

# 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:**

919975849004

Name of the IQAC Co-ordinator:

Mobile:

IQAC e-mail address:

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)

1.4 Website address:

Web-link of the AQAR:

For ex. <http://www.ladykeanecollege.edu.in/AQAR201213.doc>

### 1.5 Accreditation Details

Sl. No.	Cycle	Grade	CGPA	Year of Accreditation	Validity Period
1	1 <sup>st</sup> Cycle	B <sup>++</sup>	81.05%	2004	2004-2009
2	2 <sup>nd</sup> Cycle	B	2.85	2013	Upto Jan-2018
3	3 <sup>rd</sup> Cycle				
4	4 <sup>th</sup> Cycle				

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

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

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 \_\_\_\_\_ (DD/MM/YYYY)

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, 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 checked="" type="checkbox"/>
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> )	<input type="text"/>
UGC-COP Programmes	<input type="text"/>		

## **2. IQAC Composition and Activities**

2.1 No. of Teachers	<input type="text" value="11"/>		
2.2 No. of Administrative/Technical staff	<input type="text" value="00"/>		
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="01"/>		
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="03"/>		
2.11 No. of meetings with various stakeholders:	No.	<input type="text" value="03"/>	Faculty <input type="text" value="10"/>
Non-Teaching Staff	<input type="text" value="00"/>	Alumni	<input type="text" value="01"/>
Students		Others	<input type="text"/>

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

- One day Symposia on “Biodiversity of Past” was organised by Botany Department. Chief Guest - Steve Manchester from USA and Sham Shrivastav from, BSIP, Lucknow were prominently present.
- One day workshop on “Mind Power and Brain Work” by Manshakti Kendra Lonavala was organised by Botany Department.
- University level Ten days Pre Ph.D. Course Work on “Research methodology and Computer Applications” was organised in the Institute about 60 research students participated in it.
- One day Workshop on “Quantum Leap in Advanced Instrumental Technique: Meeting Global Challenges for Environmental and Material Analysis” was organised by Chemistry Department in collaboration with Metrohm.
- One day Symposium on “Chemistry and Entrepreneurship” in association with IGNOU, RCS London and Chemistry Department.
- One day Hand on Training on “Raman Spectrophotometer”
- On day Workshop on “Biodiversity of Gorewada” was organised by Zoology Department in collaboration with Forest Department Nagpur.
- On day Workshop on “Java” was organised by Computer Science Department in collaboration with IT, Network-Z, Nagpur
- IQAC in collaboration with Placement Cell conducted a students’ workshop at the Institutional level titled ‘Shubharambh’ to orient the first year students about facilities and Institute staff and to get suggestions, feedback from the students.

## 2.14 Significant Activities and contributions made by IQAC

IQAC conducted various activities throughout the year that includes

- Workshops and Symposiums were organized by different departments.
- IQAC motivated Faculty Members for submission of Minor Research projects and publication of Research Papers in National and International Journals.
- All curricular, extra-curricular and extension activities were carried out as per the Institute calendar.
- IQAC also monitored and assessed academic and administrative performance through the Student feedback mechanism.
- The theory internal marks of the students in the science subjects were entered on the basis of their classroom attendance, unit test performance and assignment submission.
- Collection and analysis of student's feedback on teachers, facilities and syllabus.
- 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.

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"> <li>1. To prepare academic calendar and to follow it.</li> <li>2. To form various committees in order to enhance the overall development.</li> <li>3. Submission of new proposals of Major and Minor Research Projects.</li> <li>4. To organize workshops and symposia's And pre Ph.D. course work.</li> <li>5. To prepare proposal of RUSA</li> </ol>	<ol style="list-style-type: none"> <li>1. The academic calendar was followed.</li> <li>2. Various committees were formed which worked according to the objectives.</li> <li>3. One Major Research Project of Rs. 10 Lacs has been completed, four Minor Research Projects has been sanctioned and five proposals were submitted to the UGC.</li> <li>4. Workshops, Symposia's and Pre Ph.D. course work were organized as per schedule.</li> <li>5. Proposal of RUSA submitted and got sanctioned.</li> </ol>

\* 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
<b>Total</b>	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 Credit based semester pattern has been implemented for the UG (B.Sc. III) and CBCS for PG courses 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
52	44	05	03	1+1

2.2 No. of permanent faculty with Ph.D.

41

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
44	09	05	15	03	05	02	01	54	30

2.4 No. of Guest and Visiting faculty and Temporary faculty

12/86

2.5 Faculty participation in conferences and symposia:

No. of Faculty	International level	National level	State level
Attended Seminars/ Workshops	04	26	00
Presented papers	09	08	00
Resource Persons	00	02	00

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

- Use of ICT in teaching and learning process such as PowerPoint Presentation and short video clips
- 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.
- Quiz contest and problem solving activity is regularly conducted to make the ideas more clear.
- Practical's in Statistics are carried out using statistical package R,
- Field study tour are also organised for the students by different departments.
- Wi-Fi internet facility for students and teachers in the Library.

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

180

2.8 Examination/ Evaluation Reforms initiated by

Assignment and Unit tests

the Institution (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						
PG						

#### Noteworthy Results of Summer- 2015 Examination of RTM Nagpur University examination of RTMNU

- It is remarkable that, in this merit list, Institute of Science has **3** merit holders among top 10 students, namely; Mayuri Vasudevrao Bhadange 4<sup>th</sup>, Akshy Pawan Jenekar 8<sup>th</sup>, Apurva Tarachand Borkar 10<sup>th</sup> position.
- Ku. Surbhi Jaiswal stood First in merit list of RTMNU in Environmental Science and received **Swaminathan memorial gold medal** award.
- In summer 2015, RTMNU Examination students of Institute of Science received **16 Gold medals**.
- Ku. Madhuri Paramanad Lakhani received **4 Gold medals** for securing highest marks as well as highest CGPA in the subject Mathematics at M.Sc. level.
- Ku. Payal Ramesh Shewatkar received a **Gold Medal** in M.Sc. Zoology for securing highest marks in Mammalian Reproductive Physiology.
- Ku. Mayuri Bhadange received **4 Gold medal** sat B.Sc. Level.
- Ku. Veena Suresh Anvani received **Gold Medal** for securing highest marks in Chemistry in B.Sc.
- Ku. Nirmal Mahendra Borkar received a **Gold Medal** for securing highest marks in Environmental Science at B.Sc.
- Ku. Apurva Tarachand Borkar received **4 Gold Medals** for securing highest marks in Mathematics Science at B.Sc

- Ku. Swarali Vishveshwar Wandhare received a **Gold Medal** a Gold Medal at B.Sc.1<sup>st</sup> semester.

**The outstanding achievers for Sukhdeoji Maharaj of Saongi Memorial Scholarship.**

- Ms. Mayuri Bhadange won **three Gold Medals** and cash prize of Rs.2,91,000 for securing highest marks in Botany, Zoology and Chemistry.
- Mr. Akshy Jenekar won **Gold medal** and cash prize of Rs.97,000/-for securing highest position in Physics.
- Ms. Appurva Borkar won **Gold Medal** and cash prize of Rs.97,000/- for securing highest marks in Mathematics.
- Ms. Shreya Hotewon **Gold Medal** and cash prize of Rs.97,000/- for securing highest marks in Statistics.

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 as per the academic calendar.
- IQAC plans all the academic, co-curricular and extracurricular activities in advance.
- Time table committee of individual department, works out the time table of that department
- Student feedback is collected and corrective action is taken if needed.
- Guest Speakers were 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	02
UGC – Faculty Improvement Programme	00
HRD programmes	00
Orientation programmes (Yashda)	12
Faculty exchange programme	00
Staff training conducted by the university	00
Staff training conducted by other institutions	00
Summer / Winter schools, Workshops, etc.	02
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	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 promoted for organization of seminars/ workshops. Total 5 workshops and 2 Symposia were organized for this purpose.
- Two National awards were given to faculties from Botany and Zoology Department and one faculty from Chemistry Departments received University award for 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 published **73** papers in the International Journals and **14** papers in the National Journals, **11** in e-journals and **29** in conference proceedings.
- The Director always motivates the staff for sending research proposals to various funding agencies.
- There are **04** Major and **03** Minor ongoing Research projects.

#### 3.2 Details regarding major projects

	Completed	Ongoing	Sanctioned	Submitted
Number	01	03	00	00
Outlay in Rs. Lakhs	10.00	48.313	00	00

#### 3.3 Details regarding minor projects

	Completed	Ongoing	Sanctioned	Submitted
Number	00	03	04	06
Outlay in Rs. Lakhs	00	4.15	10.95	25.00

#### 3.4 Details on research publications

	International	National	Others
Peer Review Journals	73	14	
Non-Peer Review Journals	00	00	
e-Journals	10	00	
Conference proceedings	11	18	04

#### 3.5 Details on Impact factor of publications:

Range  Average  h-index  Nos. in SCOPUS

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	48.313 Lacs	20.97 Lacs
Minor Projects	02	UGC	4.15 Lacs	3.325 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	05		52.463 Lacs	24.295 Lacs

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

ii) Without ISBN No.

3.8 No. of University Departments receiving funds from

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

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

3.10 Revenue generated through consultancy

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

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	
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	00	02		01		

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

31

81

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

14

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

JRF 05      SRF 03      Project Fellows 00      Any other 00

3.21 No. of students Participated in NSS events:

University level 100      State level 07  
National level Nil      International level Nil

3.22 No. of students participated in NCC events:

University level       State level   
National level 01      International level

3.23 No. of Awards won in NSS:

University level 01      State level 01  
National level Nil      International level Nil

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	03	College forum	11		
NCC	Nil	NSS	14	Any other	02

### 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,

- Camp was held at Gorewada International Park. More than 150 volunteers took part in cleanliness program in which about 50 sacks of Plastic garbage was collected
- Swatch Bharat Abhiyan and volunteers took part in campus cleaning
- 70 units of blood collected by Govt. Medical College in the blood donation camp organised by the NSS unit.
- Special camp was held at Khadgaon, Tahasil Nagpur Gramin Dist. Nagpur. Theme of the camp was **“Science and scientific attitude for the development of society”**
- Water Marathon, Rally - More than 50 volunteers took part in the rally and took part in spreading message about use and conservation of water.
- State level adventure camp at Chikaldhara and Sholapur
- Campus cleanliness drive and Tree Plantation in the Institute
- Traffic Rules Sensitization Programme in the institute.
- Celebration of Constitution day on 26<sup>th</sup> November.
- Demonstrating and educating voters about the working of voting machine.
- 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.
- 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.

- Facility for Identification of plants is made available to the various agencies / institutions like Forensic department and other researchers by the botany department.
- A well-equipped Gymnasium is installed in the Institute. Students, teachers and non-teaching staff regularly avail this facility. During winter assembly session the secretariat staffs also enjoys this facility.
- Plant identification is carried out by the staff members of Botany department as and when required. The Botanical Society also arranges awareness campaigns and other personality development programmes for the benefit of the students.
- Medical Check up camp for teaching and non teaching staff of the college was organised in the institute.

## 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 <sup>2</sup>	-	-	51520 m <sup>2</sup>
Class rooms	25	-	-	25
Laboratories	37	-	-	37
Seminar Halls	10	-	-	10
No. of important equipments purchased ( $\geq$ 1-0 lakh) during the current year.	-	-	-	-
Value of the equipment purchased during the year (Rs. in Lakhs)	-	-	-	-
Others	-	-	-	-

#### 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	<b>53279</b>	2339464	<b>855</b>	677268	<b>54134</b>	3016732
Reference Books	2000	3856000	-	-	2000	3856000
e-Books	90000 UGC-NLIST		-	-	-	-
Journals	65		-	-	-	-
e-Journals	2000 UGC-NLIST	Free	-	-	-	-
Digital Database	10 UGC-NLIST		-	-	-	-
CD & Video	100	Free	-	-	-	-
Others (specify)	Nil		-	-	-	-

#### 4.4 Technology up gradation (overall)

	Total Computers	Computer Labs	Internet	Browsing Centres	Computer Centres	Office	Departments	Others
Existing	194	3(110)	Available	1(20)	-	1(12)	10(49)	03
Added	63	00	-	-	-	-	50	13
Total	257	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	12450/-
ii) Campus Infrastructure and facilities	8835592/-
iii) Equipments	1259138/-
iv) Others	-
<b>Total :</b>	<b>10097780/-</b>

## 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 Training & Placement cell, NSS, NCC, Women Cell, Human Right Cell and 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 is taken every year.

#### 5.2 Efforts made by the institution for tracking the progression

- Internal tests are conducted regularly to monitor and measure students’ academic Performance.
- Progressions are regularly monitored on one to one basis.
- Through Career and Placement Cell, students are informed about various career and job Opportunities.
- The Placement Cell regularly organized brief training programmes 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
1125	322	10	00

(b) No. of students outside the state

00
----

(c) No. of international students

00
----

Men	No	%	Women	No	%
	447	30.89		1000	69.11

Last Year						This Year					
General	SC	ST	OBC	Physically Challenged	Total	General	SC	ST	OBC	Physically Challenged	Total
315	269	61	570	8	1215	420	304	73	650	06	1447

Demand ratio 1: 30          Dropout % : 10%

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

Career Guidance and Placement Cell organizes talks in connection with competitive examinations.

No. of students beneficiaries

#### 5.5 No. of students qualified in these examinations

NET     SET/SLET     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.
- Guest Lecture have been arranged for information about NIIT field and concerning job opportunities by Mr. Richard Burrow
- To arrange campus interviews by different companies and help the students to appear at these campus placements.
- Lecture on Carrier Opportunities in Indian Air force by Mr. Iyer.
- Campus drive was organised by Purti Sugar Industries private limited and Wipro.

#### 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
02	60	01	<b>00</b>

## 5.8 Details of gender sensitization programmes

A Guest lecture was organized on the topic: “**Stri Kaal Aaj aani Udya**” by Meera Kadbe, President of an NGO called OLAVA

## 5.9 Students Activities

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

State/ University level  National level  International level

No. of students participated in cultural events

State/ University level  National level  International level

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

Sports : State/ University level  National level  International level

Cultural: State/ University level  National level  International level

## 5.10 Scholarships and Financial Support

	Number of students	Amount
Financial support from institution	-	-
Financial support from government	601	19,09,483/-
Financial support from other sources		
1. (AASCON)-alumni association	10	67,500/-
2. Sukhdevji Maharaj Memorial Scholarship	04	6,00,000/-
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

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](http://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 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 department have been 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.
- The staff is actively involved in sending **research project proposals** to various funding agencies.
- Central Instrumentation lab is available in the institute.
- **31** faculty members are working as recognized supervisors for Doctoral Research by the University.
- 98 students are registered for their Doctoral Research work in the research centres of the college.
- Laboratories in the Institute are recognized as Ph. D. research centres by RTM Nagpur University, Nagpur.
- 3 members of the teaching staff have been awarded Ph. D. degree during the current Year.

### 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 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.

### 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 and NGOs etc.

### 6.3.9 Admission of Students

As per Government norms and of 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

**2613044/- (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 scholarship.

#### 6.12 Activities and support from the Parent – Teacher Association

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#### 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.

## 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.

- Examination reforms in the form of continuous evaluation, internal assessment etc.
- The Institute imparts three skill based certificate courses, due to which students besides class room training are groomed for employability.

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*)

- Best Student Award
- Scholarship to the topper in each subject – Sukhdevji Maharaj of Saongi Memorial Award

*\*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 of Science has good vegetation belt with variety of huge trees in the garden and around the area.
- Solar light system is installed in the premises.
- Students of NSS and environmental science participated in common awareness programmes, Nirmalya sankalan, Road shows, Rally's to create awareness about environment.
- Disposal of E - waste through proper procedure.
- All the students of B.Sc. Part II (Compulsory Environment) actively participated in *The Save Bird Campaign* and also put up the earthen pots for provision of chilled drinking water.

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.
3. Dedicated and experienced support staff.
4. Safe and secured environment for co-education.
5. Well-equipped and furnished departments with sufficient space.
6. Excellent Gym and Sports facilities.
7. Hostel facilities for Boy's and Girl's.
8. Library with rich collection of Books

**Weaknesses**

1. Procedural delays in filling up vacancies.
2. Several teaching and nonteaching posts are vacant.
3. Unaided departments like Environmental science, Computer Science and Electronics have to depend on CHB staff.

**Opportunities**

1. Institute students have good placement in private Government organizations as well as in academic and research institutions.
2. Earn and Learn Scheme.
3. 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. Organisation of seminars, workshops and conferences.
2. Encourage faculty to submit research projects to various agencies for research funding.
3. Modernisation of the college library.
4. Involvement of the alumni association for bringing in more funds and using their expertise for the benefit of the students.
5. Renovation and modernization of laboratories and classrooms.
6. Expansion of modern teaching methods with more smart classrooms and better laboratory equipments.
7. To continue with the regular annual events like annual social gathering.
8. Industrial visits, botanical excursions.
9. Invited lectures under various societies,
10. Publication of annual magazine.
11. NSS and cultural activities.
12. To orient the staff for preparations for NAAC third Cycle accreditation process.

## Annexure I

### **Best Practice I**

#### **1. Title of the Practice – Best Student Award**

**2. Goal-** The aims and objectives of best student award are to stimulate competitive spirit among the students to make them competent to face global competency. The target is to inculcate among the students value of life, develop their intelligence level, and promote leadership qualities, create social awareness to understand the duties and responsibilities as a responsible citizen of the country, all these leading to the holistic development of a student.

#### **3. The Context**

The selection process for the best student award has been designed very meticulously to ensure that it is scientific and value based to avoid conflicts, ambiguity and to maintain clarity while creating awareness among the students to encourage them for overall development of the personality to make them eligible for competency of the award, which will be helpful to them in their future life and make them global competent. The criteria of selecting the best student award consist of overall academic and educational performance during the graduation, cultural, social, and intellectual and personality traits of the students. Evaluation and assessment of the student considering all above parameters is a challenging issue that has been addressed minutely in designing and implementing the practice to avoid controversies and for fair justice with the deserving students.

#### **4. The Practice**

The best student award practice followed by the Institution is for the students of final year B.Sc. The procedure followed is, application in prescribed format are invited from the students of final year B.Sc. Wherein they have to furnish the details relating to academic, performance, curricular, co-curricular and extra-curricular, sports achievements etc. A critical evaluation of the details is being made by the committee and finally three students are selected for presentation to be given by them before the Jury and they have to satisfy the queries of the Jury.

The practice of best student award is unique in the Indian higher education because it helps students in making them global competent. A very encouraging and successful impact of the practice has been observed in the past as a result of which large number of students has been selected for IAS, top ranking scientists etc. and holding very responsible and respectable positions in various organizations within and outside India.

#### **5. Evidence of Success**

The success of the best student award is evident from the fact that the students who has been given this award were also selected as a Best Student of the RTM Nagpur University, to whom approximately 900 colleges are affiliated. The success of the award is also evident from the fact that numbers of students of Institute of Science, Nagpur have also cleared IAS, IPS exams of MPSC, UPSC over the last few years. Numbers of students are holding a very senior official position in different organizations. They are also



working as senior scientists in various research organizations all over the country and abroad, thereby contributing the development of the nation.

### **Best Practice II.**

**Title of the Practice – Scholarship to the topper in each subject – Sukhdevji Maharaj of Saongi Memorial Award:** An alumni of Institute of Science, has donated two crore rupees for giving scholarship and gold medal to the students who are supposed to top each of the subject of basic sciences. This was the first year that four students have been benefitted from the interest generated i.e. **Rs. 6,00,000/-** and this practice is going to be continued in the future.

Name : Dr. Sushama D. Narkhede

Name : Dr.R.G.Atram

Signature of the Coordinator, IQAC

Signature of the Chairperson, IQAC

संस्थेची शैक्षणिक दिनदर्शिका (सन २०१५-२०१६)

शैक्षणिक वर्षारंभ : दिनांक १५ जून, २०१५

प्रवेश प्रक्रिया : दिनांक ३० जून, २०१५ पर्यंत

नियमित वर्ग प्रारंभ : दिनांक १ जुलै, २०१५

### शैक्षणिक दिनदर्शिका

अ.क्र. (१)	महिना (२)	अध्यापनाचे दिवस (३)	परीक्षा (४)	इतर कामे (५)
१	जुलै, २०१५	२६	—	—
२	ऑगस्ट, २०१५	२३	दिनांक २६, २७ व २८ रोजी मासिक घटक चाचणी	शनिवार दिनांक १५ ऑगस्ट रोजी स्वातंत्र्य दिन समारंभ दिनांक २३ ऑगस्ट रोजी एस.आर.सी./ एल.ए.सी.एफ/एन.एस.एस. उद्घाटन समारंभ. गुरूवार दिनांक २७ ऑगस्ट रोजी पालकसभा. शनिवार, दि. ५ सप्टेंबर रोजी शिक्षक दिन.
३	सप्टेंबर, २०१५	२५	—	
४	ऑक्टोबर, २०१५	*	दिनांक ७ ते १४ पर्यंत प्रथम सत्रांत परीक्षा.	

\* रा.तु.म. नागपूर विद्यापीठाच्या पत्रकानुसार दिवाळीच्या सुट्या (साधारणपणे ३० दिवस) लागू होतील व त्यानुसार ऑक्टोबर/नोव्हेंबर महिन्यांचे कामाचे दिवस ठरतील (अंदाजे २३ ते २५).

### शैक्षणिक दिनदर्शिका - चालू

(१)	(२)	(३)	(४)	(५)
५	नोव्हेंबर, २०१५	*	—	
६	डिसेंबर, २०१५	२५	दिनांक २२, २३ व २४ रोजी मासिक घटक चाचणी.	दिनांक १४ ते १९ डिसेंबर वेद्यकीय तपासणी.
७	जानेवारी, २०१६	२६		दिनांक ७ ते १२ जानेवारी क्रीडा स्पर्धा व स्नेहसंमेलन. दिनांक २६ जानेवारी रोजी गणतंत्र दिवस समारंभ. निरनिराळ्या विभागांतर्फे कार्यशाळा, परिषदा.
८	फेब्रुवारी, २०१६	२३		दि. ६ रोजी रक्तदान, स्वच्छता अभियान, जनजागृती.
९	मार्च, २०१६	२७	बी. एस्. सी. सत्र व पदव्युत्तर वर्गांच्या द्वितीय सत्रांत परीक्षा.	दि. २३ ते २ फेब्रुवारी शारिरीक क्षमता चाचणी.
१०	एप्रिल २०१६	२४	बी. एस्. सी. व पदव्युत्तर वर्गांच्या प्रात्यक्षिक परीक्षा, व इतर कामे.	

एकूण . . . \*

वरील शैक्षणिक दिनदर्शिकेमध्ये काही कारणामुळे बदल करण्याचे अधिकार सर्वस्वी संचालकांना असतील.

\* रा.तु.म. नागपूर विद्यापीठाच्या सत्र परीक्षा पद्धतीनुसार व निकालानुसार मार्च २०१६ व एप्रिल २०१६ मधील कामाचे दिवस निश्चित होतील व त्यानुसार एकूण कामाचे दिवस ठरतील.