize these activities, thereby promoting team work and team spirit and helping them to develop leadership skills.

4.2   Library as a Learning Resource

4.2.1   Does the library have an Advisory Committee? Specify the composition of the committee. What significant initiatives have been taken by the committee to render the library student/user friendly?

Yes, the University has a Library Advisory Committee to monitor the functioning of libraries in the constituent units. The composition of the Committee is as below:

i)	Vice Chancellor	-	Chairman
ii)	Two Deans of Faculties	-	Member
iii)	Finance officer	-	Member
iv)	Registrar	-	Member Secretary
v)	Principal / Director *	-	Member
vi)	Librarian *	-	Member

* The Principal/Director and the Librarian will join the Library Advisory committee meetings for discussions regarding their respective constituent units

In addition, each constituent unit also has library advisory committees. All the libraries are computerized and the students and faculty have open access. The feedback from the students on the overall functioning of the library is obtained annually and analyzed and, outcome is placed before the library advisory committee.

A significant initiative taken by the committee is to frame a library policy to set the procedures for the procurement of new books based on the curricular requirements, number of copies of textbooks and reference books to be procured, the number of books to be issued to students and faculty, the working hours of the libraries during regular teaching period, extension of working hours during examination period and during vacation.

The committee oversees distribution of library budget among various libraries as well as the automation of libraries. It identifies innovations and best practices for implementation of library operations. It ensures library committees are constituted in each constituent unit and help in enrichment of respective libraries through

- Purchase of books as per the syllabus, latest edition of text books, books which are in more demand, books published by eminent Scholars.
- Procurement of reference and text books as recommended by students and faculty.

    The significant initiatives taken include -
- Formulation of procedures to transform libraries into 'happening places' and to make functions of the library user friendly
- Automation of library administration and services
- Providing open access to all students and faculty
- Facilitating search for resources through Online Public Access Catalogue (OPAC).
- Access to web resources, inter- library loan and reprographic facilities.
- Display of new arrivals.
- Subscription to digital data bases in respective disciplines.

4.2.2 Provide details of the following-
- **Total area of the library (in Sq. Mts.)**
- **Total Seating capacity**
- **Working hours   (on working days, on holidays, before examination, during examination, during vacation)**
- **Layout of the library (individual reading carrels, lounge area for browsing and relaxed reading, IT zone for accessing e-resources)**
- **Clear and prominent display of floor plan; adequate sign boards; fire alarm; access to differently-abled users and mode of access to collection.**

Total area of the library	-	14,214 sq. mts.
Total Seating capacity	-	3488
Working hours	-	Ten hours on average from Monday to Friday, seven hours on Saturdays, twelve hours during examinations, two hours during holidays and eight hours during vacations.

The reading rooms are well furnished to provide relaxed reading. The ambiance in the libraries is such that students enjoy using facilities of the reading room for learning. IT zones are created in all the libraries to provide access to e-resources such as online databases and e-library. In some constituent colleges such as Poona College of Pharmacy, language labs are also part of the libraries. Floor plans, adequate sign boards and fire alarms are strategically placed in libraries. Sufficient space is provided between racks so that the disabled students can freely move and access the resources.

4.2.3 Give details of the library holdings:
   a) **Print (books, back volumes and theses)**
   b) **Average number of books added during the last three years**
   c) **Non Print (Microfiche, AV)**
   d) **Electronic (e-books, e-journals)**
   e) **Special collections (e.g. text books, reference books, standards, patents)**
   f) **Book Banks**
   g) **Question Banks**

The details of the library holdings are as below:

a)	**Print (text and reference books)**	:	503815
b)	**Average number of books added during the last three years**	:	19843
c)	**Non Print (Microfiche, AV)**	:	13565
d)	**Electronic (e-books, e-journals)**	:	6227
e)	**Special collections (e.g. thesis, back volumes)**	:	30430
f)	**Book Banks**	:	The University implements book bank scheme
g)	**Question Banks**	:	The faculty prepares question banks for courses that they teach, copies of which are made available in the library of the constituent units for reference by students

The University subscribes to more than 1500 national and international journals in various disciplines. There are 20480 bound volumes of back

periodicals in the libraries. The year-wise details of national / international journals are given in the following table:

Parameter	2012-13	2013-14	2014-15	2015-16	Total (as on today)
International Journals	614	607	626	664	664
National Journals	904	873	917	874	874
Magazines	329	311	324	321	321
Free Journals	53	55	56	83	83
e-books	566	970	684	610	4096
e-journals	4132	4683	5094	5617	5617

4.2.4 What tools does the library deploy to provide access to the collection?

All the libraries provide open access to their users and they are provided with library management software such as SOUL, Easy lib, and other system. The libraries provide following facilities to access their collections.

- Adopt an open access system by which students and faculty can access the racks and search for the books. This facility has an advantage that the students can also be aware of other books which are available on the topic.
- If the user is unable to find the required resource, the library staff helps the user. The library staff also helps the differently-abled users in accessing the collection.
- Online public access catalogue (OPAC) to search library collection.
- The institutes participate in resource sharing networks / consortia such as INFLIBNET, Nlist, UGC INFONET, and DELNET. In addition, the institutes of health sciences also use medIND and MUHS Nashik e-journal access system.

4.2.5 To what extent is ICT deployed in the library? Give details with regard to
- **Library automation**
- **Total number of computers for general access**
- **Total numbers of printers for general access**
- **Internet band width speed**
- **Institutional Repository**
- **Content Management System for e-learning**
- **Participation in resource sharing networks/consortia (like INFLIBNET)**

The University has given importance to automation of its libraries to improve access to library services. The automation has facilitated the faculty and students in accessing books easily. The libraries are provided with dedicated computers, printers, reprographic facilities and internet foreasy download and printing of learning material. The details are as follows.

- **Library Automation**: Libraries of seven constituent units use SOUL 2.0 software for library automation, three uses Easy Lib and the remaining institutions use a Library Management Software. The software is used for barcoding of books as well as users; and to prepare acquisition, cataloging, circulation, managing serials, visitor's attendance records. All the institutes also use this software for administration of library.

- **Total number of computers and printers for general access:** The libraries together are provided with 784 computers and 44 printers.

- **Internet band width speed :** All the libraries have internet connectivity with bandwidth ranging between 2-16 MBPS

- **Institutional Repository:** Ten constituent units have institutional repositories and The Universityhas also created e-library, the content of which are open to the faculty, students and other users.

- **Content Management System for e-learning:** The ICT Center has a customized MOODLE, a Learning Management System, to manage content for e-learning. The e-learning system presently has content for more than 250 courses corresponding to about 15 programs. Further, students can access NPTEL and other Open Educational Resources as study material.

- **Participation in resource sharing networks/consortia (like INFLIBNET):** All the libraries participate in resource sharing networks such as INELIBNET, Nlist, UGC INFONET, J-Gate, and DELNET. In addition, the Institutes of Health Sciences also use medIND and MUHS Nashik e-journal access system.

4.2.6 Provide details (per month) with regard to
- **Average number no. of walk – ins**
- **Average number of books issued / returned**
- **Ratio of Library books to students enrolled**
- **Average number of books added during last four years,**
- **Average number of login to OPAC**
- **Average number of login to e-resources,**
- **Average number of e-resources downloaded/printed,**
- **Number of IT (Information technology) literacy trainings organized.**

The details for all libraries together are given in the following table:
- **Average number no. of walk – ins / month** : 77250
- **Average number of books issued / returned per month** : 54750
- **Ratio of Library books to students enrolled** : 24:1
- **Average number of books added per year during last four years** : 19843
- **Average number of login to OPAC /month** : 816
- **Average number of login to e-resources / month** : 118
- **Average number of e-resources downloaded/printed / month** : 320
- **Number of IT(Information technology)literacy trainings organized** : 21

4.2.7   Give details of specialized services provided by the library with regard to
- **Manuscripts**
- **Reference**
- **Reprography/Scanning**
- **Inter-library Loan Service**
- **Information Deployment and Notification**
- **OPAC**
- **Internet Access**
- **Downloads**
- **Printouts**
- **Reading list/ Bibliography compilation**
- **In-house/remote access to e-resources**
- **User Orientation**
- **Assistance in searching Databases**
- **INFLIBNET/IUC facilities**

The details of specialized services provided by the libraries are as below:

- 9950 post graduate dissertations and Ph.D. thesis are available in the libraries in hardbound and soft versions. Bound volumes of research papers published by the faculty, abstracts of papers presented in the conferences and patents are also available in the libraries of constituent units. The soft copies (as pdf) of these papers are available.

- The libraries of the constituent units collectively have 1,37,615 reference books and 20480 bound volumes of journals, which are an asset of the institutional libraries. Some rare volumes such as Chemical Abstracts from 1907 to 1984 are also preserved in Poona College of Pharmacy, Pune. In addition, copies of project reports submitted by students, copies of old syllabus, set of old question papers of the University, paper clippings, bibliographic information, admission notification, staff advertisement, albums of important programs and functions conducted by the college is also preserved.

- All the constituent units have printers, scanners and photocopy facilities in their libraries.

- The University has established inter-library linkages with libraries of other universities and colleges, IITs, British Council Library, Mahratta Chamber of Commerce, National Chemical Laboratory and Automotive Research Association of India. As and when necessary the students, research scholars and faculty can access resources in those libraries and can also borrow books on loan. Further, the constituent institutions of the University exchange library resources among themselves.

- The libraries regularly display new arrivals on library notice board. Information about new arrivals is also communicated through e-mails. Some

libraries also highlight the reviews of important books published in various journals and display addresses of important websites on the notice board.

- All the libraries have On Line Public Access Catalogue for users while 8 institutes also have web-OPAC facility. The INFLIBNET facility is available in all constituent units.
- Internet access is provided in libraries though 437 internet-enabled computers.
- The users can download content from e-resources such as on-line data bases and courseware from NPTEL and other resources. The average number of downloads of e-content is 320 per month.
- The remote access to e-resources is made available for faculty members and students through N-LIST, INFLIBNET, J-GATE, and DELNET.
- The students are introduced to available library and resources during the induction programs. Workshops are held to faculty and students to acquaint them in using electronic resources such as digital databases, Open Educational Resources etc.
- E-learning platform, e-journals, e-books and 39 online databases such as UGC-INFLIBNET and N-List are available for quick referencing.

4.2.8 Provide details of the annual library budget and the amount spent for purchasing new books and journals?

The University gives emphasis on updating its libraries with respect to books and journals considering changes to syllabus and number of students admitted. This is evident from the details of the expenditure given below.

Name of the Library Resource	Budgeted for Library (Rs. in Lakh)				Amount spent for purchasing new books and journals (Rs. in Lakh)			
	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
Printed Books	305.63	536.19	304.37	337.09	131.67	145.52	197.95	122.72
Printed Journals	231.96	362.87	391.16	361.39	183.54	226.65	241.93	266.93
e-resources					124.40	120.99	128.82	192.50
Total	**537.59**	**899.06**	**695.53**	**698.48**	**439.61**	**493.16**	**568.7**	**582.15**

4.2.9 What initiatives has the University taken to make the library a 'happening place' on campus?

In order to make the library as a happening place, the library committees visualize the expectations of the users from library such as availability of many titles of books on the same subject, online learning resources, online databases, and easy access to both physical and electronic resources and try to fulfill those expectations. Accordingly, the University ensures that the libraries are resource-rich with latest books, high impact journals, internet and online databases in every discipline. Further, the functions of the libraries are automated to provide easy access to resources and information from anywhere globally.

Other initiatives taken by the University include periodic book exhibitions, establishment of linkages with other local and national libraries, organizing annual book exhibitions in the library premises, arranging guest lecturers during exhibitions on topics such as literature, economics and latest technologies etc., provision of separate computers with internet facility in the libraries, establishing language laboratories in some of the libraries and subscribing to newspapers, magazines and publications on competitive examinations etc.

Most importantly, the University has taken care to provide reading rooms for students and faculty for relaxed reading and use of the resources. Particularly, students are motivated to spend time for self-learning by using content on NPTEL,e-pgPathshala,YouTube, Open courseware, University's e-learning portal etc.

4.2.10 What are the strategies used by the library to collect feedback from its users? How is the feedback analyzed and used for the improvement of the library services?

- At the end of the academic year, on-line feedback on the library services is obtained from the students and is analyzed and outcome is placed before the library committee for its considerations and further action. In addition suggestion box is available in all libraries where students can drop their suggestions for improvement of library facilities. These are scrutinized by the library committees and appropriate actions are taken. All these initiatives of the University help to improve the quality of library services.
- Teacher–ward meetings are another avenue to get feedback on library facilities in an informal way.The approved suggestions concerning reading room, browsing facility, transaction timings, extension of working hours during examination period etc. are implemented.

4.2.11 List the efforts made towards the infrastructural development of the library in the last four years.

The University has augmented the infrastructural facilities of libraries to keep pace with the changing needs of the academic community.

- The expenditure on library resources has increased from Rs. 439 lakhs in 2012-13 to Rs. 582 lakhs in 2015-16.
- The expenditure on electronic resources has increased by 54.8% from Rs. 124 lakhs in 2012-13.
- During the last four years the expenditure on journals has also increased.
- The libraries of all the constituent colleges have been provided either with SOUL 2.0, Easy Lib or LMS library automation software. The functions that have been automated include bar-coding, acquisition and circulation.

- In addition, online resources such as databases in various disciplines and e-learning platforms are provided.
- Bandwidth of the internet has been increased significantly
- CCTV cameras as well as bio-metric / smart card access systems have been installed in some libraries, such as library of the Poona College of Pharmacy.

4.3 IT Infrastructure

4.3.1 Does the University have a comprehensive IT policy with regard to?
- **IT Service Management**
- **Information Security**
- **Network Security**
- **Risk Management**
- **Software Asset Management**
- **Open Source Resources**
- **Green Computing**

The University is aware of the critical role of Information and Communication Technology (ICT) in higher education as it is committed towards the extensive application of ICT to enhance the quality of its academic and administrative efficiency and to optimize learning experiences of students. The University has formulated a comprehensive ICT Policy to support the same. The policy stipulates that:

- The guiding principles to extend ICT services should consider access, economy, efficiency, effectiveness, relevance, transparency, privacy, accountability, sustainability, network security and quality assurance of ICT services while providing services to the stakeholders.
- The application areas covered by the ICT policy include -research; teaching-learning; student evaluation; student support services; community engagement; student data management; human resources development for using ICT as well as maintaining ICT infrastructure; networking through collaborations and linkages and quality assurance of various academic and administrative processes.
- As an ongoing process, ICT applications shall consider the rapid pace of technology changes.
- ICT policy management shall be integrated with the overall institutional development plan of the University.
- ICT system management must ensure integrity, security and legitimate applications of ICT.

- Use ICT effectively for building national and international networks to ensure innovative changes in providing quality education.
- The University shall take appropriate measures for the capacity building of academic, administrative and professional staff to effectively use ICT in all University operations.

The ICT policy covers each of the following:

- **IT Service Management:** ICT Policy states the scope and lists the ICT resources covered along with their respective ownerships. It includes guiding principles for extending ICT services and lists possible areas for ICT applications. Guidelines for quality assurance of ICT services and maintenance of ICT infrastructure are also incorporated in ICT policy.

- **Information Security:** Guiding principles provided in the policy encompasses information security aspects like confidentiality, integrity and availability. The policy states the University's responsibilities along with norms for acceptable use of ICT infrastructure. It has a dedicated section on data security consisting of formally stated security responsibilities of the users.

- **Network Security:** The policy implicitly considers network security as part of its approach towards information security. The sections on use of physical infrastructure and responsibilities of technical staff elaborate a framework for the same.

- **Risk Management:** ICT policy acknowledges the possibility of various threats toward its ICT infrastructure. There is a section in the policy on disaster recovery to safeguard the infrastructure from possible risks and to contain possible damages at acceptable levels. It supports disaster preparedness along with continual improvement. It also considers information system audit of University's ICT infrastructure as a detective and corrective measuresforrisk management.

- **Software Asset Management:** A structured approach for management of software assets is provided in the policy. It lists the assets covered and guidelines for their usage. The policy suggests an ownership oriented approach towards software asset management. It clearly mentions responsibilities of respective stakeholders, both of the University and the individual users. ICT policy also contains clauses towards web content and copyright management.

- **Open Source Resources:** It is stated in the policy that wherever possible, The University will use open source applications for providing services and reduce

the total cost of running the ICT infrastructure. The University's ICT infrastructure prominently uses open source tools and technologies like Linux, Moodle, and Lime Survey.

- **Green Computing:** The University has setup its own data center. It provides a centralized facility for hosting and managing ICT applications. It avoids higher energy consumption by centralizing ICT hardware infrastructure in an energy efficient way. Rack mounted and energy efficient servers combined with fiber optic connectivity provide required backbone for the same. The need for more number of physical servers is also reduced through virtualization, thus reducing required energy consumption. Energy efficient Linux platform is preferred wherever possible to support the green computing initiative. The University also uses thin client technology in some computer laboratories to support the cause.

4.3.2 Give details of the University's computing facilities i.e., hardware and software.

The University has provided latest hardware and software facilities to its faculty and students to enhance teaching and learning processes as well as to provide efficient administration and services to the stakeholders.

- **Data Center:**

Data center consist of 8 IBM Servers, LTO Tape Drive, Cisco Firewall 5525x (in HA Mode), Cisco 3850x (in HA Mode), Cisco 2921 Routers and Cisco 2960x (in HA Mode). Its processing capacity totals to 64 cores, with 2.2 GHz clock speed per core, and 128 GB RAM. It has 22 TB storage capacities through directly attached storage and 12 TB capacity through network attached storage.

The storage backup is provided through LTO 5 Tape Drive (2:1, 1.5 TB/3 TB) and power backup through 6 KVA x 2 UPS. The data center is protected from environmental threats by implementing infrastructure facilities like water leak detection, rodent control, 1.5 T x 2 split AC unit, CCTV, fire alarm, temperature monitoring and humidity monitoring.

- **Campus Wide Area Network:**

The University has established Campus Wide Area Network in its four campuses having multiple constituent units. The institutes in a campus are connected through optical fiber cable in redundant ring topology. It allows facilities like centralized management of internet bandwidth, on demand Internet bandwidth, centralized internet access policy, and centralized monitoring of network devices and protection of ICT resources from cyber-

attacks. The campuses are yet to be connected to each other and to the Data Center through MPLS network connectivity.

- **Open Source Technology:**
  Open source technology is used predominantly throughout University's ICT infrastructure. Wherever possible, the systems are developed using open source technologies like Linux, MySQL, Moodle, Lime Survey etc. Various constituent institutes are also encouraged to use open source alternatives to proprietary applications (e.g. PSPP as an alternative to SPSS, OpenOffice as an alternative to MS-Office, GNU language processors as alternative for proprietary language processors etc.)

- **Other ICT Infrastructure:**
  University has 28 servers, 4787 computers, 243 laptops and sufficient number of printers and scanners. The computer student ratio is 1:4. The University has 392 licenses for proprietary software and unlimited user licenses for all Microsoft products. Internet connectivity is provided with bandwidth ranging from 2 to 16 mbps. The campuses are Wi-Fi enabled. The number of computers connected to Internet is 4283, that is about 89 percent of computers in the University. The ICT infrastructure also includes online resources and content creation software such as Raptivity, Xerte, Darim e-studio, Moodle. Thirty one class rooms in various constituent colleges have been provided with multimedia smart boards and internet connectivity.

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

The University has established an ICT Centre to develop, deploy and manage the IT infrastructure and train the faculty, students and non-teaching staff in its effective use. The following are the plans for deploying and upgrading the IT infrastructure.

- To facilitate e-governance by deploying suitable ERP system and make the office, wherever possible, paperless.
- To create virtual class rooms to facilitate sharing of expertise remotely across all constituent units.
- To create virtual laboratories using thin client technology to make IT infrastructure cost effective and eco-friendly.
- To develop infrastructure for in-house content development for online as well as MOOC courses.
- To facilitate digitization of all University old records for easy access and durability.
- To upgrade internet and Wi-Fi connectivity to meet the requirements of virtual classrooms and video conferencing.

- To transform all classrooms as smart classrooms and/or 24x7 classroom teaching.
- To train faculty and non-teaching staff to be fully tech savvy.

4.3.4 Give details on access to on-line teaching and learning resources and other knowledge and information database/packages provided to the staff and students for quality teaching, learning and research.

The University has provided 31 Smart Boards to various constituent units for interactive teaching. Educational resources such as INFLIBNET, Nlist, INFLIBNET Shodhganga, INFLIBNET UGC-INFONET, J-Gate, DELNET are also made available at all constituent colleges.

Some of the digital databases and e-resources include:

Faculty	Digital database / e-resource
Medical	DELNET, MUHS, Nashik, JGate@UGC-Infonet, INFLIBNET Shodhganga, DOAJ (Directory of Open Access Journals)
Dental	INFLIBNET Shodhganga, INFLIBNET UGC-infonet, DELNET, medIND, EBSCO
Ayurved	INFLIBNET Shodhganga, INFLIBNET UGC-infonet, DELNET,
Homoeopathy	DELNET,
Nursing	INFLIBNET Shodhganga, DELNET,
Pharmacy	INFLIBNET N List, INFLIBNET Shodhganga, INFLIBNET UGC-infonet, Open J-Gate, DOAJ (Directory of Open Access Journals), DOAR (Directory of Open Access repositories)
Environment	Open J-Gate
Biotech	DELNET
Engineering& Technology	INFLIBNET Shodhganga, INFLIBNET UGC-infonet, DELNET, IEEE-Computer Society, Elesevier, ASCE Digital Library, ASME Digital Library, ASTM Digital, Springer, NPTEL, Tata Mc Graw-Hill References, DOAJ,
Law	INFLIBNET NLIST, INFLIBNET Shodhganga, INFLIBNET UGC-infonet, Manupatra, SCC Online, WestLaw, CLA Online, Taxmann,
Arts, Commerce & Social Sciences	INFLIBNET NLIST, INFLIBNET Shodhganga, INFLIBNET UGC-infonet, DELNET
Management	INFLIBNET Shodhganga, INFLIBNET UGC-infonet, DELNET, JGate, Social and Management Science, DOAJ, Open JGATE, DOAR, IEEE, EBSCO, Sage Online Journals, Academic Journals, ProQuest,

Apart from above mentioned resources, University also provides access to its own online platforms to support teaching, learning and research such as:

- **e-Learning Environment:** The University has its own Learning Management System (LMS). Class coordinators, teachers and students access this system through their respective logins. The e-learning environment offers two major services namely e-classrooms and study resources. It can be accessed over the internet at http://ele.bvuict.in/ele. Presently there are 3,500+ users, 15+ programs and 250+ courses on this system.

- **e-Library:** The University has created an e-library environment where constituent institutes can open their teaching-learning and research related resources for the public. It provides facilities to publish online journals, institutional newsletters and video clips. Institutional digital subscriptions may be linked to the same. It also acts as a centralized access point (for students, teachers and researchers) for publicly available online resources like NPTEL and MOOCs. e-Library environment can be accessed at http://elib.bvuict.in/moodle.

4.3.5 **What are the new technologies deployed by the University in enhancing student learning and evaluation during the last four years and how do they meet new / future challenges?**

In order to deploy latest technologies for enhancing teaching, learning and evaluation processes, the University has taken some initiatives that include the following:

- **Smart Classrooms:** Smart boards have been installed in 31 class rooms, thus enabling integration of content from multiple sources into the ongoing lecture.
- **Attendance Management System:** A web based attendance management system has been deployed. It is used to monitor attendance of students and number of lecture sessions conducted by the teachers based on which appropriate course corrections can be initiated.
- **E-learning Environment:** This portal provides online study material for the individual courses.
- **E-library:** This facilitates access to all students and faculty of the University and outsiders for knowledge resources created internally by the faculty of the University.
- **Online Testing System:** This system enables conduct of online examinations and quizzes. A teacher has the flexibility to conduct online examinations based on multiple choice questions, keyword based short descriptive questions, fill-in the blanks and match the pairs so that students

as well as the teachers can get immediate feedback on the extent of learning.

- **Online Feedback System:** This system is used for improving quality of teaching learning process, infrastructural facilities and learning resources. The feedback form is made available online at the University's ICT portal. Feedback given by the students is analyzed and the report is generated automatically by the system.
- **Online Questionnaire system:** This facility is created for researchers who need to conduct research through surveys. Faculty members can post questionnaires and collect responses from respondents online. This system facilitates quicker data collection and also provides basic statistical analysis.
- **Simulators:** Simulators and visualizes are being used at Medical College and Dental College to create complex scenarios for students to analyze and learn.

4.3.6 What are the IT facilities available to individual teachers for effective teaching and quality research?

The IT facilities provided to individual faculty include personal computers and laptops with latest configurations, access to digital databases in various disciplines and special purpose software such as statistical packages, simulators and anti-plagiarism software. Some of the other IT facilities are:

- Bioinformatics tools such as Rasmol
- Research tools Mendeley, LimeSurvey, SPSS, PSPP, SOFA etc.
- Geo-informatics software like ERDAS-IMAGINE, ARCGIS, ENVI, IDRISI etc.
- Computer aided drug design software Schrodinger, drug database micromedex
- Specialized PCP-Disso Testing Software pertaining to drug release from tablets. This software was developed by Poona College of Pharmacy, Pune and is being widely used by a number of pharmacy institutions and industries.

During last two years, the University has conducted seven workshops to train the faculty and research scholars in using the above software and tools.

The outcome of these workshops shows that the number of faculty using statistical packages, online databases, and other tools in their teaching and research has increased considerably. The check for originality of content in papers and thesis using ant plagiarism software has become a normal practice.

4.3.7 **Give details of ICT-enabled classrooms/learning spaces available within the University? How are they utilized for enhancing the quality of teaching and learning?**

In order to facilitate interactive teaching-learning in the classrooms, the University has provided 228 LCD projectors and 31 smart boards with multimedia features in classrooms at its various constituent units. 150 classrooms are connected to internet and some classrooms have Wi-Fi connectivity also. The faculty of the Medical College, Pune uses simulators, virtual experiments, working models, interactive class-notes, and session recordings to enhance learning.

These have provided varied learning experiences to the students and improved the quality of learning outcome.

4.3.8 **How are the faculty assisted in preparing computer- aided teaching-learning materials? What are the facilities available in the University for such initiatives?**

The University regularly conducts training programs to make its teachers proficient in preparation of computer-aided teaching-learning materials. The ICT centre of the University has conducted 21 training programs on computer aided teaching tools during last three years. These training programs focus on using the learning management system 'Moodle', e-content development tools such as Raptivity, Xerte, Darim e-studio etc., efficient use of spreadsheet and presentation software.

The facilities available in the University for ICT enabled teaching include Multimedia PCs, Cameras, Mikes, Speakers and E-Content development tools such as Raptivity, Xerte, Darim e-studio, Moodle.

The faculty of the University has developed eLearning lessons for 250 courses in 15 programs.

4.3.9 **How are the computers and their accessories maintained?**

The computers and their accessories are purchased with three years inbuilt warranty. After the end of the warranty period, the University enters into annual maintenance contract with either the vendors or third party to maintain the computers and its peripherals. The vendors are responsible for maintenance of computers, printers and rectifying internet problems. In 2015-16, expenditure on maintenance of computer and accessories was to the tune of Rs. 102.27 lakhs. In addition, technical staff of the various constituent units takes care of minor repairs of the computers and accessories.

4.3.10 Does the University avail of the National Knowledge Network connectivity? If so, what are the services availed of?

Yes, the University is connected to the National Knowledge Network (NKN). It has one GBPS bandwidth connectivity with NKN. The NKN router is connected at University's data center. The University shares and propagates NKN connectivity through its data center and Campus Wide Area Network facility. Among all the services offered by NKN, its JGate+ digital library service is most availed.

4.3.11 Does the University avail of web resources such as Wikipedia, dictionary and other education enhancing resources? What are its policies in this regard?

Yes, the University provides all necessary web resources such as Wikipedia, dictionary and other educational software for use by students and teachers. However, plagiarism from these resources is strongly discouraged. All the open authentic resources are used by the faculty. The University monitors the extent of use of the web resources and as per its ICT policy, the University has blocked some restricted sites through firewalls.

4.3.12 Provide details on the provision made in the annual budget for the update, deployment and maintenance of computers in the University.

The University makes sufficient budgetary provision to purchase of new computers, up gradation of existing computers and their maintenance. The year wise total budget for procurement and maintenance of computers are given below:

Annual Budget for Upgradation and Deployment of Computers (Rs. In Lakh)				Annual Budget for Computer Maintenance (Rs. In Lakh)			
2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
233.19	171.41	338.14	364.41	155.48	167.35	157.67	175.075

4.3.13 What plans have been envisioned for the gradual transfer of teaching and learning from closed University information network to open environment?

The University proposes to implement the following for transfer of knowledge to open environment by:

- Developing Massive Open Online Courses (MOOC) in emerging areas
- Providing online lectures through video conferencing/Skype
- Developing virtual classrooms to provide lectures by eminent professors to students in all constituent units.
- Recording of Lectures and upload the same on web/server
- Developing Online Courses through Learning Management system

- Adhering to educational websites like Academia, Google Scholar, etc.
- Encouraging teachers and students to participate in the teaching programs of other organizations.
- Promoting access to online learning resources available on e-pgPathshala, NPTEL, YouTube etc.

4.4 Maintenance of Campus Facilities

4.4.1 Does the University have an estate office / designated officer for overseeing the maintenance of buildings, class-rooms and laboratories? If yes, mention a few campus specific initiatives undertaken to improve the physical ambience.

Yes, the University has full-fledged estate office headed by the Estate Officer and he is supported by technical support staff such as civil engineers, electrical engineers, carpenters, masons, electricians etc.

Some of the campus specific initiatives undertaken to improve the physical ambience are as follows:

- At Navi Mumbai campus the painting of entire buildings is undertaken. In addition, internal roads are renovated, gardens are maintained regularly
- Renovation of the departments of Pedodontics, Conservative and Endodontics, Orthodontics and Oral surgery with vitrified tiles, separate patient cubicles, aluminum partitions, and false sailings at Sangli campus
- Construction of well-furnished two storied building for library at Sangli campus.
- Renovation and expansion of department at Sangli as per the requirements of postgraduate programs
- Also the campus at Sangli is provided with sewage treatment plant, drinking water treatment plant, incineration plant, effluent treatment plant, solar energy devices, reverse osmosis system, tree plantation, biogas plant and fire safety system
- At Dhankawadi campus, Pune sprinkler systems for watering plants is provided, well demarcated parking slots are designed at the outskirts of the campus besides this internal roads of the campus are declared as no vehicle zone. Physical ambience of the campus is always maintained by painting of buildings, ensuring proper cleanliness, maintaining lush green lawns, sports ground, plant pots, landscaping, providing adequate lights.
- The initiatives at Erandwane campus, Pune, include upgradation of basketball court, landscaping, construction of parking, drainages, electrical cabling, modification of electric substation, etc.

4.4.2 How are the infrastructure facilities, services and equipment maintained? Give details.

The estate officer looks after maintenance of buildings and central facilities such as power supply equipment, elevators, internal roads and maintenance of sport facilities. Maintenance of electricity generator, classrooms, laboratories and garden is also done by estate office. Major maintenance done through the annual maintenance contracts and minor maintenance work is done by the estate section and major work is done by inviting tenders. Separate budgetary provision is made for maintenance of buildings, equipment and computers. The process of maintenance is initiated by the campus coordinator.

Infrastructure in the seven teaching hospitals

The University has seven multi-specialty teaching hospitals attached to health sciences institutes at Pune, Sangli and Navi Mumbai. All the hospitals put together have 2200 beds and 600 dental chairs for patient care and treatment. These hospitals provide primary to tertiary level health care facilities to the patients at subsidized rates and in some cases, free of cost. During the accreditation period, these hospitals have sustained growth through infrastructural expansion, addition of latest equipment which has led to better patient care and increase in patient turnover. This growth has facilitated the diagnostic ability, skill development and research capabilities of both its undergraduate and postgraduate students.

During last four years, about one lakh sq. ft. of built up area has been added to these hospitals. Many super-specialty services and diagnostic facilities are now part of the hospitals. For example, the Bharati hospital and research centre, Pune has added the following:

- A fully operational new wing for blood bank, central clinical laboratory, cardiac operation theater and allied services admeasuring 20,000 sq.ft.
- A new super specialty OPD and Physiotherapy unit admeasuring 10,000 sq.ft.
- A new sewage treatment plant (STP) admeasuring 15,000 sq.ft. has been built as per the guidelines of the Maharashtra pollution control board(MPCB)
- A state of the art and fully equipped Cardiac Cath-lab
- A well-equipped simulation lab with latest Sim-Man 3G and fully automated whole human body simulator.
- A new high dependency unit (HDU) and Neuro ICU
- A new cardiac ambulance
- Initiation of new diagnostic and therapeutic radiological services with equipment such as 4D ultra sonography, color Doppler, digital radiography and fluoroscopy etc.

- Development of Urology, Pediatric surgery, Neurosurgery, Neonatology and Critical care Medicine as super specialty departments with all state of the art facilities

Bharati hospital and research centre, Pune has undertaken renovations and upgradations of more than half of its existing facilities. This includes the radiology department, Pediatric, ENT and Pulmonary medicine OPD, Gynecology OT, Wards, IVF centre, Emergency medicine department, Casualty, Medicine wards, ICU, HDU, Cardiac Cathlab, NICU (Step I and II), Dialysis unit, Pain clinic, Urology department, PICU, Simulation lab, Research unit, Statistical unit, New administration block and laboratories etc.

The hospital has made significant additions to its manpower consisting of more than 250 super specialists and specialist, 270 resident doctors, 450 nurses and 500 paramedical, technical and support staff. As a quality improvement measure, the hospital has already completed the 1st phase of NABH and NABL accreditation. The hospital runs various government schemes and has partnered with Pune Zilla Parishad for outreach activities.

The Dental College and hospital, Navi Mumbai has made the following additions in infrastructure and equipment:

- Digital OPG in the department of oral medicine and dental radiology
- Laser and periosurgical unit purchased in the department of periodontology and oral implantology for accuracy in surgeries
- Hanau is installed in the department of prosthodontics for accurate measurement of condylar relationship
- State of the art equipment in the department of conservative dentistry for root canal treatment
- Nemoceph studio NX software in the department of orthodontics

The Bharati Hospital, Sangli has increased its bed strength to 834 from 700 earlier. Due to an increasing demand for patient care, the department of dermatology has installed advance equipment such as diode laser, Nd-Yag laser, PUVA, NBUUB chamber etc. The department of nephrology has performed 10745 dialysis in 2015 working on a 24 hour basis. A new renal transplant equipment (approved by the government) will be put to operation. The hospital has installed a cardiac cathlab for conduct of coronary angiography. The hospital has a blood bank, advanced machines for sonography, C.T. and M.R.I.

The Dental college and hospital, Pune has been sanctioned additional post graduate seats in periodontology, oral & maxillofacial surgery, conservative dentistry & prosthodontics and crown & bridge. Since 2011, the college has

purchased high end electrical 88 chairs, digital panoramic system, radio-visiographysystems and other state of the art equipment. To enhance research, the college has developed immunohisto-chemistry laboratory, microbiology laboratory and prosthetic research laboratory.

The Dental college and hospital, Sangli has a spacious building with state of the art amenities and nestled in lush green surroundings offering a perfect ambience. The post graduate students have separate work stations and the availability of a central museum facilitates better learning.

Criterion – V
Student support
& Progression

CRITERION - V: STUDENT SUPPORT AND PROGRESSION

5.1   Student Mentoring and Support

5.1.1   Does the University have a system for student support and mentoring? If yes, what are its structural and functional characteristics?

Yes, the University has a comprehensive system for student support and mentoring. The system includes establishment of Department of Student Welfare, International Students' Cell, Central Placement Cell and Finishing School, Alumni Association, Cultural, NSS units & Sports' Departments and each of them is headed by Director. Further, advisory committees for International students and NSS activities have been constituted. The functions of the above committees are stated below.

Department of Student Welfare (DSW)

The Department of Student Welfare has been constituted to coordinate welfare activities for the students of various constituent units. The department aims at overall academic, physical and mental development by facilitating student participation in co-curricular and extracurricular activities, conduct of sessions for their guidance and assist students in academic and non-academic matters.

International Students' Cell (ISC)

The major functions of the ISC are to bring awareness among prospective students in various countries about the University and its programmes and to provide necessary support to the international students in successfully completion of their programs.

Central Placement Cell and Finishing School

The cell provides guidance for overall personality development of students, domain specific training on inputs necessary for employability and facilitates industry institute interface among its constituent units. The College of Engineering, and Management institutes at Pune and New Delhi have finishing schools to bridge the gap between the classroom teaching and the requirements of the industry.

Alumni Association

The alumni association facilitates interactions of the alumni with the current students and coordinates the activities of the alumni associations at the constituent units. The alumni cell maintains the data of all alumni.

Cultural and Sports' Departments

The respective departments facilitate the conduct of activities both at University and constituent unit levels for student's development. It encourages students to participate in events held outside the University by providing training, allowances and other incentives. The departments make available facilities, infrastructure and equipment required for conduct of sports and cultural activities.

The support system functions through multiple layers beginning with class coordinators and teacher mentors, who are in direct contact with groups of students on daily basis and are fully aware of students' profiles and requirements. They are the first contacts for the students when any problem arises, academic or personal.

The student teacher ratio in the University is 13:1which facilitates focused attention, academic guidance and mentoring of students during their tenure. Hence, for the teacher ward group, each faculty is assigned about 15 students for mentoring purposes. The mentor faculty meets the students regularly and pays individual attention to each student of the group.

The nature of discussion involves academic difficulties of the students, personality development, their weaknesses if any and interest areas, career guidance, current requirements of prospective employers, feedback on academic environment etc. Students are also provided guidance for research and conduct of activities through various committees formed at each constituent unit

The class coordinators ensure that students attend all sessions as per time table. They explore reasons for absence of students and counsel them depending upon the nature of the problem. They bring problems of the students to the notice of the Principal/Director and try to resolve them at the earliest. The class coordinators identify slow learners and arrange for additional sessions in discussion with the respective teachers. They conduct student profiling activity so as to know strengths and weakness of each individual student and plan various programmes/activities either to motivate advanced learners or to help overcome weaknesses of slow learners.

Besides the above, committees/cells exist at each constituent unit also. In addition, the constituent units have Anti-Ragging Cell, Cell for Prevention of Sexual-Harassment, Hostel Committee, Cultural Committee, Parent-Teacher Association, Counselling Cell etc. These committees include staff and student representatives as members to carry out various activities under the supervision of the principal/ director. The functions of these committees are stated in the Policy document for Student Support Services.

5.1.2 Apart from classroom interaction, what are the provisions available for academic mentoring?

In addition to the classroom interaction, academic mentoring is provided through many avenues including the following. For all these activities, students work under the supervision and guidance of the faculty concerned. Academic mentoring takes place through:

- Internship in various organizations – (In addition to guidance from industry professionals, every student is guided by a faculty member to complete reports)
- Internships in hospitals and RHC for students of health science
- Minor and major projects;
- Field work;
- Guest lectures by professionals from the field;
- Seminars and presentations by students;
- Participation in Tech-fests such as Bharatiyam , quiz competitions and other off campus programmes;
- Participation in seminars and workshops;
- Researching and synthesizing content;
- Helping the faculty in his/her research;
- Remedial and bridge courses;
- Educational tours and industry visits;
- Sessions on topics such as note taking strategies, preparing for examinations, critical and creative reading, technical writing, effective use of library and ICT resources;
- Interactions with alumni; and
- Journal clubs, forums, study circles.

5.1.3 Does the University have any personal enhancement and development schemes such as career counselling, soft skill development, career-path-identification, and orientation to well-being for its students? Give details of such schemes.

Yes, the University has personality enhancement and development schemes for its students through the placement cells set up the level of each constituent unit, finishing school, alumni association at the University as well as through the respective cells/ committees at the constituent colleges.

For many courses offered by the University, eligibility conditions for admission are the same. Hence, career counselling starts at the time of admission itself. Afterwards, it is regularly provided by the placement cells of the constituent colleges.

The placement cells organize seminars, workshops and guest lectures by alumni and other professionals to help the students in identifying career paths and develop their professional and entrepreneurial skills. Under the Tata Affirmative Action Employability Programme (TAAP), TCS has conducted a training programme at Y. M. College for students from SC/ST categories. Out of 36 students who participated in the training programme seven were selected. The college has also organized an Entrepreneurship Awareness Camp for PG students jointly with Department of Science and Technology and Savitribai Phule Pune University, Pune. The Institute of Management and Entrepreneurship Development, Pune organises job fairs for its students so as to provide career identification and personal enhancement

In order to enhance employability and professional skills of the students, the placement cells organise training programmes to bridge the gap between knowledge and skills that are imparted and that are required by the employers. Institutes of Management also conduct training programmes on entrepreneurship and personality development. Y. M. College, Poona College of Pharmacy and College of Engineering conduct coaching classes for competitive examinations and entrance tests.

General soft skills are being provided as a part of the syllabus of some programmes offered by Y.M College. In other cases, soft skills are imparted as value addition. Communication skills have been included as a part of the syllabus in most of the UG and PG programmes. The University has established language laboratories.

For the overall wellbeing of the students, the University has facilities for sports and cultural activities at all its campuses and constituent units. The University arranges for sessions on yoga and meditation.

5.1.4 Does the University provide assistance to students for obtaining educational loans from banks and other financial institutions?

Yes, the University helps the students in obtaining educational loans from banks and other financial institutions by providing necessary documents like admission certificate, bonafide certificate, fee structure, progress reports of the students and other documents required for the purpose. The webpage of the Department of Student Welfare also provides information for the benefit of the students about various banks which are routinely providing education loans to the students together with the formats of application forms of the banks.

Students who wish to apply for educational loans submit an application to the constituent college with a request for necessary documents. In some cases, the banks contact the college for details about the programme of study, placement

opportunities, and likely salaries expected after completion of the studies and for verification of the application of the student.

During the last four years, the University has assisted 1995 students to get the educational loan from the banks and other financial institutions.

5.1.5 Does the University publish its updated prospectus and handbook annually? If yes, what are the main issues/activities/information included/provided to students through these documents? Is there a provision for online access?

Yes. Every year, the University publishes updated prospectus to provide necessary information to the students seeking admission to various academic programmes. In general, these serve the purpose of a prospectus/handbook.

In addition, some constituent units publish the handbooks before the commencement of academic year. The handbooks contain details like: vision and mission statements of the University, goals and objectives of the constituent college, fee structure, academic calendar, structure of various programmes, evaluation schemes, passing rules, support services available, contact information for various services, anti-ragging and prevention of sexual harassment norms, scholarships and fee concessions available, facilities available for sports and cultural activities, NSS, mentoring and counselling facilities available, rules of discipline etc. The soft copies of the handbooks are made available on website of the University/constituent units.

5.1.6 Specify the type and number of University scholarships/freeships given to the students during the last four years. Was financial aid given to them on time? Give details (in a tabular form) for the following categories: UG/PG/M.Phil/Ph.D./ Diploma/others (please specify).

The University awards scholarships / tuition fee waivers to the needy students. The students apply to the Registrar at the beginning of the academic year. Taking into consideration their financial conditions, the University authorities sanction them partial or full tuition waivers or grant them scholarships. During the last four years, 3051 students have received financial assistance from the University to the tune of Rs. 310 lakhs on average per year. The year-wise details are as follows:

Level	2011-12		2012-13		2013-14		2014-15	
	No. of students	Amount Rs. in lakhs	No. of students	Amount Rs. in lakhs	No. of students	Amount Rs. in lakhs	No. of students	Amount Rs. in lakhs
UG	491	203.66	398	152.68	450	190.73	439	187.85
PG	343	149.79	321	148.85	278	103.80	331	102.30
Total	**834**	**353.45**	**719**	**301.54**	**728**	**294.54**	**770**	**290.16**

5.1.7 What percentage of students receive financial assistance from state government, central government and other national agencies (Kishore Vaigyanik Protsahan Yojana (KVPY), SN Bose Fellow, etc.)?

Deserving/meritorious students who are admitted to the grant-in-aid units of The University receive financial assistance or scholarships from central and state governments. These scholarships are given in various categories such as wards of teachers, wards of freedom fighters, wards of service sector personnel and meritorious students, for their achievements in the board examinations at the 10th and the 12th standard classes. During last four years, a total 1566 or 1.93 percent, students had received an amount to the tune of Rs. 599.28 lakhs in the form of scholarships from state and central governments as well as other funding agencies.

5.1.8 Does the University have an International Student Cell to attract foreign students and cater to their needs?

Yes, the University has International Student Cell [ISC] with a full time Director as its head. The major functions of the ISC are to bring awareness among prospective students in various countries about the University and its programmes and to provide necessary support to the international students in successfully completing the programme for which they are enrolled. In order to attract foreign students the ISC adapts various strategies including:

- Advertising in magazines abroad such as Khaleez Times.
- Publishing articles and interviews in the magazine 'The Diplomat' which reaches many countries such as Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, UAE and US – east coast states) .
- Sending information brochures to 50 embassies in various countries and to ambassadors of various nations such as Embassy of Sultanate of Oman, Embassy of The Islamic Republic of Iran,
- Inviting ambassadors of various countries to the University for get together of international students, knowledge events, extra-curricular activities etc. and making presentations before them about The University, programmes and facilities available to International students For example, Dr Sayed Mohammed Reza Khalili, Research Counsel, Embassy of Iran; Gennet Ziwade, Ambassador, Embassy of Ethiopia. Dr Khosravi, Education Counsel, Embasy of Iran has visited the University.
- Participating in International educational fairs such as GETEX, Dubai
- Arranging meetings with University's international alumni at places such as Boston, USA and Dubai

The International Students Committee is also established in each constituent college which works under the guidance of the ISC which takes care of the academic and personal needs of the students. Presently, there are 602

international students hailing from 45 countries studying in various programmes at the University's constituent units.

In order to cater to the residential requirements of its international students, the University has constructed a 13 storied women's hostel which can accommodate 500 students. The hostel has all facilities to cater to the requirements of international students. If requested, the boys are accommodated in common boys' hostels.

The ISC and the other Committees in the constituent colleges provide the following services to the International students:

- Counselling for selecting appropriate programmes and courses
- Providing required documents for registration at Foreign Registration Office (FRO) after completing the admission process
- Assisting students in completing the legal formalities like police verification and in resolving Visa and Passport issues
- Document verification as requested by respective embassies
- Maintaining appropriate records as per the guidelines provided by Foreign Student Information System (FSIS)
- Organizing induction programmes for International students
- Arranging for counselling and mentoring for the needy students
- Monitoring the progression of the overseas students
- Organizing meetings of the international students with University authorities to be aware of their problems
- Creating multicultural ambiance on the campus
- Providing for other support services to make stay in India pleasant and fruitful

5.1.9 Does the University provide assistance to students for obtaining educational loans from banks and other financial institutions?
Yes. The details are already explained at Point 5.1.4.

5.1 10 What types of support services are available for
- **Overseas students**
- **Physically challenged / differently-abled students**
- **Students participating in various competitions/conferences in India and abroad**
- **SC/ST, OBC and economically weaker sections**
- **Health centre, health insurance etc.**
- **Skill development (spoken English, Computer Literacy, etc.)**
- **Performance enhancement for slow learners**

- **Exposure of students to other institutions of higher learning/corporate/business**
- **houses, etc.**
- **Publication of student magazines**

The University provides many support services to students from the above categories for their physical as well as mental wellbeing and to make their stay on the campus comfortable. Various categories of students have generally benefitted by the facilities and support extended to them. The details about support services provided to various categories of students by the University are as follows.

- **Overseas students**
  - ° Single window system for admission of overseas students and for extending services mentioned at Point 5.1.8;
  - ° Providing hostel accommodation if requested by the students, otherwise helping them to find accommodation;
  - ° Extending help for opening bank accounts, health check-up etc.
  - ° Conducting remedial coaching /induction courses particularly for improving language-proficiency;
  - ° Providing opportunities for understanding the Indian culture by participating in local socio-cultural activities such as celebration of Rakshabandhan, Ganesh Festival, Diwali, Dassera, Makarsankranti, De-addiction Day, World environmental day, Science day, Traditional day and other celebrations etc.
  - ° Encouraging the overseas students to celebrate Independence Day and festivals of their own countries during which they organize their cultural festivals and 'feel at home.'
  - ° Soft skill and communication programmes are conducted for the students from non - English speaking countries to improve their communication.
  - ° Other major services are listed at Point 5.1.8 as functions of the International Students Cell.

- **Physically challenged / differently-abled students**
  - ° Teaching and non-teaching staff of the institute always extend a helping hand to the differently-abled students. These students are given special attention by the subject teachers.
  - ° The medical units of the University render medical assistance to differently-abled students. These students are sent to Bharati Vidyapeeth hospitals for treatment. Those students suffering from eyesight problems are referred to Gandhi Eye Hospital, Pune.
  - ° Special infrastructure facilities like ramps, wheel chairs, separate seating arrangement in the classrooms and libraries, special toilets at the constituent units and in the hostels are provided.

- ° Additional time and writers are provided during the examination to physically disabled students as and when required.
- ° Lift operators and security personnel take special care of differently abled persons for their comforts.

- **SC/ST/ OBC and economically weaker sections**
  - ° The institutes follow admission and reservation policy for the students from SC/ ST/ OBC and economically weaker sections as per government rules and regulations.
  - ° Fee concessions are given to students from economically weaker sections.
  - ° Book bank facility is available for students of economically weaker sections.
  - ° Students belonging to economically weaker sections are allowed to pay their fees in instalments**.**
  - ° Remedial coaching is arranged for the needy students from SC/ST/OBC categories.

- **Students participating in various competitions/conferences in India and abroad**
  - ° Students participating in various national/state level competitions/conferences are given travelling allowance, daily allowance, entry/ registration fees, etc.
  - ° Sports kits, uniforms and sports materials are provided.
  - ° Dietician is available to offer free advice regarding dietary requirements and special allowance is given for it.
  - ° Special leaves are sanctioned to the students.
  - ° Guidance from external experts, special coaching in sports activities is made available.
  - ° Financial assistance is made available for drapery, props and other requisites for the students participating in cultural competitions.

- **Health centre, health insurance etc.**
  - ° Group personnel accident insurance scheme is in place for all students.
  - ° Health check-up of all first year students is conducted by the seven teaching hospitals of the University.
  - ° Requisite health services are provided to the students through the University hospitals.
  - ° OPD facilities are available on every campus.
  - ° The Universityhospital has its own ambulance with 24x7 availability on some of the campus to attend any emergency call.
  - ° Further, many hospitals and medical care units with 24 hours emergency services are located nearer to the campuses.

° In addition to above, some of the constituent units have engaged clinical psychologists for regular counselling of the students to relieve them from stress, imparting life skills, prevention of addictions and substance abuse, general hygiene and health and psychosocial issues etc.

° First aid boxes are made available in all the constituent units.

- **Skill development (spoken English, Marathi, Computer Literacy, etc.)**
  ° Guest lectures are organized for skill development and for the enhancement of communication skills
  ° Language labs are established in all the campuses.
  ° Special English and Marathi language training is provided for better communication.
  ° Students are encouraged to learn basic computer courses e.g. MH-CIT, Power Point presentation, e-learning etc.
  ° Value added courses are offered to develop professional skills
  ° Different competitions are arranged to develop the professional skills of the students.

- **Performance enhancement for slow learners**
  ° Remedial teaching is carried out for slow learners. For example, the Y. M. College, Pune provides remedial teaching in Mathematic and Accountancy, the New Law college in Contract Drafting, the Institute of Management, Kolhapur in Financial and Management Accounting, Economics for Business and in Communication Skills; the College of Pharmacy in Mathematics, Biology and Pharmacotherapeutics.
  ° Extra coaching is carried out on one to one basis. give details
  ° Preliminary examinations are conducted to prepare them for theory examinations.

- **Exposure of students to other institutions of higher learning/corporates/business houses, etc.**
  ° The institutes organise visits to industries, art museums, research centres of other universities for better exposure.
  ° Internship/Project work in the companies, research laboratories and NGO
  ° Visit to other institutes, herbal gardens, de-addiction & rehabilitation centres, research labs, forensic science laboratory, pharmacies, IT parks, law firms etc. are arranged by respective Institutes.
  ° Educational tours are arranged
  ° Postgraduate students are sent to research institutes of national repute industries and financial institutions for their project work.

- **Publication of student magazines**
  - ° The constituent colleges bring out newsletters and annual magazines through which students get an opportunity to display their skills at team work and editorial work; literary skills and creativity
  - ° Some of the magazines published by the students of constituent units are GENRE, Harmony, Sanjeevan Bharati, Elixir, Nurses Station, ACME, Udaan, Yashobharati, BVIMR Mirror etc.

5.1.11 Does the University provide guidance and/or conduct coaching classes for students appearing for Civil Services, Defence Services, NET/SET and any other competitive examinations? If yes, what is the outcome?

Yes, the University provides regular coaching classes are conducted for students appearing for various competitive examinations. The books and magazines required for competitive examinations are made available in the libraries of the constituent colleges. For example:

- Vocational Guidance and Competitive Examination Cell of the Y. M. College, Pune conducts classes under the UGC sponsored programmes such as Entry into Services. It also arranges lectures and workshops for UPSC, MPSC, NET/SET etc. examinations and information sessions for career guidance of the students. Alumni, who have successfully passed such examinations, nationally and internationally are often invited for conducting lectures and advising our students.
- The New Law College, Pune conducts classes to prepare its students for National Judicial Examination. During last two years, 18 students have cleared this examination.
- Dental College and Hospital, Pune guides Part II and part III postgraduate students to give Indian Board of Orthodontic Part I Examination.
- Programs for awareness and guidance for preparation for the Civil Services Examination (MPSC, UPSC etc.) to students by Dental College and Hospital, Navi Mumbai.
- College of Nursing, Pune coaches students for various competitive examinations such as RN, NCLEX, IELTS and CGFNS.
- College of Pharmacy, Pune provides coaching for various competitive examinations such as GPAT, NIPER, BITS. Many students benefited from this activity.
- All Masters Students are trained for Exams conducted by rating systems such as GRIHA, LEED and ECBC Master Trainer Course by College of Architecture, Pune.
- The outcome of all these initiatives shows that 322 students have been selected for central and state services.

5.1.12 Mention the policies of the University for enhancing student participation in sports and extracurricular activities through strategies / schemes such as

- **Additional academic support and academic flexibility in examinations**
- **Special dietary requirements, sports uniform and materials**
- **Any other (please specify)**

In order to enhance student participation in sports and extra-curricular activities the University provides academic support, flexibility in examinations, sports uniform, take care of their special dietary requirements and other support. The various kinds of support provided are as mentioned below.

- **Additional academic support and academic flexibility in examinations**
  - Leave of absence is granted to facilitate students' participation in sports and cultural competitions as well as NSS activities.
  - Students who participate in cultural and sports activities, additional terminal/mid semester and preliminary examinations are arranged. Extra lectures and laboratory sessions are conducted for those students to ensure that they do not suffer academically.
  - Additional five marks are awarded to the students who participate in the West Zone or all India inter University sports tournaments. Similarly, additional five marks are awarded to the students who complete National Service Scheme for two years.

- **Special dietary requirements, sports uniform and materials**
  - Special coaches are invited to guide students. Some of them are S.R.Sonavane, Sports Authority of India for Volleyball, Mahesh Dhas, International Player for Basketball, Bhushan Thakur, International Player for Table Tennis, Uday Sane, International Coach & Umpire for Badminton and Dipak Patil, Government Coach for Kabaddi. During the last four years, 191 men and women players in 20 teams of various games, benefited.
  - The University provides funds for refreshments to the participants in the tournaments
  - Sports equipment is provided for regular practice
  - Sports uniform [Track-Suit, T-shirt & Short] are provided for players participating in University and other tournaments
  - Funds are provided to players to practice for University tournaments
  - The University has made provision for coaching by experts at practice sessions to players participating in intercollegiate tournament of University.

- **Other facilities provided include**
  - ° Director, Physical Education is appointed in all the constituent colleges
  - ° Travelling and dearness allowance is provided for participation in inter institution sports competitions
  - ° Concession in tuition fee for the University players
  - ° Students who win the medal in inter University competition are awarded cash prizes by the University
  - ° Students are felicitated for their success on the Foundation Day of the University and at annual gatherings of the constituent units
  - ° Sports complex with facilities for basketball, volleyball, football and cricket are available.

5.1.13 Does the University have an institutionalized mechanism for students' placement? What are the services provided to help students identify job opportunities, prepare themselves for interview, and develop entrepreneurship skills?

Yes, the University has a Central Placement Cell and Finishing School which coordinate the training and placement activities of the constituent colleges. A full time director is appointed to plan, implement and monitor the activities of the placement cell. In addition, the placement cells exist at the constituent units with placement officers to train the students and to find appropriate placements. The activities of the placement cells are coordinated by the central placement cell and finishing school and offer the following services:

- To identify job opportunities according to students' aptitude, knowledge and skills.
- To moderate the expectations and ambitions of the students by involving the alumni and arrange counselling for the students about choosing the organization and job.
- To train the students for aptitude tests, subject tests and interviews.
- To help the students in preparing their resumes and portfolios
- To select appropriate industries and organizations and invite them to hold campus interviews at the campus
- To coordinate schedules for off-campus interviews
- To collect and analyse feedback on performance of the students at placement interviews and plan for improvements in training
- To maintain the database of potential employers
- To organize Industry-University partnership meets
- To establish Linkages with Industry and organizations

In addition, the constituent colleges invite officers from employment exchanges, experts from industries and training institutes, and alumni to give special lectures on employment. During their vacation, the students are

deputed to visit the industrial units, research institutes, educational centres and technology parks around Pune to get acquainted with job opportunities. The Employment News, a government publication, and books related to competitive examinations, career opportunities, general knowledge are made available to the students. Job opportunities are brought to the attention of the students by displaying the information on notice boards.

The placement cells arrange campus interviews for the students of all faculties and in last four years a large number of students have been placed in various industries like chemical industry, pharmaceutical industry, IT industry, insurance sector, banking and finance sector, BPO industry, networking and hardware industry, national and international hotels and hospitals etc.

5.1.14 Give the number of students selected during campus interviews by different employers (list the employers and the number of companies who visited the campus during the last four years).

As a result of the finishing school activities undertaken by the placement cells, the students could get suitable employment even before the completion of the programmes. Over a period of last four years, about 400 companies per year have visited the University campuses for placement and selected about 900 students per year. The year-wise number of companies which visited the campuses and the number of students placed is given below.

Year	Number of companies visited	Number of students placed
2011-12	405	830
2012-13	367	798
2013-14	393	846
2014-15	410	1083

Fifty percent enrolment constitutes students of health sciences programme and 90 % of the outgoing graduates of these programmes opt for self-employment by way of private practice.

Some of the major companies which visited the University for Campus Interviews are

Reliance Industries Ltd., Tata Capital, ICICI Bank, ITC, Vistara Airlines, India Bulls, Axis Bank, Schindler, DCB Bank, Cap Gemini, iPlace, Barclays information technology Ltd., HDFC Bank, BNY Mellon, Tech Mahindra, Oberoi hotels, Marriott hotels, Hyatt hotels, Leela Kempinski, Apollo hospitals, Tata Consultancy Services, Cipla, Abbott Laboratories, Stemcyte, Astra Zeneca Pharmaceuticals, Lupin laboratories etc.

5.1.15 Does the University have a registered Alumni Association? If yes, what are its activities and contributions to the development of The University?

Yes, the University as well as most of the constituent colleges have registered alumni associations. The alumni associations were established with an objective to promote and foster mutually beneficial interaction between the alumni and the University as well as between the alumni themselves. The aim is to encourage the alumni to take an active interest in the progress of the institute and to contribute towards enhancement of quality and growth of their *alma mater*. The University's alumni database has about 20,000 registered alumni.

Alumni meets are held every year by the respective constituent colleges. In addition, The University organised alumni mega meets at Pune, Dubai and Boston (USA). At these alumni meets, the alumni were felicitated for their noteworthy achievements. Many of the alumni are holding senior positions in industries and academia while others are in Government and many are entrepreneurs, industrialists and pharmacists.

Alumni contribute to the development of the University by being members of the various academic bodies such as Boards of Studies, Faculty, Academic Council, IQAC etc. They also participate as guest speakers to motivate the students. It is a pleasure to record that the Alumni conduct Faculty Development Programmes to update the knowledge and skills of faculty in latest technology and industrial practices.

Alumni help the present students in career guidance and placements and offer valuable inputs for modernising the curricula of various programmes. They sponsor prizes to meritorious students, sponsor conferences and alumnus meets. The alumni of the YM College Pune have helped in initiating collaboration and exchange programme Han Yang University, South Korea.

5.1.16 Does the University have a student grievance redressal cell? Give details of the nature of grievances reported. How were they redressed?

Yes, the University and all the constituent units have grievance Redressal cells.

The major grievances relating to examination and administrative complaints are resolved as per the rules and regulations of the University. Administrative complaints related to issue of documents, identity cards and library cards etc. are dealt as per the rules of the constituent colleges.

Students report their grievances either in verbal or in written form. Suggestions cum complaint boxes have been installed at different places. These grievances are discussed in the meetings of the grievance committee and necessary action is taken.

5.1.17 Does the University promote a gender-sensitive environment by (i) conducting gender related programmes (ii) establishing cell and mechanism to deal with issues related to sexual harassment? Give details.

As per the directives of the Supreme Court, a cell for prevention of sexual harassment is established at the University as well as at each constituent college levels. These cells promote gender-sensitive environment in all the campuses.

(i) Conducting gender related programmes: The gender related programmes are conducted every year on topics that include celebration of women's day; self-defence training; awareness programmes regarding child marriage, female feticide, violence and abuse at work places, women and their rights, women empowerment, etc. Poster exhibitions and screening of films on '*Save Girl Child*' to create awareness in the society; *"Jagar Janivancha"*, an awareness programme on gender sensitization promoted by government of Maharashtra; guest lectures on themes related gender sensitization etc.

(ii) Mechanisms to deal with issues related to sexual harassment: The University as well as constituent colleges have constituted committees for prevention of sexual harassment of staff and students, with an objective to formulate procedures for preventing sexual harassment and to monitor adherence to the procedures.

Because of the healthy environment that prevails on the campus and pro-active leadership, no case of sexual harassment involving the students, faculty or staffs has been reported on the campuses. However, these committees hold meetings at least twice a year to address issues that may arise regarding sexual harassment, to suggest preventive measures and appropriate actions, and to create awareness regarding the safety measures including the need for self-defence trainings.

To ensure an environment free from sexual harassment, following practices are followed:
- During education tours and industrial visits, students are accompanied by a lady faculty member.
- There is an adequate space in institute's library so that girl students can comfortably sit and can make a proper use of the resources.
- During the events organised by the colleges, girl students are not allowed to stay late in evenings or if necessary reliable and proper transportation facility is provided.

5.1.18 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 in these cases?

Yes. All the constituent colleges have formed anti-ragging committees. The students admitted to the first year have to submit online / offline anti-ragging affidavits together with admission forms. Security personnel and CCTV have been placed at sensitive places in the campuses to prevent untoward incidents. Anti-ragging posters are displayed in the institute premises, canteens and hostels. Anti-ragging awareness programmes are conducted in each constituent unit. Anti-ragging message has been incorporated in the brochures as well as is emphasized during induction programmes. However, so far no instance of ragging has been reported so far in the University.

5.1.19 How does the University elicit the cooperation of all its stakeholders to ensure the overall development of its students?

The University builds a healthy relationship with all its stake-holders namely-faculty, alumni, industry, society at large and students themselves to ensure the overall development of its students.

Students are nominated on various committees such as IQAC of the constituent colleges, library committees, magazine committees, cultural committees, sports committees etc. Students are taken as volunteers for organising sports, cultural and knowledge events. University involves students in its social responsibility activities such as Swachhata Abhiyan, Breast Cancer Awareness Marathon, Plastic Free Pune, Road Safety, Traffic Wardens, adoption of villages, heritage walks etc. This participatory approach provides them an opportunity to develop leadership skills.

The alumni are motivated to contribute to the development of the University and the current students due to the personal care taken by faculty and staff and the contributions of the faculty for their placements and career development when they were students. The alumni participate in various events of the University as resource persons, guest lecturers, employers etc. These interactions of Alumni with the current students have helped them to gain insights of the work environments and professional practices.

The University, through its constituent colleges, has established more than 300 linkages with industry. Because of these linkages, the industry participates in placement programmes to select the students and gives opportunities to students to work for internship and projects in their organisations. Further, professionals from the industry provide inputs for curriculum development as members of various academic bodies as well as resource persons. This has resulted in enhancing the quality of the curriculum and the experiential learning have provided necessary employability skills to the students.

The University develops and maintains good rapport with society through alumni, social workers, industry, professional associations and academic experts as well as artists, stage and media performers etc. The University is honoured by the presence of distinguished personalities as chief guests and resource persons on various occasions such as University foundation day, youth festival, Bharatiyam, Sankriti, annual gathering, women's day celebrations, NSS winter camps, MSW longevity function etc. who motivate the students and inculcate values among them.

5.1.20 How does the University ensure the participation of women students in intra- and inter-institutional sports competitions and cultural activities? Provide details of sports and cultural activities where such efforts were made.

The University and its constituent colleges provide facilities and equal opportunities to women students as provided to men for their participation in intra- and inter-institutional sports competitions and cultural activities. Owing to its efforts, during the last four years, 4785 girl students have participated in such activities. Most importantly, the three students, Ms. Yogita Tukaram Shildankar (Cycling), Ms. Snehal Pradip Shinde (kabaddi), Ms. Ketaki Kadam (Wu-Shu) of Yashwantrao Mohite College of Arts, Science & Commerce, Pune have bagged the most prestigious *Shiv Chhatrapati* Award instituted by Government of Maharashtra. In this context, the initiatives by The University include the following.

- The Sports and Cultural Committees have representation of women students and faculty to motivate them to participate freely in events like sports, music, dance, drama, debates, arts, street plays and yoga classes etc.
- Distinguished women sports persons are invited to address and motivate women students to participate in various sports events. For example, Mrs. Rekha Bhide, Hockey player and Arjun Awardee and Miss. Deepika Bodekar, Black Belt Winner in Karate have been invited to give demonstrative lectures at Y. M. College.
- The Institute of Management and Entrepreneurship Development, Pune invited external counsellors to create confidence among women students and motivate them to participate in sports and cultural activities.
- University gives travelling and dearness allowances to women students for participation in inter institution sports competitions.
- The University felicitates the winners and significant contributors during annual prize distribution functions.
- Women students are encouraged to participate in NSS, sports, cultural, co-curricular and extracurricular activities organised by the University, constituent units and other agencies.

- University arranges special coaching camps for women who participate in kabaddi and athletic competitions.

Some of the activities in which women students participate every year are -

- Inter collegiate Youth Festival organised by Bharati Vidyapeeth University,
- Gopal Ganesh Agarkar Karandak organised by Navalmal Firodia Law College,
- Elocution and debate competition organised by Beacon Foundation,
- Inter-colligate elocution competition organised by Anti-Dowry Movement etc.
- TNAI Competitions.

In fact, women teams of the University participate in every intra- and inter-institutional sports competitions and cultural activities. During the last four years a total of 4785 women have participated in various sports competitions out of which 3928 in intra- institutional sports and 857 in inter-institutional sports.

5.2   Student Progression

5.2.1   What is the student strength of the University for the current academic year? Analyse the Programme-wise data and provide the trends for the last four years.

Every year, students from all over India and from 45 countries take admission to various programmes including Ph.D. During 2015-16, the student strength of the University is 22,365 excluding 5028 students studying under distance education.

Cumulative enrolment of the students for current academic year: 2015-16

Level								Total	
UG		PG		Ph.D.		Other			
Male	Female	Male	Female	Male	Female	Male	Female	**Male**	**Female**
8869	6394	2194	2117	317	360	316	245	**11696**	**9116**

Program wise analysis of trends of student strength for UG and PG programs during the last five years.

Analysis of last five years enrolment data shows that cumulative enrolment is steadily increasing. On an average 73 percent are under graduate students, 20 percent are post-graduate, 3.1 percent are research degree and 3.9 percent are other programs. Similarly socio –economic profile of the enrolment shows that

43.8 percent are women, 46.6 percent are from outside the state, 2.8 percent are overseas students. Similarly 4.7 percent of enrolment constitutes SC/ST, 8.4 percent are OBC and 2.2 percent are DT/NT. The detailed analysis of the student's enrolment shows that University is implementing the social justice policy of the State.   Further,

- The percentages of male and female students in SC/ST/OBC categories have been increasing during the last five years both at UG and PG levels.
- There is an increasing trend in enrolment of DT/NT at UG and PG levels, but at PG level it is not significant.
- The enrolment of foreign students has decreased during 2014-15 and 2015-16. This is a national trend and may be due to political environment in the Gulf countries.
- The percentage of female students is increasing over the years at the PG level while at UG level, it is almost constant.
- Information regarding student progression for 2014-15 is given below:

Student Progression		% of students
UG to PG		31.13
PG to M. Phil.		1.40
PG to Ph.D.		5.13
Ph.D. to Post-Doctoral		0.87
Employed	• Campus selection	20.42
	• Other than campus recruitment	33.65
	• Self employed (health sciences)	90

5.2.2 **What is the programme-wise completion rate during the time span stipulated by the University?**

The programme-wise completion rates, faculty-wise, for the last four years are shown in the following table. The figures represent the percentage of students who have completed the programme in the minimum stipulated time.

Percentage of students completing the programme in minimum time					
Faculty	Programme	2012	2013	2014	2015
Science	UG	79.80	72.50	74.52	60.61
	PG	85.83	88.64	88.43	88.78
Law	UG	76.97	77.95	80.18	78.67
	PG	100.00	92.06	92.96	84.00
Medicine	UG	78.40	66.61	68.95	71.50
	PG	81.47	89.95	87.83	63.96
Dentistry	UG	49.78	56.67	65.48	67.01
	PG	93.10	96.97	90.48	87.76
Ayurved	UG	70.21	67.71	80.90	81.63

Percentage of students completing the programme in minimum time					
Faculty	Programme	2012	2013	2014	2015
	PG	88.26	74.65	91.61	88.18
Homoeopathy	UG	64.00	52.63	40.00	61.05
	PG	80.00	93.33	100.00	100.00
Nursing	UG	84.46	94.33	81.76	84.62
	PG	73.68	90.00	88.00	75.00
Engineering	UG	35.69	57.75	65.48	63.87
	PG	58.53	47.83	44.53	48.20
Pharmacy	UG	86.15	89.55	89.55	79.69
	PG	97.69	89.27	82.08	87.71
Management	UG	69.44	60.34	66.15	68.53
	PG	91.38	85.50	81.10	87.93
Arts, Social Science and Commerce	UG	56.80	70.81	57.11	54.51
	PG	81.60	68.49	82.51	56.60
Interdisciplinary	UG	-	-	-	-
	PG	82.66	82.92	88.78	80.36

5.2.3 **What is the number and percentage of students who appeared/ qualified in examinations like UGC-CSIR-NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central / State services, Defence, Civil Services, etc.?**

The University provides guidance to its students for appearing for various competitive and qualifying examinations for higher education through its constituent units. The constituents Y. M. College, College of Engineering, College of Pharmacy and New Law College are actively involved in providing such guidance. The libraries are also equipped with books and other study material necessary for preparing for these examinations. It may noted that the students studying in health sciences do not appear for any of these examinations. The following table shows year-wise number of students who appeared and qualified at various competitive examinations.

Year	UGC-CSIR-NET		SLET		CAT		GRE		IELTS / TOFEL		Central/State and other Civil Services	
	Appear-ed	Qualifi-ed	Appear-ed	Qualifi-ed	Appear-ed	Qualifi-ed	Appear-ed	Qualifi-ed	Appear-ed	Qualifi-ed	Appear-ed	Qualifi-ed
2011-12	8	3	1	1	76	24	72	18	40	18	160	60
2012-13	19	7	0	0	45	5	53	17	46	11	80	16
2013-14	24	9	0	0	34	4	40	16	46	16	250	40
2014-15	25	7	5	1	53	4	69	16	40	12	208	17
Total	**76**	**26**	**6**	**2**	**208**	**37**	**234**	**67**	**172**	**57**	**698**	**133**

5.2.4 **Provide category-wise details regarding the number of Ph.D./ D.Litt./D.Sc. theses submitted/ accepted/ resubmitted/ rejected in the last four years.**

The following three tables show the category- wise details regarding the number of Ph.D. theses submitted, accepted and resubmitted during the last four years.

PhD Thesis	2011-12	2012-13	2013-14	2014-15	2015-16	**Total**
Submitted	44	39	50	82	68	**283**
Accepted	52	46	36	64	68	**266**
Resubmitted	1	1	1	3	2	**8**
Rejected	Nil	Nil	Nil	Nil	Nil	**Nil**

5.3 Student Participation and Activities

5.3.1 **List the range of sports, cultural and extracurricular activities available to students. Furnish the programme calendar and provide details of students' participation.**

- **Sports Activities:**
  The University has established a Department of Sports with a Director as its Head. In addition, a Physical Education Director is appointed in each of the constituent colleges. Every year, a meeting of the Sports Committee consisting of all principals/directors of the colleges and physical education directors is held in the month of July. In this meeting, programme for inter-collegiate sports tournaments is finalized and responsibilities to hold various sports tournaments are assigned. During these tournaments, University teams are selected by the Director, Department of Sports for representing the University at West zone and All India Inter University tournaments.

  The University has provided football turf grounds of international standards, three cemented basketball courts with flood lights and facilities for other outdoor games such as kabbadi, kho-kho, handball, softball, volleyball, lawn tennis, hockey, four cricket grounds and 400 metres eight lane athletics track and field. The infrastructure for indoor games includes well-equipped multipurpose gymnasiums, table-tennis tables, chess boards, carom boards, judo with proper mat, wrestling mats, yoga centre, boxing ring, and taekwondo hall.

  Coaching is provided by professional coaches from NIS and national and international players to train the students for participation in national and

international tournaments. Playing students are financially supported and are given sport uniforms as well.

Every year, the University plans its yearly sports events after the Association of Indian Universities publishes its calendar of sports events in June.

The outcome of these efforts is visible in the achievements of the students in West-zone inter-University and All India inter-University sports events at which the University's students have won gold, silver and bronze medals. The participation of the students at various levels is as follows:

Number of students participated in tournaments at various levels:

Year	Inter-University West-Zone	Inter-University All India	State level	National level	Inter-national level
2011-12	105	36	8	8	3
2012-13	46	73	11	6	4
2013-14	68	31	25	25	3
2014-15	71	57	47	21	3

- **Cultural:**
  The University has a separate Department for Cultural activities which is also headed by a Director. The University has procured all types of musical instruments. Sufficient space is made available for practice of music, dance, drama, literary and fine arts categories at every campus of the University. The well-equipped auditoriums are available in the University for practice and to organize cultural programmes.

  The students are also provided guidance from well-known artists such as Padma Vibhushan Pt. Rajan Sajan Mishra, Padma Vibhushan Pt. Shivkumar Sharma, Padmashree Pt. Ulhas Kashalkar, Sangeet Natak Academy awardee Pt. Ajay Pohankar from the field of music as and when required. The University supports organisation of cultural events and participation by students in cultural events organised by the University as well as by the other organisations with financial support, musical instruments, drapery, sets, accompanists and blazers etc.
  The University plans its yearly cultural events based on the calendar of cultural events published in August every year by Association of Indian Universities.

  Every year Inter College Youth Festival of the University is organised in five main categories namely, Music, Dance, Drama, Literary and Fine Arts consisting of 24 different specialized events. Students from all the constituent units participate in the said three-day Youth Festival. The number of students

participated in cultural events at various levels during the last four years is given in the following table.

Year	Inter-University West-Zone	All India Inter-University	Inter-University World/International	State level	National level	Participation in Music Festivals
2011-12	36	-	-	66	14	-
2012-13	34	02	-	70	33	-
2013-14	37	14	-	88	21	-
2014-15	24	02	12	50	28	01*

* Participation in prestigious *Savai Gandharv Music Festival* in Pune

- **Extra-curricular Activities:**
  The contributions of the University through NSS activities are significant. The University has established NSS cells in each constituent college and an NSS advisory committee at the University under the chairmanship of Vice Chancellor. The NSS programme co-ordinator is appointed at University and programme officers in each constituent college.

  The NSS activities are supported with grants from the state government as well as from the University. The activities of the NSS include organisation of leadership development programmes for the youth, environmental awareness programmes, *police mitra abhiyan*, bike ambulance during the *Ganesh festival*, peace rally, tree plantation, organisation of skill development programmes, health camps, adoption of grandparents, orientation programmes for newly enrolled volunteers and literacy programmes for the menial staff of the hospitals etc. the following table illustrates few imparted programmes that have been organised during the last four years.

Sr. No.	Name of the programme/activity	Average number of camps/beneficiaries	
		Camps	Beneficiaries
1	Blood donation camps	10	1596 (bottles collected)
2	Dental check-up camps	51	9732
3	Medical check-up camps	15	2616
4	Eye check-up camps	2	402
5	HB check-up camps	5	1028
6	Pulse-polio camps	5	1049
7	AIDS awareness camps	4	317
8	Trekking programmes	4	238
9	Tree plantation programmes	12	34318

Sr. No.	Name of the programme/activity	Average number of camps/ beneficiaries	
		Camps	Beneficiaries
10	Orientation programme	3	500
11	National level environment programme	1	750
12	State level socio-cultural competition	1	300 (from 15 universities)
13	State level workshop for NSS functionaries	1	220
14	Special winter camps	111	4290
	Total	**225**	**57356**

The University provides an opportunity to NSS volunteers and programme officers to participate in international, national, state and University level activities. The details of participation in various competitions at a different level are given below.

Year	Number of students participated on behalf of The University		Number of students participated as individuals/constituent college			
	State level	National level	State level	National level	Inter University	International
2011-12	36	21	42	34	21	28
2012-13	34	28	26	46	02	07
2013-14	66	03	42	37	20	15
2014-15	48	3	53	41	21	08

5.3.2 Give details of the achievements of students in co-curricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. during the last four years.

The students under the guidance of respective co-ordinators have made best use of the sports, cultural and NSS facilities provided to them by The University and its constituent colleges. Through their participation in various competitions and tournaments the students have brought many honours in the form of awards and medals to the University. The details of the achievements of the students at different levels during the last four years are given below.

- The most significant and noteworthy achievement of the students of Y. M. College who have been awarded the *Shiv Chhatrapati Award* by Government of Maharashtra, the highest state award in the field of sports. The details of the awardees are as follows:

Sr. No.	Name of the Student	Event	Year
1.	Ms. Yogita Tukaram Shildankar	Cycling	2012-2013
2.	Mr. Ranjit Kundlik Nalawade	Wrestling	2012-2013
3.	Ms. Snehal Pradip Shinde	Women's Kabaddi	2012-2013
4.	Mr. Dinesh Gund (Wrestling coach)	Women's Wrestling	2013-2014

Other achievements of students in sports

During the last four years, the students of the University have won 83 medals at inter-University west zone competitions, 11 medals inter-University all India level, 73 medals at state level competitions, 59 medals at national level competitions and 15 medals at international events. Of these, two gold medals were won in kabbadi and cycling by women at South Asian championship event. Further, the student have won five gold, seven silver and three bronze medals at national level.

Achievements of the students in various cultural competitions

During the last four years, the students of the University have won 24 medals at inter-University west zone cultural competitions, 10 medals at All India inter-University competitions, 209 medals at state level competitions and 35 medals at national level. Of these, 11 are gold, seven are silver and 16 are bronze. Moreover, the University team has got an opportunity to perform at prestigious Sawai Gandharv Festival in 2014-15.

Achievement for NSS activities

The NSS unit has bagged various awards for achievements by its programme coordinator, programme officers and volunteers during the last five years. These awards include

- First prize in Declamation Contest in the 14th National Integration Youth camp,
- Leader of contingent of Maharashtra and Goa in Republic Day Parade, 2013,
- First Prizes in National Level for presentation on 'Gandhian of our times', State Level Inter University Elocution Competition on anti-dowry movement, Poster Competition, road show and creative dance, Street Play Competition, Poem Competition etc. in "Utkarsha programmes conducted every year.

Further, they have won First Prize in Essay Competition on *Aththi Devo Bhavo* conducted by the NSS cell of Government of Maharashtra as well as First Prize in State Level Road Safety Drive Award by Ministry transport, Government of Maharashtra in 2014-15.

Also, the programme officers and student volunteers have won best programme officer and best student volunteer awards more than once.

5.3.3 Does the University conduct special drives / campaigns for students to promote heritage consciousness?

Yes, the University makes every effort to promote heritage consciousness among students through various activities. It also tries to imbibe the importance of preservation and maintenance of historical monuments and cultural places.

The constituent colleges organize special drives and campaigns to promote heritage consciousness among students which include rallies, street plays and visits to heritage sites such as Raja Kelkar Museum, Shaniwar Wada, Parvati, Phule Museum, Sinhgad Fort, Gandhi Bhavan, Vishram Baug Wada, Aaga Khan Palace, Shinde Chhatri, Red Fort, Taj Mahal etc.

The documentaries on cultural heritage are also screened for the students. The college of Architecture organises an innovative event 'Pune Biennale' that provides a platform for showcasing a variety of disciplines and talents that include art, architecture, photography, urban planning and design, cinema, digital practices, information and technology based art practices, public art, street art and performance art. The biennale fosters interactions between students and professionals from disciplines and thus contribute to holistic learning for students while creating cultural assets for the city.

Events are organised to create awareness about classical music and dance, folk arts, crafts and yoga. Sometimes, classical films are screened to make students aware about Indian and world cultural heritage.

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

'To provide quality higher education for liberation of mind and empowerment of hands' is one of the missions of the University. To fulfil this objective, the University facilitates and nurtures creativity by encouraging constituent colleges to publish magazines with contributions from students. A total of 6 wall magazines, 11 print magazines and 8 news letters are published by various constituent colleges weekly, monthly, quarterly or annually. The titles of print magazines include Harmony, Yashobharati, Sanjeevan Bharati, Elixir, Nurses Station, Udaan etc. These in house magazines publish articles, poetry and other literary contributions of the students. These magazines also record the annual activities of the respective college.

The wall magazines like Capsule, Lex-Indicia, Shabda-Shilpa and such others are published at regular intervals throughout the year. In addition to this, art

circles are active in most of the constituent colleges which give a stage for debate and discussion.

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

The constituent units which are on grant-in-aid, have Student Councils as per Maharashtra UniversitiesAct, 1994. Other colleges have student representation on various committees. At the above mentioned colleges, the student council usually consists of Head of the institute as the Chairman, two-three faculty members, class representatives of each class, ladies representatives and sports, NSS, and cultural co-ordinators. These committees bring the common problems of the students to the notice of the authorities and get them resolved. The University also encourages the students to help the college in maintaining the discipline and in organising various programmes.

In order to fulfil the above stated objectives, the student councils involve in the activities like planning field and industrial visits, organization of various co-curricular and extra-curricular activities, finding solutions to day-to-day problems of the students through discussions with appropriate authorities, helping the placement cell in its activities, organising the alumni meets, publication of the magazines and wall papers etc.

The University extends financial support for all the activities proposed by the student council.

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

The students have representations on various committees of the respective constituent colleges. The role of the faculty members on some of these committees is limited to advise, guide and supervise the activities planned and conducted by the students. The details are given below.

- **Knowledge Events Committee**: The students are given representation to act as members of organising committee of the knowledge events such as seminars, conferences, workshops etc. organised for the benefit of the students. They contribute in identifying the topics and resource persons, ensure that all students are informed and distribute the program among various institutes in the region.

- **Placement Committee**: The activities of the placement committee are largely managed by student members on the committee with support from other students. The students design layout and content of the placement brochures, collect *curriculum vitae* from the students, update company

database, distribute placement brochures to various companies, schedule the placement visits, assist the placement committee. The student members on the committee help in identifying themes in discussion with the professionals from the field for training of students for placement.

- **NSS Committee**: The student members of the NSS committee forms student teams and distribute work among the teams whenever a programme such as blood donation camp or tree planting or organising a winter camp is scheduled. The student members along with other team mates take a lead to plan and carry out the activities as suggested by the committee.

- **Sports and Cultural Committee**: The student members on this committee play a similar role as in the case of members on the NSS committee. They plan and organise annual sports week, ensure participation of large number of students in the cultural programmes like *Sanskriti, Bharatiyam, University Youth festival, Expressions*, *Reneissa*, celebration of independence and republic day, welcome and farewell functions etc.

- **Magazine Committee:** The student members in this committee design the layout of the magazines, invite and collect articles from the students, faculty and staff, review the articles submitted, oversee the publication of the magazine and distribute the magazines among students and University authorities.

- **Library Committee**: The student members of this committee ensure that the problems of the students regarding availability of necessary books in the library, access to internet and Wi-Fi facility to students, timings of transactions as well as reading room and other library services.

In addition to the above, the students are also members of Anti-Ragging cell and Cell for Prevention of Sexual Harassment. The students organize guest lectures on relevant issues to bring awareness in the student community.

- **Safety and security of the students, faculty and the institutional assets**
  All campuses of the University are under CCTVsurveillance. The first-aid facilities at different places on the campuses are made available. The security guards are appointed for the safety of the students, faculty and the institutional assets. Only those students are allowed in the premises of the institute those having smart cards and identity cards. A Smart card is also given to each faculty and staff.

  The entire premises have a wall compound and security guards work (in shifts) round the clock. Fire extinguishers are also set in the college.

Criterion – VI
Governance & Leadership

CRITERION - VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1   Institutional Vision and Leadership

6.1.1   State the vision and the mission of the University.

The vision and mission statements of the University are clearly defined and translated into all its administrative activities and are as follows:

VISION:

"To be a world class University for Social Transformation through Dynamic Education".

MISSION:

- *To provide inclusive borderless access to higher education and vocational education based on merit.*
- *To offer varied professional, technical, vocational, and general education programmes to meet the changing and diverse needs of society in a global context.*
- *To provide quality higher education for liberation of mind and empowerment of hands.*
- *To promote quality research in diverse areas of development and engage in application of knowledge for community development*
- *To develop national and international networks with industry, service sector and other academic and research institutions to meet the expectations of various stakeholders.*
- *To promote extensive use of ICT for enrichment of teaching learning and for effective governance.*
- *To make quality an integral part of all University operations by promoting innovative practices.*

6.1.2   Does the mission statement define the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, the institution's tradition and value orientations, its vision for the future, etc.?

Yes, the mission statement defines distinctive characteristics of the University. The traditions of the University have evolved based on its core values such as respect for scholarship and excellence, transparency, upholding of national interests, concern for environment, commitment to women empowerment, inclusivity, gender equality, cooperation and team work. The University's mission statement reflects the above core values as well as needs of the society and its students.

That the mission statement addresses the University's distinctive characteristics is illustrated below.

- The University's 29 constituent units are located in eight semi-urban, urban and cosmopolitan cities to provide access to higher education for students from rural and urban areas in India as well as from various countries
- The University offers 290 professional, technical and liberal educationprogrammes in 12 Faculties including an interdisciplinary Faculty, thus establishing its multi-disciplinary nature;
- The University provides inclusive access to all programmes based on merit, and to all its services and resources;
- The quality policy of the University declares 'Student First' as its motto. University is student-oriented with emphasis on inclusivity in planning and implementing all academic and administrative activities and processes;
- The University is committed to promote advanced and socially relevant research in thrust areas at all its constituent units, particularly at the three institutes dedicated to research in health, pharmaceutical and social sciences;
- The University respects scholarship and excellence, and hence strives to enhance and sustain quality in all its core activities leading to knowledge creation and knowledge dissemination;
- The University's collaborations with reputed universities in USA, UK, Germany, Netherlands, Korea etc.; and its more than 300 linkages with industry, research institutes and other organizations in India are indicative of its efforts to be reckoned at international level;
- The world-class infrastructure of the University for research as well as for providing varied learning experiences to students through extensive use of technology are aimed at developing global competencies in students and contributing to nation development.

Further, the mission statement embodies the University's vision for future, that is:
- To keep focus on quality aspects of the academic and administrative processes and various activities,
- To adapt latest technologies and modern approaches to teaching and learning,
- To use ICT as catalyst for change and innovation
- To develop international and national potential knowledge partnerships,
- To be the most preferred destination for foreign students,
- To undertake research in emerging areas,

- To maintain learner-centric focus with better alignment of curricular, co-curricular and extra-curricular activities, and
- To be a World Class University.

6.1.3 How is the leadership involved
- **in ensuring the organization's management system development, implementation and continuous improvement?**
- **in interacting with its stakeholders?**
- **in reinforcing a culture of excellence?**
- **in identifying organizational needs and striving to fulfill them?**

The management of the University is enriched with immense leadership qualities and more than five decades experience of its Chancellor and Vice Chancellor in facilitating quality education at all levels while pursuing the goal of social transformation through dynamic education. Over the years, both have contributed significantly to the development of University's management system, and to its implementation and continuous improvement. The deans of various Faculties of Studies and the heads of constituent units are the others who provide necessary leadership in academic and administrative matters respectively.

The leadership of the University proactively interacts with its stakeholders in its pursuit to develop and sustain a culture of excellence. It makes every effort to identify organizational needs, particularly ICT, of all its constituent units so as to keep pace with changes occurring around.

The University strictly adheres to various provisions of UGC Regulations 2010. Accordingly, different authorities such as Board of Management, Academic Council, Planning and Monitoring Board, Finance Committee, Faculties and Boards of Studies have been formed. The composition and powers of these have been defined in UGC Regulations 2010. These authorities hold meetings regularly as specified in the Memorandum of Association (MoA) as well as when necessary. The University follows the norms of the UGC and other Central Councils in its policy decisions.

The Board of Management is the apex governing body of the University. It has full autonomy to perform its academic and administrative responsibilities. The Chancellor, Vice Chancellor, Registrar, Finance Officer, Controller of Examinations, Deans of Faculties and Heads of the Constituent Units are the officers of the University. The duties and responsibilities of these officers have been also clearly defined. The management system of the University is based on the principles of decentralization of authority and assigning of responsibility, while enforcing accountability. For smooth functioning of the

University, it constitutes various committees whenever necessary which make recommendations for consideration.

The University ensures continuous improvements to the management system described above through a well-structured process of collecting feedback from the stakeholders, analyzing the same and implementing the important suggestions emerging thereof. The University leadership involves all stakeholders in its functioning and holds discussions with them on various issues. The stakeholders are also involved as members on various statutory bodies and committees. The leadership utilises every opportunity to hold discussions with the stakeholders formally as well as informally and considers their suggestions while taking decisions. The involvement of leadership with the stakeholders has helped the University in identifying and fulfilling its needs.

The leadership gives highest priority to promote a culture of excellence in academics and research. It has taken several initiatives such as setting benchmarks for performances of various processes; mentoring of new faculty by senior faculty; involving advanced students in research work; recognizing achievements of faculty and students; providing latest technology tools; identification of thrust areas for research; facilitating networking with reputed universities, organizations, and industry; insisting on regular curriculum revisions; identification of graduate outcomes and facilitating outcome based education; checking for extent of plagiarism in research products; organizing workshops on quality aspects; and bestowing autonomy to faculty to experiment with various teaching, learning and evaluation methods. The academic excellence of the University has been well recognized and is reflected in the following facts.

- In 2012, the MHRD has placed the University in "A" category;
- The NAAC has accredited and reaccredited the University with "A" grade in 2004 and 2011 respectively;
- Recognition under Sec 12(B) of UGC Act 1956 in 2012;
- The Poona College of Pharmacy, College of Engineering, Institute of Management and Research, New Delhi have been awarded NBA accreditation for the programmes that are offered at the respective institutes;
- In the first ever rankings of institutions of higher education by MHRD, New Delhi, based on National Institutional Ranking Framework (NIRF), in 2016, the Poona College of Pharmacy has been ranked as fourth at national level and as first at state level; the College of Engineering has been ranked as 61 at national level and 4[th]at state level; and the Institute of Management and Entrepreneurship Development has been ranked as 46 at National level and as thirdat state level.

- The constituent units as well as the University routinely are ranked in the top positions in their respective categories in surveys conducted by various magazines.

The Planning And Monitoring Board, Academic Council, Board of Management, Research Advisory Council and Internal Quality Assurance Cell of the University consists of reputed scientists, educationists, retired judges of Supreme Court and members of NGO's. Owing to their positions, the leadership of the University interacts with many distinguished academicians at national and international levels. Formal and informal discussions with such personalities helped in identifying present and future organizational needs of the University. Further, the feedbacks from heads of the institutions, deans of faculties, officers of the University also helped in identifying the needs. The committees constituted for specific purposes prepare the blue prints and implementation plans which are scrutinized by experts. Establishment of ICT Cell, Academic Staff College, Data Centre, Research Institutes, enhancements to infrastructure etc., are the outcomes of such initiatives of the leadership.

6.1.4 Were any of the top leadership positions of the University vacant for more than a year? If so, state the reasons.

Presently, no top level leadership position is vacant.

6.1.5 Does the University ensure that all positions in its various statutory bodies are filled and meetings conducted regularly?

Yes, the University ensures that all positions in its various statutory bodies are filled and meetings are held as per specifications in the MoA and as needed.

The number of meetings of various authorities held during the last four years is shown in the following table.

Sr. No.	Name of the authority	Number of meetings held in the last four years
1	Board of Management	15
2	Planning and Monitoring Board	04
3	Academic Council	12
4	Standing Committee	08
5	Faculty of Studies (12)	60
6	Boards of Studies (44)	246
7	Finance Committee	12
8	Board of Examination	11

6.1.6 **Does the University promote a culture of participative management? If yes, indicate the levels of participative management.**

Yes, the University has adopted participatory approach to its governance and follows the principles of decentralization of authority with sense of accountability and responsibility. All stakeholders are involved in decision making processes by providing representation on all statutory bodies and non-statutory committees. The culture of participative management is promoted from University level to department levels.

Participatory management of the University include Board of Management, Officers of The University, Principals/ Directors of the Constituent Units, Heads of the Departments, Deans of Faculties, Chairpersons of BoS, Members of Academic Council, Board of Examinations, Chairpersons and Members of various committees constituted at the University and constituent units, Members of local management committees, Members of the IQACs, Class Coordinators at various constituent units and Campus Coordinators.

All the above mentioned bodies of the University have representation of various categories of faculty members of the University. The Boards of Studies and Faculties of Studies have members from industry and other professionals. Some committees constituted at the University and constituent unit levels such as Library committee, IQAC of the constituent units, sports and cultural committees, placement cells etc., have student representations.

The participatory management has helped the University in quick decision making and its implementation.

6.1.7 **Give details of the academic and administrative leadership provided by the University to its affiliated colleges and the support and encouragement given to them to become autonomous.**

The University was established under Section 3 of the U.G.C. Act 1956 and hence it has only constituent units.

6.1.8 **Have any provisions been incorporated / introduced in the University Act and Statutes to provide for conferment of degrees by autonomous colleges?**

As mentioned earlier, the University being a Deemed to be University, it has no affiliated colleges.

6.1.9 **How does the University groom leadership at various levels? Give details.**

Delegation of authority with accountability, mentoring and guiding are the ways in which leadership is groomed and nurtured in faculty, staff and students. It operates on the principles of decentralization.

In order to groom faculty to leadership positions, as many faculty members as possible are nominated to various authorities and bodies at the University level. The decisions of the authorities / bodies are implemented. These positions are filled on a rotational basis providing opportunities for all faculty members. Some of the constituent units, such as, institutes of management at Pune and New Delhi, organize leadership training programmes for its faculty members. Some faculty members are groomed in day-to-day operations by delegating responsibilities and enforcing accountability.

The heads of the constituent units have complete freedom to exercise academic, administrative and financial powers. They assign various responsibilities for curricular and extracurricular activities to the faculty members on rotation basis so that everyone gets equal opportunity to exercise his/her leadership skills.

The University develops leadership qualities in students by making them members of various committees particularly for sports and cultural activities. The students get an opportunity to plan and execute the activities and lead the teams. The constituent units also have various forums whose activities are student driven. The NSS activities are managed and conducted largely by students. During NSS camps students are exposed to renowned social workers who share their experiences.

6.1.10 Has the University evolved a knowledge management strategy? If yes, give details.

The University considers the cumulative knowledge, skills and experiences of all its employees as its knowledge capital which may be tapped for improving the academic and administrative processes.

The knowledge generated by faculty and students of the University through their research is maintained in respective libraries of the constituent units in the form of dissertations, theses, technical reports, books, and other reading material. The University's e-library that can be accessed at http://elib.bvuict.in/moodle contains soft copies of the above material as well as research publications, links to online databases, e-journals, e-books. It also provides access to Open Educational Resources such as NPTEL, e-pgPathshala, and open courseware from reputed universities and various MOOC.

The University's e-learning environment which is based on Moodle contains study material developed by the faculty for various programmes. In another endeavor, the examination section of the University has a repository of digital versions of the syllabi of all programmes, question banks etc., which can be accessed by paper setters. The University hosts all the knowledge generated or

acquired in the form of documents on its properly secured data centre set up at University's campus in Dhankawadi, Pune.

The University's knowledge management system enabled fundamental and applied research, development of quality curriculum and its implementation, utilization of expertize to support management decisions and improvements to knowledge creation and dissemination processes.

In order to realize paperless office, the University is developing a document management system and e-connect where the digital copies of office records can be stored and accessed from anywhere.

6.1.11 How the following values are reflected in the functioning of the University?
- **contributing to national development**
- **fostering global competencies among students**
- **inculcating a sound value system among students**
- **promoting use of technology**
- **Quest for excellence**

The functioning of the University reflects the core values mentioned above in the following ways:

- **Contribution to national development**
  ° This University aims at touching the untouched areas of education by providing new areas of knowledge.
  ° Affordable and accessible education to disadvantaged groups
  ° Social transformation being one of the mottos of the University, the focus of the policies is on inclusion of students from all sections of society.
  ° The University also strives to contribute to the national economy and wealth of the nation by imparting entrepreneurial skills for its students.
  ° The University offers various disciplinary and multi-disciplinary courses and thus contributes to the skilled human resource pool of the country.
  ° The University encourages the faculty members to undertake socially relevant research projects for the benefit of the society.

- **Fostering global competencies among students**
  The University strives to develop global competencies such as knowledge and skills in the subject, ability to work in cross cultural teams, ability to communicate in foreign languages, research orientation and adaptability, among its students. The University designs and promotes courses to develop such competencies through:
  ° Skill development programmes and finishing schools

- ° Curricula of global standards
- ° International knowledge partners
- ° Faculty and student exchange programmes
- ° Research collaborations
- ° Foreign language labs
- ° Effective internship/training programmes at international organizations/ industry/firms etc.

- **Inculcating a sound value system among students**
  The role of the University is just not confined to imparting knowledge but to inculcate the desirable values among the students through

  - ° A compulsory course on Environment studies at the undergraduate level to instill commitment to conservation of resources,
  - ° Group projects, field work, internships in the curricula of various programmes to develop positive thinking,
  - ° NSS activities, cultural festivals and sports competitions as part of extracurricular activities to foster team spirit,
  - ° Conduct of outreach activities for community benefit and development by involving students as part of its Institutional Social Responsibility functions,
  - ° Training classes in yoga and meditation to help the students in developing confidence and positive outlook towards life, and
  - ° Celebration of national/international days and festivals to inculcate patriotism and respect for different cultures.

- **Promoting use of technology**
  The University has established an ICT center to develop, deploy and ensure effective use of latest information technologies by all stakeholders of The University. The outcomes of the efforts of the ICT center are as follows:

  - ° Adoption of ICT Policy and its implementation
  - ° Inclusion of discipline specific technologies in various curricula
  - ° Use of technology for admission process including for online application and for facilitating online payments through payment gateways
  - ° Automation of examination section
  - ° Use of Library Management Systems
  - ° Provision of academic ICT services such as e-learning environment, e-library, academic administration system, document management system, online feedback system, online testing system, research information management system, online questionnaire system and ICT eco-system for research

° Enabling communication through SMS Bulk Message system,

° Presence on Social Media such as blogs by teachers,

° Making available online databases for access by faculty and students for research and learning

° Provision of Internet and WI-FI connectivity on all campuses.

- **Quest for excellence**

  In its pursuit for excellence, the University has taken many quality enhancement and sustenance measures. Some of such measures are:

  ° Formulation of quality policy, curriculum development policy, ICT policy, environmental policy, student support policy etc., to provide guidelines, establish procedures and to enable monitoring and regular audits.

  ° Promoting outcome based teaching learning processes by aligning teaching and evaluation methods to graduate attributes and intended learning outcomes.

  ° Training the faculty in latest educational technologies and ICT tools for providing varied learning experiences to students.

  ° Encouraging the faculty and students to conduct research in identified thrust areas and publish the results in journals with high impact factors, and also file for patents.

  ° Facilitating collaborations with reputed national and international Universities and linkages with industry thereby enhancing interactions of the faculty and students with eminent researchers and professionals.

  ° Enhancing the University brand through alumni network, significant contributions of the faculty and through interactions of the leadership with civil society.

  ° Providing an environment conducive to critical and creative thinking, and innovation. In its thrust on research, the University has established three research institutes with latest laboratory facilities that have undertaken path breaking socially relevant research resulting in development of omega 3 products and new pharmaceutical formulations.

  ° Focusing its research on identified thrust areas has earned recognition to some constituent units as centres of repute. College of Engineering is recognized as a centre for research on composite materials; the department of pediatrics of Medical college is recognized for its pioneering work on vaccination; the Interactive Research School for Health Affairs for its work on Mother child health, the Research and Development Centre in Pharmaceutical Science and Applied Chemistry for its food testing laboratory and facilities for carrying out analytical work related to pharmaceutical science.

6.2. Strategy Development and Deployment

6.2.1 Does the University have a perspective plan for development? If yes, what aspects are considered in the development of policies and strategies?

Yes, the University has a perspective plan for its development. The Planning and Monitoring Board prepares both short term and long term plans which are submitted to the Board of Management for its approval and implementation by the University. The Board normally meets once in a year to review the progress in implementation of earlier plans and prepare plans for the following academic year. The annual plans and extent of their implementation are recorded in the annual AQAR of the University. It has prepared the perspective plan for the next five years as well as annual targets. While preparing the plan, the following aspects were considered.

- Changing requirements of knowledge and skills for employability at national and global levels
- Internationalization of curriculum
- Availability of latest education technologies such as learning management systems
- Developing teaching and research nexus
- Capacity building for internationalization
- Integration of more Open Educational Resources (OER), Massive Open Online Courses (MOOC) and skill development programmes with mainstream curricula of various programmes
- Enabling horizontal and vertical mobility of students by modularizing the curriculum
- Strengthening international collaborations and linkages
- Socially relevant research leading to patents & technology transfer
- Present strengths, weaknesses, opportunities and challenges.

6.2.2 Describe the University's internal organization structure and decision making processes and their effectiveness.

The University has a well-defined governance structure and administrative setup clearly defining roles, duties and responsibilities of various functionaries. The University complies with the UGC Regulations 2010 and other Regulatory Councils regarding the Deemed Universities governance system. Various positions of officers are created on functional basis.

The Vice Chancellor is the principal academic and administrative head of the University. He is assisted in the discharge of his duties by other officers of the University. The Deans are the academic heads of the faculties and are assisted by the Chairpersons of the Boards of Studies. The University has Registrar, Controller of Examinations and Finance officer who are assisted by Assistant

Registrars and other subordinate staff. All academic proposals are initiated at the constituent unit level. Proposals are discussed in the Boards of Studies and Faculty of each discipline and approved by the Academic Council. The major decisions on administrative and financial matters and overall functioning of the University are taken by the Board of Management.

The organogram showing the typical flat hierarchical model adapted by the University is shown below. The details of their powers and functions of the authorities and bodies are given in the MoA and rules made there under.

ORGANOGRAM
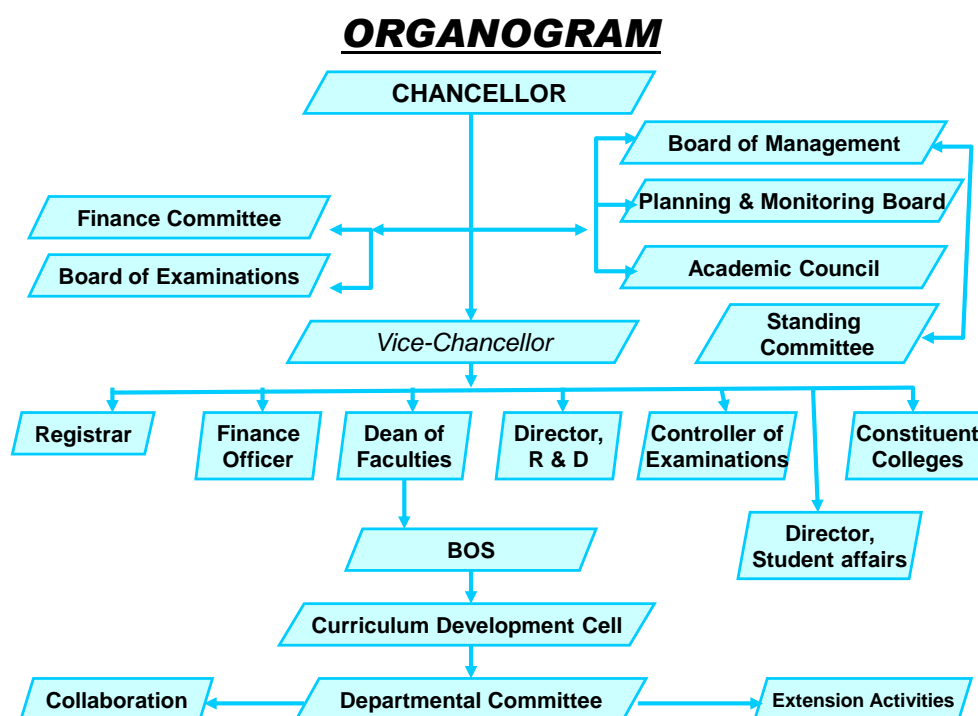
Normally, the decisions are taken by the authorities and bodies of the University such as Board of Management, Standing Committee, Academic Council, Planning and Monitoring Board, Finance Committee, Board of Examinations and Boards of Studies and are implemented by the officers such as Vice Chancellor, Registrar, Finance Officer, Controller of Examinations, Deans of the Faculties, Heads of the constituent units and other subordinate officers of the University. Accordingly the arrows point towards implementation authorities and officers.

6.2.3 Does the University have a formal policy to ensure quality? How is it designed, driven, deployed and reviewed?

Yes, the University has a formal policy to ensure quality of all its processes, activities and outcomes. The University has constituted a committee of renowned external educational experts to prepare its Quality Assurance Policy (QAP). The Policy is driven by the University's Vision and Mission, its stated graduate attributes, core values of the national education policy and observed

characteristics of reputed Universities. The draft of the policy was discussed in the IQAC, Academic Council and Board of Management of the University and finalized. The objectives of the QAP are as follows:

- To have in place internal systems of quality assurance for continuous self-assessment of performance and work towards quality sustenance and enhancement
- To facilitate student-centric learning environment for promoting outcome based quality education
- To develop or adapt international quality benchmarks/parameters for various academic and administrative activities to become a world class University
- To maintain performance data of students, staff and administration through effective use of ICT for continuous monitoring and improvement of quality
- To undertake training and development activities for staff to build their competencies to operationalize quality practices
- To internalize and institutionalize quality culture in the University; and
- To prepare Annual Quality Assurance Reports (AQAR) for critical review of performance and to prepare future plans to enhance quality

For its deployment, the final QAP document was circulated to all the constituent units with a specific direction to prepare appropriate action plans for its implementation in consultation with their respective IQACs. The constituent units are expected to introspect all academic and administrative processes and inculcate the policy directions in its proper spirit among all stake holders, particularly among staff, students and faculty.

The QAP will be reviewed every year by the IQAC of the University based on annual AQARs and once in three years through academic audits by committee consisting of external experts.

6.2.4 Does the University encourage its academic departments to function independently and autonomously and how does it ensure accountability?
Yes, the leadership of the University adheres to the principle of decentralization of decision making and delegation of authority by simultaneously ensuring accountability. Hence, all constituent units of The University enjoy full autonomy to plan and implement both academic and administrative functions, to prepare and operationalize annual budgets.

The constituent units can design curricula, introduce new academic programmes and revise the existing programmes to keep pace with changes occurring at national and global levels with respect to standards and

employability requirements. The University approves the proposals of the constituent units maybe after incorporating suggestions by respective Board of Studies and Faculty as well as the Academic Council.

The constituent units are also extended freedom to evaluate the students through appropriate formal and summative assessments for internal assessments to the extent of 40% for each course in a programme. They also can evaluate the students 100% for some courses.

The accountability is ensured through regular academic and administrative audits, internal and external financial audits, performance evaluations of faculty and non-teaching staff and feedbacks obtained from various stakeholders.

6.2.5 During the last four years, have there been any instances of court cases filed by and against the institute? What were the critical issues and verdicts of the court on these issues?

No, there were no court cases filed by or against the University during the last four years.

6.2.6 How does the University ensure that grievances/complaints are promptly attended to and resolved effectively? Is there a mechanism to analyse the nature of grievances for promoting better stakeholder – relationship?

In order to ensure that grievance/complaints are promptly attended and resolved, the University has established anti-ragging committee, internal complaints committee, prevention of sexual harassment committee and grievance redressal committee at the constituent units and also a grievance redressal cell at the University. The students, parents, faculty or non-teaching staff of the University can submit any grievance/complaint to an appropriate authority either in written, telephonic or email form. Also suggestion-complaint box are placed at many locations in the University as well as at the constituent units to receive the complaints.

Depending on the nature of the grievance, it is forwarded to the appropriate committee. The committee, within 10 days of receipt of the complaint is expected to complete an enquiry and submit a report to the head of the institution. Based on the report, the head of the institution takes appropriate action. In case the complainant is not satisfied with the decision, he /she may appeal within three working days to the appropriate authority at the University. The final decision rests with the Vice Chancellor and is based on the recommendation of the University's grievance committee.

The grievances from the students which are related to examinations, mechanisms such as revaluation of answer books, provision of photocopy of

the answer book exist. In case of malpractices at the examination, students get an opportunity to appear before the unfair means committee and present their case.

6.2.7 Does the University have a mechanism for analyzing student feedback on institutional performance? If yes, what was the institutional response?

Yes, the University has mechanism to collect and analyze student feedback on its performance.

The University, at the end of the every academic year, obtains the on-line feedback from its students on curriculum development, teaching-learning process, infrastructural facilities and learning resources through exit questionnaires. The feedback so obtained is analyzed using software and outcome is placed before the appropriate authorities or the faculty concerned as the case may be.

This exercise of obtaining feedback helped the University to develop contemporary curriculum, improving the teaching-learning process and augmentation of infrastructural facilities and learning resources.

6.2.8 Does the University conduct performance audit of the various departments?

Yes, the University conducts performance audits of its constituent units. The tools used for performance audits include the AQARs, annual reports, midterm review of income and expenditure statements, self-assessment of faculty through PBAS, progress reports of the Ph.D students, continuous monitoring of teaching and evaluation, attendance records of students, actual examination results, feedbacks, placement records, etc.

The University utilizes formal or informal benchmarks set by itself for various parameters to evaluate the performance with respect to quantity and quality of research products, teaching days, utilization of library resources and ICT services, achievements of students at national and international events, demand ratios, participation of faculty as resource persons at events conducted by other organisations, expenditure as a percentage of allocations etc.

The observations are discussed in IQAC meetings, Academic council, Board of Studies and Faculties, faculty meetings, meetings of the various committees, based on which appropriate follow up actions are taken.

6.2.9 What mechanisms have been evolved by the University to identify the developmental needs of the affiliated institutions?

The University is established under Section 3 of UGC Act. 1956, hence not applicable.

6.2.10 Does the University have a vibrant College Development Council (CDC)/ Board of College and University Development (BCUD)? If yes, detail its structure, functions and achievements.

Being a Deemed to be University, there is no provision for College Development Council (CDC) or Board of College and University development (BCUD) in MoA of the University.

6.3   Faculty Empowerment Strategies

6.3.1   What efforts have been made to enhance the professional development of teaching and non-teaching staff?

The University, during last five years, has made following efforts to enhance the professional development of teaching and non-teaching staff. It has

- Organized 352 Faculty Development programmes during the last five years at which 17487 participants representing the University faculty have attended i.e. an average of 49.6 faculty per programme. Out of these, 96 programmes were of at least six days duration.

- Conducted, through its ICT cell, more than 50 technical training programmes and 20 functional training programmes for its faculty to develop competency in using ICT tools effectively.

- Deputed faculty to Universities abroad under the exchange programme for participating in teaching and research. For example, two faculty each from Institute of Environment and Research visited University of Cologne, Germany; two faculty members of College of Nursing College visited Malardalen University in Sweden and two faculty of College of Engineering visited NCAT University in USA.

- Provided seed money to the young faculty to undertake research. Under this scheme, 206 projects have been supported by The University.

- Conducted through its IQAC, workshops and lectures on quality improvement in academic processes.

- Extended financial support to the faculty to participate in national and international conferences/workshops/training programmes.

- Encouraged teaching and non-teaching staff to pursue their higher education in the University.

The training programmes organized for professional development of non-teaching staff include the themes:

- Office Automation & E-Governance

- Training in MIS & effective administration

- Accounting with Tally and Maintenance of Records

- Computer Literacy and Proficiency through certificate exams

- In-House English Language Classes for administrative staff

- Special training Programme on *"Online Crediting of Salaries"* for Accountants
- Effective Management & administration of College, faculty & students' Databases

All these efforts of the University have ultimately has helped to enhance the quality of its academic and administrative services.

6.3.2 What is the outcome of the review of various appraisal methods used by the University? List the important decisions.

The University has adapted the Performance Based Assessment System (PBAS) for self-assessment of its faculty suggested by the U.G.C. While adapting the system, care is taken to give credit to for each and every activity that a faculty undertakes during an academic year. During the annual review of the system, the list of such activities as well as the weightages given are modified based on the feedback from the faculty subject to the constraints specified by the U.G.C. The IQAC of the University evaluates the faculty by grading their performance as outstanding, excellent, very good, and good, above average, average and below average. The performance of the faculty is also assessed through the feedback obtained from the students.

Adaption of the appraisal system and feedback provided to the faculty has visible impact in terms of increase in number of publications, increase in number of papers listed in international databases such as SCOPUS, increase in quality of publications, teaching and evaluation methods adopted, motivational levels and involvement of the faculty in co-curricular and extracurricular activities etc.

The poor performers are given appropriate counseling. The University has also adopted appropriate policy to encourage best performers by awarding 'Best Teacher Award' and 'Best Researcher Award'.

Performance of the non-teaching staff is assessed based on fixed parameters prescribed by the University. The non-teaching staff are also awarded with 'Seva Gaurav Puraskar' chosen from the categories of ministerial and class IV employees. These awards are presented on the University foundation day.

6.3.3 What are the welfare schemes available for teaching and non- teaching staff? What percentage of staff have benefitted from these schemes in the last four years? Give details.

The University provides the following welfare schemes to its employees:

- Sevak Kalyan Nidhi- scheme

- CPF – Contributory Provident Fund Scheme
- Pension/ Gratuity and GPF, LTC etc. to the employees of the grant-in-aid colleges
- Free Healthcare and Medical Reimbursement – Medicare facility to all the employees and dependents at subsidized rates
- Housing and personal loan by Bharati Sahakari Bank Ltd
- Partial reimbursement of children's educational expenses

6.3.4 What are the measures taken by the University for attracting and retaining eminent faculty?

In order to maintain quality in teaching and research, the University attracts and retains faculty by providing scholastic ambiance for their academic growth.

- Implementation of UGC pay scales to the faculty across the constituent units
- In deserving cases, the University offers additional increments or higher starts.
- The faculty is provided state of the art infrastructural facilities.
- Full autonomy to plan and execute academic and research activities and also to develop collaborations with national and international universities and institutions.
- The young faculty is regularly provided opportunities to update their knowledge in latest developments by deputing them to attend training programs and conferences
- Faculty exchange programs to interact with academicians globally, and undertake consultancy assignments.
- Career Advancement Scheme (CAS) is implemented for eligible faculty.

An outcome of above initiatives is that it has attracted a large number of faculty from outside the state and average rate of attrition among the faculty is 6.2 percent.

6.3.5 Has the University conducted a gender audit during the last four years? If yes, mention a few salient findings.

Yes, the University has appointed a committee of external experts to conduct gender audit of the University. Some of the findings by the committee are:

Sr.No.	Criteria		Percentage of Males	Percentage of Females
1	Faculty strength	Professors	66	34
		Associate Professors	64	36

Sr.No.	Criteria		Percentage of Males	Percentage of Females
		Assistant Professors	49	51
		Total	**56**	**44**
2	Heads of the institutions		83	17
3	Non-teaching staff		87	13
4	Students	UG	58	42
		PG	51	49
		PhD	47	53
		Total	**56**	**44**

Further, the committee has made the following recommendations based on which, the University has initiated appropriate actions.

- The University may carry out a survey to ascertain the special needs of the women students so that based on the outcomes of the survey, new facilities may be created.
- The University may explore possibilities of constructing additional ladies hostels.
- Tuition fee waiver may be provided to the poor and needy women students.
- Special skill oriented programmes may be developed for women empowerment.
- More programs on capacity building for women faculty and support staff may be organized.
- Appropriate gender sensitization programmes need to be developed.
- Care may be taken to depute fixed percentage of women faculty to various career advancement opportunities.
- Special efforts may be made to encourage women faculty to pursue research projects related to various aspects of women and child health. They may be provided special funding to that effect.
- All Hospitals may organize awareness programs on various issues related to the women and child welfare.
- Efforts may be made to induct more number of women faculty and support staff from socially disadvantaged communities

6.3.6 Does the University conduct any gender sensitization programmes for its faculty?

Yes, the University regularly conducts gender sensitization programs related to prevention of sexual harassment at work place, anti-ragging, women and their rights, women and child heath, women empowerment, problems related

to adolescence by inviting eminent personalities. During the last four years, the University has organized more than 55 such gender sensitization programs.

Besides, the Women Empowerment Cell of The University also organized programmes like seminars and workshops on topics 'Changing image of women in visual media', Role of women in preservation and protection of environment, create and publish literature and material concerning women empowerment, gender equality etc.

6.3.7 What is the impact of the University's Academic Staff College Programmes in enhancing the competencies of the University faculty?

The Academic Staff College of the University has organized faculty development programs related to curriculum design & development, teaching-learning, use of ICT, research techniques, research methodology etc. The impact of the programs in enhancing the professional competencies of faculty is as below:

- In general, classroom teaching has become more interactive.
- Faculty has started using, ICT tools such as Google Doc, eLearning environment based on Moodle, Survey Monkey, LimeSurvey, Mendeley, EndNote, SOFA, PSPP, SPSS etc., in teaching learning as well as research.
- While collaborative learning is facilitated by inclusion of internship, fieldwork etc. in the curriculum, faculty is experimenting with other student centric teaching learning methods such as blended learning, flipped classroom, integration of MOOC and videos from YouTube etc., with conventional teaching methods.
- There is an improvement in research abilities such as to design surveys, in technical writing, in preparing research proposals etc.
- Faculty can now teach and conduct research in advanced topics such as Nanotechnology, Cloud Computing, Business Intelligence, Data Analytics, Soft Computing etc.
- The faculty is more involved in academic discussions.

6.4   Financial Management & Resource Mobilization

6.4.1 What is the institutional mechanism available to monitor the effective and efficient use of financial resources?

Effective and efficient use of financial resources is ensured through proper systems adopted by the University. Annual budget making, midterm review of income and expenditure and preparation of revised estimates for the rest of the year, quarterly internal audits, bi-annual external audits, audits by Government

auditors for grant-in-aid colleges, enforcing immediate compliance with any discrepancies and submission of accounts to charity commissioner in time are some of the measures adopted by the University for efficient management of financial resources.

The purchase committees at the constituent units, standing and finance committee at the University are the mechanisms through which the expenditure is planned and approved to ensure effective and optimal utilization of financial resources.

Each constituent unit of the University prepares the budget of income and expenditure and submits to the University. The University prepares its budget by consolidating the budget proposals received from the constituent units and places it before the finance committee for its approval. Subsequently, it is placed for consideration and approval by the Board of Management.

The University has prescribed a procedure for taking prior approval for major expenditure to ensure better utilization of financial resources and transparency in the process.

6.4.2 Does the University have a mechanism for internal and external audit? Give details.

Yes, the University has a mechanism for adequate internal check through continuous auditing of its financial transactions. Scrutiny of the account records pertaining to the revenue and other receipts are regularly audited as per guidelines and standards prescribed by the Institute of Chartered Accountants of India. The University has adopted the system of pre-audit of major financial transactions in addition to the customary post audit being carried by professional firms of chartered accountants. The University has in house arrangement of conducting internal audit at regular intervals and their reports are reviewed by the heads of the constituent units and Finance and Accounts officer of the University and necessary corrections are made.

The external audit of the accounts is conducted once in a year by statutory auditor appointed by the Board of Management. The report of the external auditor is placed before the Finance Committee. The recommendations of the Finance Committee on the audit are placed before the Board of Management for its consideration and approval. In addition to this, there is an audit from Department of Higher Education, Government of Maharashtra which is conducted by Senior Government Audit officials for verification of utilization of funds of the Government of Maharashtra which is usually done once year.

6.4.3 Are the institutions accounts audited regularly? Have there been any major audit objections, if so, how were they addressed?

The annual accounts of the institutions are audited at a regular interval through the Statutory Auditors and these audited accounts are submitted to the Charity commissioner, Government of Maharashtra annually.

There are no audit objections by the statutory auditors because of the efficacy of regular internal audits. There are no major audit objections by external auditors also.

6.4.4 Provide the audited income and expenditure statement of academic and administrative activities of the last four years.

The details of income –expenditure for the last four financial years are as below:

(Rs. in Lac)

Sr. No.	Particular	2011-12	2012-13	2013-14	2014-15
1	Opening Balance	1564.75	974.43	238.07	2233.59
2	Total Receipts	23221.70	26828.54	31063.02	35311.27
3	Total Expenditure	22247.26	26590.47	28829.42	34477.83
4	Balance for the next year	974.43	238.07	2233.59	833.43

Copies of audited income and expenditure statements of the last four years will be provided during the peer team visit.

6.4.5 Narrate the efforts taken by the University for Resource Mobilization.

The University is self-financing and as such major income of the University is from tuition, development fees and miscellaneous receipts and grants received from the state government against salary of approved teaching and non-teaching staff of aided institutions.

Besides, the University also receives research grants from UGC, AICTE, DST, DBT, ICAR, ICMR etc. The other sources of income are through section 35AC of the Income Tax Act, 1961, endowments, sale of University forms and publications, examination fees, interest from investments and consultancy services.

6.4.6 Is there provision for the University to create a corpus fund? Yes, give details.

Yes, the University has created a corpus fund as per UGC Regulations 2010.

6.5   Internal Quality Assurance System

6.5.1   Does the University conduct an academic audit of its departments? If yes, give details.

Yes, the University conducts academic audits of its constituent units. Based on the recommendations of the IQAC, the University has appointed a committee consisting of external experts. The heads of the constituent units have made presentations before the committee. The committee has also visited the constituent units at Dhankawadi and Erandwane campuses in Pune and reviewed the infrastructural facilities available and the academic and administrative processes. The achievements made by the constituent units were noted. The committee has interacted with various authorities of the University, faculty, non-teaching staff and students also.

The committee expressed satisfaction with the present levels of diversity in academic programmes, admission procedure, curriculum design and development processes, teaching learning process, student evaluation procedures, faculty quality, infrastructure, collaborations and linkages, management system, University's focus on research, institutional social responsibility functions and student support services. The committee offered valuable suggestions for further improvements in all aspects.

The major recommendations are regarding Vision and Mission statement of the University; systems of quality assurance; effective use of ICT; enrichment of academic programmes and research in the light of national priorities such as Make in India, Skill India, Digital India; students' evaluation reforms; systems for alumni engagement; networking with world class universities and innovations for change. The University has initiated appropriate steps for implementation of the suggestions in consultation with the officers and heads of the institutions.

As an outcome of the academic audit, the University has constituted committees to formulate Quality Assurance Policy, ICT Policy, Environment Policy, Research Policy and Curriculum Development Policy. The University has organized a one day workshop to discuss the policy statements and to develop action plans for their implementation by respective constituent units. As recommended by the committee, the Vision and Mission have been modified and graduate attributes have been formulated. Teaching learning processes are becoming outcome oriented, and ICT is being used effectively.

6.5.2   Based on the recommendations of the academic audit, what specific measures have been taken by the University to improve teaching, learning and evaluation?

The IQAC of the University communicated the report of the committee to the constituent units for initiating remedial actions, based on which heads of the institutions have initiated the following measures to improve teaching, learning and evaluation.

Specific measures that are taken to improve teaching are as follows.
a) Blogs, portals, Google groups, digital resources, and smart boards are being used by faculty.
b) Open Educational Resources such as NPTEL and other open courseware, massive open online courses (MOOC) are integrated into teaching learning processes, for example by the Institute of Environment Education and Institute of Management and Entrepreneurship Development.
c) The faculty is preparing study material for upload on University's e-learning system as in the case of Dental College and Hospital, Pune.
d) The concept of Business Laboratory has been introduced at IMED involving industry experts for application based teaching. At this institute, professional from industry are invited to teach 20 to 30 percent of the course in management curriculum.

Specific measures that are taken to improve learning are as follows.
a) Research based learning is promoted by providing access to online databases in almost all disciplines. The University subscribes to 39 online databases.
b) Blended learning is facilitated by integrating MOOC courses into the curriculum. For example, courses in environmental science.
c) Online study material is provided by some faculty through Google Scholar, Teacher Blogs, and Email Groups etc.
d) Introduced Internship courses in most of the programmes.
e) Established finishing schools for students to provide employability skills and enhance placements
f) Language laboratories have been established at College of Engineering and Institute of Management and Entrepreneurship Development, Institute of Management and Research, New Delhi, College of Pharmacy etc.

Specific measures that are taken to improve evaluation are as follows.
a) Online testing for internal evaluations is used in some programmes so that the students can receive immediate feedback on their learning.
b) Online Examination (multiple choice exam) through App, Websites for programmes conducted at New Law College.
c) Assessment for cyber law course is conducted through demonstrations by students.
d) The examination process is fully automated and many security measures are implemented.

6.5.3 **Is there a central body within the University to continuously review the teaching learning process? Give details of its structure, methodologies of operations and outcome?**

Under the guidance of the IQAC of the University, the heads of the constituent units conduct continuous reviews of teaching-learning processes. The units hold fortnightly/ monthly faculty meetings to review the teaching learning process. The faculty submits information on the progress of the course being taught, the methodologies adapted, innovative practices used, if any, and the evaluation methods employed to assess learners. The faculty also submits a teaching plan of the respective courses that they are expected to teach and plan for conducting of continuous internal assessment which are reviewed during these meetings. Accordingly, a format has been prepared to record progress of academic activities which include tracking of student's attendance and their performance in class. Such efforts have resulted in timely completion of course work, conduct of assessments on time and effective implementation of the academic calendar. During this process, the IQAC of the respective constituent unit is actively involved and consulted.

Additionally, the outcomes of the above mentioned activities that may have some policy implications, are referred to the academic authorities of the University, namely, Board of Studies, Faculties and Academic Council for necessary action.

6.5.4 **How has IQAC contributed to institutionalizing quality assurance strategies and processes?**

The Internal Quality Assurance Cell (IQAC) of the University has framed a Quality Assurance Policy (QAP), with the help of external experts, to institutionalize quality assurance and sustenance measures. The QAP is given earlier at Point 6.2.3. The following steps have been taken to institutionalize the quality assurance strategies:

- The IQACs are established at each constituent unit
- Arranging workshops / lectures / seminars on quality aspects,
- Setting benchmarks and strategies to achieve them
- Conducting Academic Audit

The following quality assurance measures are institutionalized,

- Framing Quality Policy and other policy statements such as ICT policy, Research Policy, Curriculum development policy, Environment policy etc.
- Establishment of ICT Cell to develop software in-house for various academic and administrative functions and providing training for using the software effectively

- Automation of collecting feedback from various stakeholders and its analysis and follow up action
- Development and introduction of Performance Based Appraisal System (PBAS) for self-assessment of the faculty
- Complete computerisation of examination work
- Preparation and implementation of Academic Calendar
- Facilitating regular updating of knowledge and skills of the faculty through faculty development programmes
- Establishment of Academic Staff College to plan and coordinate faculty training and development
- Implementation of Choice Based Credit System (CBCS)
- Promoting the concept of finishing schools and conducting programmes to enhance employability of students.
- Establishment of linkages with industry through Industry-Institute Partnership Summit (IIPS) and corporate meets for facilitating internship training for the students and for enhancing placements
- Review of quality assurance indicators through AQARs of the constituent units.

6.5.5 How many decisions of the IQAC have been placed before the statutory authorities of the University for Implementation?

All the decisions of the IQAC which involve the policy are placed before the appropriate authorities. Some of them are as below:

- Establishment of data centres, connecting institutions to the data center through fibre optics cables, providing Wi-Fi connectivity in various constituent units
- Introduction of CBCS at UG and PG levels.
- Action plan to implement the recommendations of the Academic and Administrative Audit Committees
- Inclusion of Internship in various programmes
- Increasing weightage to Internal Assessment from 20% to 40%.
- Introducing 100% internal assessment to some of the courses in various programmes
- Providing software tools, ICT Ecosystem for Research, to faculty for supporting their research work and training the faculty in using those tools
- Establishing Academic Staff College to organise faculty development programmes
- Introduction of M.Sc. programmes in Wild Life Conservation action, and Medical Biotechnology. Introduction of post graduate programmes at Dental College and Hospital, Sangli such as M.D.S. Programme in Dept. of Prosthodontics, Department of Pedodontics, Department of Oral

Surgery, Department of Orthodontics and Department of Conservative & Endodontics

- Inclusion of a course on Drug Regulatory Affairs in M.Pharm.
- Inclusion of soft skills in B.Pharm syllabus
- Revision and Implementation of elective and Specialization courses in M.Sc. Biotechnology.
- Hospitality Management, Event Management and Retail Management have been added in the syllabi for MBA programmes

6.5.6 **Does the IQAC have external members on its committees? If so, mention any significant contribution made by such members.**

Yes, the IQAC of the University has two external members, one from industry and the other from higher education. Similarly, there are external members on the IQAC of each constituent unit. The role of the external members in the IQAC has been vital to obtain impartial and independent viewpoint and feedback which in turn strengthened and consolidated the functioning of The University in more ways than one. The present external members on the IQAC possess rare expertise in their respective fields as well as in quality aspects in Higher Education. Their contributions have significantly contributed in most of the aspects mentioned at Point 6.5.5. Their other contributions include:

- Identifying the opportunities and challenges
- Framing academic policies
- Introducing need based reforms in academics and research
- Enhancing networking with alumni, industry and other professionals
- Participating in quality related seminars and workshops as resource persons
- Providing holistic approach towards quality & excellence
- Generally improving quality consciences in the University environment
- Helping in conducting academic audits of the constituent units

6.5.7 **Has the IQAC conducted any study on the incremental academic growth of students from disadvantaged sections of society?**

Yes, the IQAC conducts study on the incremental academic growth of students from disadvantaged sections of society.

6.5.8 **What policies are in place for the periodic review of administrative and academic departments, subject areas, research centers, etc.?**

The University has a well-defined policy to undertake a periodic review of its administrative and academic departments, subject areas and research centers.

The details of which are as below:

- Constituent units are required to submit Annual Quality Assurance Reports (AQAR) at the end of every academic year to the University.
- It is mandatory for the administrative divisions, research centers and constituent units to submit Annual Reports of various activities and their outcomes to the University.
- The activities and outcomes are tallied with the plans prepared by constituent units in the beginning of the academic year.
- Significant gaps in the performance from the plans are brought to the notice of the respective constituent units to find and rectify the causes for discrepancy.
- The University also conducts Academic and Administrative Audit informally through the IQAC of the University as well as formally by the external experts.
- Periodic Administrative Audit of the University and its constituent units are carried out.

At the level of constituent units the following academic reviews are conducted.

- Term-end reviews with respect to planning of academic calendar and teaching plans
- Mid-term reviews to verify whether the syllabus and internals are conducted as per teaching plan
- Curriculum review to make recommendations to BoS and Faculty for necessary changes to the curriculum
- Reviews by Research Advisory Committee of respective constituent unit on the status of ongoing research projects, progress of Ph.D. students and areas of research.

Criterion – VII
Innovative practices

CRITERION - VII: INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

7.1.1 Does the University conduct a Green Audit of its campus?

Yes, the University conducts the green audit of its major campuses located at Pune and Sangli.The green audit considers the important aspects of environment such as energy, water, bio-medical waste, solid waste management, e-waste and hazardous waste. The University has formulated an *Environment Policy* by considering the guidelines of the Central Pollution Control Board, Government of India. For the green audit, all the constituent units have filled aquestionnaireand analysis of the data revealed significant awareness among employees of the constituent units and their efforts to improve the environmental conditions on the respective campuses. In addition, the University initiated conducting of energy audits of its major buildings and completed the energy audit of its hospital buildings.

The University has taken many initiatives to make the campuses plastic free and technology is being used to minimize the paper use. The power supply to electronic gadgets, fans, equipment and lights are being used only when required.

7.1.2 What are the initiatives taken by the University to make the campus eco-friendly?

The University and its constituent units have taken many initiatives to make the campuses eco-friendly. Some of them are as below:

- **Energy conservation**

The buildings, laboratories, lecture halls etc. in the University have been designed for optimum ventilation and natural light thus reducing the need for artificial lighting, fans and air conditioners. Energy efficient equipment like LED bulbs are being used replacing the old bulbs and tube lights. Copper chokes in tube lights are converted to electronic chokes which consumes less energy. Awareness has been created among staff and students to save energy and switch on lights, fans, computers, and laptops only when required and to use staircases instead of lifts/elevators.

Posters /notices are placed at vantage points in the departments and on all floors to switch off lights, fans and devices as energy saving measures. In some buildings, automatic switch off devices are fitted so that, when there is no movement in a building, the sensors put the devices on energy saving sleep mode. In some cases, timers are introduced in air conditioners and are used

only when temperatures are high and then also they are set at 25 degrees Celsius.

- **Use of renewable energy**

   The University has identified renewable, sustainable and affordable energy sources and has installed devices that operate on renewable sources of energy. For example, solar panel heating systems are installed for the guest house, hospitals, hostels and staff-quarters. At Erandawane campus solar lights have been installed on the hostel compound, roads and other open areas. The Poona College of Pharmacy has a distilled water production unit that uses solar energy. A biogas plant has been installed at the Sangli campus.

   The street lights on all campuses will be converted to solar light in a phased manner.

- **Water harvesting**

   The University has ensured that its major campuses have facilities for rain water harvesting. The campus at Dhankawadi, Pune is such that it facilitates maximum seepage of rainwater into the ground, thereby helping increase and recharge the ground water levels.

   At Sangli campus, sewage water is recycled by state-of-the-art Solid Immobilized Bio-Filter system. The plant has a capacity of 4 lakh litres per day. The treated water is used for gardening and plantation purpose. Plants are watered using drip irrigation as a conservation measure.

   At the Erandwane campus in Pune, rain water from the open ground is channeled into soak pits to recharge the water table and particularly bore well. This recharges the ground water which is collected from the terrace of the buildings. The water is pumped up into storage tank by an auto pump. This water is mainly used for watering the plants and is used in the wash rooms.

- **Efforts for Carbon neutrality**

   The University takes efforts for carbon neutrality. Some of the efforts include plantation of trees, conduct of awareness campaigns, and use of power saving devices. Additionally, many constituent units resort to utilization of used papers for printing purposes as an effort to save papers and electricity. The Dhankawadi campus at Pune has been made a vehicle free zone. This campus has variety of trees and kitchen gardens as an effort to reduce the carbon emission. Dry leaves are not burnt but reused as manure. The existing electricity and lighting systems have energy efficient and less carbon emitting equipment and devices. The college of Engineering organizes paper presentation competition on Green Energy.

At Sangli campus, pollution test certificates are made mandatory for the vehicles that enter the campus. Use of electronic mails and chat messengers for communication wherever possible, has considerably reduced use of paper.

The University uses LED bulbs for lighting instead of regular electric bulbs. Tree plantation drive on various campuses has changed the eco-system on the main campus. Efforts have been undertaken to spread public awareness for carbon neutrality through various campaigns. Campaigns are organized for free pollution check of vehicles of faculty and students in the campus. The University and constituent colleges also observe Earth Day, Ozone Day and Environmental Day and on these occasions meaningful awareness campaigns are organised. New Delhi campus is on its way to become 100% LED; plasticfree campus.

- **Plantation**
  The University strives to make its campuses eco-friendly through tree plantation. Plants in pots adorn the corridors and staircases of the buildings. Awareness of the importance of tree plantation is undertaken as a part of social outreach activities. Ozone day is particularly celebrated to spread this awareness with the involvement of students.

  The campus at Dhankawadi, Pune has a nature awareness area that has more than hundred indigenous species that harbour 133 recorded species of birds and a large number of butterflies and insects. The area serves as an ideal restoration site for most government agencies that use it for demonstrations.

  The Ayurveda College has well maintained herbal gardens with more than 1100 trees of about 281 species and 162 medicinal plants respectively at the Ayurveda and Homoeopathic Colleges. The plantation of Bosnian ferns in the Rachana shareera department of the Ayurved College helps absorb formalin thereby cleaning the environment.

  The Erandawane campus at Pune has maintained 60% green area on the campus. The layout plan of the campus is appropriately designed by locating the buildings in between green belts. It has a well maintained medicinal plant garden with more than 42 different plant species. Plantation is done periodically with new species of plants. The entire campus has been nourished with plants that provide healthy environment and pleasant atmosphere to students. The College has greenhouse project which is based on converting small roofs into green areas and conserving endangered plant species.

- **Hazardous waste management**

  Hospitals in Pune have a well-defined policy for bio-medical waste management wherein staff & students are trained in hospital waste disposal management. Informative charts on bio medical waste management are displayed at prominent places in the hospital and staff (para medical, medical) is instructed to strictly abide by the set of rules. The hospital waste is handed over to the authorized agency (PASSCO) for final disposal.

  The campus at Sangli has a state of art incineration plant for disposal and treatment of biomedical waste. It is a high capacity plant with a disposal rate of 50 – 60 kg per hour. The remaining incinerated ash is safely disposed by sanitary landfill with the help of external professional agency. The incinerator plant is maintained according to Maharashtra State Pollution Control Board Regulations.

  College of Pharmacy, Pune follows a systematic protocol for disposal of chemical waste. The animal house waste is disposed regularly after sterilization in the containers of Municipal Corporation. The carcass of dead animal is disposed by handling over by packing it in yellow bags and temporarily stored in deep freezer. The carcass is then handed over to PASSCO Environmental Solutions Pvt. Ltd., Pune for disposal of biological waste.

  The YM College has well laid down norms and observes rules and regulations for waste disposal chemicals, thinners, pesticides and cleaners from its laboratories. Similarly, all hazardous material containers are inspected regularly to ensure that these containers are in good condition and are properly labelled. Animals used for experiential learning are disposed by incineration method.

- **e-waste management**

  There is continuous upgradation of electronic devices such as computers, printers, etc. The hardware devices which are obsolete but can be used are donated to schools in rural areas for their further use.

  The electronic equipment which are not in use and not functioning is disposed and discarded as per the protocol specified by the University. The equipment is disposed of by an authorized vendor for e-waste management as per the principles of e-waste management.

- **Generation of organic manure from bio-degradable waste**

  Vermi compost pits are set up on some campuses for biodegradable wastes. Leaves and other plant waste that is collected in the gardens are used to

create compost thereby generating rich manure, thus reducing the waste generated and enriching the garden soil. Manure generated from organic waste is utilized in the botanical garden.

The YM College, Pune distributes organic manure to the farmers free of cost. The Institute of Environment has mobile demonstration units of vermin composting that are displayed and used in the campus for promoting sustainable lifestyle solutions.

- **Effluent treatment and recycling plant**
  Effluent Treatment Plant for incineration plant and Solid Immobilized Bio-filter system (Sewage treatment Plant) are well maintained and they comply with the regulations of Maharashtra Pollution Control Board. Incineration plant is certified by Maharashtra Pollution Control Board.

- **Water Purification plant**
  The campus at Sangli has a separate water purification plant and water supply system. The water is collected from the Krishna River which is about 8 kms. from the campus. It is then purified using state of the art facilities and energy efficient purification plant as well as RO system wherever required. The sludge produced during purification is used as fertilizer to the plants. The whole process of water collection, purification and distribution is very modern, safe, hygienic and environment – friendly.

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 University.

The University has introduced quite good number of innovations in it academic, administrative and student support system related activities. All these activities have created positive impact on overall function of the University. Some of them are as below:

- Introduction of Choice Based Credit System which has provided students many electives and options.
- Integration of MOOC into the curriculum by the Institute of Environment Education and Research (IEER) to teach the courses on Fundamentals of Sustainable Development, Corporate Social Responsibility, Programming with Python and the like through blended learning approach
- Introduction of Interdisciplinary programmes in Medical Bio-technology and job oriented courses in Bio-entrepreneurship, Floriculture and Food Biotechnology.

- Uploading the study material of all courses by the Dental College and Hospital, Pune on the University's e-Learning portal for the benefit of students of other two Dental colleges at Navi Mumbai and Sangli

- Designing of a course on Ayurvedic Nursing as a collaborative programme between Ayurveda and Nursing Colleges to create better job opportunities in specialized AYUSH hospitals

- Introduction of an innovative M.Pharm programme in Drug Regulatory Affairs to create competent professionals that caters to the industrial needs

- Introduction of interdisciplinary courses with extra credits in all Post Graduate programmes under Faculty of Science to promote integrated learning and to enhance job potential of students

- Introduction of a one year "Professional Training" in B.Arch. programme

- Using advanced and innovative mannequin *Sim Man 3G* simulation system at Medical College, Pune to provides experiential learning to the students before they go to wards for treating the patients

- Promoting collaborative learning among students with diverse backgrounds, particularly students of University of Cologne, Germany and BVU students, for field work by the Institute of Environment Education and Research (IEER).

- Using Visualizer by Dental College, Pune for clinical as well as laboratory demonstrations and latest technology like Dolphin and Nemoceph software in orthodontics for patient education and for providing motivation to the students towards diagnosis and treatment planning

- Adapting many innovative teaching learning methods such as Model Students' Amicus Team, Legal Discourses and Scholastic Interactions Programme, Model Students' Law Firm and Reverse the Judgement Method has helped the students for beyond classroom learning.

- Organizing mandatory research presentations of Ph.D students in remote areas through video conferencing at IMRDA Sangli.

- Mandatory requirement of producing certificate of originality by using the plagiarism detection software Turnitin to check for originality of content in PhD theses prior to their submission to the University.

- Establishment of Free Family Legal Aid Clinic, an innovative outreach activity of the New Law College, Pune and training the student volunteers to receive and redress the grievances of poor and needy people, thereby serving the cause of social justice.

- Adopting three villages by the Dental College and Hospital, Pune for providing complete health care as part of community skill development effort. The responsibility of their dental treatment has been taken-up by the college.

- Using the knowledge and skills of the faculty and students to find practical solutions to individual and community problems by the Yeswantrao

Mohite College of Arts, Science and Commerce through the programme Lab to Society: Dissemination of Research.

- Establishment of an ICT Center at the University with an aim to develop and deploy ICT infrastructure and train the faculty, students and staff in effectively utilizing the ICT infrastructure.

- Enabling teachers, students, alumni, and industry to interact with each other at any time anywhere and collaborate through Farak Education Platform.

- Facilitating multimedia content creation and delivery using Darim e-Studio and Raptivity

- Organizing '@Saturday' on every Saturday without losing any teaching hours by the College of Engineering, an innovative programme for students to bring awareness among them regarding corporate culture and professional skills.

- Organizing company specific training programmes for students and enhance placement opportunities for them in mass recruiter companies such as TCS, Sears, Zensar Technologies etc.

- Organizing a competition on a mock directors' meet for the law students by the New Law College, Pune to bring awareness and understanding among students about corporate and company laws.

- Holding a Moot Court Competition through Video Conferencing by New Law College to enable participation from Foreign Universities.

- Adapting a 7 tier Counselling system by Institutes of Management at Pune and New Delhi to maintain high levels of motivation among students throughout their study.

- Adapting a 5 tier Feedback system by Institutes of Management at Pune and New Delhi for quality enhancements in academic processes

- Voluntary body donation programme, preoperative checklists, death audit, tumour board meeting are some of innovations introduced in Medical Colleges.

- Screening of environmental films regularly on every Friday in a bid to raise interest among the students.

- Organizing environmental campaigns against fire crackers during Diwali and promoting use of eco-friendly colours during Holi to promote pro-environment behaviour.

7.3   Best Practices

7.3.1   Give details of any two best practices which have contributed to better academic and administrative functioning of the University.

Best Practice: 1

1) Title of the practice:
Develop and deploy ICT infrastructure and promote its effective use in the University

2) The objectives of the practice:
The objectives of the practice are to:
- Strengthen teaching - learning processes in the University by developing an e-Learning environment
- Develop appropriate ICT based systems to improve communication and interaction between and among University and constituent units as well as reduce the usage of paper
- Provide ICT tools for academic   administration
- Identify ICT tools that help researchers in various stages of the research process and
- Train the faculty and students in effectively using the tools.

3) The Context:
Needless to emphasise, faculty is keen to invest their time in teaching, research and other academic activities that benefit students and to be available to the students for discussions and for mentoring. However, they have to spend considerable time in various mundane activities such as class coordination, compilation of performances of students at internal assessments, taking and analysing feedbacks, monitoring student progression etc. Similarly, constituent units invest many man-hours in compiling and forwarding reports to the University and the University in verifying the accuracy of information received before its use. Researchers spend time in citation and bibliography management, preparing drafts of questionnaires after finalizing their content, in finding avenues to outsource data analysis tasks etc.

With a view to ameliorate all the above mentioned problems, the University has decided to develop ICT infrastructure and promote its use by faculty, students and staff.

4) The Practice:
In order to meet the objectives stated above, the University, in September 2013, has established an ICT Center. As a first step, the University has

formulated an ICT policy with the help of external experts. The policy has identified nine areas in which ICT can be deployed in the University. These areas include research, teaching and learning, student performance and progression, student support and quality assurance.

During last two-and-half years, the ICT Center has undertaken many activities that included development of an Academic Administration System, a Document Management System, installing this software at constituent units and training the faculty in using the software. The Center has identified open source ICT tools that help the researchers in their work. Also, it has built an e-Learning environment for the University using Moodle, a learning management system.

The Academic and Administration System has components for programme information, student's attendance, academic monitoring, extra-curricular activities, internal assessment and management of student documents. The Document Management System facilitates realisation of paperless office in the University and its constituent units. Using this system, the digitised documents can be centrally stored and retrieved. This system is intranet oriented, can be installed over a LAN in respective institutes.

Another version of this system namely e-connect provides an online document transfer between the University and its constituent units. Using this system individual institutes can access the documents targeted for them by the University and reply back to the same, while University can have access to documents from all the institutes. This system ensures authenticity, confidentiality and secrecy of the documents.

The e-learning environment offers two services, (i) e-classrooms which providea communication channel between class coordinators and respective students and (ii) learning resources which provide a communication channel between course teachers and respective students. The system also facilitates the conduct of online feedback as well as online objective examinations.

The ICT Center has also created a platform, e-Library which is a repository of digital content developed by the stakeholders of the University and accessible globally. Constituent units are expected to use it to publish their own content such as newsletters, educational videos, dissertations and theses, technical reports, online versions of institute and University journals etc., for public access.

The ICT ecosystem for research provides an interconnected system of more than 20 ICT tools, mostly from open source domain, which can be used to

support various tasks involved in research process. The tools include Google Search Engine, Mendeley, EndNote, LimeSurvey, SOFA, PSPP and Viper.

In order to support all the above tools and activities, the University has established its own advanced data centre with a sophisticated network operation centre (NOC) to monitor all ICT services. The University is fully self-reliant to offer ICT services to its stakeholders with no dependency on any third party organisation. These services can be accessed through a centralised portal having url, http://bvuict.in.

The ICT Centre of the University has organised many training programmes for its faculty at various constituent units.

5) **Evidence of Success:**

The acceptance of various ICT Services offered by the University is slowly increasing among the institutes across the University. It is observed that following services are relatively more in use than the others:

- **e-Learning Environment**
  - ° e-Classrooms: 8 institutes
  - ° Study Resources: 12 institutes
  - ° Online Feedback System: 6 institutes
  - ° Document Management System: 7 institutes
  - ° Academic Administration System: 9 institutes
  - ° E-Library: 4 institutes
  - ° ICT Ecosystem for Research: Conducted nineworkshops in various constituent units
  - ° Online Testing System
  - ° Training programmes: 9 programmes

6) **Problems encountered and resources required:**

While developing ICT enabled services and ensuring their proper use, the ICT Centre faced some problems such as the following, which were overcome.

(i) Deciding about support software,

(ii) Deciding whether to purchase readymade software or get it developed or develop in-house by the ICT cell,

(iii) To decide whether to host the services on an external server or setup own data centre, and

(iv) To motivate the faculty and staff to use the ICT services, while simultaneously training them to use the new technology.

In order to keep the practice economically feasible and also to sustain it over a period, it has been decided to use open source software for support. Again for academic reasons, it has been decided to develop the software by the ICT

Center ensuring minimum functionality and easy to use. In order to offer the ICT services, data centre and NOC were established.

Best Practice: 2

1) **Title of the practice:**
   To impart professional knowledge and skills to the learner, that is, transformational skills

2) **Objective of the Practice**
   - To impart transformational skills by relating theory to practice
   - To introduce internships, field work, apprenticeships, projects, clinical work, research work, etc. appropriately depending upon the nature of the programme
   - To provide opportunities to the students to learn tacit knowledge by watching professionals at work
   - To enable students to gain new experiences, to generate theories and explain their observations and to use theories to solve problems and make decisions.

3) **The Context**
   Most of the teaching-learning that takes place in the classrooms is necessarilytheory oriented, even if it is participatory and interactive. The application orientation is limited to laboratory excercisesor case analysis, simple projects etc. The goal of such exerciseis to verify the theory or to gain experience in using the tools. The problems assigned are contrived and do not reflect the complexity of real situations or contexts.

   But, there is a need to expose the students to professional work, enable them to apply the theoretical knowledge, solve problems in real settings, gain insights and learn. Simply put it, students should be provided opportunities for experiential learning so that learning becomes complete.

   Therefore, the University has taken an initiative to include work experience under the tutelage of a working professional as a part of the curricula of various programmes. Accordingly, most of the programmes have credit courses such as in-plant training, internship, field work or the like in respective curricula.

4) **The Practice:**
   There are variations in implementing the practice from programme to programme in terms of duration or type of course for which students are expected to work in appropriate organizations for longer durations and learn

from professionals in the discipline. The duration of such courses varies from 30 days to one year, as shown in the following table.

Programme	Type of the course	Duration
B.Pharm	Internship in Pharmaceutical industry	1 month
Pharm D	Internship at hospitals (to understand clinical aspects)	1 year
MBA	Summer training at companies	45 days
MBA	Integrated field work for some courses	10 hours / course
MCA	Project work at companies	12 weeks
Health Sciences – MBBS	Internship at hospitals (6 months at college hospital and 6 months at rural hospitals)	1 year
B.Tech	Implant training at industries	45 days
LLB	Internship with law firms, NGO's and organizations	1 month
LLM	Project work	45 days
B.Arch	Internship with practising architects	1 year
Hotel Management	Industrial training with hotels	20 weeks
Physical Education	Teacher training at other physical education centres	1 month
MSW	Field work in NGOs, Industries, Hospitals, and Government Offices, Open Communities	180 hours in every semester for 4 semesters.

The planning for such courses begins at least six months in advance which involves preparation of the list of eligible students, preparing their CVs, identification of companies, institutions, hospitals, organizations, etc and preparing a list of topics/areas/domains for the work and conducting sessions to familiarise students with expectations from the University as well as from the organisation.

The constituent units invite organisations with a request to provide necessary facilities to the students to complete the course. Some companies hold interviews to select students to work in their companies and some companies even offer stipend to selected students.

Students join the respective organisations and undertake the training as per schedule. Students are assigned faculty in the institute as well as a supervisor in the organization who guide the students in the work and track their progress. After successful completion of the training in the organization, students join back the institute and submit a detailed report on the work done in a prescribed

format. The students are evaluated for this course as per University norms by a panel of experts consisting of professionals from the organizations where students have worked for the course.

5) **Evidence of Success:**
   There are indicators which show that the practice is fulfilling its objectives.
   - The students are being absorbed in the companies where they have worked for internship or project work;
   - Students are getting job opportunities based on their performance in these courses;
   - Students of health sciences are getting exposure to rural life style, ailments, nutritional statuses, water related problems, etc.;
   - The reports prepared by the students based on their work are turning out be comprehensive and is reflecting better understanding of the concepts and hence learning.
   - The faculty is getting an opportunity to work on live problems;
   - Faculty is getting access to new examples and cases to use in teaching;
   - The University is able to contribute to primary health care through its faculty and students;
   - University could provide a platform for social justice through free Legal Aid Clinic;

6) **Problems encountered and resources required:**
   Some of the problems encountered during the process of implementation of the practice are
   (i)   Faculty is required to spend more time on doing administrative work related to placement rather than academic activities.
   (ii)   Due to a more number of students allotted to a single faculty as guide, the students are devoid of focused guidance.
   (iii) Difficult to place the students in the company of their choice because companies choose students as per their requirements and the criteria's laid down.
   (iv)   Many students do not get an opportunity to select the company as per their future plans and career.

   Best Practice: 3

1) **Title of the Practice:**
   Development of Flax Bio-village

2) **Objectives of the Practice:**
   - To provide healthier omega-3 enriched functional foods to the consumer

- To achieve much needed omega-3 nutritional security in the country
- To raise income levels of farmers by encouraging them to grow linseed by providing high yielding PKVNL 260 variety
- To promote dairy, bakery and poultry industry and to create more employment

3) The Context

It is known that modern food is deficient in omega-3 fatty acid. Even, cattle milk is deficient in omeg-3 fatty acid. This deficiency in diet is primarily responsible for the increase in diabetes, heart disease, cancer, mental illness etc. We, the scientists at IRSHA, BVDU have provided disease resistant high yielding , high omega-3 fatty acid PKV.NL.260 variety developed by Dr. Ghorpade (now scientist at IRSHA), to increase productivity. As a part of Linseed value addition efforts, we gave buyback guarantee to farmers and purchased linseed at 5% higher rate than the market price.

Linseed oil is notoriously unstable. We have stabilized linseed oil in water miscible emulsion for enriching dairy and bakery products with omega-3 fatty acid. While egg fat is unhealthy, Omega-3 enriched feed mix (EFM) developed by us when fed to layer birds, lay omega-3 enriched eggs with healthy fat. Further, we have also developed EFM to feed broiler birds to produce omega-3 chicken. Thus FLAX BIO-VILLAGE concept developed and validated by us, adds value to linseed and brings about backward linkage with the farmers and forward linkage with the consumer. The concept unleashes the power of linseed to provide omega-3 functional foods and give better nutritional health to the people.

4) The Practice

Center for Innovation in Nutrition Health Disease (CINHD), established at IRSHA, provides a platform to undertake research and develop ideas for effectively tackling problems in Nutrition Health and Disease and for finding innovative solutions.

In order to further validate such promising innovations, another unit has been established under the name: Real World Nutrition Laboratory Foundation (RWNLF) to undertake production and validation of omega-3 enriched products and to market them. Fully tested and proven technologies then get ready for full scale commercial exploitation and help in Linseed Value Addition – "Wealth to Farmers and Health to Society".

Seed production of PKV.NL.260, a high yielding, and disease resistant with high omega-3 fatty acid, was undertaken for supplying high quality seeds to the farmers in undeveloped regions in Vidarbha. The pioneering "Flax Bio-

village" model adds value to linseed in multiple ways. The omega-3 oil is extracted from linseed under non-oxidizing (under nitrogen) cold press extraction conditions. The oil is processed to produce various omega-3 products such as omega-3 soft gel, omega-3 fortifier that can enrich dairy products (milk, ghee, chocolates, sweets etc). Partly de-oiled cake still rich in omega-3 is processed to produce omega-3-enriched poultry feed to produce omega-3 egg and omega-3 chicken meat. These products will boost dairy, poultry, bakery and nutraceutical industries in the country.

Linseed lignan has potent phytoestrogen activity. Our research has demonstrated that it has cardio-protective and anti-metastatic breast cancer activities. This is being developed as a byproduct, which is already sold as of the counter supplement in many countries including USA. Further, partially de-oiled cake, rich in dietary fiber, low carbohydrate and good protein is being developed as healthy cereal.

Further details about the entire concept of Flax Bio-village is depicted below.

5) **Evidence of Success**
   a. The productivity of the linseed in the chosen area of Vidarbha has increased from 235Kg / ha to 1750 Kg/ha.
   b. Due to the interventions made with the help of World Bank assisted ICAR, NAIP program, the **area under PKV.NL.260**, in Vidharbha Maharashtra has increased by 7000ha.
   c. The **economic benefit to farmers** has increased from Rs 6939 to Rs28264/ha in rain-fed and to Rs. **66463/ha** under irrigated condition**s.**

d. The proof of concept was well established with the two mega World Bank assisted ICAR National Agriculture Innovation projects.

e. In order to continue the work beyond the project, the University has established a not for profit company "REAL WORLD NUTRITION LABORATOORY FOUNDATION" under Section 8 of company's act, to produce omega-3 enriched products from linseed. Several industrial linkages for large scale manufacture are being worked out.

f. Various products such as ALVEL omega-3 oil, soft gel, and omega-3 egg have been validated in the market. Omega-3 chicken, omega-3 chocolate, omega-3 milk etc are being added.

g. In recognition of the astounding success of the concept, GOI has granted ICAR linseed Value Addition Center to BVDU to disseminate the technologies to the remaining 14 ICAR linseed centers in the country.

h. Development of omega-3 egg by BVDU, has received Lockheed Martin DST, gold medal and Rs one lakh cash award.

i. Maharashtra Rural Livelihood Innovation Forum has awarded "Certificate of Appreciation" for FLAX BIO-VILLAGE Innovation for its Impacton Rural Livelihoods and Invaluable contribution in improving lives of Rural Poor in Maharashtra, 2013-14.

j. ICAR-NAIP "Certificate of Appreciation" was awarded at 22nd regional committee meeting, Goa in 2012 for outstanding performance in NAIP.

6) Problems Encountered and Resources Required

a. There is lack of awareness of about the extraordinary importance of omega-3 fatty acid for human health today.

b. There are regulatory hurdles in adding omega-3 to cattle milk, although omega-3 is natural nutrient in human milk.

c. Large scale, private and government support is required for linseed agriculture and post-harvest processing to witness the impact on the health of the people.

d. There is a need to develop technology dissemination education programme to develop entrepreneurs in different aspects of flax bio village.

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Declaration by the Head of the Institution

I certify that the data included in this Self-Study report (SSR) are 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 this SSR during the peer team visit.

Prof. Dr. Shivajirao Kadam   Pune

Vice Chancellor   22/07/2016

Bharati Vidyapeeth Deemed University, Pune