



Annual Quality Assurance Report (AQAR) of the IQAC

Academic Year
2016-2017

**GOVERNMENT INSTITUTE OF SCIENCE,
NIPAT NIRANJAN NAGAR, CAVES ROAD
AURANGABAD-431 004, MAHARASHTRA**

The Annual Quality Assurance Report (AQAR) of the IQAC 2013-14

Part – A

I. Details of the Institution

1.1 Name of the Institution

1.2 Address Line 1

Address Line 2

City/Town

State

Pin Code

Institution e-mail address

Contact Nos.

Name of the Head of the Institution:

Tel. No. with STD Code:

Mobile:

Name of the IQAC Co-ordinator:

Mobile:

IQAC e-mail address:

1.3 NAAC Track ID (For ex. MHCOGN 18879)

MHCOGN11453

1.4 NAAC Executive Committee No. & Date:

(For Example EC/32/A&A/143 dated 3-5-2004.

This EC no. is available in the right corner- bottom of your institution's Accreditation Certificate)

EC(SC)/14/A&A/34.2 dated 29-03-2016

1.5 Website address:

www.inosca.org

Web-link of the AQAR:

<http://www.inosca.org/AQAR2016-17.pdf>

For ex. <http://www.ladykeanecollege.edu.in/AQAR2012-13.doc>

1.6 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	B++		2004	2004-2009
2	2 nd Cycle	B	2.74	2016	2016-2021
3	3 rd Cycle				
4	4 th Cycle				

1.7 Date of Establishment of IQAC: DD/MM/YYYY

15/01/2005

1.8 AQAR for the year (for example 2010-11)

2016-17

1.9 Details of the previous year's AQAR submitted to NAAC after the latest Assessment and Accreditation by NAAC ((for example AQAR 2010-11 submitted to NAAC on 12-10-2011)

- i. AQAR 2005-06 submitted to NAAC on 31/05/2014
- ii. AQAR 2006-07 submitted to NAAC on 31/05/2014
- iii. AQAR 2007-08 submitted to NAAC on 31/05/2014
- iv. AQAR 2008-09 submitted to NAAC on 31/05/2014
- v. AQAR 2009-10 submitted to NAAC on 31/05/2014
- vi. AQAR 2010-11 submitted to NAAC on 22/05/2014
- vii. AQAR 2011-12 submitted to NAAC on 05/12/2014
- viii. AQAR 2012-13 submitted to NAAC on 05/12/2014
- ix. AQAR 2013-14 submitted to NAAC on 05/12/2014
- x. AQAR 2014-15 submitted to NAAC on 13/01/2016
- xi. AQAR 2015-16 submitted to NAAC on 01/07/2017

1.10 Institutional Status

University State Central Deemed Private

Affiliated College Yes No

Constituent College Yes No

Autonomous college of UGC Yes No

Regulatory Agency approved Institution Yes No

(eg. AICTE, BCI, MCI, PCI, NCI)

Type of Institution Co-education Men Women

Urban Rural Tribal

Financial Status Grant-in-aid UGC 2(f) UGC 12B

Grant-in-aid + Self Financing Totally Self-financing

1.11 Type of Faculty/Programme

Arts Science Commerce Law PEI (PhysEdu)

TEI (Edu) Engineering Health Science Management

Others (Specify)

Post Graduate and Research Institute

1.12 Name of the Affiliating University (*for the Colleges*)

Dr. Babasaheb Ambedkar
Marathwada University,
Aurangabad (Maharashtra State)

1.13 Special status conferred by Central/ State Government-- UGC/CSIR/DST/DBT/ICMR etc

Autonomy by State/Central Govt. / University

--

University with Potential for Excellence	--	UGC-CPE	--
DST Star Scheme	--	UGC-CE	--
UGC-Special Assistance Programme	--	DST-FIST	✓
UGC-Innovative PG programmes	--	Any other (<i>Specify</i>)	--
UGC-COP Programmes	--		

2. IQAC Composition and Activities

2.1 No. of Teachers	06
2.2 No. of Administrative/Technical staff	03
2.3 No. of students	00
2.4 No. of Management representatives	01
2.5 No. of Alumni	01
2.6 No. of any other stakeholder and community representatives	01
2.7 No. of Employers/ Industrialists	01
2.8 No. of other External Experts	01
2.9 Total No. of members	16
2.9.1 Chairman	01
2.9.2 Co-ordinator	01
2.10 No. of IQAC meetings held	08

2.11 No. of meetings with various stakeholders: No. Faculty

Non-Teaching Staff /Students Alumni Others

2.12 Has IQAC received any funding from UGC during the year? Yes No

If yes, mention the amount

2.13 Seminars and Conferences (only quality related)

(i) No. of Seminars/Conferences/ Workshops/Symposia organized by the IQAC

Total Nos. International National State Institution Level

(ii) Themes

2.14 Significant Activities and contributions made by IQAC

- The faculty members are encouraged to participate in the framing and revision of syllabus as a part of various committees in the University
- The staff members are encouraged to submit research projects to various funding agencies, pursue research work, and publish papers in peer reviewed and refereed journals participate in and organize conferences.
- Students are kept informed about career opportunities through the Placement and Training Cell and on-campus and off-campus placement activities are carried out.
- The faculty members are encouraged to participate in conferences in India and abroad.
- The faculty members are encouraged to attend orientation, refresher, short-term and online courses.
- Guest lectures by eminent persons are arranged to keep the students abreast of the current developments in the subject.
- Study tours and industrial visits are organized in order to acquaint the students with the application of their theoretical knowledge.
- A number of extension activities are carried out under the NSS to increase sensitivity of the students to problems in the society and to contribute to social welfare through awareness campaigns, efforts towards water conservation, tree plantation, cleanliness, etc.

2.15 Plan of Action by IQAC/Outcome

The plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and the outcome achieved by the end of the year *

Plan of Action	Achievements
<ul style="list-style-type: none"> • Encouraging the faculty members to contribute to syllabi designing and revisions. • Organization of campus interviews and career guidance through “Placement and training Cell” • Motivation to the teaching staff in faculty development programmes. • Encouraging staff members to submit research projects to various funding agencies, pursue research work, and publish papers in peer reviewed and refereed journals participate in and organize conferences. • Focus on research activities to be carried out by staff and students. • Enrichment of knowledge resources (literature) through purchase of new books and e-resources. • Inviting experts from various fields and alumni for guest lectures, seminars, workshops, conferences. • Organizing study tours for the students • Increasing the sensitivity and awareness of students towards problems in the society such as water conservation, environmental problems, social awareness, etc. 	<ul style="list-style-type: none"> • The faculty members contributed to the framing and revision of syllabus as a part of various committees in the University • The Placement and training cell organized campus interviews, off-campus placement support and carried out career counselling for the students. • The Director of the Institute, Dr. H. S. Chaudhari (Wankhede) delivered an invited talk in an International Conference at Kathmandu, Nepal, and was conferred the Award of “Distinguished Scientist in the field of Life Sciences”. Dr. Mrs. S. M. Dharmadhikari (Associate Professor, Microbiology) participated in an International conference at Nanyang Technical University, Singapore. Mr. I. R. Gupta (Assistant Professor, Biotechnology) presented a research paper in the 37th Annual Meeting of American College of Toxicology at Baltimore, USA. • Guest lectures by eminent persons were arranged to keep the students abreast of the current developments in the subject. • Study tours and industrial visits were organized in order to acquaint the students with the application of their theoretical knowledge. • A number of extension activities are carried out under the NSS to increase sensitivity of the students to problems in the society and to contribute to social welfare through awareness campaigns, efforts towards water conservation, tree plantation, cleanliness, etc.

* Pl. see Annexure 1 for the Academic Calendar 2016-17

2.15 Whether the AQAR was placed in statutory body Yes No

Management Syndicate Any other body

Provide the details of the action taken

The AQAR was placed before the members of staff council in the regular meetings for thorough discussion. Suggestions from members were duly considered for the preparation of the AQAR.

Part – B

Criterion – I

I. Curricular Aspects

1.1 Details about Academic Programmes

Level of the Programme	Number of existing Programmes	Number of programmes added during the year	Number of self-financing programmes	Number of value added / Career Oriented programmes
PhD	05	--	--	--
PG	05	--	--	--
Total	10	--	--	--

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options -
CBCS is implemented from the academic year 2015-16.

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	05
Trimester	--
Annual	--

1.3 Feedback from stakeholders* Alumni Parents Employers Students
(On all aspects)

Mode of feedback: Online Manual Co-operating schools (for PEI)

* Pl. see Annexure 1 for the Analysis of student/parents' feedback

1.4 Whether there is any revision/update of regulation or syllabi, if yes, mention their salient aspects.

Department of Botany organized a 2-Day Workshop on Restructuring of M.Sc. Botany Syllabus.
Service course on "Pisciculture" under CBCGS pattern for M.Sc. Part II students.
Members of the Teaching Staff hold numerous responsible positions in University appointed committees, take important decisions and thereby contribute to value addition in the teaching-learning process.
Faculty members associated with Board of Studies of the affiliating University are listed below:
Prof. S.G. Kulkarni: Chairman of Board of Studies in Biophysics
Dr.A.G. Jadhav: Member of Board of studies in Bioinformatics
Dr. M. A. Sonar: Member, Board of studies in Geology
Dr. S. Nasreen: Member of the Syllabus framing committee in Botany
Dr. A. N. Salve: Member of the Syllabus framing committee in Botany
Dr. M.S. Patil: Member, Member of syllabus framing committee in Engineering Biotechnology

1.5 Any new Department/Centre introduced during the year. If yes, give details: Nil

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Assistant Professors	Associate Professors	Professors	Others
20	16	03	01	00

2.2 No. of permanent faculty with Ph.D.

13

2.3 No. of Faculty Positions Recruited (R) and Vacant (V) during the year

Assistant Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
16	05	03	05	01	03	--	--	20	14

2.4 No. of Guest and Visiting faculty and Temporary faculty

Guest faculty = 05

Visiting faculty = 08

Temporary faculty = 14

2.5 Faculty participation in conferences, workshops, seminars and symposia:

No. of Faculty	International level	National level	State level	Univ. level	College level	Total
Attended	02	31	03	04	04	44
*Presented papers	09	11	00	06	00	26
Resource Persons	01	08	02	09	07	27
Total	12	50	05	19	11	97

*Data of "Presented papers" is not included in "Attended" conferences, workshops, seminars and symposia.

Dr. M. A. Sonar worked as the convener in Geology Conference.

Dr. A. G. Jadhav worked as member of University Co-ordinator Committee of the Aavishkar Research Competition 2016-17.

Mr. V. W. Patil worked as Raporteur in National Seminar.

Dr. H. S. Chaudhari (Wankhede) delivered invited lecture in International conference in Nepal.

2.6 Innovative processes adopted by the institution in Teaching and Learning:

- The students and Staff are encouraged for participation in Conference/Workshops/Symposiums to get academic exposure to latest trends in Science.
- Library access to students beyond office hours during exams for better preparation.
- Book bank facility is made available to needy students.
- Students have been assigned uniform for the sake of maintenance of discipline.
- Regular guidance for different competitive exams is given.
- Modern techniques are used for teaching-learning, viz. LCD projection, on-line resources, etc.
- Social responsibilities are imbibed in the students through extension programs of NSS unit.
- Researchers of other Institutions are allowed to use laboratory & library facilities in the Institute.
- Analytical facilities/consultancies are provided free of cost to Researchers from other Institutions
- NET-SET Preparatory Test is conducted to encourage students to face NET, SET, GATE.
- Alumni interact with students and guide them for job prospects and competitive exams.
- Two internal assessment tests are conducted every semester by Internal Exam Coordination Unit. In addition students are encouraged to deliver seminars and given assignments to enhance their conceptual understanding and presentation skills.
- Faculty members provide counselling to slow learners and encourage them by way of home assignments and other activities.

2.7 Total No. of actual teaching days during this academic year

180

2.8 Examination/Evaluation Reforms initiated by the Institution (for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

Two internal assessment tests are conducted in each semester by Internal Exam Coordination Unit. In addition, faculty members conduct class tests and give assignments to the students which are evaluated and students are given advice for improvement of the performance.

2.9 No. of faculty members involved in curriculum restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop

BOS members = 03

Other members = 03

Curriculum development workshops = 01
(Dept. of Botany organized a Workshop on restructuring of syllabus of M.Sc. Botany Sem III and IV).

2.10 Average percentage of attendance of students

> 75%

2.11 Course/Programme wise distribution of pass percentage (M.Sc. 2nd Year):

Title of the Programme	Total no. of students appeared	Division					
		Distinction (%)	I (%)	II (%)	III (%)	Fail%	Pass %
Biophysics	11	45.45	45.45	9.09	00	00	100
Biotechnology	20	10.00	75.00	00	00	15.00	85.00
Botany	16	87.50	12.50	00	00	00	100.00
Geology	17	88.24	00	00	00	11.76	88.24
Microbiology	21	57.14	28.57	14.29	00	00	100.00

2.12 How does IQAC Contribute/Monitor/Evaluate the Teaching & Learning processes:

The IQAC ensures that:

- (i) Academic calendar and teaching time table are strictly followed,
- (ii) Student feedback is obtained and analyzed for improving teaching-learning,
- (iii) IQAC ensures that Key Performance Indicators (KPI) as laid down by the Government are monitored by KPI committee and necessary steps are taken by faculty for quality enhancement on the basis of the KPI evaluation.

2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses	05
UGC – Faculty Improvement Programme	--
HRD programmes	--
Orientation courses	01
Faculty exchange programme	--
Staff training conducted by the university	--
Staff training conducted by other institutions¶	01
Summer / Winter schools, Workshops, etc.	--
Others*	04
Total	11

¶Mrs. P. M. Sonawane attended Foundation Trng.course conducted by YASHADA, Gov. of Maharashtra

*Mrs. V. N. Wadekar and Mr. S. G. Kulkarni completed FDP 101X conducted by HRD, GOI at IIT-Mumbai during Aug3-Sep7, 2017,

Mr. S. G. Kulkarni completed FDP 201X conducted by HRD, GOI at IIT-Mumbai during Sep14-Oct12, 2017.

*Mrs. V. N. Wadekar received INSA Fellowship in May/June 2016

2.14 Details of Administrative and Technical staff

Category	Number of Permanent Employees	Number of Vacant Positions	Number of permanent positions filled during the Year	Number of positions filled temporarily
Administrative Staff	14	00	00	00
Technical Staff	01	00	00	00

Criterion – III

3. Research, Consultancy and Extension

3.1 Initiatives of the IQAC in Sensitizing/Promoting Research Climate in the institution

- The staff members are encouraged to submit research projects to various funding agencies, pursue research work, publish papers in peer reviewed refereed journals, participate in and organize conferences.
- The faculty members are encouraged to participate in International and National level conferences/workshops/symposia both in India and abroad.
- Faculty members are encouraged to undertake training in National/International laboratories.
- Guest lectures by eminent persons are arranged to keep students abreast of current developments in the subject.
- Study tours and industrial visits are organized in order to acquaint the students with the application of their theoretical knowledge.

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Received	Submitted
Number	-	2			
Outlay in Rs. Lakhs	-	32,22,000/-			

* Details, see below in point number 3.6

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	-	-	-	-
Outlay in Rs. Lakhs	-	-	-	-

3.4 Details on research publications

	International	National	Others	Total
Peer Review Journals	27	-	-	27
Non-Peer Review Journals	-	-	-	-
Chapters in books	1*	3	-	04
e-Journals	-	-	-	-
Conference proceedings	1	4	-	05
Total	29	07	Nil	36

* Accepted and *in-press*

3.5 Details on Impact factor (IF) of publications:

Range

0.41 to 7.296

Average

2.279

Total IF= 79.102, Total publications= 36, Average IF= 2.197

3.6 Research funds sanctioned and received from various funding agencies, industry and other organizations.

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned	Received
Major projects	2016-17	Nil	Nil	Nil
Minor Projects	2016-17	Nil	Nil	Nil
Interdisciplinary Projects	--	--	--	--
Industry sponsored	--	--	--	--
Projects sponsored by the University/ College	--	--	--	--
Students research projects <i>(other than compulsory by the University)</i>	--	--	--	--
Any other(Specify)	2016-17	DST-WoS A	15,15,000	15,15,000
		UGC- Rajiv Gandhi Fellowship	17,07,000	17,07,000
Total	--	--	32,22,000	32,22,000

3.7 No. of books published i) With ISBN No. Chapters in Edited Books

ii) Without ISBN No.

3.8 No. of University Departments receiving funds from

UGC-SAP CAS DST-FIST
DPE DBT Scheme/funds

3.9 For colleges

Autonomy CPE DBT Star Scheme
INSPIRE CE Any Other (specify)

3.10 Revenue generated through consultancy

Department of Botany provided microbial (bacterial and fungal) cultures to Yash Pharmacy free-of-cost. Dr. A. N. Salve, Department of Botany, provided forensic analysis services to State Regional forensic laboratories and State Police Department free-of-cost.

Department of Biophysics provided gamma irradiation services for Rs. 5500/- and genetic purity testing services for Rs. 6300/-. Mr. S. G. Kulkarni and Mrs. V. N. Wadekar have offered 3 consultancy services to industries.

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	-	01	00	01	-
Title	-	Scientific writing in Marathi and Biological Science Vocabulary	-	Workshop on restructuring of M. Sc. Botany Syllabus	
Date	-	3-4 March 2017	-	22-23 Dec. 2016	
Sponsoring agencies	--	Vaigyanik tatha takniki shabdavali aayog, Ministry of Human Resource Development, Govt. of India	-	Dr. Babasaheb Ambedkar Marathwada University, Aurangabad	-

No. of faculty served as experts, chairpersons or resource persons

Experts	=	09
Chairpersons	=	05
Resource persons	=	27
Others*	=	05

*Dr. M. A. Sonar worked as the convener in Geology Conference.

Dr. A. G. Jadhav worked as member of University Co-ordination Committee for Aavishkar Research Competition 2016-17.

Mr. V. W. Patil worked as Raporteur in National Seminar.

Several faculty members also perform the tasks assigned by the Dept. of Higher Education, viz. government nominees and subject experts for CAS promotions, interviews for teaching posts, inspection of colleges, etc.

3.13 No. of collaborations International National Any other

3.14 No. of linkages created/maintained during this year

3.15 Total budget for research for current year in lakhs:

The Institute does not receive research grant from the government. Research grants are received from funding agencies and College Development Grant is given by UGC as below. Grants are received from the government under the heads of non-plan, plan and office expenditure and these details are also given below.

From Funding agency	<input type="text" value="32,22,000"/>
From UGC	<input type="text" value="12,00,000"/>
From Management of Institute	<input type="text" value="NPlan = Rs. 5,93,000"/> <input type="text" value="Plan = Rs. 2,40,000"/> <input type="text" value="OE = Rs. 4,49,994"/> <input type="text" value="Total = Rs. 12,82,994"/>
Total	<input type="text" value="57,04,994/-"/>

3.16 No. of patents received this year:

Type of Patent		Number
National	Applied	1 in process (complete specifications filed)
	Granted	Nil

3.17 No. of research awards/ recognitions received by faculty and research fellows/students of the institute in the year

Total	International	National	State	University	Dist	College
31	03	15	02	02	01	08

Mrs. V. N. Wadekar is a recipient of INSA fellowship

Dr. H. S. Chaudhari (Wankhede) is a recipient of Distinguished Scientist award from Global Society of Basic and Applied Sciences, Thane.

3.18 No. of faculty from the Institution

who are Ph. D. Guides

and students registered under them

3.19 No. of Ph.D. awarded to faculty from the Institution

3.20 No. of Research scholars receiving the Fellowships (Newly enrolled + existing ones)

JRF SRF Project Fellows Any other

3.21 No. of students Participated in NSS events:

University level State level

National level International level

3.22 No. of students participated in NCC events:

University level State level

National level International level

3.23 No. of Awards won in NSS:

University level State level

National level International level

3.24 No. of Awards won in NCC:

University level	NA	State level	NA
National level	NA	International level	NA

3.25 No. of Extension activities organized

University forum	--	College forum	02		
NCC	--	NSS	12	Any other	--

3.26 Major Activities during the year in the sphere of extension activities and Institutional Social Responsibility.

NSS unit conducted social and community services in Aurangabad city as described below:

1. 28th June 2016- tree plantation in association with Sakla Landscapings, Aurangabad; Bharuka Constructions, Aurangabad; Lions Club, Chikalthana and “We for Environment”, Aurangabad. The activity was conducted under the joint initiative of NSS and the Institute.
2. 1st July 2016- tree plantation under Govt. of Maharashtra’s 2 Crore trees plantation program.
3. 4th August 2016- cleanliness campaign in the Institute campus
4. 13th August 2016- Free dental and eye check-up camp organized **as a part of Institute Foundation Day** (College forum) in association with Govt. Dental College and Hospital, Aurangabad and Lions Club of Chikalthana. A total of 250 beneficiaries attended the camp.
5. 15th August 2016- Rally for public awareness regarding environment, health and cleanliness
6. 3rd September 2016- As a part of Teachers’ Day Celebrations (College Forum) Blood Donation Camp was organized in association with Seth Nandlal Dhoot Hospital, Aurangabad. A total of 35 donors donated blood.
7. 24th September 2016- Cleanliness campaign in the Institute campus
8. 2nd October 2016- Cleanliness campaign in the Boys’ and Girls’ Hostels of the Institute
9. 12th January 2017- tree conservation and cleanliness in the Institute campus and lecture on Youth Empowerment on the occasion of Swami Vivekanand Jayanti and Ma Jijaau Jayanti
10. 26th January 2017- Rally for public awareness on “Digital India” and “Cashless transactions”
11. February 9-15, 2017- A pond admeasuring 22mX14mX10ft was constructed by NSS volunteers for prevention of rain water run-off and storage of about 7-8 Lakh liter water under the NSS special camping program. The activity by supported by the Honorable Regional Director of Aurangabad Region, Mr. Purushottam Bhapkar by way of providing Pokland Machine for drilling the site.
12. Lectures by eminent persons were arranged during special camping program for inculcation of social responsibilities and youth empowerment: (i) Samajbhushan Shri Rajaramji Rathod- role of NSS volunteers in social upliftment, (ii) Dr. Suhas Morale- environmental awareness for social development, (iii) Dr. Kailas Ambhore- personality development through positive thinking, (iv) Dr. A. V. Pethkar- towards innovativeness through research attitude, (v) Dr. S. V. Gunjal- Bonding of the new generation with the society, (vi) Dr. Sarjerao Thombre- relevance of Mahatma Gandhiji’s thoughts to the present times, (vii) Dr. Mahendra Shirsat- scientific attitude for transforming society, (viii) NSS volunteer Mr. Dhiraj Patil- a song depicting the problems of the farmers.

Criterion – IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing	Newly created	Source of Fund	Total
Campus area (acres)	25	--	State Govt.	25
Class rooms	10	--	State Govt	10
Laboratories	15	--	State Govt	15
Seminar Halls	02	--	State Govt	02
No. of important equipments purchased (\geq 1-0 lakh) during the current year.	15	00	--	15
Value of the equipment purchased during the year (Rs. in Lakhs)	54,11,672	00	--	54,11,672
Others				
Boys' Hostels	01	--	State Govt	01
Girls' Hostels*	01	01	State Govt	01
Library	01	--	State Govt	01
Guest House	--	01	State Govt	01
Quarters for non-teaching staff	04	01**	State Govt	01

*One Ladies Hostel for Minorities (capacity 100 students) funded by Ministry of Minority, Govt. of Maharashtra

**One residential quarter for Warden, Boys' Hostel is constructed with funding from the State Gov.

4.2 Computerization of administration and library

The administration section and the library are partially computerized. The following work is carried out using computers:

1. Student admission: preparation of merit lists of students, scanned copies of examination result.
2. Scholarship forms are downloaded from the government portal and hard copies of filled-in forms are submitted. From the next year, the process submission is likely to be made online.
3. Examination forms for all the PG semester exams conducted by affiliating University are filled up on-line.
4. Uploading of information and documents to the University website for affiliation process is done online.
5. Information under Management Information System is sent online to Director, Higher Education.
6. AISHE data is uploaded to the government online.
7. Telephone and electricity bills are paid online to concerned authorities.
8. Salary bills are generated in online mode through the "sevarth" portal.

4.3 Library services:

	Existing		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	6627	22,14,238	54	22,667	6668	22,36,905
Reference Books	2147	17,23,195	33	99,122	2173	18,22,317
Donated Books	383	-	00	-	383	-
e-Books	N-LIST consortium 93809+, Remote access to BAMUL Consortium 1,49,839	Yearly subscrip., Rs. 5750 +10,000	N-LIST & Remote Access of BAMUL Consortium 1,49,839	Yearly subscrip., Rs. 5700 +10,000	N-LIST consortium 93809+, Remote access to BAMUL Consortium 1,49,839	Yearly subscrip., Rs. 5750 +10,000
Journals	25	80,928	--	--	25	80,928
e-Journals	N-LIST consortium 93809+, Remote access to BAMUL Consortium 1,49,839	Yearly subscrip., Rs. 5750 +10,000	N-LIST & Remote Access of BAMUL Consortium 1,49,839	Yearly subscrip., Rs. 5700 +10,000	N-LIST consortium 93809+, Remote access to BAMUL Consortium 1,49,839	Yearly subscrip., Rs. 5750 +10,000
CD & Video	77	--	07	--	85	--
Others (specify) Competitive exams and motivational	--	--	--	--	--	--

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Browsing Centres	Computer Centres	Office	Departments	Others	With Internet
Existing	103	--	--	--	13	76	03	40
Added	07	--	--	11	04	--	03	11
Total	110	--	--	11	17	76	06 (lib)	51

4.5 Computer, Internet access, training to teachers and students and any other programme for technology up-gradation (Networking, e-Governance etc.)

The teachers have basic knowledge of computer operation and all teachers have qualified MH-CIT exam conducted by Government of Maharashtra. The computers are used by the students for preparing presentations and to obtain information from internet. Internet facility is available twenty four hours free of cost. Log books are maintained to record the usage of these facilities. The computer laboratory set up under DST-FIST programme with 11 computers is used regularly by the students for referencing.

4.6 Amount spent on maintenance (Rs.):

i) ICT	78,840.00
ii) Campus Infrastructure and facilities	8820.00
iii) Equipments	1,47,060.00
iv) Others	32,810.00
Total:	2,67,530.00

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

Library services are made available for extended hours.
Pre university examinations are conducted.
Committee is constituted for facilitating scholarship to the students.
Placement and Training Cell is established.

5.2 Efforts made by the institution for tracking the progression

Institute has constituted separate committees to offer different support activities.
Result record is maintained and analyzed.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
00	174	34	00

(b) No. of students outside the state

00

(c) No. of international students

02

Men	No	%	Women	No	%
	93	52.84		83	47.16

Last Year (2015-16)						This Year (2016-17)					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
100	24	04	26	00	174	101	34	09	36	00	176
DNT	NT	EBC	SBC			DNT	NT	EBC	SBC		
00	12	05	03			-	-	-	-		

Demand ratio = 8.42

Dropout % = 13.21

5.4 Details of student support mechanism for coaching for competitive examinations (If any)

Guidance is given to the students for preparation of competitive examinations like NET/SET/GATE etc.
A separate Competitive Exam Cell is established in the Library which houses books and literature on Civil Service Examinations such as UPSC and MPSC.

No. of students beneficiaries

All

5.5 No. of students qualified in these examinations

NET (JRF)	06	NET (Lec)	08	SET/SLET	07	GATE	02
IAS/IPS etc	-	State PSC	-	UPSC	-	Others	-
CAT	-						

5.6 Details of student counseling and career guidance

- Regular meetings of students and teachers are held in the Departments wherein the guidance and counselling is done.
- Various activities are organized by the Institute to enable the students to develop certain skills, viz. seminars, research projects, interactions with alumni for career guidance, etc.
- Students are motivated and guided for participation in regional, University and State level Avishkar Research Competitions.
- The students are provided an access to the computers in the department where they are guided by the teachers for various aspects like in the art of preparing power point presentation for the seminars, preparing posters for participation in conferences etc.
- Guidance is also given to the students for preparation of competitive examinations like NET/SET/GATE, UPSC, MPSC, etc.
- The staff members provide academic and personal counseling to the students as and when needed.
- The students are guided and encouraged in availing facilities like e-journals, sophisticated instruments and bioinformatics software and statistical software skills

No. of students benefitted

All

5.7 Details of campus placement

<i>On campus</i>			<i>Off Campus</i>
Number of Organizations Visited	Number of Students Participated	Number of Students Placed	Number of Students Placed
05	19	10	13
Summer Training Programme	3 students received summer training at Ellora Biotech, Aurangabad 2 students received summer training at Frigorifico Allana Pvt. Ltd., Aurangabad.		

5.8 Details of gender sensitization programmes: 01

Guest Lecture on “Today’s Youth- Reality and Expectation” was delivered by Dr. Pratibha Patil on 10August, 2016.

5.9 Students Activities

5.9.1 No. of students participated in Sports, Games and other events

State/ University level National level International level

No. of students participated in cultural events

State/ University level National level International level

Other

5.9.2 No. of medals /awards won by students in Sports, Games and other events

Sports: State/ University level National level International level

Cultural: State/ University level National level International level

Other

5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution		
Financial support from government	126	97,695
Financial support from other sources*	10	8,300
Number of students who received International/ National recognitions		

*Support under Earn & Learn Scheme financed by affiliating University (Dr. Babasaheb Ambedkar Marathwada University, Aurangabad, Maharashtra State).

5.11 Student organized / initiatives

Fairs : State/ University level National level International level

Exhibition: State/ University level National level International level

5.12 No. of social initiatives undertaken by the students

5.13 Major grievances of students (if any) redressed NIL

Criterion – VI

6. Governance, Leadership and Management

6.1 State the Vision and Mission of the institution

Vision Statement: ACCELERATING SCIENCE EDUCATION FOR HUMAN WELFARE OR ACCELERATING SCIENTIFIC TEMPERAMENT FOR HUMAN WELFARE (ENDEAVOUR)

To be a world class Science Institution, pursuing for academic and scientific excellence, catering to the needs of global community, striving for its harmonious development by inculcating life-long learning skills to serve for the socio-economic development having concern for ecology and social harmony.

Mission Statement

- To develop citizens with scientific temperament, moral and ethical values and multifaceted proactive personality by providing quality education.
- The Institute will opt for autonomy.
- The Institute will evolve system(s) to provide quality education to suit local, regional, National needs and needs that will arise due to globalization.
- The Institute will grow in multi-directions with innovative approaches to serve community at large in front line areas in this new millennium in the field of Science and Technology.
- The Institute will provide practical based training to cater the needs of the industries.
- The Institute will develop and strengthen industry-Institute participation directly in teaching-learning processes and financial aspects of the Institute.
The Institute will start the new departments that will suit its goals, mission and objectives.

6.2 Does the Institution has a management Information System

Yes

6.3 Quality improvement strategies adopted by the institution for each of the following:

6.3.1 Curriculum Development

- The institute follows the curricula approved by affiliating university.
- Faculty members serve on University appointed committees such as Board of studies/Ad-hoc Boards as members and chairman and are actively involved in framing the syllabi for courses offered.

6.3.2 Teaching and Learning

- The infrastructural facilities (class rooms, laboratories, girls' common room, wash rooms, staff rooms, seminar halls, etc.) in every Department are in tune with norms prescribed by the UGC. In addition, the Departments have basic to advanced infrastructural facilities such as ICT facilities, laboratory equipment, Departmental library, meeting rooms, special instrumentation room, inoculation room, chemical rooms, Departmental stores room, etc. in order to ensure hassle-free and effective teaching-learning atmosphere. Students are using the laboratory instruments procured through DST-FIST program.
- The Institute also achieves quality improvement by organizing lectures and seminars for teachers and students by eminent alumni, technical experts, academicians and administrators from industries/organizations.

6.3.3 Examination and evaluation

- Affiliating university conducts the final examinations as per prescribed norms.
- Institute has designed and implemented continuous evaluation process to monitor academic performance of students. A separate Examination cell has been established for conducting centralized internal examinations for all courses offered by the Institute.

6.3.4 Research and Development

- Teachers are provided with essential laboratory facilities for carrying out research. They are also encouraged to seek funds from various funding agencies and interact with scientific community through presentation of their research work at conferences, seminars, symposia and workshops.
- Teachers are encouraged to participate in training programs which help in grooming their academic and administrative skills.
- The Institute encourages faculty members to visit foreign countries for academic and research accomplishment and for presenting their research work in International Conferences abroad and recommends names of such faculty members to the Department of Higher Education, Pune for Government permissions.

6.3.5 Library, ICT and physical infrastructure / instrumentation

- Teachers are provided with essential library facilities for upgrading their knowledge.
- Online subscription of books and journals is made available through UGC-INFLIBNET to keep the academia abreast of latest literature.

6.3.6 Human Resource Management

- Teachers are motivated to enhance their qualities through attending refresher courses, orientation programs, departmental training programs, summer schools, administrative training, short-term training programs, etc. which helps in grooming up their academic and administrative skills.
- Teachers are entrusted with certain duties and responsibilities in addition to the regular teaching and research activities which has resulted in honing their multitasking abilities. Accordingly various committees like Women Grievance Redressal Cell, staff and student grievance redressal cell, anti-ragging committee, Placement & Training Cell, Student Counseling Cell, and Admission Committee, Student Grievance Redressal Committee, Affiliation committee, Prospectus committee, Purchase committee, Scholarship committee, Hostel committee, annual gathering committee, NSS committee, etc. have become instrumental with the help of faculty.
- The non-teaching staff is motivated to attend short term training programs such as those related to the use of computers, etc. They are encouraged to make use of computers and internet facility for administrative work.

6.3.7 Faculty and Staff recruitment

The faculty and staff recruitment is as per the norms and procedures of UGC and Government of Maharashtra. Faculty redruitment is through Maharashtra Public Service Commission (MPSC).

6.3.8 Industry Interaction / Collaboration

- The Institute interacts fruitfully with industries through Placement & Training Cell and consultancy-extension services. This has resulted in significant number of students getting recruited in industries through on-campus and off-campus interviews.
- The Institute regularly invites experts from industries for invited talks and academic interactions with students and faculty members so as to tune up the human resource with present trends in the industrial sectors.
- The alumni working in various industries share their experiences with the students of the Institute and guide them in building the career.
- Educational tours/industrial visits are organized for exposing the students to the latest industry trends.
- The Institute encourages and recommends M.Sc. Part I students to participate in Summer Projects in industrial units during summer vacations. This helps enriching their exposure to in-plant conditions and enhances their prospects in employment.
- Suggestions from industry are invited and included during revisions in the curricula.
- Industry-Institute Advisory Forum is established under STEP-IN program in order to navigate the industry interactions.

6.3.9 Admission of Students

- Advertisements are made in newspapers and on the Institute Website.
- Admissions are processed following rules and regulations of affiliating university.

6.4 Welfare schemes for staff

Teaching	Co-operative society, housing loans, vehicle loans, computer loans, medical reimbursement facility
Non teaching	Co-operative society, residential quarters, medical reimbursement facility.
Students	Scholarships, Earn-and-learn scheme, Book Bank facility

6.5 Total corpus fund generated

-

6.6 Whether annual financial audit has been done

Yes No

6.7 Whether Academic and Administrative Audit (AAA) has been done?

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	University affiliation	Yes	DHE, Pune
Administrative	Yes	A.G. office & J.D H.E Aurangabad		

6.8 Does the University/ Autonomous College declare results within 30 days?

For UG Programmes	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Not applicable
For PG Programmes	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	Not applicable

6.9 What efforts are made by the University/ Autonomous College for Examination Reforms?

Not Applicable

6.10 What efforts are made by the University to promote autonomy in the affiliated/constituent colleges?

Not applicable

6.11 Activities and support from the Alumni Association

- Each Department has a database of alumni and organizes meetings with the alumni.
- A unique activity is initiated as Alumni lecture series (GISA initiated alumni lecture series) wherein alumni of the institute who have made marks in various walks of life are invited to deliver lectures and have a dialogue with the students about the contribution of the Institute in building their career. This helps to motivate the students.
- The Alumni are invited to share their expertise and deliver some lectures from academic curriculum.
- Alumni activities and support to the Institution and each individual department include announcements and communications about new openings and opportunities available at different institution and industries they are attached with, thus acting as a bridge for ensuring the placement of fresh postgraduates.
- Alumni support Training and Placement Cell in organizing campus interviews, recruitment and offering summer training etc.
- Biotechnology department has initiated the activity named 'Walk The Talk', where alumni members deliver lectures and share their expertise and experience with the students.

6.12 Activities and support from the Parent – Teacher Association

- Parent-teacher association is yet to be established in the Institute. However, parents are invited for feedback on the curriculum. Parents and teachers meet regularly and parents are kept apprised of the Departmental and Institutional activities.
- Each year parents' meet is held in all the Departments. During the meetings, the students, their parents, Director of the Institute, Heads of the Departments and faculty members have interactions and discuss different issues concerning overall improvement and sustenance of quality in the education being imparted through the different courses in the Institute. A suggestion book is maintained for recording the views of the parents. Teachers give regular feedback to parents regarding the progress of students.

6.13 Development programmes for support staff

- The non teaching staff members are motivated to use computers for the maintenance of the records, admission process and other departmental work.
- They are encouraged to participate in training programs

6.14 Initiatives taken by the institution to make the campus eco-friendly

- **Campus cleaning programs:** The NSS volunteers carry out campus cleaning and parthenium grass removal activities throughout the year.
- **Energy conservation:** The Institute has adopted several practices for energy conservation such as minimizing use of energy intensive devices, use of power saving devices, solar equipment and pooling the work elements that are energy intensive. The Institute makes use of power saving CFL bulbs for illumination purposes, LED computer monitors and energy saving air conditioners/refrigerators, etc. The fans and lights are put on only when required. In the Department of Microbiology, the autoclave, ovens, hot plates, etc. are put on by authorized personnel or students only after all material is pooled and repetitious use of the instruments is avoided. The Department of Biophysics uses solar power operated water distillation unit to save energy. Solar water heater is installed in the Boys Hostel to provide hot water to the students. The Institute organizes guest lectures and poster presentations to stress the important environmental issues and the need to conserve biodiversity, energy and the environment.
- **Use of renewable energy:** The Department of Biophysics uses solar power operated water distillation unit to save energy. Solar water heater is installed in the Boys Hostel to provide hot water to the students.
- **Water Harvesting and Check Dam Construction:** The NSS unit of the Institute constructed “*VanaraiBandhara*” (check dam) in order to prevent wastage of water. Another check dam constructed more than a decade ago in the Institute campus was rejuvenated by the NSS volunteers. For this desilting, increasing the area of water catchment area, increase in height as well as depth of check dam was carried out. These efforts would significantly increase the water level due to recharge of the wells in the campus on which the boys’ and girls’ hostels are dependent for washing and other purposes. This activity was partly supported by the Regional Commissioner of Aurangabad Region, Dr. Purushottam Bhapkar by providing Pokland machine for drilling work.
- **Efforts for Carbon neutrality:** The Institute staff makes minimal use of paper and green-house gas emitting devices. The Institute is about to install e-governance system in order to have paperless office. Minimization of paper is an attempt to reduce the cutting down of trees for paper manufacturing. The Institute encourages new tree plantation within the campus and also in the surrounding areas. The NSS unit of the Institute carried out tree plantation on “*Hanuman Tekdi*”, a small hillock in the vicinity, which was barren.
- **Plantation:** The Institute has carried out tree plantation within the campus and also in the surrounding areas. The NSS unit of the Institute carried out tree plantation on “*Hanuman Tekdi*”, a small hillock in the vicinity, which was barren. The faculty members of Botany Department assign the task of numbering the tree to the students as a part of practical/project work. The department has planted a number of rare and endangered medicinal plants in the Botanical Garden and in the campus.
- **Hazardous waste management:**
- Each department of the Institute ensures proper disposal of the potentially hazardous material/waste generated in the laboratories. The Microbiology, Biotechnology, Biophysics and Botany Departments sterilize all waste microbial cultures by autoclaving prior to disposal. Chemicals such as polyacrylamide and other hazardous chemicals are disposed using proper care. Faculty members of the Institute carry out community awareness program related to solid waste disposal. Such programs have been conducted across the state and other states as well and people are encouraged to grow flowering, fruit plants and mushrooms on household/industrial waste material.
- **e-waste management:** Electronic instruments and computers are used with great care in order to prevent break down of the instruments. This minimizes the generation of e-waste. Instruments beyond repairs are being processed for write-off procedures as per the Government norms.

Criterion – VII

7. Innovations and Best Practices

7.1 Innovations introduced during this academic year which have created a positive impact on the functioning of the institution. Give details.

- The students/staff are encouraged to participate in Conferences/Workshops/ Symposiums so as to have academic exposure to latest trends in science.
- Students are provided guidance for various competitive examinations.
- Library access is given to students beyond office hours during exams.
- Students have been assigned uniform for the sake of maintenance of discipline.
- Regular guidance for different competitive exams is given.
- Social responsibilities are imbibed in students through NSS unit and institute forum.
- The Institute organizes Open Day on Institute Foundation Day in order to educate the school and college students and the society in general about activities of the Institute and trends in science. It provides a platform for the students to interact with other students and society and put their own displays for educating the public.
- Researchers from other Institutions are allowed to use laboratory and library facilities in the Institute.
- Analytical facilities/consultancies are provided free to students of other Institutions.
- In order to inspire students, the alumni of Botany Department constituted the “Prin. Nanir Gold Medal” to M.Sc. student who ranks first in the final exam every year.

7.2 Provide the Action Taken Report (ATR) based on the plan of action decided upon at the beginning of the year.

- Faculty members participated in framing and revision of syllabi of the affiliating University. Six faculty members were associated with BOS. Department of Botany organized a workshop on restructuring M.Sc. syllabus.
- The Earn and Learn scheme was initiated with the support of affiliating University to provide financial assistance to needy students.
- The Open Day celebrations on Institute Foundation Day provided a platform for the students to interact with other students and society and put their own displays for educating the public.
- A total of 23 students qualified in competitive exams, viz. NET, SET and GATE.
- The Placement and Training Cell was established to offer career guidance to students and to co-ordinate with employers for arranging in-campus or off-campus interviews. As a result 23 students were placed in the on- and off-campus placement initiatives.
- The staff members were encouraged to submit research projects to various funding agencies, pursue research work, and publish papers in peer reviewed and refereed journals participate in and organize conferences.
- Faculty members published a total of 35 research papers in International and National journals and proceedings, presented 26 papers in conferences/workshops and delivered 27 lectures as resource persons. One faculty member participated in International Conference in USA. One faculty member is engaged in post-doctoral research in S. Africa. The Director of the Institute delivered an invited talk in an International Conference at Nepal.
- A total of 31 research awards/honours were received by staff and students during the year.
- Staff members got the benefit of participation in 11 faculty development programmes including Orientation, Refresher and other training courses.
- A National Conference on Scientific writing in Marathi and Biological Science Vocabulary was organized by the Institute and the Department of Botany organized a syllabus restructuring workshop. Guest lectures by eminent persons were arranged to keep the students abreast of the current developments in the subject.
- Study tours and industrial visits were organized in order to acquaint the students with the application of their theoretical knowledge.
- The NSS svayam-sevaks constructed a check dam and a lake for storage of run-off waters in the Institute campus with support of the Hon’ble Regional Commissioner of Aurangabad Region. The volunteers and students participated in 12 social initiatives including tree plantation and rallies for social awareness.

7.3 Give two Best Practices of the institution (*as per the format in the NAAC Self-study Manuals*)

Best Practice 1

1. Title of the Practice

Providing Experiential Training to the students

2. Goal

The Institute nurtures the students in highly interdisciplinary areas of life/biosciences and Earth sciences. Hence, it is essential that in addition to their classroom and laboratory training in the concerned subjects, the students should have an exposure to real world/on-site scenarios to develop integrative approach/strategy and imbibe application oriented approach. The Institute therefore needs to impart experiential training through various activities, viz. summer projects, industrial trainings, independent handling of research projects, self-designed seminars, participation in National and International conferences, field visits, mine training, hospital demonstrations, industry/institute visits, etc. Competitive exam skill development initiatives and guidance by alumni/invited experts prepare the students for qualifying National level competitive tests. In order to boost the confidence of the students and inspire them, the Institute has the goal of organizing various competitions for students and felicitating them for their success and achievements on the Institute Foundation Day. The institute aims at motivating the students by way of organizing Open Day for healthy interactions with other students and the society at large.

3. The Context

The students admitted in the Institute are mostly from educationally under privileged Marathwada region. They are unaware of their in-built talent and skills. Due to the lack of academic exposure they cannot decide about their career goals and the utility of the subject in which they are trained. Moreover, the students are reluctant in opting the academic career through National/Global level competitive examinations. The Institute has developed extensive pre-admission counseling mechanism to reduce/remove the fear and phobia about higher studies and assist in choice of subject at M.Sc. level. Mere classroom teaching does not effectively eliminate the senile attitude towards their career honing. Therefore the Institute has seriously addressed this problem by designing multi-directional approach that caters self-learning; developing interest, using interdisciplinary, integrative and object-oriented strategy in learning; broadening of knowledge grasp; analyzing situations and inculcating problem solving/solution finding attitude.

4. The Practice

- Explaining concepts orally to audience facilitates a deeper understanding of the subject. Knowledge dissemination always catalyzes the knowledge grasp. Keeping this in mind, the Institute motivates the students to design and deliver information/concept-based seminars during their curriculum. The display of synopsis, presentation skeleton, overall organization of the seminar events, evaluative feedback/interactive discussion is completely managed by the students which self-mentor their leadership qualities.
- The linkage between classroom learning and field-experience is established through regular visits to industries, research institutes, hospitals, mines, field visits, etc. Here, the students explore new dimensions in the practical application of the subject knowledge. Exhaustive interactions on varied queries by the students with field experts stimulate thirst for learning.
- The Institute strongly believes in enrichment of teaching-learning process using research based approach in concerned subjects. As a consequence the students are allotted with research projects as a part of academic curriculum. Students develop research aptitude by familiarizing with research methodology, analytical tools, data analysis, interpretation skills and presentation skills while implementing these projects independently.
- Students are motivated to undertake summer projects/in-plant training in various organizations/industries/research laboratories outside the Institute, to give them first-hand experience of the organizational settings. They get familiarized with latest trends, quality principles, processing techniques, instrumentation, need for documentation and documentation procedures.
- Students participate enthusiastically in National/International conferences, Aavishkar Research competition and present research papers/posters, interact with the scientific community and develop contacts that may be useful in their future endeavors. This helps in building up their confidence, will-power and morale.
- Real life/on-site experiences shared by invited experts, faculties, scientists, entrepreneurs, industry personnel and our alumni with our students culminate in imbibing ethical values and personality traits viz. pride towards the Institute, down-to-earth analytical approach, sound methodologically strategy, descriptive & illustrative approach.
- Exam skill and experience sharing by alumni who have successfully qualified the competitive examinations developed a positive attitude amongst the students. Students have since then opted enthusiastically to appear in the NET/SET/GATE and other competitive examinations.

- The Institute supports the needy students through the various Government initiatives for providing financial aid in the form of scholarships. The Institute has initiated the Earn and Learn Scheme supported by the affiliating University for providing financial assistance to the needy students.
- The Institute felicitates students and staff for their achievements in academics, curricular, co-curricular and extra-curricular activities. The alumni of the Department of Botany has constituted “Prin. Nanir Gold Medal” for the student who ranks first in M.Sc. Botany from the Institute.

5. Evidence of Success

- Seminars presentations have enriched the qualities within the students, viz. gathering the information, designing the talk/presentation, preparing the display slides using computers, co-assisting the presentations with animations, simulating examples, boldness, confidence, clarity of thoughts, integrating information and logic of bridging the concepts, communication skills, analyzing the questions raised and giving appropriate answers, effective use of audio-visual devices and white-board. As a result students could confidently present papers in conferences and interact with scientific community.
- The knowledge acquired through field exposures, summer projects and research projects could successfully amalgamate the theoretical concepts with practical utility which further assisted them in diagnosing and curing the problems/challenges faced in actual work environment. As a result students had a chance to be in vicinity with National and Global experts in research laboratories/industries from whom they could build their personality and contribute significantly to the growth of their organizations. The coveted positions held by alumni highlight the result of these efforts.
- Moral boosting lectures by alumni/invited experts sharing real life/on-job experiences has thoroughly revolutionized the students’ mind with strong will to undertake/handle tough challenging situations. The students visualize& follow these mentors as their Role Models and as a result there is boost in the placement percentage within last couple of years.
- The in-house coaching for competitive examinations has yielded success to several students in opting and tackling the National level competitive examinations.
- The Institute thus imparts experiential training through various activities, viz. summer projects, industrial trainings, independent handling of research projects, self-designed seminars, participation in National and International conferences, Aavishkar competition, field visits, mine training, hospital demonstrations, industry/institute visits, etc.
- The students have actively participated in the various co-curricular and extra-curricular activities and won prizes in various competitions.
- As a result of competitive exam skill development initiatives and guidance by alumni/invited experts the students have qualified in the National level competitive tests.

6. Problems Encountered and Resources Required

- The weak academic background and fear within the students poses challenge for the mentoring process. The challenge is further enhanced in case of the economically weaker sections of the students. The strong counseling with little financial assistance at the personal level circumvents these difficulties to certain extent favoring the mentoring process.
- The weak communication abilities consequently leading to shyness within the students was another hurdle in the teaching-learning. The faculty members devoted extra time in building up the communication ability and curb the shyness. The family-like and congenial atmosphere maintained within the Institute further catalyzes the mentoring process.
- Student-centric activities enlisted in the “Goals” above, would certainly get momentum if supported with additional financial assistance.

7. Notes (Optional) Nil

8. Contact Details

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Best Practice 2

1. Title of the Practice

Nurturing value-based education, social responsibilities and good citizenry

2. Goal

The Institute offers post-graduate teaching and research training to deserving students of the underprivileged region. In addition to academic training, it is essential to inculcate value based education and social awareness amongst students and facilitate extension and information dissemination to the community. The Institute aims to nurture the students and transform them into good citizens of India by launching various programs, viz. women empowerment program; special day programs; blood donation camps; health and eye-check-up camps, awareness and conservation programs for clean and green environment, water conservation and eco-friendly approaches- tree plantation, check dam construction, solid waste treatment and nutrient recycling; inculcation of value based education, socio-sensitivity, and facility extension services like soil analysis, ground water exploration and testing, gamma irradiation, providing microbial cultures as well as popularization of science; voter awareness campaigns, etc. The Institute aims to extend financial support to deserving and needy students by creating awareness about the various Government scholarships, programs and schemes and by assisting the students to submit the applications to avail the benefits. The Institute also has the goal of identifying the needy students to support them by way of Earn and Learn Scheme of the affiliating University.

3. The Context

The Institute being a Post Graduate and Research Organization caters the academic needs of the region. In addition to academics, the societal components also expect creation of sensible human resource with high human values and sensitivity towards social climate as well as science-based extension services. In order to bridge the gap between academic training and the societal expectations, the Institute has structured multi-faceted programs that cater socio-sensitivity, environmental awareness and ethical values. In addition, the Institute takes the responsibility to extend the available facilities and expertise to community welfare and nurture scientific temper amongst the community through science popularization programs.

4. The Practice

- Conserving the green areas of the Institute campus to preserve and protect the large number of bird and animal species while ensuring neat, clean and green environment.
- The campus waste is converted into Organic Manure through composting and vermin-culture and is used for gardening and *in-campus* plantation.
- The Institute has conducted numerous community programs within and out of Aurangabad city to create awareness about Solid Waste Disposal.
- Research projects are undertaken with the view towards remedial treatment of toxic and hazardous industrial wastes using microbial and nanotechnology based methods.
- The Institute provides extension services to the community for routine analysis of water to ensure a healthy community and environment.
- Under the umbrella of the NSS, Institute carries out various environment related activities such as Tree Plantation within and out of the Institute campus, street plays, construction of check dam for water conservation, etc. The Institute has adopted several practices for energy conservation such as use of power saving devices, solar equipment, etc. The Institute organizes guest lectures and poster presentations to stress the important environmental issues and the need to conserve energy, biodiversity and the environment.
- The Institute runs programs such as adoption of villages for tree plantation advocating avoidance of using of pesticides, using organic manure, lectures by experts for rain water harvesting, educating the girl-child, etc.
- The NSS unit also organized blood donation and health awareness camps.
- Enrichment of managerial qualities amongst women was the main aim in hosting a week-long workshop on Women Empowerment under the aegis of UGC.
- In order to pay tributes to National personalities and inculcate the feeling of National Pride and social responsibility, special day programs are organized.
- The Institute extends some facilities and scientific expertise to community. These facilities include soil analysis, ground water exploration and testing, gamma irradiation and supply of microbial cultures to college teachers, researchers and industry.
- Real life/on-site experiences shared by the invited experts, faculties, scientists, entrepreneurs, industry professionals, and our alumni with our students culminate in imbibing ethical values, professional attitude and personality traits such as confidence and analytical approach. The Institute disseminates scientific information to the masses and students of other institutions by organizing Open Day on the Institute Foundation Day, National Science Day programs and contribution of faculty members as resource persons.
- The Institute actively participates in launching Voter Awareness Campaign at the time of general elections.

5. Evidence of Success

- The overall environmental awareness and a strong ecofriendly attitude were imbibed amongst the students. Students could learn composting method and conservation practices for keeping the environment clean and green.

- The Institute received appreciation for the effective implementation of solid waste disposal methods, preservation of cultural heritage and city farming programs organized in community places such as jails, temples, co-operative housing societies, schools, etc.
- The research papers published and presented in scientific congregations have provided additional information content in terms of environmental remediation. Students were equipped with the tools and techniques to develop sustainable and eco-friendly processes and products.
- The community was benefitted through the extension services.
- Tree plantation, check dam construction and CCT activities have created awareness about soil and water conservation.
- The Institute successfully conveyed the importance of avoiding pesticides, use of organic manure and rain water harvesting to the villagers under village adoption programs.
- The awareness about health and precious lives was effectively conveyed through health awareness and blood donation camps.
- Women empowerment program, special day programs, “*Jagar Janiwancha*” and voters awareness campaign have conveyed the message of gender equality, support and respect for women, National pride and social rights and responsibility.
- The Institute has profoundly contributed in popularization of science through various activities and expert lectures benefitting the schools, colleges and general public.

6. **Problems Encountered and Resources Required**

- The students and faculty members being engaged full-time in lectures, practical, government assigned duties and mentoring for research, the major limitation to the implementation of these extra-curricular activities is the availability of time.
- Lack of financial aid for village adoption and other community services was another major obstacle in implementation of these programs.

7. **Notes (Optional)**

Nil

8. **Contact Details**

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7.4 Contribution to environmental awareness / protection

- Tree plantation programs are organized within the Institute and in the surrounding areas.
- Campus cleaning programs are organized regularly.
- Institute organizes guest lectures and poster presentations to stress the important environmental issues and the need to conserve biodiversity, energy and the environment.
- The NSS unit of the Institute has rejuvenated “*Vanarai Bandhara*” (check dam) and lake admeasuring 22mX14mX10ft having a water storage capacity of about 8 Lakh liters in order to prevent wastage of water and aid in the rise in water table. The efforts resulted in increasing the water table and a dramatic reduction in the demand for water tankers during the summer season.
- The faculty members of Botany Department assign the task of numbering the tree to the students as a part of practical/project work. The department has planted a number of rare and endangered medicinal plants in the Botanical Garden and in the campus.
- Each department of the Institute ensures proper disposal of the potentially hazardous material/waste generated in the laboratories.
- Electronic instruments and computers are used with great care in order to prevent break down of the instruments. This minimizes the generation of e-waste. Instruments beyond repairs are being processed for write-off procedures as per the Government norms.

7.5 Whether environmental audit was conducted?

Yes

No

7.6 Any other relevant information the institution wishes to add. (for example SWOT Analysis)

STRENGTHS

Separate classrooms and well equipped practical laboratories for M.Sc. Part I & II students.
Stable and high demand ratio for the courses.
Central Computing facility under DST-FIST programme.
Qualified and experienced teaching staff recruited through MPSC.
Frequent visits of alumni holding key positions in academics and industry for interaction with students.
Instrumentation facilities open for all students, researchers and students of other organizations.
Consultancy services to farmers and industry
Active placement cell that works for training and placement assistance to students
Eleven faculty of the Institute are research guides and are guiding in all 39 students for
Out of the 20 faculty members 13 are Ph.D. degree holders of which 11 are Ph.D. guides.
48 students are enroled for Ph.D. degree and has resulted in 36 research papers published in the current year and 108 Research papers published in the last five years.

WEAKNESSES

Limited/ inadequate funding for purchase of sophisticated equipment.
Poor academic and financial background of students
Vacant teaching positions in some departments
Lack of enough non-teaching staff resulting in overburdening the teaching staff and hampering the research work.

OPPORTUNITIES

Large number of pharmaceutical and biotechnology industries in and around Aurangabad offer further scope for placement of students on regular jobs and summer trainings
Empowerment of students from under privileged Marathwada region in the interdisciplinary sciences like Biophysics, Biotechnology and Microbiology to take up national/global challenges.
Developing consultancy services in emerging field to provide extension services and to generate financial resources.
The geological and environmental conditions of the region offers the opportunity to the Geology Department to carry out research and design effective ways of water conservation, ground water survey and water quality assessment.

CHALLENGES

Departments and faculty members face constraints due to limited finances and man power.
Non-availability of modern and ergonomic laboratory and classroom furniture that put strain of on the students and teachers.
Establishment of Sophisticated Instrumentation Laboratory with state-of-the-art instruments Filling of vacant positions and getting more funds for advanced research work.

8. Plans of institution for next year

- Active persuasion for fulfillment of vacant teaching posts.
- Tapping of funds from different funding agencies for development of infrastructure.
- Undertake efforts to keep the campus clean and green.
- Designing and implementation of different activities aimed at improvement of student skill and knowledge through invited talks from industry and academia.
- Arranging and execution of study tour for keeping abreast with recent trends across fields related with the subject.
- Motivating the faculty members to actively pursue research work and submit research proposals for funding.
- Active promotion of student participation in Aavishkar research competition, summer training, national/international symposia, conferences and workshops.
- Efforts to increase the student placements in industrial and academic organizations.
- Encouraging students and staff to publish papers relating to their research in renowned peer reviewed national/international journals and present papers in scientific gatherings.
- Building and sustenance of platform for interaction of different stakeholders associated with the Institute.
- Empower the students to participate in extension activities such as village adoption with a view to educate the villagers, impart new skills for self-reliance and creating social awareness.



Signature of the Coordinator, IQAC

Name: Dr. A. V. Pethkar



Signature of the Chairperson, IQAC

Name: Dr. Mrs. H. S. Chaudhari (Wankhede)

Director
Govt. Institute of Science
Aurangabad.

Annexure-1

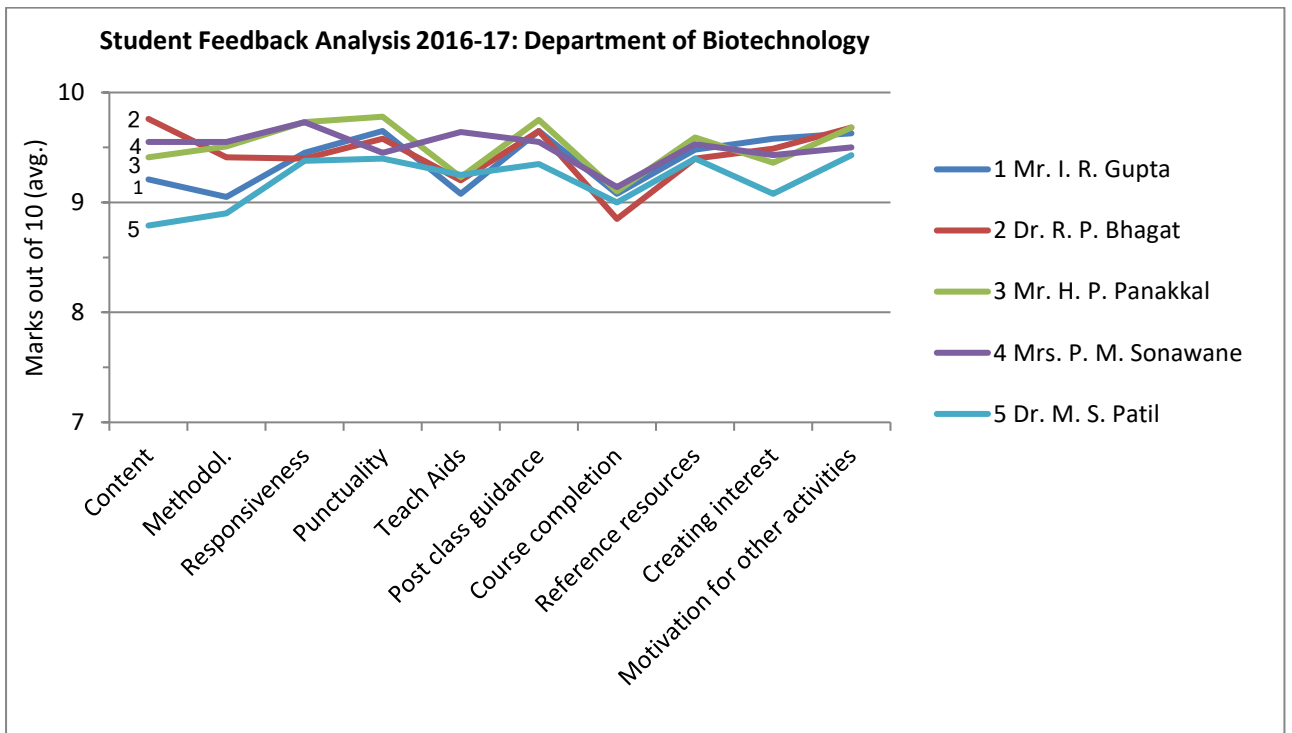
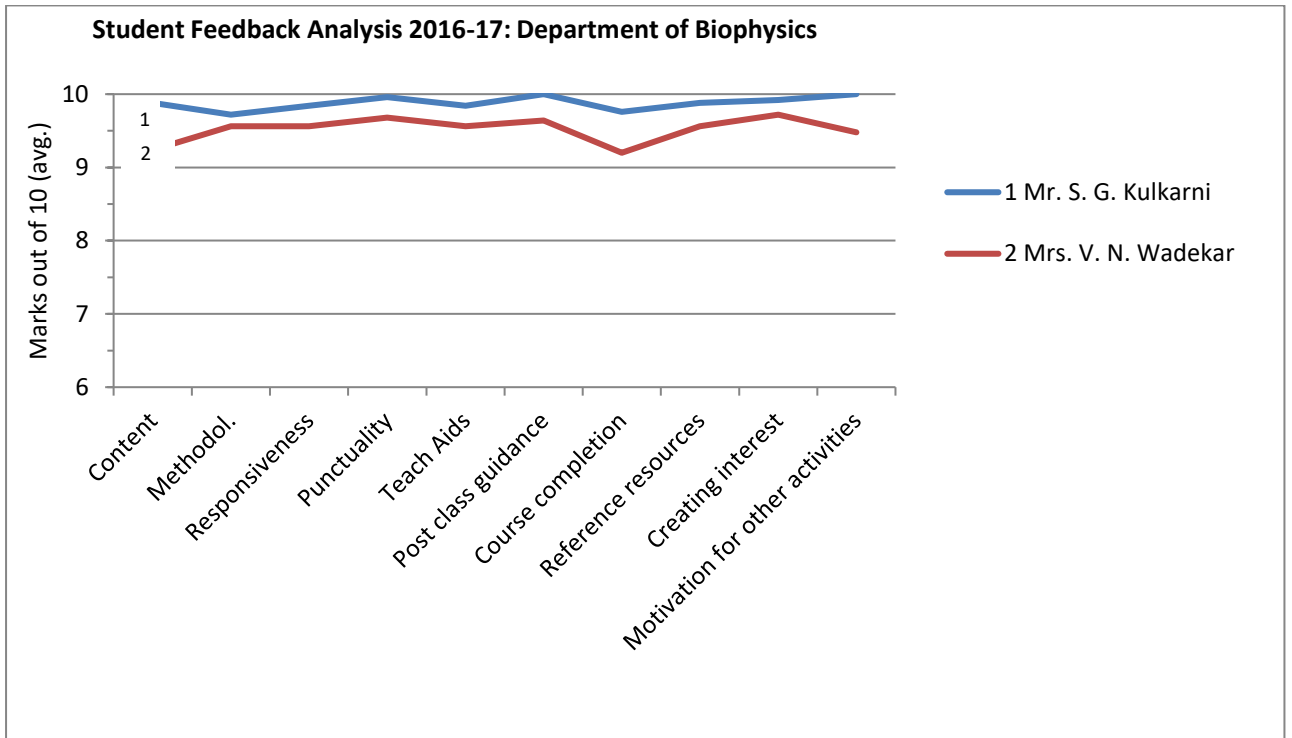
**GOVERNMENT INSTITUTE OF SCIENCE,
NIPATNIRANJAN NAGAR, CAVES ROAD, AURANGABAD- 431004.
Ph. 0240- 2400586, 2400598. Tele-Fax 0240 – 2400103.**

Academic Calendar 2016-17

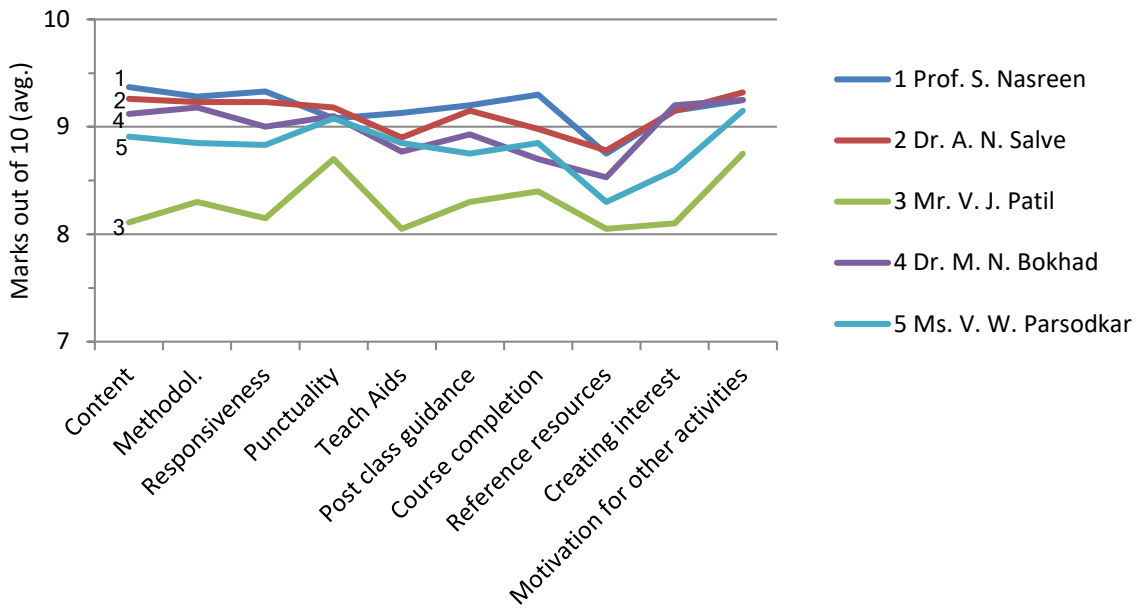
Date	Activity
13 June 2016	Academic year 2016-17 commences, Staff Council Meeting
June 2016	Departmental meetings, preparation of departmental academic calendars
17 June 2016	Finalization of Academic Calendar of Institute
24 June 2016	IQAC meeting, finalization of AQAR
June-July	Admission counselling to prospective students and their parents
27 June 2016	Commencement of teaching (M.Sc. Part II)
28 June 2016	Last date to register for admission to M.Sc. Part I
01 July 2016	Entrance exams (Microbiology & Biotechnology)
04 July 2016	Display of merit lists (Microbiology & Biotechnology)
11 July 2016	Last date for admission (Microbiology & Biotechnology)
12 July 2016	Spot admissions for vacant seats (Microbiology & Biotechnology)
13 July 2016	IQAC- Green Campus, Tree Plantation
15 July 2016	Commencement of teaching (M.Sc. Part I Microbiol. & Biotechnol)
16 July-31 July 2016	Welcome to Freshers, IQAC meeting
August 1 st week	NSS- finalization of students' lists for regular and special camp programmes
14 Aug. 2016	Institute Day- Tree plantation
Aug.-Oct. 2016	Student seminar and tutorial activities
5 Sept. 2016	Teachers' Day celebrations
Sep. 2014	Parents' – Teachers' Meet
Sep. last week 2014	IQAC meeting- Student feedback
2 Oct. 2016	Mahatma Gandhi Jayanti: NSS Swachchhata Abhiyan
Oct. 2016	Prelim exams on complete syllabus for M.Sc. I and II
-----Oct. 2016	Last working day for the 1 st term
-----Oct. to ----- Oct. 2016	Winter vacation
----- Oct. 2016	Reopening, 2 nd term commences
Dec. 2016	Educational visits, tours, IQAC meeting
Dec.-Feb. 2016	Student seminar and tutorial activities
Jan. 2017	NSS Camp
Feb. 2017	Annual gathering
28 Feb. 2017	National Science Day celebrations
Mar. 1 st week, 2017	Certification of practical records and M.Sc. Part II Dissertations
March 2017	Send off/Farewell to M.Sc. Part II students
10 Mar. 2017	Prelim exams on complete syllabus for the 2 nd term
March 2017	Career counselling, campus interviews
-----Mar. 2017	Commencement of University examinations
-----Apr. 2017	Last working day of 2 nd term
-----Apr. to ----- June 2015	Summer vacation

Every week, there will be 4 hr. of NSS activity under the Regular Programme.

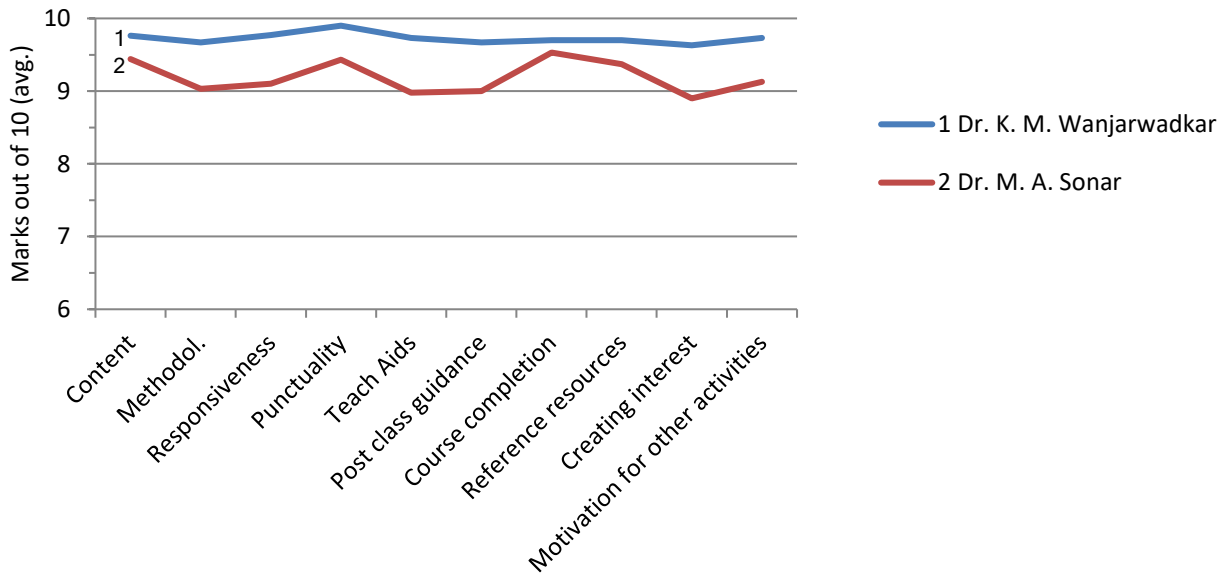
Annexure - II



Student Feedback Analysis 2016-17: Department of Botany



Student Feedback Analysis 2016-17: Department of Geology



Student Feedback Analysis 2016-17: Department of Microbiology

