



Government Institute of Science, Nagpur

College with Potential for Excellence

Affiliated to

Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur

Annual Quality Assurance Report

2016-17

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 Marg, Civil Lines, Nagpur-440001

Tel.No. 0712 2565581/2561148

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Ref ...*173*...

Date: 13.10.2017

To,
National Assessment and Accreditation Council (NAAC)
Banglore

Subject: Submission of AQAR 2016-17

Dear Sir,

Here with submitting the AQAR of our Institute for the year 2016-17 for further perusal.

Thanking You

Place: Nagpur

Date: 13.10.2017

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

info@iscnagpur.ac.in

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)

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/AQAR2016-17.doc>

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	Upto 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)

2016-17

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 2012-13 **12/05/2016**
- iii. AQAR for the year 2014-15 **02/11/2016**
- iv. AQAR for the year 2015 -16 **09/12/2016**

1.9 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

1.10 Type of Faculty/Programme

Arts Science Commerce Law PEI (Phys Edu)

TEI (Edu) Engineering Health Science Management

Others (Specify)

1.11 Name of the Affiliating University (for the Colleges)

R. T. M. Nagpur University,

1.12 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 (*Specify*)

UGC-COP Programmes

2. IQAC Composition and Activities

2.1 No. of Teachers

2.2 No. of Administrative/Technical staff

2.3 No. of students

2.4 No. of Management representatives

2.5 No. of Alumni

2.6 No. of any other stakeholder and community representatives

2.7 No. of Employers/ Industrialists

2.8 No. of other External Experts

2.9 Total No. of members

2.10 No. of IQAC meetings held

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

Seed money amount of Rs. 3,00,000/- received during 2014-15
(Under the UGC XII plan scheme of Establishment and Monitoring of IQAC.

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

- Two days International Conference was organised in collaboration with NEERI, Nagpur on “Integrated Solid Waste Management Practices in Developing Countries” on 11th and 12th April, 2017.
- One day Pre conference workshop to sensitize Community on International Conference “**Integrated Solid Waste Management Practices in Developing Countries**” in collaboration with NEERI and SWATCH was organized by Institute of Science, Nagpur on 6th April, 2017.
- One day workshop on ARENA software was organized by the department of Statistics on 9th Aug, 2016. Dr. Parag Dhumal, Associate professor University of Wisconsin Parkside, Kenosha, U.S. was the resource person.
- One day workshop on **DATA analysis** using **R software** was organized by the department of Statistics on 25th Feb, 2017. Dr. Dhananjay Raje, Head Data analysis group, Ms. Maoumita Chakraborty and Ms. Shubhangi Desai, from MDS Bioanalysis, were the resource persons.
- One day Workshop on “Medicinal Plants: Cultivation Practices and Uses” was organized by the department of Botany at Aura Park, Katalabodi, Ayurvan Foundation, Near Starkey Point, Amravati road, Nagpur.
- Career Counselling and Placement Cell in collaboration with Department of Computer Science and Library conducted a Two Days Workshop on Personality Development and Soft Skills in association with Me2We Organization on 23rd & 24th Sept, 2016.
- Aatmavishwas, a two days inter-collegiate workshop was organized on 3rd and 4th February, 2017 on Personality Development and Career Guidance by Career Counselling and Placement Cell, Library (Knowledge Resource Centre) and Department of Computer Science.
- Forest Development Corporation of Maharashtra Ltd’s (F.D.C.M.) Gorewada Project and Institute of Science, Nagpur had organized a Workshop in Gorewada International Bio-park to study, “Migration of Birds” in Gorewada Bio-park on 19th January 2017.
- One day Workshop on “Java” and RED HAT LINUX was organised by Computer Science Department in collaboration with IT, Network-Z, Nagpur.

2.14 Significant Activities and contributions made by IQAC

IQAC conducted various activities throughout the year that includes

- Two days International Conference was organised in collaboration with NEERI, Nagpur on “Integrated Solid Waste Management Practices in Developing Countries” on 11th and 12th April, 2017.
- Guest lecture on “Patent Awareness” by Mrs. Chaya Satpute, from RGNIPM was organised by IQAC
- Twelve days “**Faculty development Training Program in Entrepreneurship**” was organized in the Institute in collaboration with MCED, under DST-NIMAT, Project, sponsored by NSTEDB, DST, Govt. of India, New Delhi, from 13th Dec, 2016 to 24th Dec, 2016.
- Organization of Guest Lecture on “**Quality Enhancement Measures**” by Dr. Subhashree Mukherji.
- Organization of National and departmental workshops by different departments.
- 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 of student’s feedback on teachers and facilities available in the Institute.
- 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.
- Collection of Academic Performance Indicators (API) based PBAS formats from the Faculty Members.
- Student welfare schemes were further enhanced by adding a number of scholarships, prizes and awards.
- Organizations of Parent Teacher meet for UG and PG 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"> 1. To prepare academic calendar and to follow it. 2. To form various committees in order to enhance the overall development. 3. To organize International and National level conference and workshops. 4. To shift the Physical Education Department in new building. 5. To renovate classes with respect to electrification and installation of Interactive board in few classes. 6. Construction of Green house. 7. Renovation of Physics Laboratory 8. Construction of open auditorium 	<ol style="list-style-type: none"> 1. The academic calendar was followed. 2. Various committees were formed which worked according to the objectives. 3. International Conference and various workshops were organized as per schedule. 4. Physical Education Department was shifted in the new building. 5. All classes were renovated with new electric fitting and fans; Interactive boards were installed in few classes. 6. Green house was constructed in the garden. 7. Physics Laboratory was renovated. 8. Construction of open auditorium is under progress in the quadrangle area of Institute. 9. Installation of Centralized RO system & Sump well. 10. Installation of CCTV cameras in the corridors of the Institute and boys hostel. 11. LED installed in girls and boys hostel. 12. Installation of the Lightening arrestor in the Institute.

* 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	03	-	-	-
Others	02	-	-	01
Total	08	-	-	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* Alumni Parents Employers Students
 (*On all aspects*)

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

**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.

- Institute of Science is affiliated to R. T. M. Nagpur University, Nagpur. Therefore we follow the syllabi of the University.
- The Choice Based Credit System (CBCS) for PG courses has been implemented as per revised syllabus.

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	48	05	04	2+1

2.2 No. of permanent faculty with Ph.D.

45

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
48	12	05	15	04	04	03	00	60	24

2.4 No. of Guest and Visiting faculty and Temporary faculty

Visiting faculty: 11

Temporary faculty: 43

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/ Workshops	53	53	02
Presented papers	02	01	00
Resource Persons	01	04	00

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

- 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.
- Preparation of academic plan and maintenance of daily diary and attendance register by the teachers.
- Guest speakers are invited to cover different topics.
- Continuous assessment of students through Unit Test.
- The students are provided with question banks.
- Home assignments are given to the students. Student seminar on various topics.
- 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.
- University level guest lecture series.
- Wi-Fi internet facility for students and teachers in the library.
- Quiz contest and problem solving activity is regularly conducted to make the ideas more clear.
- Practicals in Statistics are carried out 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 Assignment and Unit tests
(for example: Open Book Examination, Bar Coding, Double Valuation, Photocopy, Online Multiple Choice Questions)

2.9 No. of faculty members involved in curriculum Restructuring/revision/syllabus development as member of Board of Study/Faculty/Curriculum Development workshop 02

2.10 Average percentage of attendance of students 75%

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	343	$67/320 = 21$	$153/320 = 48$	$99/320=31$	$1/320=0.3$	$320/343=93.3$
PG						
Chemistry	26	11.5	69.23	-	-	80.76
Physics	29	6.89	44.82	6.89	-	58.60
Mathematics	26	3.84	42.30	3.84	-	50.00
Botany	18	-	100	-	-	72.22
Zoology	17	11.76	64.70	-	-	76.47
Statistics	18	16.66	72.22	-	-	88.88
Env. Science	08	37.5	62.5	-	-	100.00
Total	142	$14/142 = 9.9$	$84/142 = 59$	$3/142= 2.1$	Nil	$101/142=71$

The outstanding achievers for Sukhdeoiji Maharaj of Saongi Memorial Scholarship.

- **Ms. Pooja N. Saraf** won **two Gold Medals** and cash prize of Rs. 2,38,000 for securing highest marks in Botany & Zoology.
- **Ms. Rajani R. Nandurkar** won a **Gold medal** and cash prize of Rs. 1,19,000/- for securing highest position in Physics.
- **Ms. Vanashree C. Motghare** won a **Gold Medal** and cash prize of Rs. 1,19,000/- for securing highest marks in Mathematics.
- **Ms. Diksha M. Korde** won a **Gold Medal** and cash prize of Rs. 1,19,000/- for securing highest marks in Statistics.
- **Ms. Shivani D. Kamdi** won a **Gold Medal** and cash prize of Rs. 1,19,000/-for securing highest marks in Chemistry.

- **Eleven** students of the Institute are benefited by the scholarships given by alumni association (AASCON) of the institute.
- **Mr. Tanmay Shrivastav** was awarded Shri. V. Swaminathan Memorial award (Gold and Silver medal) for being the Topper of RTM, Nagpur University, Nagpur in Environmental Science.

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.

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	00
HRD programmes	01
Orientation programmes (Yashda)	04
Faculty exchange programme	00
Staff training conducted by the university	02
Staff training conducted by other institutions	14
Summer / Winter schools, Workshops, etc.	02
Others	01

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	00	01	01	01
Technical Staff	00	00	00	00

Criterion – III

3. Research, Consultancy and Extension

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

- Faculty members are encouraged to publish research papers in various International and National Indexing Journals with good Impact factors.
- They are encouraged to present papers at National & International Conferences, for which they are sanctioned duty leave.
- To encourage research activities, IQAC promotes organization of seminars/ workshops. Total 8 workshops and 1 Conference were organized for this purpose.
- One faculty from Physics Department received International award and one from Botany received National award for their outstanding contribution in research work.
- Young researchers motivated to present their research work to their peers and the experts in the concerned fields.
- In this session the faculty has published **88** papers in the International Journals,
- The Director always motivates the staff for sending research proposals to various funding agencies.
- There are **02** Major and **05** Minor ongoing Research projects.

3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	01	02	00	00
Outlay in Rs. Lakhs	30.00	19.313	00	00

3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	01	05	00	00
Outlay in Rs. Lakhs	00	13.75	00	00

3.4 Details on research publications

	International	National	Others
Peer Review Journals	88	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 **30-40**

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	03	UGC	12.43 Lacs	9.67 Lacs
Minor Projects	02	UGC	13.75 Lacs	2.07 Lacs
Interdisciplinary Projects				
Industry sponsored				
Projects sponsored by the University/ College				
Students research projects <i>(other than compulsory by the University)</i>				
Any other(Specify)				
Total			26.18 Lacs	11.74 Lacs

3.7 No. of books published i) With ISBN No. **01 book-3659347264** 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)

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

3.10 Revenue generated through consultancy

3.11 No. of conferences organized by the Institution

Level	International	National	State	University	College
Number	01	Nil	Nil	Nil	Nil
Sponsoring agencies	NEERI, Nagpur	Nil	Nil	Nil	Nil

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

3.13 No. of collaborations International National Any other

3.14 No. of linkages created during this year

3.15 Total budget for research for current year in lakhs:

From funding agency From Management of University/College

Total

3.16 No. of patents received this year

Type of Patent		Number
National	Applied	02
	Granted	01(Published)
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
03	01	02				

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

33

73

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

16

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

JRF **00** SRF **00** Project Fellows **01** Any other **03**

3.21 No. of students Participated in NSS events:

University level **06** State level **02**
National level **01** International level **Nil**

3.22 No. of students participated in NCC events:

University level **02** State level **00**
National level **01** International level **00**

3.23 No. of Awards won in NSS:

University level **06** State level **02**
National level **Nil** International level **Nil**

3.24 No. of Awards won in NCC:

University level	00	State level	01
National level	03	International level	Nil

3.25 No. of Extension activities organized

University forum	Nil	College forum	03		
NCC	Nil	NSS	05	Any other	03

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

Staff as well as students of our Institute actively participates 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. Cleanliness drive & Tree Plantation and conservation were held in the Institute to make campus Plastic free; all NSS volunteers took part in campus cleaning.
2. Blood donation camp was organised by the NSS unit in collaboration of Govt. Medical College, Nagpur.
3. Seven days special camp of 47 students was held at “**Sanjeevan Vrudhashram**”, Aamgaon Devli, Dist. Nagpur. Theme of the camp was “**Zero Budget Farming & Save Girl Child**”
4. Traffic Awareness Program was organised regarding safety measures to be adopted while driving.
5. Celebration of Constitution day on 26th November and National Science Day on 28th Feb.
6. Celebration of birth and death anniversaries of National Leaders and Freedom fighters for motivation of students.
7. 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.
8. World Water Day an awareness campaign was carried out in Maharaj Bagh premises.
9. Helping the Buddha brothers and sisters by for providing snacks and water to them for three to four days on Dasherra and Dhamma Charka Pravartan Din.
10. 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.
11. A well-equipped Gymnasium is installed in the Institute. Students, teachers and non-teaching staff regularly avail this facility.
12. Workshop for community sensitization on waste management in collaboration with SWATCH and NEERI, Nagpur.

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	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.	-	02	UGC-CPE & RUSA	04
Value of the equipment purchased during the year (Rs. in Lakhs)	-	6.845 lakhs	-	-
No. of important equipments purchased less than one lakh) during the current year.		09 (5.55 lakhs)	UGC-CPE, Plan Grant & RUSA	09
Others infrastructural facilities	-	12	UGC-CPE, Plan Grant, DPC and RUSA	12
Building of Dept. of Physical Education	-	01	Govt.	9950 Feet ²
Construction of green house	-	01 (5.05 lakhs)	UGC-CPE	

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.
- 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		Newly added		Total	
	No.	Value	No.	Value	No.	Value
Text Books	59279	3016732	600	18,00,000	59879	4816732
Reference Books	2000	3856000	-	-	2000	3856000
e-Books	90000 UGC-NLIST		-	-	90000 UGC-NLIST	
Journals			-	-		
e-Journals	2000 UGC-NLIST	Free	-	-	2000 UGC-NLIST	Free
Digital Database	10 UGC-NLIST		-	-	10 UGC-NLIST	
CD & Video	100	Free	-	-	100	Free
Others (specify)	Nil		-	-	Nil	

4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	257	3(110)	Available	1(20)	-	1(12)	10(49)	03
Added	10	00	-	-	-	-	50	13
Total	267	110	Available	20	-	12	99	16

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

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

4.6 Amount spent on maintenance in lakhs :

i) ICT	4106823/-
ii) Campus Infrastructure and facilities	19229100/-
iii) Equipments	1244153/-
iv) Others	128783/-
Total :	24708859/-

Criterion – V

5. Student Support and Progression

5.1 Contribution of IQAC in enhancing awareness about Student Support Services

- Simplified prospectus is circulated among the students at the time of admission.
- Students counseling at the time of admission.
- Conduction of an orientation programme for new comers by IQAC for making students aware about the college campus, Infrastructure, teachers, sports & other facilities.
- Notices and required information is put up on notice boards for students.
- IQAC monitors activities of the cells like Career Counseling & Placement cell, NSS, NCC, Women Development Cell and Internal Complaint Committee.
- Cultural activities, 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.
- Student's feedback about the teachers and facilities available in the institution are taken every year.
- Mentor-mentee scheme has been started.

5.2 Efforts made by the institution for tracking the progression

- Internal tests are conducted regularly to monitor and measure student's academic performance.
- Progressions are regularly monitored on one to one basis.
- Through Career Counseling and Placement Cell, students are informed about various career and job opportunities.
- The Placement Cell regularly organized brief training programs for students.
- Feedback mechanism from student.
- 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
962	333	00	00

(b) No. of students outside the state

00

(c) No. of international students

00

Men	No	%	Women	No	%
	382	29.49		913	70.50

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
420	304	73	650	06	1447	416	272	61	544	02	1295

Demand ratio **1: 10** Dropout %: **8%**

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

450

5.5 No. of students qualified in these examinations

NET	05	SET/SLET	08	GATE		CAT	
IAS/IPS etc		State PSC		UPSC		Others	

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
 - **Aatmavishwas**, a two days inter-collegiate workshop was organized on 3rd and 4th February, 2017 on **Personality Development and Career Guidance** by Career Counselling and Placement Cell, Library (Knowledge Resource Centre) and Department of Computer Science. A series of lectures of vibrant speakers was organized over the span of two days.
 - Two Days Workshop on Personality Development and Soft Skills in association with Me2We Organization. Mr. Sachin Burghate, International Speaker and Motivator, inspired and motivated students with his words on ‘Action Talks’ .
 - Mr. Anil Totade delivered a lecture on Industrial Robotics and Cloud Technology.

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
00	00	00	10

5.8 Details of gender sensitization programmes

Three days workshop on the topic Tarunyabhan was organised in the Institute on 09th, 10th & 11th March, 2017 in association with Maharashtra Bhushan Dr. Rani Bang's **SEARCH** organization.

5.9 Students Activities

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

State/ University level **30 / 24 teams** National level **65** International level **00**

No. of students participated in cultural events

State/ University level **02** National level **00** International level **00**

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

Sports : State/ University level **04/08** National level **02** International level **00**

Cultural: State/ University level **06/01** National level International level

5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution	-	-
Financial support from government	361	1768652/-
Financial support from other sources (AASCON)-alumni association Sukhdevji Maharaj Memorial Scholarship	11 05	86500/- 714000/-
Number of students who received International/ National recognitions	-	-

5.11 Student organised / 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 **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 active members of Board of Studies involved in curriculum development. Semester pattern is adopted by RTMNU, Nagpur at UG and PG (CBCS) level.

6.3.2 Teaching and Learning

- Faculty member prepares teaching plan for the course for every session
- 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
- Unit-wise tests are taken regularly after completion of unit by respective teacher. Similarly, home assignments are also given to students.
- Periodic evaluation of students by conducting unit tests.
- Extra classes are conducted by teachers to complete the course prescribed in the syllabus as and when needed.
- Use of ICT aids for teaching.
- All the departments are equipped with PC and LCD projectors
- Seminar and presentations by students.
- Student's feedback.

6.3.3 Examination and Evaluation

- Institute of Science, Nagpur is affiliated to R. T. M. Nagpur University, Nagpur and the examinations are conducted by the University semester wise.
- Continuous Evaluation of students through oral 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

- Most of the faculty members of the institute are actively involved in research.
- Central Instrumentation lab is available in the institute.
- **33** faculty members are working as recognized supervisors for Doctoral Research by the University.
- **73** Students are working for their Doctoral Research work in the research centres of the college.
- Seven Departments are recognized as Ph. D. research centres by RTM Nagpur University, Nagpur.

6.3.5 Library, ICT and physical infrastructure / instrumentation

- Institution has a library which has very rich collection of reference books and research journals catering to the needs of research, post and under graduate students, as well as the teaching staff.
- 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.
- Separate reading room for teachers, bibliographic compilation, newspaper clippings service.
- Various journals are subscribed.
- 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 encyclopedias on various subjects.
- Library is upgraded with INFLIBNET to facilitate academic communication, amongst scientist, academics, faculties, researchers and students.
- Digital Podium along with the necessary accessories has been installed for upgrading the classrooms.
- Physical Education Department has been shifted to newly constructed building provided with well furnished Gymnasium for the benefit of students as well as staff of the institute.
- Centralized Water purifying system and water coolers has been installed.

6.3.6 Human Resource Management

Decentralization of work is done by forming various committees which works under the chairmanship of Hon. Director of the Institute, who monitors the work frequently.

6.3.7 Faculty and Staff recruitment

- Institute of science, Nagpur is Government Institute and the recruitment of staff is done by the Maharashtra Public Service Commission (MPSC) as recruiting agency.
- Director recruits CHB as per requirement.

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 NEERI, JNARDC and various NGOs.

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

2596667/- (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 declares 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 of our Institute. Every year AASCON provides financial assistance to the merit students in the form of prizes and scholarships.
- Lecture on Organ Donation was organised by AASCON

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

- 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.

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

- Tree plantation to increase the green cover of the Institute.
- The initiative has been taken to dispose of the e-waste of the institute as per the Govt. Guidelines.
- A pit has been constructed in the campus for solid waste management

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.

- Smart classrooms with LCD projectors and digital podiums helped teachers to execute better teaching.
- Practical Classes are seriously conducted in all the department as almost all the practical mentioned in the syllabus are done in the laboratory.
- Feedback on teaching by Students created a positive impact on teaching-learning.

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*)

- **Student Motivation** : Scholarship to the topper in each subject – Sukhdevji Maharaj of Saongi Memorial Award and AASCON
- **Life Skill Education**

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

7.4 Contribution to environmental awareness / protection

- 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 participated in common awareness programmes, Rally's to create awareness about environment.
- Disposal of E - waste through proper procedure.
- Celebration of 'Wildlife Week' and organization of various programs such as poster and article competition; Guest Lectures of Dr. R. S. Bhangu and Mr. S. S. Notey, on various topics such as **Biodiversity Importance, Save Earth, Mitigation Measures for Non Forest Activities.**
- World water day Awareness campaign was organized on dated 22nd March, 2017.

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 imparting education in science that is affiliated to RTM Nagpur University.
2. Dynamic, dedicated and qualified staff and experienced support staff.
3. University recognized centre for 'Higher Learning and Research' in seven subjects.
4. Good infrastructure and laboratories with sophisticated instruments with sufficient space.
5. Funding by district collector besides UGC and RUSA for academic enhancement.
6. Safe and secured environment for co-education.
7. Excellent Gym and Sports facilities.
8. Hostel facilities for Boy's and Girl's.
9. Library with rich collection of Books.

Weaknesses

1. Procedural delays in filling up vacancies.
2. Several teaching and nonteaching posts are vacant.
3. Transfers of the faculty among state govt. colleges all over the state.
4. Limited scope in curriculum design and development.
5. Unaided 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. Frequent changes in policies and work ethics leading to delay and administrative burden.

8. Plans of institution for next year

1. Construction of new building for the college library.
2. Organisation of National Conference, seminars & workshops for staff and students.
3. Involvement of the alumni association for bringing in more funds and using their expertise for the benefit of the students.
4. Renovation and modernization of laboratories and classrooms.
5. Expansion of modern teaching methods with more smart classrooms and better laboratory equipments.
6. MOU's and Collaboration with different agencies.
7. To continue with the regular annual events like annual social gathering.
8. Industrial visits, botanical excursions, long and short tours.
9. Invited lectures under various societies.
10. Publication of annual magazine.
11. NSS, NCC and cultural activities.
12. To orient the staff for preparations for NAAC third Cycle accreditation process.

Annexure I

Best Practice-I:

Title of the Practice: ‘Student Motivation’

The Alumni Association of Institute of Science, Nagpur is called **Alumni Association of Science College Nagpur** where ex-students, present students, teachers and even ex-teachers can become members. AASCON was established in 1989. The College Alumni provides a platform for bringing the ex-students into the premises of the College and to utilize their expertise, knowledge and achievement in various fields of life for the welfare of the College and gives an opportunity to connect to their alma mater.

1.Goal

It also aims to bring all alumni under one umbrella to interact, connect professionally, intellectually and grow relationships with the common thread of College. AASCON is an autonomous body but has always taken a keen interest in the activities of the College. It aims at all round growth of the students that includes academics, sports, arts and culture

2.The Context

With a view to motivate students to perform better in the exams, every year AASCON is giving scholarships to the toppers of all streams and also to research students. By giving scholarships the moral of the students gets boost up and it also creates competitive spirit among the students to perform better. It also eases the financial burden of students coming from the poor and backward segment of the society.

3. The Practice

Every year the toppers of all streams from the Institute are rewarded by AASCON with the scholarship to motivate the students study hard and also boost up their moral for continuing higher studies.

4. Evidence of Success

Students are charged with competitive spirit which enhances their active participation in the academic curriculum effectively resulting in creating the positive atmosphere for carrying out their studies for the current academic session as well as for continuing higher studies. Award of scholarship acts like moral booster and also extend the financial support.

Best Practice II:

Title of the Practice – ‘Life Skill Education’

1. Goal

Most of the youngsters today, because of their inquisitiveness and peer influence tend to move towards wrong sources which give them incorrect information about adolescence and sexual behaviors, leading to a disaster in congruent and perhaps lead to disaster in a long run. It is very essential to give them correct and proper information in a scientific and sensitive way so as to prevent them from going towards a wrong track.

2. The Context

Bearing in mind this situation of youth 'SEARCH' (Society for Education, Action & Research in Community Health) Gadchiroli designed a program 'TARUNYABHAN'. The content of workshop was designed by leading gynecologist **Maharashtra Bhushan Dr. Rani Bang** and associate facilitators. With this relevance Govt. Institute of Science has organized three days' workshop on **09th to 11th March, 2017** in association with Maharashtra Bhushan Dr. Rani Bang's SEARCH organization. In all total **186 participants** registered their name for taking advantage of this workshop.

3. The Practice

The following issues were discussed during these three days of workshop.

- Physical and Mental changes during adolescence.
- Differentiation between real love and infatuation.
- Reproductive organs and their development in human.
- Responsible parenthood and selection of partner.
- Menstruation: Precautions and cleanliness.
- Masturbation and Nightfall.
- Infertility
- Family planning and contraceptive measures.
- Cancer of breast and reproductive organs.
- Marriage and married life.
- Being a responsible youth

The chief speaker **Dr. Rani Bang** addressed the students and given the idea about what is real life? Present status of youth in society & Do's and Don'ts. she gave information about Adolescence, Reproductive systems of human and its working, Later on again **Dr. Rani Bang** explained the topics of Menstruation in females & their problems, Precautions and cleanliness, selection of partners and self-confidence.

The faculty of SEARCH explained and given the knowledge about various topics i.e. Pregnancy, Sex determination, Twins, Baby mother, Abortion and Irresponsible sexual behavior & its effect. Detailed information about diseases of sexual organs caused by misbehavior and married life. Valuable information about AIDS, Cancer of Breast and Reproductive organs and use of Contraceptive measures etc. was given.

4. Evidence of Success

Interactive session was held, in which the faculty of SEARCH clarified the doubts of students. During the program 15 participants expressed their positive views in favor of workshop and happily told that all the misconception now got cleared.

Problems Encountered and Resources Required: In the present educational curriculum there is no specific and well defined educational programme incorporated, hence students are not properly and scientifically guided on this sensitive subject which is very important in every human beings life. Firstly nobody is willing to talk on this subject freely and secondly there are very few professionals who are willing to guide on this subject authoritatively. Even today also people hesitate to talk on this subject openly, stating that it is against our culture. However society has now realized the importance of sex education and slowly trying to overcome the cultural barrier.

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

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

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

शासकीय विज्ञान संस्था, नागपूर

संस्थेची शैक्षणिक दिनदर्शिका (सन 2016-17)

शैक्षणिक वर्षारंभ --- दि. 16 जून 2016 (जून 2016 ते एप्रील 2017)

प्रवेश प्रक्रिया --- दि. 30 जून 2016

नियमित वर्गप्रारंभ --- दि. 01 जूलै 2016 पासून

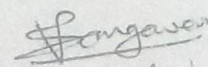
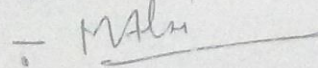
अ. कं.	महिना	आस्थापनाचे दिवस	परीक्षा	इतर कामे
1	जून 2016	---	---	जागतिक योग दिन 21 जून
2	जूलै 2016	25	बी.एस.सी प्रात्यक्षिक परीक्षा	वृक्षारोपण दिन 01 जूलै
3	ऑगस्ट 2016	25	दि. 25 ते 31 ऑगस्ट पर्यन्त (मासिक घटक चाचणी)	15 ऑगस्ट स्वातंत्र्य दिवस
4	सप्टेंबर 2016	24	---	दि. 05 सप्टेंबर शिक्षक दिन दि. 17 सप्टेंबर शुभारंभ (Indution Programme) दि. 30 सप्टेंबर डॉ.लक्ष्मीनारायण डे सर्व विषयांच्या मंडळाचे उदघाटन व इतर कार्यक्रम सुरु
5	ऑक्टोबर 2016	21	घटक चाचण्या व पदव्युत्तर सेमिनार्स	दि. 02 ऑक्टोबर गांधी जयंती व लाल बहादूर शास्त्री जयंती दि. 31 ऑक्टोबर सरदार वल्लभभाई पटेल जयंती दि. 15 ऑक्टोबर उदघाटन NSS, LACF, Placement Cell

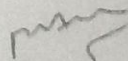
दिवाळीच्या सुट्या दि. 28.10.2016 ते 27.11.2016

दि.28.11.2016 पासून नियीमत सत्र सुरु

अ. कं.	महिना	आस्थापनाचे दिवस	परिक्षा	इतर कामे
6	नोव्हेंबर 2016	03	---	दि. 26 नोव्हेंबर संविधान दिन
7	डिसेंबर 2016	26	13 डिसेंबर ते 30 डिसेंबर UG प्रात्यक्षीक परीक्षा	दि. 15 डिसेंबर स्टाफ क्लब कार्यक्रम दि. 16 डिसेंबर पासून स्वच्छता अभियान
8	जानेवारी 2017	25	PG प्रात्यक्षीक परीक्षा	03 जानेवारी सावित्रीबाई फुले जयंती दुसरा आठवडा रक्त दान शिबीर दि. 25 जानेवारी पालक मेळावा दि. 26 जानेवारी गणतंत्र दिवस दि. 28,29,30 जानेवारी संस्थेचे स्नेहसंमेलन
9	फेब्रुवारी 2017	25	दि. 25 फेब्रुवारी नंतर प्रथम घटक चाचणी व पदव्युत्तर प्रोजेक्ट	पहीला आठवडा NSS Camp वेगवेगळ्या विभागातर्फे कार्यशाळा परिषदा
10	मार्च 2017	25	दि. 25 मार्च नंतर द्वितीय घटक चाचणी	शारीरिक क्षमता चाचणी दि. 08 मार्च जागतीक महिला दिन
11	एप्रिल 2017	24	बी.एस.सी./एम.एस.सी. विद्यापिठाच्या वेळापत्रकानुसार प्रात्यक्षिक परीक्षा व सुमिनार	दि. 14 एप्रिल डॉ. बाबासाहेब आंबेडकर जयंती स्टाफ क्लब कार्यक्रम

शैक्षणिक दिनदर्शिका समिती (2016-17)

- 1) डॉ. विजया संगवार 
- 2) श्रीमती, मीरा आळशी 


संचालक,
शासकीय विज्ञान संस्था,
नागपूर.