



Government Institute of Science, Nagpur

Affiliated to

Rashtrasant Tukadoji Maharaj, Nagpur University, Nagpur

Annual Quality Assurance Report

2017-18

Submitted to

NATIONAL ASSESSMENT & ACCREDITATION COUNCIL (NAAC)

P.O.Box. No. 1075, Nagarbhavi, Bangalore - 560072

Submitted by

Dr. R. G. Atram

Director

Government Institute of Science, Nagpur



GOVERNMENT OF MAHARASHTRA
INSTITUTE OF SCIENCE, NAGPUR
Ravindranath Tagore Road, Civil Lines, Nagpur-440001

Tel.No. 0712-2565581/2561148

Website: www.iscnagpur.ac.in

Emailid: ioscnagpur@gmail.com

To,
National Assessment and Accreditation Council (NAAC)
Bengaluru

विश्वविद्यालय नागपुर

जाचक क्रमांक 984

दिनांक 22/10/2018

Subject: Submission of AQAR, 2017-18


Dear Sir,

Here with submitting the AQAR of our Institute for the year 2017-18 for further perusal.

Thanking you

Place: Nagpur
Date: 22/10/2018




Dr. R. G. Atram
Director
Institute of Science, Nagpur
Director
Govt. Institute of Science
NAGPUR.

The Annual Quality Assurance Report (AQAR) of the IQAC

All NAAC accredited institutions will submit an annual self-reviewed progress report to NAAC, through its IQAC. The report is to detail the tangible results achieved in key areas specifically identified by the institutional IQAC at the beginning of the academic year. The AQAR will detail the results of the perspective plan worked out by the IQAC. *(Note: The AQAR period would be the Academic Year. For example, July 1, 2012 to June 30, 2013)*

Part – A

1. Details of the Institution

1.1 Name of the Institution

Institute of Science, Nagpur

1.2 Address Line 1

R. T. Road, Civil lines

Address Line 2

Beside R. T. M. Nagpur University

City/Town

Nagpur

State

Maharashtra

Pin Code

440001

Institution e-mail address

ioscnagpur@gmail.com

Contact Nos.

0712-2561148

Name of the Head of the Institution:

Dr. R. G. Atram, Director, Institute of Science, Nagpur

Tel. No. with STD Code:

0712-2565581, 2520571

Mobile:

91-9975849004

Name of the IQAC Co-ordinator:

Dr. Sushama D. Narkhede

Mobile:

09372397311

IQAC e-mail address:

iqaciosc@gmail.com

1.3 NAAC Track ID (*For ex. MHCOGN 18879*)

MHCOGN 10489

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/62/RAR/097 dated 05-01-2013

1.4 Website address:

www.iscnagpur.ac.in

Web-link of the AQAR:

<http://www.iscnagpur.ac.in/pages/aqar.php>

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

1.5 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 st Cycle	B ⁺⁺	81.05	2004	2004-2009
2	2 nd Cycle	B	2.85	2013	Up-to Jan-2018
3	3 rd Cycle				
4	4 th Cycle				

1.6 Date of Establishment of IQAC :

DD/MM/YYYY

01/07/2000

1.7 AQAR for the year (*for example 2010-11*)

2017-18

1.8 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 for the year 2013-14 | 12/11/2014 |
| ii. AQAR for the year 2014-15 | 02/11/2016 |
| iii. AQAR for the year 2015 -16 | 09/12/2016 |
| iv. AQAR for the year 2016 -17 | 14/10/2017 |

1.9 Institutional Status

University	State	<input checked="" type="checkbox"/>	Central	<input type="checkbox"/>	Deemed	<input type="checkbox"/>	Private	<input type="checkbox"/>
Affiliated College	Yes	<input checked="" type="checkbox"/>	No	<input type="checkbox"/>				
Constituent College	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>				
Autonomous college of UGC	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>				
Regulatory Agency approved Institution	Yes	<input type="checkbox"/>	No	<input checked="" type="checkbox"/>				

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

Type of Institution	Co-education	<input checked="" type="checkbox"/>	Men	<input type="checkbox"/>	Women	<input type="checkbox"/>
	Urban	<input checked="" type="checkbox"/>	Rural	<input type="checkbox"/>	Tribal	<input type="checkbox"/>
Financial Status	Grant-in-aid	<input checked="" type="checkbox"/>	UGC 2(f)	<input checked="" type="checkbox"/>	UGC 12B	<input checked="" type="checkbox"/>
	Grant-in-aid + Self Financing	<input type="checkbox"/>	Totally Self-financing	<input type="checkbox"/>		

1.10 Type of Faculty/Programme

Arts	<input type="checkbox"/>	Science	<input checked="" type="checkbox"/>	Commerce	<input type="checkbox"/>	Law	<input type="checkbox"/>	PEI (Phys Edu)	<input type="checkbox"/>
TEI (Edu)	<input type="checkbox"/>	Engineering	<input type="checkbox"/>	Health Science	<input type="checkbox"/>	Management	<input type="checkbox"/>		
Others (Specify)	<div style="border: 1px solid black; height: 30px; width: 300px;"></div>								

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

R. T. M. Nagpur University, Nagpur

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

Autonomy by State/Central Govt. / University	<input type="text"/>		
University with Potential for Excellence	<input type="text"/>	UGC-CPE	<input type="text"/>
DST Star Scheme	<input type="text"/>	UGC-CE	<input type="text"/>
UGC-Special Assistance Programme	<input type="text"/>	DST-FIST	<input type="text"/>
UGC-Innovative PG programmes	<input type="text"/>	Any other (<i>Specify</i>)	RUSA
UGC-COP Programmes	<input type="text"/>		

2. IQAC Composition and Activities

2.1 No. of Teachers	<input type="text" value="10"/>												
2.2 No. of Administrative/Technical staff	<input type="text" value="02"/>												
2.3 No. of students	<input type="text" value="01"/>												
2.4 No. of Management representatives	<input type="text" value="00"/>												
2.5 No. of Alumni	<input type="text" value="01"/>												
2. 6 No. of any other stakeholder and Community representatives	<input type="text" value="00"/>												
2.7 No. of Employers/ Industrialists	<input type="text" value="01"/>												
2.8 No. of other External Experts	<input type="text" value="00"/>												
2.9 Total No. of members	<input type="text" value="15"/>												
2.10 No. of IQAC meetings held	<input type="text" value="14"/>												
2.11 No. of meetings with various stakeholders:	<table border="0"> <tr> <td>No.</td> <td><input type="text" value="03"/></td> <td>Faculty</td> <td><input type="text" value="01"/></td> </tr> <tr> <td>Non-Teaching Staff</td> <td><input type="text" value="01"/></td> <td>Alumni</td> <td><input type="text" value="01"/></td> </tr> <tr> <td>Students</td> <td></td> <td>Others</td> <td><input type="text" value="00"/></td> </tr> </table>	No.	<input type="text" value="03"/>	Faculty	<input type="text" value="01"/>	Non-Teaching Staff	<input type="text" value="01"/>	Alumni	<input type="text" value="01"/>	Students		Others	<input type="text" value="00"/>
No.	<input type="text" value="03"/>	Faculty	<input type="text" value="01"/>										
Non-Teaching Staff	<input type="text" value="01"/>	Alumni	<input type="text" value="01"/>										
Students		Others	<input type="text" value="00"/>										

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

- Department of Botany has conducted one day workshop on **“Pot making technique”** for plantation. Dr. N. V. Khubalkar delivered lecture on pot making for plantation and re-plantation. It was followed by **hand on training** in the Botanical Garden. Students prepared pots for plantation of saplings and cuttings.
- **“NIRDHAAR-DHYAAS DHEYA PRAPTICHA”** a two days intercollegiate workshop was organized on 18th and 19th of September 2017 on personality development and career guidance.
- Department of Computer Science has organized one day workshop on **“Career in Computer Management System”**. Renowned faculty from IT network Z interacted with participants and explained them opportunity in Computer management System.
- One day workshop On **“Career Guidance”** in UPSC by Sanjeev V. Chetule, Assistant Commissioner (P) (Eol), Indian Revenue Service (Custom, GST & Narcotics), Ministry Of Finance, Govt. of India.
- Women Development Cell has organised one day work shop of **“Managing Emotions”** by Dr. Aparna Ashtaputre Sisode, Head of Psychology department at Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

2.14 Significant activities and contributions made by IQAC

IQAC conducted various activities throughout the year that includes

- Organization of Guest lectures, national and departmental workshops by different departments.
- Green audit of the Institute campus was done.
- Motivation of Faculty Members for publication of Research Papers in National and International Journals.
- Organization of all curricular, extra-curricular and extension activities as per the Institute's academic calendar.
- Collection and analysis of student's feedback on teachers, syllabus and facilities available in the Institute.
- Students mentoring by faculty members.
- Collection of Academic Performance Indicators (API) based PBAS formats from the Faculty Members.
- Student welfare schemes enhanced by adding a number of prizes, awards and scholarships such as AASCON, Sukhdeoji Maharaj etc.
- Organizations of Parent Teacher meet for UG and PG students.
- Departments were directed to fill the internal marks of the theory subjects on the basis of classroom attendance, unit test performance and assignment submission by the students.

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
<ol style="list-style-type: none"> To prepare academic calendar and to follow it. To form various committees in order to enhance the overall development. To do the green audit of Institutional campus. To create MOU's with different Organizations. To start Earn and Learn schemes for the benefit of the needy students. To start organic farming To organize institutional workshops and hand on training. Renovation and modernization of laboratories and classrooms. Expansion of modern teaching methods with more smart classrooms and better laboratory equipments. Extension of Existing Girls' Hostel Facility, Electricity fitting at Girls' Hostel Up gradation of B.Sc. (Chemistry) Undergraduate / PG Laboratory Boys' Hostel : Roof Repairing and Water proofing, Windows & Door Replacement, Repair of Existing Drainage Line, Replacement of Pipe Line and Taps, Parking Areas : Flooring and Shade. Post Graduate Laboratory of Environmental Science Chairs for smart class rooms Extension of CCTV Facility Office Facility Enhancement 	<ol style="list-style-type: none"> The academic calendar was followed. Various committees were formed which worked according to the objectives. Green audit of the Campus of the Institute was done. MOU's were done with five different organizations. Approximately, 15-20 students were benefited by this scheme Organic farming was started in the botanical garden. Five workshops were organized by different departments. Improvement of amenities to make the campus more disabled friendly. Eight classrooms were renovated as smart classrooms and laboratories are equipped with better instruments. B.Sc. (Chemistry) Undergraduate / PG Laboratories are up-graded partially. Extension of CCTV Facility is completed.

* Attach the Academic Calendar of the year as Annexure.

2.15 Whether the AQAR was placed in statutory body Yes ☐ No ☒
 Management ☐ Syndicate ☐ Any other body ☐

Provide the details of the action taken

Part – B

Criterion – I

1. 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	01(7subjects)	-	-	-
PG	01(7subjects)	-	-	-
UG	01	-	-	-
PG Diploma	-	-	-	-
Advanced Diploma	-	-	-	-
Diploma	-	-	-	-
Certificate	-	-	-	-
Others	-	-	-	01
Total	03	-	-	01
Interdisciplinary				
Innovative				

1.2 (i) Flexibility of the Curriculum: CBCS/Core/Elective option / Open options

(ii) Pattern of programmes:

Pattern	Number of programmes
Semester	02 (UG and PG)
Trimester	-
Annual	-

1.3 Feedback from stakeholders* (On all aspects)

Alumni	<input checked="" type="checkbox"/>	Parents	<input checked="" type="checkbox"/>	Employers	<input type="checkbox"/>	Students	<input checked="" type="checkbox"/>
Mode of feedback	:	Online	<input type="checkbox"/>	Manual	<input checked="" type="checkbox"/>	Co-operating schools (for PEI)	<input type="checkbox"/>

**Please provide an analysis of the feedback in the Annexure*

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

Syllabus is followed as per given by RTM Nagpur University, Nagpur. Revision or update of syllabus was not done during the session 2017-18.

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

No

Criterion – II

2. Teaching, Learning and Evaluation

2.1 Total No. of permanent faculty

Total	Asst. Professors	Associate Professors	Professors	Others
60	47	06	04	2(PE)+1(Lib)

2.2 No. of permanent faculty with Ph.D.

41+1(Lib) = 42

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

Asst. Professors		Associate Professors		Professors		Others		Total	
R	V	R	V	R	V	R	V	R	V
47	05	06	14	04	04	03	00	60	23

2.4 No. of Guest and Visiting faculty and Temporary faculty

Visiting faculty: 47

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/ Workshops	10	15	00
Presented papers	00	03	00
Resource Persons	01	05	00

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

- Preparation of academic plan and maintenance of daily diary and attendance register by the teachers.
- Teaching is carried out using Interactive board & LCD projectors.
- Use of ICT in teaching and learning process such as Power Point Presentation, audio visual aids, short video clips and internet, demonstration with live plants, internet, websites & e-books
- Electronics Kit making by students, Model preparation by students, Electronics Quiz, Group discussions, excursion tours etc.
- Organization of different activities for UG and PG students: Aptitude test Industrial and Lab visits, long and short tours, Science quiz & Seminar competition, Celebration of National Science Day.
- Inviting guest speakers for different topics including syllabus as well as in general.
- Question banks and home assignments are provided to the students and also assessed through Unit Test.
- Seminars are delivered by students on various topics related to syllabus in regular class.
- Wi-Fi internet facility is provided for students and teachers in the library.
- Quiz contest and problem solving activity is regularly conducted to make the ideas more clear.
- Teaching is carried out using audio visual aids and internet and practical's are conducted using Statistical package R.

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)

Assignment and Unit tests

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

05

2.10 Average percentage of attendance of students

85%

2.11 Course/Programme wise distribution of pass percentage:

Title of the Programme	Total no. of students appeared	Division				
		Distinction %	I %	II %	III %	Pass %
UG	399	45/399 = 11.28	169/399 = 42.36	71/399= 17.79	00	305/399= 76.44
PG						
Chemistry	37	18.91	64.86	10.81	--	94.59
Physics	33	6.06	69.69	12.12	--	87.87
Mathematics	29	10.34	51.72	--	--	62.07
Botany	21	23.81	19.05	--	--	42.86
Zoology	21	28.57	52.38	9.52	--	90.48
Statistics	19	15.78	52.63	21.05	10.52	89.47
Env. Science	10	90.0	10.0	--	--	100.00
Total	170	27.63	45.76	7.64	1.50	81.04

List of students who stood Merit in RTM Nagpur University, Nagpur Summer 2017, Examination

Sr. No.	Name of Students	Class	Subject	Merit Position
1	Rachna Prakash Kanojiya	B.Sc.-III	PCM	I
2	Swarali Vishweshwar Wandhare	B.Sc.-III	PCM	II
3	Mrunal Ishwarrao Pande	B.Sc.-III	PCM	IV
4	Nehal Waman Vaidya	B.Sc.-III	PCM	VIII
5	Ajali Ashok Parihar	M.Sc.-II	Physics	V
6	Neha Kashinath Kundu	M.Sc.-II	Statistics	I
7	Sujata Nageshwar Kukade	M.Sc.-II	Statistics	II
8	Nidhi Suddhodhan Patil	M.Sc.-II	Chemistry	IX
9	Nirma Mahendra Borkar	M.Sc.-II	Env. Science	I
10	Nikita Ananta Atram	M.Sc.-II	Env. Science	II

Outstanding students of the Institute in B.Sc. Final year who has secured gold/silver medals, prizes and awards at University level for securing highest position in various subjects

1. **Swarali Vishweshwar Wandhare** got four gold medals and a prize.
 2. **Nehul Waman Vaidya** got one gold medal and two prizes.
 3. **Rachana Prakash Kanojiya** got nine gold medals and three prizes.
 4. **Anjana Ambika Prasad Patel** got one gold medal.
 5. **Zareena Shabuddin Joya** got four silver medals and six prizes.
- **AASCON (An Alumni association of the Institute) has distributed Rs. 1,50,500/- to Seventeen outstanding students in different subjects.**
- **Sukhdevji Maharaj of Saongi Memorial Scholarship: 2017-18**

Sr. No.	Name	Subject	Amount
1.	Ms.Rachna P. Kanojiya	Physics	90440/-
2.	Mr.Nehal W. Vaidya	Chemistry	90440/-
3.	Ms. Swarali V.Wandhare	Mathematics	90440/-
4.	Ms. Swarali V. Wandhare	Statistics	90440/-
5.	Ms.Smita E. Kale and Ms. Yuti K. Meshram	Botany Botany	45220/- 45220/-
6.	Ms. Anjana A. Patel	Zoology	90440/-

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

IQAC contributes, monitors and evaluates the teaching learning process through various committees

- IQAC has formed various committees. It has also divided the task in three different categories viz. Academics, Administration and Finance. Likewise it has three heads under the guidance of IQAC.
- Various other committees related to these three heads are handled by respective heads.
- Unit tests are conducted by the teachers after completion of respective units as per the schedule.
- IQAC plans all the academic, co-curricular and extracurricular activities.
- Time table committee of individual department, works out the time table of that department.
- Student feedback is collected.
- Guest speakers are invited to deliver talks on topics related to courses of study.
- By proposing various methods to make the teaching more students centric.
- Weekly analysis of daily attendance report of students taken by the teacher in the theory class and practical's has increased the percentage attendance of the students.
- Faculty members participate in the Faculty & Staff Development Program for enhancing their educational skill.

2.13 Initiatives undertaken towards faculty development

<i>Faculty / Staff Development Programmes</i>	<i>Number of faculty benefitted</i>
Refresher courses(Yashda)	01(UGC) + 12(Yashda) = 13
UGC – Faculty Improvement Programme	--
HRD programmes	02
Orientation programmes	05
Faculty exchange programme	00
Staff training conducted by the university	03
Staff training conducted by other institutions	07
Summer / Winter schools, Workshops, etc.	--
Others	--

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	01	00	00	00
Technical Staff	00	00	01	00

Criterion – III

3. Research, Consultancy and Extension

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

- One patent has been awarded to Dr. Vijaya Sangawar, Professor, in the department of Physics.
- One patent of Dr. Sujata Deo, Associate professor, in the department of Chemistry has been published.
- **Seventeen** research scholars were awarded Ph.D. from different departments of the Institute.
- Faculty members are encouraged to publish research papers in various International and National Indexing Journals with good Impact factors. In this session the faculty has published near about **95** research papers in the reputed Journals, similarly, faculty has also published **05** books of different subjects at the state level.
- Faculty members are always encouraged to attend National & International Conferences, Seminars etc. and present their research work, for which duty leave is sanctioned. Twenty of the staff members have attended these conferences, **03** of them presented their work and **06** of them have worked as Resource Persons.
- Dr. Vijaya Sangawar, Professor, in the department of Physics has received APJ Abdul Kalam award for their outstanding contribution in research work.
- The Director of the Institute always motivates young staff recruited in the Institute to join Ph.D. work; two of the faculty members from chemistry department have started their work in the RTM Nagpur University department.
- The Director also motivates the staff for sending research proposals to various funding agencies. Proposal of one Major Research project of 14.927 Lacs from the department of statistics was submitted to DST, during this session, and has got sanctioned in July, 2018.

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	--	--	--	01
Outlay in Rs. Lakhs	--	--	--	14.927 Lacs

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	01	--	--	--
Outlay in Rs. Lakhs	2.80 Lacs	--	--	--

3.4 Details on research publications

	International	National	Others
Peer Review Journals	95	00	
Non-Peer Review Journals	00	00	
e-Journals	00	00	
Conference proceedings	00	00	

3.5 Details on Impact factor of publications:

Range **0.5 -3.0** Average **1.75** h-index Nos. in SCOPUS **50-60**

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

Nature of the Project	Duration Year	Name of the funding Agency	Total grant sanctioned	Received
Major projects	Nil	Nil	Nil	Nil
Minor Projects	Nil	Nil	Nil	Nil
Interdisciplinary Projects	Nil	Nil	Nil	Nil
Industry sponsored				
Projects sponsored by the University/ College				
Students research projects <i>(other than compulsory by the University)</i>				
Any other(Specify)				
Total				

3.7 No. of books published i) With ISBN No. **05 books** Chapters in Edited Books

ii) Without ISBN No. **Nil**

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)

**State Govt.,
UGC, DPDC,
RUSA**

3.10 Revenue generated through consultancy **Nil**

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	Nil	Nil	Nil	Nil	Nil
Sponsoring agencies	Nil	Nil	Nil	Nil	Nil

3.12 No. of faculty served as experts, chairpersons or resource persons **06**

3.13 No. of collaborations International **00** National **05** Any other **00**

3.14 No. of linkages created during this year **03**

3.15 Total budget for research for current year in lakhs: **Nil**

From funding agency **Nil**

From Management of University/College

Total **Nil**

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	00
	Granted	02
International	Applied	
	Granted	
Commercialised	Applied	
	Granted	

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

Total	International	National	State	University	Dist	College
18	00	05	00	13	00	00

3.18 No. of faculty from the Institution
who are Ph. D. Guides **28**
and students registered under them **30**

3.19 No. of Ph.D. awarded by faculty from the Institution **17**

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

JRF **01** SRF **00** Project Fellows **01** Any other **02**

3.21 No. of students Participated in NSS events:

University level **05** State level **04**
National level **02** International level **Nil**

3.22 No. of students participated in NCC events:

University level **Nil** State level **Nil**
National level **Nil** International level **Nil**

3.23 No. of Awards won in NSS:

University level **01** State level **Nil**

	National level	Nil	International level	Nil
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3.24 No. of Awards won in NCC:

University level	Nil	State level	Nil
National level	Nil	International level	Nil

3.25 No. of Extension activities organized

University forum	Nil	College forum	02	
NCC	Nil	NSS	08	Any other 04

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

Staffs as well as students of our Institute actively participate in various community services. Every year some services provided to the society by the staff and students, which is listed below. NSS unit of the college has organised and participated in different programs in and out of the Institute for a social and noble cause. Remarkable programs such as,

1. Blood donation camp was organised by the NSS unit in collaboration of Govt. Medical College, Nagpur. **100** units of blood were collected.
2. Seven days special camp with the theme “Zero Budget Farming” of 47 students was held at “Sanjeevan Vrudhashram”, Aamgaon Devli, Dist. Nagpur.
3. Celebration of birth and death anniversaries of National Leaders and Freedom fighters as per the of Maharashtra government resolution for motivation of students.
4. Traffic Awareness Program was organised in the camp regarding safety measures to be adopted while driving.
5. LACF and STF of the institution work in collaboration by organising various co-curricular activities and competitions like seminars, quiz, debate, poster for overall development of the students.
6. A credit Co-operative society was established in 1983 for the benefit of our employees. It provides long term as well as short term loans to the employees. A co-operative store is also run by the society in the premises which provides necessary service to the students and staff.
7. A well-equipped Gymnasium is installed in the Institute. Students, teachers and non-teaching staff frequently avail this facility.
8. To generate awareness about the use of LED bulbs in the society for reduction in electric bills and hence the power saving dept. of Electronics of the Institute has organized Community Development Camp.
9. Environmental Science Department has organized a “Tree plantation drive” on 2nd August 2017, in collaboration with Nagpur Municipal Corporation.

Criterion – IV

4. Infrastructure and Learning Resources

4.1 Details of increase in infrastructure facilities:

Facilities	Existing 2016-17	Newly created 2017-18	Source of Fund	Total
Campus area	51520 m ²			51520 m ²
Class rooms	25			25
Laboratories	37			37
Seminar Halls	10			10
No. of important equipments purchased (\geq 1-0 lakh) during the current year.		01 (Xerox machine)	State Plan (OE)	01
Value of the equipment purchased during the year (Rs. in Lakhs)		-	-	-
No. of important equipments purchased less than one lakh) during the current year.		78	State Plan (ME)	78
Others infrastructural facilities		2,69,00,000 (For library building)	DPC	2,69,00,000/-
Building of Dept. of Physical Education		-	-	-
Construction of green house		-	-	-

4.2 Computerization of administration and library

- Most of the office and administrative work is carried out by using the computers.
- Each department in the institute is having the sufficient number of computers for the staff and students.
- The campus is covered by the Wi-Fi internet network for the quick and easy access to the internet.
- The online employee profiles of all the staff members are uploaded on Sewarth and Director of Higher education website.
- The library is computerised.
- Internet facility is made available to the students in the library by the use of computers.

4.3 Library services:

	Existing (2016-17)		Newly added (2017-18)		Total	
	No.	Value	No.	Value	No.	Value
Text Books	59879	4816732/-	161 (Donated books)	47906/-	60040	48,64,638/-
Reference Books	2000	3856000/-	36	1,23,529/-	2036	39,79,529/-
e-Books	90000 UGC-NLIST		90000 UGC-NLIST			
Journals						
e-Journals	2000 UGC-NLIST	Free	2000 UGC-NLIST	Free	2000	
Digital Database	10 UGC-NLIST		10 UGC-NLIST		10	
CD & Video	100	Free	100	Free	100	
Others (specify)	Nil					

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Depart- ments	Others
Existing	272	3(110)	Available	1(25)	7(60)	1(12)	10(49)	16
Added	05	3(05)	-	-	-	-	-	-
Total	277	115	Available	25	60	12	49	16

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

- Wi-Fi College Campus
- Computers with Wi-Fi Net Connectivity for students and staff
- Seminars Hall with LCD Projector, Smart classrooms

4.6 Amount spent on maintenance in lakhs :

i) ICT	0.85 lakhs
ii) Campus Infrastructure and facilities	276.4 lakhs
iii) Equipments	7.00 lakhs
iv) Others	1.13 lakhs
Total :	285.38 lakhs

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

- Simplified and Updated prospectus is given to the students at the time of admission.
- Students counseling at the time of admission for UG and PG.
- An induction meet / fresher's program for new comers is conducted by IQAC in presence of all departmental heads for making students aware about the staff, college campus, infrastructure, sports & other facilities.
- Notices and updates are put up on notice boards manually and also on the website.
- Activities of Carrier Counseling & Placement Cell, NSS, NCC, Women Development Cell and Internal Complaint Committee are monitored by IQAC.
- Internet facility, Gymnasium for boys and girls, Xerox facility, Yoga classes, cooperative store for the students, Personality development, Interaction with the expertise in the various fields for all round development of students are also provided.
- Student's feedback about the teachers and facilities available in the institution are taken every year.
- Mentor-mentee scheme definitely helps the students to solve their academic problems to a large extent and personal problems up to some extent.

5.2 Efforts made by the institution for tracking the progression

- The Institute aims at providing necessary assistance to students for facilitating their holistic progression. Progressions are regularly monitored on one to one basis.
- The Institute stands committed on providing support to students in terms of scholarships of Government and Alumni association.
- The Career Counseling and Placement Cell of the Institute helps the students become employable. CCPC conducts various workshops and training programmes to enhance their personality by motivating the students and helping them to get the jobs.
- Information regarding any job opportunity or acquiring higher education in reputed Institutes are regular circulated among the students on the WhatsApp group made by the concerned teacher in-charge of Career Counseling and Placement Cell.
- Reciprocating the action, the students also inform the result in the group; if somebody gets placed or goes for higher studies or pass the competitive examination (NET/SET/GATE/MPSC/UPSC etc.) the in-charge teacher maintains the record.
- The Counselling Centre provides counselling services to the students in the form of personal and vocational guidance.
- The Women's Cell of the College is in place and provides counselling to women students.
- There is a Grievance Redressal Cell which delegates with the authority to mediate any type of grievances raised by the students.
- The Anti-Ragging Committee and Internal Complaint Committee are consigned and they make sure that there are no issues on this account.
- There are many associations and societies of different departments which organizes academic and co-curricular programmes for students throughout the year.
- Members of the faculty strongly encourage extracurricular and co-curricular activities.
- Feedback is taken from the students on the Infrastructure and facilities, and feedback is analyzed and corrective actions are implemented.
- Internal tests are conducted regularly to monitor and measure student's academic performance.
- Annual magazine "Replica" publishes the reports of the Departments and the Extension Cells of the college, highlighting the awards and achievements of the students in academics and extracurricular achievements.

5.3 (a) Total Number of students

UG	PG	Ph. D.	Others
832	360	00	00

(b) No. of students outside the state

00

(c) No. of international students

00

No	%
371	31.12

Men

Women

No	%
821	68.87

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
416	272	61	544	02	1295	249	241	63	634	05	1192

Demand ratio **1: 20**Dropout %: **6%**

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

Career Guidance and Placement Cell organized a career guidance session by Narayana IAS Academy who guided the students for the preparation of Civil Services examination.

No. of students beneficiaries

200

5.5 No. of students qualified in these examinations

NET	12	SET/SLET	21	GATE	05	CAT	
IAS/IPS etc		State PSC		UPSC		Others	01

5.6 Details of student counselling and career guidance

- To arrange the career guidance programmes frequently by the eminent personalities from various companies/ organisations/institutions in order to prepare them for facing the interviews.

Following Lectures on Career Opportunities were organised by CCPC of the Institute.

1. **NIRDHAAR- DHYAAS DHEYA PRAPTICHA - Two days intercollegiate workshop from 18th to 19th, September 2017)** on personality development and career guidance. Inspiring lectures by prominent speakers such as Mrs. Rita Aggarwal, leading Psychiatrist on the topic Human Psychology, Dr. Surendra Gole, Director of NIT on personality development and career guidance, by Dr. Sanjay Raghatate, the Executive Director of Oxford Speakers' Academy on the topic Interview and Recruitment, which would help all the students to face their interview confidently and Mr. Sachin Burghate an International motivational speaker taught students to learn English through Hindi.
2. An aptitude test was conducted for the students on Smart skills for placement. Nearly 200 students attempted the test.
3. In this session following companies has shortlisted and selected our students for placements in their companies.
 - **Capgemini** ---- 4 students had received offer letter.
 - **Infosys** ----- 5 students were short listed.
 - **Assent IT solution**-----59 students were selected.
 - **Dr Rajendra Singh Science Exploratory**-----15 students were selected for training and lean and earn scheme.
 - **School of Scholars** ----- 6 students were selected.

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
06	300	89	00

5.8 Details of gender sensitization programmes

Internal complaint committee has organized lecture on GENDER SENSITIZATION by Smt. Madhuri Chakulkar, President, Indian Woman Power Council, Maharashtra State on 19th March 2018.

5.9 Students Activities

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

State/ University level **35 students/02 teams** National level **21** International level **01**

No. of students participated in cultural events

State/ University level **60** National level **01** International level **00**

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

Sports : State/ University level **03** National level **14** International level **01**

Cultural: State/ University level **02** National level **01** International level **00**

5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution	-	-
Financial support from government	345	10,56,440/-
Financial support from other sources (AASCON)-alumni association	17	1,50,500/-
Sukhdevji Maharaj Memorial Scholarship	07	5,42,640/-
Number of students who received International/ National recognitions	-	-

5.11 Student organised / initiatives

Fairs : State/ University level **00** National level **00** International level **00**

Exhibition: State/ University level **00** National level **00** International level **00**

5.12 No. of social initiatives undertaken by the students **05**

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

The vision of our Institute is to inculcate scientific temper among students to address global challenges by advancing the frontiers of science, by producing scientifically-trained leaders and innovators and enhancing public understanding of science.

Mission

Our mission is to bring the benefits of science to society by providing access to a rich educational experience that will motivate and enable all of our students to seek the highest levels of intellectual achievement in the physical, chemical, mathematical and biological sciences and attain an all-round personal growth with high moral values.

6.2 Does the Institution has a management Information System

Institute of Science is the Government Institute and the Director of Higher Education, Pune, has implemented the Management Information System for all the government colleges in Maharashtra region. The website of Management Information System is www.mis.dhepune.info.

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

6.3.1 Curriculum Development

As this Institute is affiliated to R T M Nagpur University, it follows the curriculum developed by University. However, some faculty members are members of Board of Studies and Academic Council who are involved in curriculum development. Semester pattern is followed by RTMNU, Nagpur at UG and PG (CBCS) level.

6.3.2 Teaching and Learning

- The college aims to make teaching and learning “student-centric” which helps students to think, evaluate, to be resourceful and unique.
- The college has taken major steps towards improving the quality of teaching learning by focusing on the use of ICT aids for teaching such as Power Point presentations, videos, and audio visual aids. All the departments are equipped with PC and LCD projectors. Some classes are also equipped with Interactive boards.
- Laboratories are equipped with sophisticated instruments, and separate computer lab is established in each department for the benefit of students.
- Students are asked to deliver their seminars by preparing power point presentations.
- Feedback is taken from the student’s with respect to faculty and facilities available in the Institute and then it is analysed by the concerned teacher in-charge and steps taken accordingly.
- Not only the students, but also the Institute ensures the competency of staff and help the faculty to develop continuously.
- Faculties conduct group discussions, quiz, debates and presentation on different topics by students in the class to help the students to understand the curriculum in a better way.
- An academic calendar is prepared before the commencement of the Academic session and Faculty member are encouraged and expected to prepare teaching plan for the course for every session following the Academic calendar.
- The implementation of the teacher’s teaching plan and the conduction of his/her classes as per the time-table are assessed by the Head of the Department at regular intervals through daily diary.
- The Institute follows the process of continuous assessment of students using direct or indirect method by evaluating their marks in the exams and tests conducted by university and Institute.
- Unit-wise tests are taken regularly after completion of unit by respective teacher. Similarly, home assignments are also given to students and thus periodic evaluation of students is done.
- Extra classes are conducted by teachers to complete the course prescribed in the syllabus, as and when needed. The average pass percentage is above 75.
- The admission process is fair and done on the basis of merit; complying all the Government and the University norms.
- The Institute offers admission to all categories of students such as - SC, ST, OBC and differently-abled students, according to the prescribed government norms. The college does not have gender prejudice.
- Faculties at Institute of Science, including Professors, Associate Professors and Assistant Professors are permanent; recruited by government (MPSC), with an ideal student-teacher ratio of 20: 1.
- Institute has a transparent mechanism for handling students’ and teachers grievances.

6.3.3 Examination and Evaluation

- Institute of Science, Nagpur is affiliated to R. T. M. Nagpur University, Nagpur and semester wise examinations are conducted by the University.
- Continuous Evaluation of students is done by monitoring them through mentor-mentee scheme, as well as through class test, home assignments, seminars, projects.
- Evaluated answer books are distributed in the class and the mistakes done by them are corrected and explained accordingly.

6.3.4 Research and Development

- Institute plays a very proactive role in promoting itself as a centre of academic excellence. Excellent research culture exists here and it is proliferated amongst faculty and students.
- Most of the faculty members of the institute are actively involved in research, two patents published this year goes to the credit of dedicated staff.
- **28** faculty members are working as recognized supervisors for Ph.D. not only of this affiliating University i.e. RTMNU but also of other Maharashtra Universities such as SGB Amravati, Gondwana, Marathwada and Kolhapur University.
- Seven Departments are recognized as Ph.D. Research Centres by RTM Nagpur University, Nagpur.
- **Seventeen** students have been awarded Ph.D. degree in this session.
- **30** Students are at present availing their Doctoral Research works in the Institute.
- About **95** research papers has been published in the UGC enlisted International journals, faculty has also published **05** books of different subjects at the state level.
- **Central Instrumentation Lab** is well equipped with sophisticated Instruments. This facility is availed by the research scholars and PG students doing Project work in their fourth semester.
- Project work done by the students is also presented in the form of oral or poster in National and International Conferences or seminars, and also published in the conference proceeding or refereed journals.
- The Institute has provided necessary infrastructure like laptop, PC in every department, updated library, and free internet access to help the faculty members in research work.
- Major and minor research projects are also taken up by some faculty members.
- The Institute provides support to faculty for attending seminars/conferences. Paid and unpaid leave is also sanctioned to the teachers involved in research work.
- Young staffs recruited are encouraged to join Ph.D.; two staff members from Chemistry department have registered for Ph.D. in this session.

6.3.5 Library, ICT and physical infrastructure / instrumentation

- The institution has an excellent library and computer facilities with easy access to all its constituents with internet connections.
- Library has very rich collection of reference books and research journals catering to the needs of staff and students including research scholars, post and under graduate students.
- New books are added every year to the central library through UGC, RUSA funds as well as research project funds.
- Well-furnished reading room for students with maintenance of record of the attendance of students and staff availing the facility along with CCTV for monitoring attendance and surveillance.
- Separate reading room for teachers, bibliographic compilation, newspaper clippings service.
- Newspapers of local and national repute, competitive and sports magazines and other reading material help the students in competitive examinations.
- The reading room is well stacked with encyclopaedias' on various subjects.
- Library is upgraded with INFLIBNET to facilitate academic communication, amongst scientist, academics, faculties, researchers and students.
- For meeting, future developments, expansion of library has been planned and a new building is also being constructed.

6.3.6 Human Resource Management

- Institutional Governance and management operates at four levels.
- State ministry of Higher and Technical Education is mainly evolved in framing policy decisions.
- Director of higher education at second level and Director of Institute at execute at the third level and fourth are done by forming various committees which works under the chairmanship of Hon. Director of the Institute, who monitors the work frequently. The administrative head and academic head of the institution control all committees, cells for smooth working.
- Head of Department's are looking after more specific and smaller aspects of governance and management system of the Institution.
- For administrative matters, Director and Registrar together are involved.
- For financial matters the Director and financial committee hold the responsibility of management.
- All these matters there are adequate representation of the teaching, non-teaching staff and in some cases, of students and alumni.
- The teaching staffs also contribute to various administrative responsibilities. Academic matters, infrastructure maintenance and utilization, campus development is looked after by various committees in consultation with Director of Institute.

6.3.7 Faculty and Staff recruitment

- Institute of Science, Nagpur is a Government Institute. It has sanctioned posts of Professors, Associate Professors and Assistant Professors; these are recruited by the Maharashtra Public Service Commission (MPSC) as recruiting agency.
- Faculties are regularly transferred to Colleges/Institutes all over Maharashtra by Maharashtra government.
- Director of the Institute has the authority to recruit the Visiting / temporary staff on Clock Hour Basis as per requirement of departments.

6.3.8 Industry Interaction / Collaboration

Most of the faculty members of the institute are actively involved in research and also have their collaboration with various organisations like JNARDC and various NGOs such as Quick heal, Swachh Bharat, Manas Ayurved, etc.

6.3.9 Admission of Students

As per norms of Government and affiliated University

6.4 Welfare schemes for

Teaching	GPF, G.I.S. Govt. quarter facility, Medical facility, Govt. loan scheme, LTC, Medical leave
Non teaching	GPF, G.I.S. Govt. quarter facility, Medical facility, Govt. loan scheme, LTC, Medical leave, festival advance
Students	Scholarships, Hostel facility, Placement and Career & Guidance cell.

6.5 Total corpus fund generated

2132086 /- (PLA)

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	No		Yes	Director
Administrative	No		Yes	Director

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

For UG Programmes Yes ☐ No ☒

For PG Programmes

Yes

☐

No

☒

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

NA

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

NA

6.11 Activities and support from the Alumni Association

- The Institute has a very cooperative and strong alumni association, AASCON, which functions for the benefit of students. Every year AASCON provides financial assistance to the merit students in the form of prizes and scholarships. Seventeen students has got the benefit of about **Rs. 1,50,500/-**. Different programs organized by AASCON were Silver Jubilee celebration, Guest lecture on “National Character Building” and Scholarship distribution.

6.12 Activities and support from the Parent – Teacher Association

Parents Teachers meeting was held and their feed backs were taken on facilities available and provided to their wards.

6.13 Development programmes for support staff

- Providing employment to dependent successor of deceased employee on compassionate ground
- Fund raising schemes operated by the co-operative society of Institute of Science.
- Society also awards various scholarships to the wards of members for their meritorious performances.
- Various loans facility e.g. housing loan, computer, vehicle loan etc.
- Medical reimbursement facility for family of employee.
- Provident fund facility.
- Pension scheme after retirement as per state government norms.
- Medical expenses reimbursement facility.
- Group Insurance facility.
- Leave Travel Concession within Maharashtra.
- Various leave facility i.e. medical leave, casual leave, earn leave etc.

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

- Green audit of the Institute campus was done.
- As a part of its eco-friendly practice, the Institute tries to manage the waste as efficiently as possible.
- Efforts are constantly made to reduce the requirement of paper. Use of electronic means of communication such as e-mails, e-notices on the digital display board and websites, WhatsApp groups etc. being followed by all departments of the Institute.
- In the office the records are digitalized and maintained in soft copy. In most of the departments staff and students use spent paper, blank side of envelope and invitation cards to do rough work thereby saving paper.
- Dust bins are provided to collect wet and dry waste which is useful to segregate waste at sources. Nagpur Municipal Corporation with the help of recognized and registered agency manages to collect the solid waste generated in the campus time to time.
- The liquid waste generated in the all the laboratories especially chemistry laboratory is disposed by regulations and taking proper care about the safety of students, staff and environment.
- Being a government organization e-Waste is disposed through write-off procedure as per the Govt. guidelines.
- Stationary and garden waste in college is generally processed for its decomposition rather than incineration.
- The plant debris is collected and decomposed in pits to make organic manure. The compost pits are filled with leaf litter and are inoculated with earthworms. The compost generated from pits is collected and used as bio-fertilizers for plants in the garden of the Institute.
- Organic farming is practiced at institute by using manure produced by decomposition of biodegradable material.
- Green house is built for conservation of rare, endangered and endemic plant species
- The Institute campus is plastic-free; NSS plays an important role in sensitizing staff and students about plastic free society. Swachchhata Abhiyan and Awareness programs are conducted by the NSS for making campus plastic free.
- Tree plantation is done every year to increase the green cover of the Institute.

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.

- Improvement of amenities to make the campus more disabled friendly.
- Re-launching of campus canteen providing good quality snacks and refreshments.
- Eco friendly practices and sustainable ways of using resources in the campus.
- Use of ICT in teaching learning; use of multimedia and online resources for self learning of students.
- Daily Attendance Report System (DARS) is the unique feature of IQAC feedback system, which controls and support teaching learning process. By this system the Director keeps a watch on the punctuality of the staff and students in the class. If any discrepancy is observed, necessary action is taken by the director of the Institute against the staff and student.

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

- Action taken report on the plan of action decided upon in the beginning is as per **2.15** of PART - A

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

- 1. Organic farming**
- 2. Publication of Annual Magazine of the Institute “Replica”**

**Provide the details in annexure (annexure need to be numbered as i, ii,iii)*

7.4 Contribution to environmental awareness / protection

- Majority of the students in the campus rely on public transport, indicating lesser carbon foot print of the student community.
- Approximately 10% of the total student uses two wheelers and 30% student uses bicycles.
- Some of the staff also frequently prefers bicycle while some uses car pooling to attend the college duties.
- For energy conservation laboratory equipment's are put on only when they are to be used.
- The premises of the Institute has good vegetation belt with variety of huge trees in and around the area.
- Solar light system is installed in the premises.
- Students of NSS and Environmental Science participates in common awareness programmes, Rally's to create awareness about environment.
- Disposal of E - waste through proper procedure.

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

1. Institute of Science is the only government institution affiliated to RTM Nagpur University, Nagpur imparting education in science at UG, PG and Ph.D. level.
2. Dynamic, dedicated and qualified staff includes MPSC selected Professors, Associate Professors and Assistant Professors and well experienced support staff.
3. Smart classrooms with ICT facilities.
4. University recognized centre for 'Higher Learning and Research' in seven subjects.
5. Good number of Research recognized guides and excellent number of Research Scholars getting Ph.D. awarded every year.
6. Publication of patents by the staff.
7. Good infrastructure and laboratories with sophisticated instruments with sufficient space.
8. Funding by district collector (DPC) besides UGC and RUSA for academic enhancement.
9. Safe and secured environment for co-education.
10. Excellent Gym and Sports facilities.
11. Hostel facilities for Boy's and Girl's.
12. Library with rich collection of books.

Weaknesses

1. Limited scope in curriculum design and development.
2. Departments like Environmental Science, Computer Science and Electronics have to depend on CHB staff.

Opportunities

1. Institute students have good placement in private and government organizations as well as in academic and research institutions.
2. Opportunity to work with diverse agencies.

Threats

1. Delay in recruitment of teaching and non-teaching staff.
2. Transfers of the faculty among state govt. colleges all over the state.

8. Plans of Institution for next year

1. To submit SSR for NAAC's third Cycle accreditation process.
2. Construction state of the art auditorium is being proposed: For conducting various activities, construction state of the art auditorium is essential and proposed. Construction activity will be carried through Public Works Department, Govt. of Maharashtra
3. Construction of Overhead Water Tank, Entrance Gate with Cabin for Security Staff and Parking facility.
4. Construction of entrance gate with cabin for security staff is proposed.
5. Creation of parking facility of 3000 sq. mt. is proposed.
6. Ten smart classrooms with digital podium and other necessary equipments are proposed. Purchase will be done according to Govt. of Maharashtra's standard procedure.
7. Proposal of purchase of new equipment's / Facilities: purchase of 100 new computers for library upgradation, similarly, another 100 computers, for PG and research students of various departments to carry their project and reference work are proposed.
8. Books and Journals: For UG, PG and research students of various departments' purchase of Books, Journals and reference books are also being proposed.
9. Purchase of the SAS software and use of RFID technology is also under consideration.
10. For enhancing Research Innovation and Quality Improvement; 7 research projects (minor/major) of total Rs. 200 Lakhs are proposed.
11. Value added courses from various subjects like Floriculture / Bonsai / Mushroom Cultivation / Bee Keeping / JAVA Programming / Data Analysis, vermin composting, are also proposed.
12. Vocationalisation of Higher Education: In addition to regular course, three certificate courses are also proposed.
13. Proposal of language laboratory.
14. Facility of computer and internet to hostilities.
15. To continue with the regular annual events like annual social gathering.
16. Industrial visits, botanical excursions, long and short tours.
17. Invited guest lecture's under various societies.
18. Publication of annual magazine 'REPLICA'.
19. Regular activities under the banner of NSS and cultural activities LACF.
20. To increase the number of MOU's and Collaboration with different agencies.
21. Involvement of the alumni association for bringing in more funds and using their expertise for the benefit of the students.
22. Organisation of workshops for staff and students.

Annexure I

Best Practice –I

Title of the practice: Organic farming

1. Goal:

1. To create awareness about cultivation of contemporary agriculture produce, this is healthy and resistant of various diseases like cancer etc.
2. To create environmental awareness.
3. To provide self-employment opportunity to students
4. To create awareness of entrepreneurship.
5. To motivate for hard work.
6. Participation of students in earn and learn scheme

2. The context:

To meet ever increasing requirement of food to feed surging population world over, lot of research and development has taken place in agriculture sector, resulting in excessive use of chemical fertilizer and pesticide, use of hybrid seeds, to boost up agriculture produce. However there are some serious side effects of these latest agricultural practices, for example excessive use of chemical fertilizer and pesticide is causing serious diseases like cancer; victimizing general population. Latest technology no doubt has increased yield of agriculture produce but with hazardous side effects. To overcome this menace organic farming is the best solution and, therefore, in order to create awareness among the students organic farming skill/technique is developed with the active participation of students.

Practice:

This initiative was taken by NSS and department of Botany jointly in association with Institute of Forensic Science. Instead of chemical fertilizers locally prepared vermi-compost, manure and leaf litter is used. Vermi composting is done in Institute itself in six pits, where the leaf litter and biological waste is decomposed by incubating with earthworms. Field is cleaned and ploughed before cultivation. Field is divided into plots. Contour rows are prepared and seeds are sown. Field is irrigated by sprinkler irrigation. De-weeding and cleaning is done regularly. Seasonal vegetables like spinach, fenugreek, coriander, *Amaranthus* are grown in the botanical garden by students. Crop rotation and intercropping is practiced to preserve soil fertility and to make the whole process sustainable. Grown vegetables are sold to the employees. Thus students, who take part in cleanliness drive, come to know about green initiative, the importance of farming and marketing skills of organic produce. The students of the Institute working under Earn and Learn Scheme looks after its cleanliness, irrigation and harvesting the produce and thus maintains the organic farm.

3. Evidence of success:

The record of crops grown and sold is maintained in register. Seasonal vegetables like spinach, fenugreek, coriander, *Amaranthus*, *Chenopodium album* are grown in the farm by students. The revenue generated is used for recreating farm for next season. The students get acquainted with the practice of farming and enable to manage the funds. The students get aware about self-employment and entrepreneurship and how to earn money while learning. Thus the environmental awareness in conglomeration with entrepreneurship speaks success story of organic farming.

Best Practice –II

Title of the Practice: Publication of Annual Magazine of the Institute “Replica”

1. Goal of the practice:

1. To propagate college activities.
2. To explore hidden talent of the students.
3. To publish and propagate overall activities of stakeholders.
4. To create awareness among the society about Institute activities.

2. The context:

Many activities are organized in the Institute throughout the year but all the activities cannot be published in newspapers regularly. Hence, in order to encourage students to develop their own writing skill by writing their own poems, articles, stories, emotions and thus to enjoy freedom of expression they are given adequate chance by publishing it in the annual magazine, which is widely read not only by students but also their family members, friends and society in general which gives adequate publicity about overall institutional activities. Apart from students, all concerned departments also publishes reports, activities and achievements of the respective departments as well.

Practice:

The Institute publishes its magazine annually. The academic and extension activities conducted in the odd and even semester are collected annually. For compilation of the matter received and to be published, an editorial board is formed consisting of teaching faculty and students under the leadership of the Director of the Institute. Adequate publicity is given inviting material to be published within the specified time. Received material is then categorized, scrutinized and edited by the editorial board. The final write-up is then published in the magazine. Nominal magazine fee is collected from the students at the time of their admission and the additional expenditure is borne by the institute.

3. Evidence of Success:

The magazine is published under the name, “*Replica*”, copy of which is given to each and every student and faculty members, which is widely read by parents, friends and society in general, the experience is that the publication is widely appreciated by one and all. The copies of magazine are also forwarded to affiliated university, where it is compared with other college magazines on the merits of its contents and awarded prizes suitably.

Problems Encountered and Resource Requirement:

The printing expenditure of magazine in multicolour is increasing day by day which is the major concern, as the resources are limited.

GOVT. INSTITUTE OF SCIENCE, NAGPUR

Academic Calendar

Period (15th June 2017 to 30th April 2018)

Month	Working days	Program	Academic	Other
June 2017	12	<ul style="list-style-type: none"> 16th June – Commencement of Odd semester session 16th June UG Admission Process started 26th Jun Chhatrapati Shahu Maharaj Jayanti 		21 st June World Yoga day 26 th Jun Ramjan Eid
July 2017	27	<ul style="list-style-type: none"> 18th July Annabhau Sathe Smruti Din 23rd July Lokmanya Tilak Jayanti 	<ul style="list-style-type: none"> 1st July - Commencement of UG and PG classes UG Practical exams 	<ul style="list-style-type: none"> 1st July - Tree plantation
August 2017	24		<ul style="list-style-type: none"> 26,27, and 28th August Monthly Unit test 	<ul style="list-style-type: none"> 15th August Independence Day 17th August Pateti 25th August Ganesh Chaturthi
September 2017	24	<ul style="list-style-type: none"> 5th September Teacher's day celebration Third week Inauguration of Student's Representative council /Literary and Cultural Forum/National service Scheme(NSS) 		<ul style="list-style-type: none"> 02nd Sept Bakri Eid 30th Sept Dasara
October 2017	11		<ul style="list-style-type: none"> First week - First term examination Monthly Unit Test 	<ul style="list-style-type: none"> 2nd October Gandhi Jayanti
November 2017	13		<ul style="list-style-type: none"> UG/PG Practical exam 	<ul style="list-style-type: none"> 24th November Constitution day
December 2017	24	<ul style="list-style-type: none"> 20 December Gadge Baba Punyatithi 15 Dec Staff Club Program 	<ul style="list-style-type: none"> PG Practical exam 	<ul style="list-style-type: none"> 25th Dec - Christmas , 01st Dec Eid – a –milad 16th December, Cleanliness Drive ,Awareness
January 2018	26	<ul style="list-style-type: none"> 03rd Jan Savitribai Phule Jayanti 12th Jan Yuvak din 23th Jan – Netaji Subhash Chandra Bose Jayanti 30th Jan – Mahatma Gandhi Punyatithi Blood Donation second week 25th Jan Parent Teacher meeting 	<ul style="list-style-type: none"> 7 Jan to 14 Sports Competition and Annual Social gathering Workshops and Conferences by different departments 	<ul style="list-style-type: none"> 26th Jan Republic day
February 2018	22	<ul style="list-style-type: none"> 28th Feb National Science Day NSS Camp 	<ul style="list-style-type: none"> Monthly Unit Test 	<ul style="list-style-type: none"> 19th Feb Shiv Jayanthi 13rd Feb Mahashivrati
March 2018	24	<ul style="list-style-type: none"> 8th March Women's Day Physical Test 		<ul style="list-style-type: none"> 02nd March Holi 29th march Mahavir Jayanti 30th March Good Friday
April 2018	24	<ul style="list-style-type: none"> 30th April session end 	<ul style="list-style-type: none"> Project submission and presentation UG/PG Practical exam 	<ul style="list-style-type: none"> 14th April Dr Babasaheb Ambedkar Jayanti

First term : 15/06/2017 to 15/10/2017
Winter Vacation : 16/10/2017 to 14/11/2017
Second Term : 15/11/2017 to 30/04/2018
Summer Vacation : 01/05/2018 to 15/06/2018


Director
 Govt. Institute of Science
 NAGPUR.

Name : **Dr. Sushama D. Narkhede**

Name : **Dr.R.G.Atram**

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC