Yearly Status Report - 2018-2019

Part A	
Data of the Institution	
1. Name of the Institution	**SHRI MATHURADAS MOHOTA COLLEGE OF SCIENCE, NAGPUR**
Name of the head of the Institution	**Dr. S. G. Charalwar**
Designation	**Principal**
Does the Institution function from own campus	**Yes**
Phone no/Alternate Phone no.	**07122744992**
Mobile no.	**9822724232**
Registered Email	**mohotacollege@yahoo.co.in**
Alternate Email	**iqac.smmcs@gmail.com**
Address	**Sakkardara Square, Umred Road, Nagpur**
City/Town	**Nagpur**
State/UT	**Maharashtra**
Pincode	**440024**

2. Institutional Status

Affiliated / Constituent	**Affiliated**
Type of Institution	**Co-education**
Location	**Urban**
Financial Status	**Self financed and grant-in-aid**
Name of the IQAC co-ordinator/Director	**Dr. Mrs. R. S. Saha**
Phone no/Alternate Phone no.	**07122744992**
Mobile no.	**9822724232**
Registered Email	**saha.rina.s@gmail.com**
Alternate Email	**rinasaha.naac@gmail.com**

3. Website Address

Web-link of the AQAR: (Previous Academic Year)	http://mohotasci.edu.in/wp-content/uploads/2020/08/AQAR-2017-18.pdf

4. Whether Academic Calendar prepared during the year

4. Whether Academic Calendar prepared during the year	**Yes**
if yes,whether it is uploaded in the institutional website: Weblink :	http://mohotasci.edu.in/wp-content/uploads/2020/08/Academic-Calendar-2018-19.pdf

5. Accrediation Details

Cycle	Grade	CGPA	Year of Accrediation	Validity	
				Period From	Period To
3	**A**	**3.10**	**2017**	**22-Feb-2017**	**21-Feb-2022**

6. Date of Establishment of IQAC

6. Date of Establishment of IQAC	**01-Nov-2005**

7. Internal Quality Assurance System

Quality initiatives by IQAC during the year for promoting quality culture		
Item /Title of the quality initiative by IQAC	Date & Duration	Number of participants/ beneficiaries
Rakshabandhan for Old Age	**24-Aug-2018**	**72**

Home (Deptt of Life Long Learning & Extension)	1	
Celebration of National Sports day	29-Aug-2018 1	56
Blood Donation Camp	25-Sep-2018 1	23
Clinical Research Awareness Seminar	12-Jan-2019 1	100
Voter Awareness Elocution by NSS volunteers on occasion of Voter	25-Jan-2019 1	225
One day workshop on NAAC: A Concept and related aspects	20-Feb-2019 1	65
Celebration of the National Science Day 2019 on the theme 'Science for the people and people for the science'	27-Feb-2019 1	200
Marathi Bhasha Gaurav Din	27-Feb-2019 1	68
Organ Donation Attitude and Awareness Workshop	28-Feb-2019 1	350
Self Employment Courses for Girls: a)	08-Mar-2019 1	30
	View File	

8. Provide the list of funds by Central/ State Government- UGC/CSIR/DST/DBT/ICMR/TEQIP/World Bank/CPE of UGC etc.

Institution/Department/Faculty	Scheme	Funding Agency	Year of award with duration	Amount
College	Salary Grant	Government of Maharashtra	2018 365	67199952
College	NSS	RTM Nagpur University, Nagpur	2018 300	30600
		View File		

9. Whether composition of IQAC as per latest NAAC guidelines:	**Yes**
Upload latest notification of formation of IQAC	View File
10. Number of IQAC meetings held during the year :	**4**
The minutes of IQAC meeting and compliances to the decisions have been uploaded on the institutional	**Yes**

website	
Upload the minutes of meeting and action taken report	[View File](#)
11. Whether IQAC received funding from any of the funding agency to support its activities during the year?	**No**

12. Significant contributions made by IQAC during the current year(maximum five bullets)

• **Short term courses and bridge courses were organized at the beginning of the session. • One day workshop on NAAC was organized with a theme: 'A concept and related aspects' • Self Employment course for girls was organized to acquaint them with chocolate making, Madhubani painting workshops so as to make them sources of recreation and earning. • Organ Donation Attitude and Awareness workshop • Clinical Research Awareness seminar**

[View File](#)

13. Plan of action chalked out by the IQAC in the beginning of the academic year towards Quality Enhancement and outcome achieved by the end of the academic year

Plan of Action	Achivements/Outcomes
To collect and analyze the feedback of students	• **Feedback from students collected and analyzed at the end of session**
To encourage faculty members and students to participate various conferences and seminars	• **Faculty members and students participated in various international, national and state level conferences/ seminars/ workshops/symposium**
Conducting various skill based Short Term courses	• **Nine (09) short term certificate courses were conducted by various departments (Mushroom Cultivation – Botany; Water and soil testing- Chemistry; Functional English- English; Groundwater exploration –Geology; Sericulture –Zoology; Printed Circuit Design and Implementation- Electronics; Yoga & fitness for boys- Physical education and sports). Some more short term courses on the topics – personality development, legal awareness, reproductive health and hygiene (for girls) were also organized.**
To encourage students to participate in college, University and national level sports /NSS/ Co-curricular activities	• **Mr. Amen Sakore, Mr. Rohan Sohade, Mr. Pushpak Lande, Mr. Sarthak Dhurve, Mr. Prathamesh Bahel and Mr. Sidhhesh Hardas on 13th Feb 2018 won the State level competition for 5 Km in 'sea swimming' from Sunk rock to Gateway of India, Mumbai. • Our college bagged championship by securing 23 points in**

inter collegiate Annual swimming tournaments. It was held at Kamgar Kalyan swimming pool, Nagpur from 26th to 28th September 2018. • RTM Nagpur University inter-collegiate swimming, diving, water- polo competition was organized by the Department of Physical Education & Sports of our own college at Kamgar Kalyan swimming pool, from 26th to 28th September 2018 and 59 teams of different college participated. • RTM Nagpur University Inter-collegiate Volley Ball men's tournament was held at our college and was organized by Department of Physical Education & Sports from 10th to 12th October 2018. Teams from 25 different college participated in this event. • RTM Nagpur University Inter-collegiate Volley Ball women's tournament was held in our college which was organized by Department of Physical Education & Sports from 13th to 16th October 2018. Teams from 19 different college participated in this event. • All India inter-varsity swimming competition was held at Bangalore. Mr Amen Sakore won three Gold & one Silver; Soham Rokde one Gold & one Silver; Mr. Lokesh Gabhane one Gold, & one Bronze & Mr Krunal Pawar one Gold, & one Bronze medals in this competition held from 28th Oct. to 2nd Nov 2018. • Mr Pushpak Lande and Sarthak Dhurve won state level swimming competition held at Nagpur from 4th to 6th Nov. 2018 and they were selected in Maharashtra water polo team. • Ms Shreya Aylwar won gold medal in Inter-collegiate fencing competition held at RTM Nagpur University, Nagpur in the month of January 2019. She got selected in RTM Nagpur University team for All India Inter University competition held at Amritsar in Feb. 2019. • Mr V. Naidu won gold medal in Inter-collegiate Hand Ball tournament and he was selected in All India Inter University RTM University team held at Chandigarh in February 2019. • Mr. Pankaj Chaudhari and Mr. Akshaya Wagh won gold medal in divisional Taekwondo competition and they were selected for the state level competition held at Aurangabad. • Mr. Shubham Sonkusare B Sc Semester-IV was awarded consolation prize in state level student seminar competition organized by Bajaj Science College,

	Wardha on 19 March 2019. • Ms. Harsha Zade and Ms Priyanka Gajbhiye, M Sc Semester-II were awarded consolation prizes in state level student seminar competition organized by Bajaj Science College, Wardha on 19 March 2019. • Ms. Ankita Kamdi M. Sc. Semester-IV was awarded second prize in VUPTA Seminar competition and Mr. Pushpak Bhat and Mr. Pankaj Kamdi M Sc Semester-IV were awarded 2nd Prize in VUPTA poster competition held at SFS College, Nagpur on 10 March 2019. • Voter's awareness rally was organized by NSS Volunteers on 2 February 2019 • 'Save Bird'
To encourage all departments to organize Poster/ Model/ Symposium/ Seminars / competitions / Workshops /Guest Lecture of Eminent resource persons	• Department of Electronics organized one day symposium on 'Luminiating Enhancement in Digital Electronics' on 10th July 2018. • Inter collegiate science model and poster competition was organized by department of Botany on 16th January 2019; 81 model & 46 posters were presented by students. • A guest lecture delivered by Shri Anurag Luharia, on the topic 'Radiation Biology' for the students of B. Sc. and M. Sc. of department of Zoology and Physics on 1th February 2019. • Guest Lecture of Dr. W. S. Marathe & Dr. S. S. Dhondge organized by Department of Chemistry for students of B. Sc. and M. Sc on 6th & 7th March 2019. • Department of Physics organized a visit to cancer hospital (in Kalamna, Nagpur) for an exposure to medical physics equipment for M. Sc. Physics students on 16th February, 2019. • All the departments organized various events like poster, seminar, debate and quiz competitions on account of national science day. • Shri Saurabh Paunikar, renowned ground water scientist gave a lucid demonstration on various aspect of ground water prospecting on 26th February 2019. • Shri Parag Kosurkar delivered a talk on the topic "Importance of Electronics" for B. Sc. electronics students on 11th January 2019. • One week certificate course on bee-keeping Training workshop in collaboration with Khadi and village industries commission, Nagpur (11-15th March 2019). • Olympiad was organized on Human Rights, Indian Judiciary System & The Constitution of India by Shri Pratik Chirde, Tech Trainer, Bombay on 19th March 2019.

14. Whether AQAR was placed before statutory body ?	**Yes**

Name of Statutory Body	Meeting Date
CDC	**29-Feb-2020**

15. Whether NAAC/or any other accredited body(s) visited IQAC or interacted with it to assess the functioning ?	**No**

16. Whether institutional data submitted to AISHE:	**Yes**

Year of Submission	**2019**

Date of Submission	**18-Feb-2019**

17. Does the Institution have Management Information System ?	**Yes**

If yes, give a brief descripiton and a list of modules currently operational (maximum 500 words)	**Our institution has been using following modules for Management Information System (MIS): LIBMAN – (Library Management System) which is a highly integrated user friendly computerization system is in use for all operations of the library. Acquisition cataloging, circulation, OPAC (Online Public Access Catalogue), serial control, newspapers entry and other utilities are being monitored though LIBMAN. It also generates various reports like the accession register, book purchasing report, total number of book titles, copies, funds, book circulation, reminder and find calculation report. It also provides the barcode printing for books and borrowers, book tickets, notices, etc. This software also generates MIS reports in a graphical format. The College Management System (CMS) was helpful in the office work related to: students applications for the university examinations, enrolment in the university, distribution of students admission cards for all the examinations. This module has therefore made the processes significantly fast and smooth and reducing the physical burden on the college staff. It has**

	also helped in the collection of fees from students and generation of computerized receipts.

Part B

CRITERION I – CURRICULAR ASPECTS

1.1 – Curriculum Planning and Implementation

1.1.1 – Institution has the mechanism for well planned curriculum delivery and documentation. Explain in 500 words

Education is best served when planned well in advance. The college designs its own academic calendar in accordance with that of the Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur to which the college is affiliated. A well planned academic calendar is necessary for effective implementation of curriculum. The academic calendar is discussed in the IQAC and college council meeting for further implementation through the heads of the departments (HoDs). The constructive suggestions for better execution are given by faculty members and are discussed considering their merits and demerits. The appropriate inputs are included in action plan for effective implementation of curriculum during the finalization of the calendar. The college offers various value added courses as part of the 'Multi Skill Development Programme' to all the students admitted to BSc semester I. These courses are divided in two groups, namely, personality development and subject specific for vocational and entrepreneurial development. The subject specific courses are offered to students according to the subject groups they choose for the degree course. Curriculum/ syllabi of all these courses are designed by the respective subject coordinators who are the faculty members of the college in consultation with the experts from the subject. IQAC plays an important role in designing, development and execution of the action plan. It is responsible for coordination and monitoring of the academic and co-curricular activities throughout the year. • The HoDs conduct the departmental meetings for execution of the action plan as per the academic calendar. Curriculum/syllabi are distributed as per the prescribed workload among the staff members. These meetings are also utilized to discuss various co-curricular activities to be conducted during the session • The Principal and Vice-Principals conduct meeting with all HoDs and approve the academic activities to be conducted during the session. • Time table committee frames the time table as per the directions from the university. • Each faculty member marks attendance of students for theory and practical courses. Students are made aware of the course of teaching well in advance. • Continuous evaluation is carried out through Unit Tests/ Home Assignments/ Homework etc. or combination of few of these. • Study material and question banks are provided as per the need. • Faculty members of the college actively participate in the syllabus restructuring workshops, seminars and conferences. • Some of the faculty members are also the members of the Board of Studies for respective subjects in the university and directly participate in the syllabus/ curriculum designing. • Feedback mechanism helps for effective implementation of curriculum as per the needs expressed by the students from time to time. • College has various subject wise societies which conduct programmes to give additional exposure to the students in curricular and co-curricular activities. • Subject related field / industrial / research institute visits regularly arranged. • Bridge courses are conducted for the newly admitted students at the start of academic session.

1.1.2 – Certificate/ Diploma Courses introduced during the academic year

Certificate	Diploma Courses	Dates of Introduction	Duration	Focus on employ ability/entreprene	Skill Development

					urship
Certificate course on beekeeping conducted by department with of Zoology in association with Khadi and Village Industries Commission	NA	11/03/2019	5	The course on beekeeping was organized keeping in mind the agriculture background of the students so that they can start their small scale industry based on the knowledge and certificate provided by the Khadi and Village Industries Commission.	Under the aegis of Khadi and Village Industries Commission, the students were made familiar with the social lives of honey bees and the techniques for rearing and handling the bees This helped the students to improve their specific skill sets.

1.2 – Academic Flexibility

1.2.1 – New programmes/courses introduced during the academic year

Programme/Course	Programme Specialization	Dates of Introduction
No Data Entered/Not Applicable !!!		
No file uploaded.		

1.2.2 – Programmes in which Choice Based Credit System (CBCS)/Elective course system implemented at the affiliated Colleges (if applicable) during the academic year.

Name of programmes adopting CBCS	Programme Specialization	Date of implementation of CBCS/Elective Course System
No Data Entered/Not Applicable !!!		

1.2.3 – Students enrolled in Certificate/ Diploma Courses introduced during the year

	Certificate	Diploma Course
Number of Students	40	0

1.3 – Curriculum Enrichment

1.3.1 – Value-added courses imparting transferable and life skills offered during the year

Value Added Courses	Date of Introduction	Number of Students Enrolled
Mushroom cultivation	23/07/2018	40
Sericulture	23/07/2018	45
Ground water prospecting	24/07/2018	44
Noise pollution and it's control	24/07/2018	45
Water and Soil Analysis	24/07/2018	35

Printed Circuit Board design Computer Fundamentals	24/07/2018	86
	[View File](#)	

1.3.2 – Field Projects / Internships under taken during the year

Project/Programme Title	Programme Specialization	No. of students enrolled for Field Projects / Internships
BSc	Botany	239
BSc	Geology	51
MSc	Botany	42
MSc	Zoology	36
MSc	Botany Project	9
MSc	Zoology Project	7
	[View File](#)	

1.4 – Feedback System

1.4.1 – Whether structured feedback received from all the stakeholders.

Students	Yes
Teachers	Yes
Employers	No
Alumni	Yes
Parents	No

1.4.2 – How the feedback obtained is being analyzed and utilized for overall development of the institution? (maximum 500 words)

Feedback Obtained

• The feedback committee has developed a Google form for taking the feedback online from the students of BSc Semesters II, IV and VI and MSc Semesters II and IV, teachers of undergraduate and postgraduate courses and the alumni. • The stakeholders are requested to give genuine and impartial feedback. • The feedback form was designed in such a way that the committee was in a position to analyze the feedback quantitatively as well as qualitatively. • The feedback on overall functioning of the institution was recorded online in the form of student satisfaction survey. The feedback system has helped the teachers to understand the needs of the students, the way in which the topics can best be delivered to the students. The feedback has helped the teachers to develop/ adopt the new methods of evaluation of students. • The college has planned to take feedback from employers and parents as well from the next year. • The feedback from teachers on overall functioning of the institution was collected during the year end meetings is also taken and analysed. The teachers are asked to give their inputs on various aspects of the college including the teaching learning process, development of new tools for teaching, research facilities, infrastructure, student progression, etc. The feedback from the teachers is discussed in the meetings and the decisions are taken accordingly for effective administration and implementation. • The alumni are very important stakeholders of the college. The alumni association of the college is registered and the alumni members are actively involved in the activities organized for the betterment of the students. Alumni association conducts its meetings about various aspects of the college and makes suggestions for the betterment of the college. • The feedback on course contents of the curriculum was collected

separately. The questions which were asked covered various aspects of the curriculum, including, the frequency of up-gradation, the structuring of the course contents, size of the syllabus, the ability of the content to encourage students to explore a particular subject more, the capacity of the course to generate employable workforce, the capacity to strengthen analytical skills and conceptual thinking ability. As per the overall response received, the courses have been designed in a satisfactory way however, most of the respondents felt a need of frequent up-gradations. Also most of the respondents agree that there is a need of increasing the skill based component. The analyses of various subjects were conveyed to the university through the teachers who are part of boards of studies of respective subjects. • The overall feedback system is effective for the overall improvement of the college.

CRITERION II – TEACHING- LEARNING AND EVALUATION

2.1 – Student Enrolment and Profile

2.1.1 – Demand Ratio during the year

Name of the Programme	Programme Specialization	Number of seats available	Number of Application received	Students Enrolled
BSc	Science	1260	1410	1052
MSc	Botany	44	0	37
MSc	Chemistry	44	0	42
MSc	Mathematics	44	0	44
MSc	Physics	44	0	46
MSc	Zoology	44	0	40
View File				

2.2 – Catering to Student Diversity

2.2.1 – Student - Full time teacher ratio (current year data)

Year	Number of students enrolled in the institution (UG)	Number of students enrolled in the institution (PG)	Number of fulltime teachers available in the institution teaching only UG courses	Number of fulltime teachers available in the institution teaching only PG courses	Number of teachers teaching both UG and PG courses
2018	1052	209	23	10	10

2.3 – Teaching - Learning Process

2.3.1 – Percentage of teachers using ICT for effective teaching with Learning Management Systems (LMS), E-learning resources etc. (current year data)

Number of Teachers on Roll	Number of teachers using ICT (LMS, e-Resources)	ICT Tools and resources available	Number of ICT enabled Classrooms	Numberof smart classrooms	E-resources and techniques used
33	15	9	5	3	16
View File of ICT Tools and resources					
View File of E-resources and techniques used					

2.3.2 – Students mentoring system available in the institution? Give details. (maximum 500 words)

Batch-wise B.Sc. Semester I and Semester II students are allotted to the faculty members. One batch is allotted per staff member. Students mentoring system helps in understanding the problems being faced by the students. The mentees directly contact their mentors for counselling. This helps in increasing the subject knowledge of

students and in solving their problems. Depending upon the needs and feedback from the students, their difficulties are attended to and solved. Remedial classes are conducted if required. Some of the students even discuss and get help about their personal problems from mentors. They are motivated to pursue higher education, pursue their hobbies. They are given counselling to identify proper career, shape their personality and inculcate confidence in them. Especially some shy girls do approach their mentors or some lady staff members and discuss various personal issues and find lot of satisfaction on getting a help.

Number of students enrolled in the institution	Number of fulltime teachers	Mentor : Mentee Ratio
432	23	1:19

2.4 – Teacher Profile and Quality

2.4.1 – Number of full time teachers appointed during the year

No. of sanctioned positions	No. of filled positions	Vacant positions	Positions filled during the current year	No. of faculty with Ph.D
48	23	25	0	21

2.4.2 – Honours and recognition received by teachers (received awards, recognition, fellowships at State, National, International level from Government, recognised bodies during the year)

Year of Award	Name of full time teachers receiving awards from state level, national level, international level	Designation	Name of the award, fellowship, received from Government or recognized bodies
2018	Dr. D. V. Nandanwar	Associate Professor	UGC travel grants for teachers for attending international conference "PHENMA2018" at Korea Maritime and Ocean University, Busan, South Korea 9-11 Aug. 2018
2018	Dr. J. N. Ramteke	Associate Professor	UGC travel grants for teachers for attending international conference "PHENMA2018" at Korea Maritime and Ocean University, Busan, South Korea 9-11 Aug. 2018
2019	Dr. S. S. Bhonsale	Director	Best Coach received from Khasdar Krida Mahotsav Samiti, Nagpur
View File			

2.5 – Evaluation Process and Reforms

2.5.1 – Number of days from the date of semester-end/ year- end examination till the declaration of results during the year

Programme Name	Programme Code	Semester/ year	Last date of the last semester-end/ year-end examination	Date of declaration of results of semester-end/ year- end

				examination
BSc	BSc	I	30/04/2019	05/08/2019
BSc	BSc	II	30/04/2019	01/08/2019
BSc	BSc	III	30/04/2019	28/06/2019
MSc	Botany	I	30/04/2019	30/05/2019
MSc	Botany	II	30/04/2019	20/06/2019
MSc	Chemistry	I	30/04/2019	11/06/2019
MSc	Chemistry	II	30/04/2019	20/06/2019
MSc	Mathematics	I	30/04/2019	24/05/2019
MSc	Mathematics	II	30/04/2019	26/06/2019
MSc	Physics	I	30/04/2019	10/06/2019

[View File](#)

2.5.2 – Reforms initiated on Continuous Internal Evaluation(CIE) system at the institutional level (250 words)

Continuous Internal Evaluation is undertaken by the individual departments. Various parameters considered are: a. Attendance monitoring: 75 percent attendance is mandatory. b. Seminars: departments organise seminars for B.Sc. and M.Sc. students. c. Assignments: assignments are given, evaluated and discussed with the students. d. Unit tests: after completion of units, unit tests are conducted by the departments. The students' performance is discussed with them. e. Terminal examination: full course exam is conducted at the end of each session. f. Science exhibitions: during Science Day celebration, science poster, students seminar and model exhibitions are organised. g. Competitions: poster competitions on topics pertaining to the syllabus, quiz competitions are a regular activity. h. Excursions: botanical, geological and zoological excursions are undertaken, which help the students in understanding the subject in depth. Students submit a report of the same. i. Industry and research laboratory visit: visit to research institutes and industries in the nearby areas is a regular facet.

2.5.3 – Academic calendar prepared and adhered for conduct of Examination and other related matters (250 words)

The college follows the academic calendar as published by the Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur. For the year 2018-19 the academic calendar was as given below. The academic calendar prepared by the university is displayed on college website, as well as the notice board of college. Accordingly the college IQAC in consultation with the departments also prepares a calendar. This basically decides the schedule of multi-skill programme, bridge course, class / unit test, prelim examination, schedule of guest lectures, educational tours, sports and cultural events etc. I. Terms and vacation First term (Odd semesters) 15.06.2018 to 17.10.2018 Winter vacation 18.10.2018 to 17.11.2018 Second term (Even semesters) 19.11.2018 to 30.04.2019 Summer vacation 01.05.2019 to 14.06.2019 II. Admissions Last date of admission (first term) 06.08.2018 III. Examination Winter examination (regular students) 18.10.2018 Winter examination (failure students) 03.10.2018 Summer examination (regular students) 12.03.2019 Summer examination (failure students) 20.02.2019 IV. Declaration of Results Declared by the university V. Multi Skill Development programme 23 to 28 July 2018 VI. Bridge course 16 to 21 July 2018 VII. Science Day celebration 25 to 28 February 2019

2.6 – Student Performance and Learning Outcomes

2.6.1 – Program outcomes, program specific outcomes and course outcomes for all programs offered by the institution are stated and displayed in website of the institution (to provide the weblink)

2.6.2 – Pass percentage of students

Programme Code	Programme Name	Programme Specialization	Number of students appeared in the final year examination	Number of students passed in final year examination	Pass Percentage
M.Sc.	MSc	Zoology	18	10	55.55
M.Sc.	MSc	Physics	24	9	37.50
M.Sc.	MSc	Mathematics	20	17	85.00
M.Sc.	MSc	Chemistry	20	15	75.00
M.Sc.	MSc	Botany	18	5	27.77
B.Sc.	BSc	Science	285	205	71.92

View File

2.7 – Student Satisfaction Survey

2.7.1 – Student Satisfaction Survey (SSS) on overall institutional performance (Institution may design the questionnaire) (results and details be provided as weblink)

http://mohotasci.edu.in/wp-content/uploads/2020/10/Student-Satisfaction-Survey-2018-19-for-AQAR-_1_.pdf

CRITERION III – RESEARCH, INNOVATIONS AND EXTENSION

3.1 – Resource Mobilization for Research

3.1.1 – Research funds sanctioned and received from various agencies, industry and other organisations

Nature of the Project	Duration	Name of the funding agency	Total grant sanctioned	Amount received during the year
No Data Entered/Not Applicable !!!				
No file uploaded.				

3.2 – Innovation Ecosystem

3.2.1 – Workshops/Seminars Conducted on Intellectual Property Rights (IPR) and Industry-Academia Innovative practices during the year

Title of workshop/seminar	Name of the Dept.	Date
No Data Entered/Not Applicable !!!		

3.2.2 – Awards for Innovation won by Institution/Teachers/Research scholars/Students during the year

Title of the innovation	Name of Awardee	Awarding Agency	Date of award	Category
No Data Entered/Not Applicable !!!				
No file uploaded.				

3.2.3 – No. of Incubation centre created, start-ups incubated on campus during the year

Incubation Center	Name	Sponsered By	Name of the Start-up	Nature of Start-up	Date of Commencement
No Data Entered/Not Applicable !!!					
No file uploaded.					

3.3 – Research Publications and Awards

3.3.1 – Incentive to the teachers who receive recognition/awards

State	National	International
0	0	0

3.3.2 – Ph. Ds awarded during the year (applicable for PG College, Research Center)

Name of the Department	Number of PhD's Awarded
Physics	3

3.3.3 – Research Publications in the Journals notified on UGC website during the year

Type	Department	Number of Publication	Average Impact Factor (if any)
National	Chemistry	3	0.43
National	Geology	1	0
National	Botany	1	5.06
International	Physics	3	1.05
International	Chemistry	1	0.42
View File			

3.3.4 – Books and Chapters in edited Volumes / Books published, and papers in National/International Conference Proceedings per Teacher during the year

Department	Number of Publication
0	0
No file uploaded.	

3.3.5 – Bibliometrics of the publications during the last Academic year based on average citation index in Scopus/ Web of Science or PubMed/ Indian Citation Index

Title of the Paper	Name of Author	Title of journal	Year of publication	Citation Index	Institutional affiliation as mentioned in the publication	Number of citations excluding self citation
C-S and C-N coupling reactions of barbituric acid via selective and complete bromination using greener KBr/H2O2 as a brominating agent	M. G. Dhonde	J. Indian Chem. Soc	2018	0	Yes	0
Synthesis of thiazol, thiazinan,	M. G. Dhonde	Ind. J. Chem. Sec.B	2018	0	Yes	0

thiadiazin, thiazolidin, triazine, thioxo-pyrimidin and thioxo-imidazolidine by inter-intra molecular cyclization						
Synthesis of amino and thiol functionalized reduced graphene oxide composites	M. G. Dhonde	Int. J. Curr. Eng. Sci. Res	2019	0	Yes	0
HPLC purification technique: synthesis of unsymmetrical thiobarbituric acids.	M. G. Dhonde	Heliyon	2019	0	Yes	0
[View File](#)						

3.3.6 – h-Index of the Institutional Publications during the year. (based on Scopus/ Web of science)

Title of the Paper	Name of Author	Title of journal	Year of publication	h-index	Number of citations excluding self citation	Institutional affiliation as mentioned in the publication
C-S and C-N coupling reactions of barbituric acid via selective and complete bromination using greener KBr/H2O2 as a brominating agent	M. G. Dhonde	J. Indian Chem. Soc	2018	1	0	Yes
Synthesis of thiazol,	M. G. Dhonde	Ind. J. Chem. Sec.B	2018	0	0	Yes

thiazinan, thiadiazin, thiazolidin, triazine, thioxo-pyrimidin and thioxo-imidazolidine by inter-intra molecular cyclization						
Synthesis of amino and thiol functionalized reduced graphene oxide composites	M. G. Dhonde	Int. J. Curr. Eng. Sci. Res	2019	0	0	Yes
HPLC purification technique: synthesis of unsymmetrical thiobarbituric acids	M. G. Dhonde	Heliyon	2019	1	0	Yes
Photoluminescent Electrospun europium Complex Eu(TTA) 3 p Hen embedded polymer blend nano fibers.	Dr. D.V. Nandanwar	Optical Materials	2018	8	14	Yes
Polypyrrole / MnO 2 Nanocomposites as Potential electrodes For supercapacitors	Dr. D.V. Nandanwar	Advanced Materials Letters	2018	0	0	Yes
Evaluation of Antifungal potential of Endophytic	Dr. A.A. Fulzele	Int. J. of Res. In Biosciences, Agriculture and Technology.	2018	2	7	Yes

fungus Preessia isabellae isolated from Azadi rachta indica	(VI). Vol. III.2018

<div align="center">View File</div>

3.3.7 – Faculty participation in Seminars/Conferences and Symposia during the year :

Number of Faculty	International	National	State	Local
Attended/Seminars/Workshops	8	17	0	4
Presented papers	8	4	2	0
Resource persons	3	4	1	4

<div align="center">View File</div>

3.4 – Extension Activities

3.4.1 – Number of extension and outreach programmes conducted in collaboration with industry, community and Non- Government Organisations through NSS/NCC/Red cross/Youth Red Cross (YRC) etc., during the year

Title of the activities	Organising unit/agency/ collaborating agency	Number of teachers participated in such activities	Number of students participated in such activities
Yoga camp	S.M.M. College of Science (Sports dept)	4	50
Certificate program of one week on Beekeeping	Department of Zoology, S.M.M. College of Science, Nagpur in collaboration with State Beekeeping Extension Centre (KVIC)	4	40
Rakshabandhan	Lifelong learning and extension unit, (Electronics dept) S.M.M. College of Science	2	64
Summer coaching Camp in collaboration with Nagpur District Amateur Aquatic Association, Nagpur	S.M.M. College of Science (Sports dept.)	4	55

<div align="center">View File</div>

3.4.2 – Awards and recognition received for extension activities from Government and other recognized bodies during the year

Name of the activity	Award/Recognition	Awarding Bodies	Number of students Benefited

| Swimming | Best swimming coach in Nagpur District 2018-19 | Nagpur District Swimming Association | 9 |
| World free of Diabetes | The missionary of the campaign | Adore Trust | 200 |

[View File](#)

3.4.3 – Students participating in extension activities with Government Organisations, Non-Government Organisations and programmes such as Swachh Bharat, Aids Awareness, Gender Issue, etc. during the year

Name of the scheme	Organising unit/Agency/collaborating agency	Name of the activity	Number of teachers participated in such activites	Number of students participated in such activites
Swachh Bharat Abhiyan	S.M.M. College of Science, Nagpur	Campus cleaning	23	50
Blood Donation camp	Lifelong learning and extension unit, S.M.M. College of Science	Blood donation	5	56
Visit to Maharogi Sewa Samiti, Anandwan, Warora (leprosy rehabilitation center)	Lifelong learning and extension unit, S.M.M. College of Science	Excursion Tour	2	65

[View File](#)

3.5 – Collaborations

3.5.1 – Number of Collaborative activities for research, faculty exchange, student exchange during the year

Nature of activity	Participant	Source of financial support	Duration
Faculty Exchange	Guest lecture by Dr. M. G. Dhonde at Shri Shivaji Science College, Amravati	Self	1
Faculty Exchange	Guest lecture by Dr. M. G. Dhonde at Taywade College at Koradi	Self	1
Student Exchange	M.Sc. students of S.M. College of Science attended a guest lecture at Taywade College at Koradi delivered by Dr. Vijay Tangade	Self	1
Student Exchange	M.Sc. students of Taywade College at Koradi attended a guest lecture at S.M. College of	Self	1

	Science, Nagpur, delivered by Dr. W. S. Marathe				

<div align="center">

View File

</div>

3.5.2 – Linkages with institutions/industries for internship, on-the- job training, project work, sharing of research facilities etc. during the year

Nature of linkage	Title of the linkage	Name of the partnering institution/ industry /research lab with contact details	Duration From	Duration To	Participant
No Data Entered/Not Applicable !!!					
No file uploaded.					

3.5.3 – MoUs signed with institutions of national, international importance, other universities, industries, corporate houses etc. during the year

Organisation	Date of MoU signed	Purpose/Activities	Number of students/teachers participated under MoUs
Maharashtra Center for Entrepreneurship Development (MCED) (An autonomous society working under directorate of Industries, Govt. of Maharashtra) Aurangabad	15/03/2019	Entrepreneurship Development activities	10
Qversity Education Services Pvt. Ltd.D-8. 2nd floor, Sector3, Noida-201301	26/04/2019	To provide the online courses on demand and to provide marketing collaterals for the purpose of marketing, to our students.	250
View File			

CRITERION IV – INFRASTRUCTURE AND LEARNING RESOURCES

4.1 – Physical Facilities

4.1.1 – Budget allocation, excluding salary for infrastructure augmentation during the year

Budget allocated for infrastructure augmentation	Budget utilized for infrastructure development
343200	256486

4.1.2 – Details of augmentation in infrastructure facilities during the year

Facilities	Existing or Newly Added
Campus Area	Existing

Class rooms	Existing
Laboratories	Existing
Classrooms with LCD facilities	Existing
[View File](#)	

4.2 – Library as a Learning Resource

4.2.1 – Library is automated {Integrated Library Management System (ILMS)}

Name of the ILMS software	Nature of automation (fully or patially)	Version	Year of automation
Lib-man	Fully	3.9	2010

4.2.2 – Library Services

Library Service Type	Existing		Newly Added		Total	
Text Books	30690	3045788	217	77053	30907	3122841
Reference Books	3543	364967	20	8500	3563	373467
Journals	16	39250	0	0	16	39250
CD & Video	180	15000	6	0	186	15000
No file uploaded.						

4.2.3 – E-content developed by teachers such as: e-PG- Pathshala, CEC (under e-PG- Pathshala CEC (Under Graduate) SWAYAM other MOOCs platform NPTEL/NMEICT/any other Government initiatives & institutional (Learning Management System (LMS) etc

Name of the Teacher	Name of the Module	Platform on which module is developed	Date of launching e-content
No Data Entered/Not Applicable !!!			
No file uploaded.			

4.3 – IT Infrastructure

4.3.1 – Technology Upgradation (overall)

Type	Total Computers	Computer Lab	Internet	Browsing centers	Computer Centers	Office	Departments	Available Bandwidth (MBPS/ GBPS)	Others
Existing	74	23	3	1	1	11	37	10	3
Added	0	0	0	0	0	0	0	0	0
Total	74	23	3	1	1	11	37	10	3

4.3.2 – Bandwidth available of internet connection in the Institution (Leased line)

10 MBPS/ GBPS

4.3.3 – Facility for e-content

Name of the e-content development facility	Provide the link of the videos and media centre and recording facility
NIL	[NIL](#)

4.4 – Maintenance of Campus Infrastructure

4.4.1 – Expenditure incurred on maintenance of physical facilities and academic support facilities, excluding salary component, during the year

Assigned Budget on academic facilities	Expenditure incurred on maintenance of academic facilities	Assigned budget on physical facilities	Expenditure incurredon maintenance of physical facilites
844220	589286	1333750	1824038

4.4.2 – Procedures and policies for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc. (maximum 500 words) (information to be available in institutional Website, provide link)

The college ensures optimal allocation and utilization of available resources for maintenance and up-gradation of different facilities. Regular meetings of management, CDC, IQAC, Head of the departments, various committee are held for this purpose. The grants are then disbursed as per the requirements in the interest of students. Laboratories:- Record of maintenance of instruments and equipments is maintained by lab technicians and supervised by HoDs of the concerned departments. The calibration, repairing and maintenance of sophisticated lab equipments are done by the technicians of related service agent of the manufacturer. The instruments and equipments used for experiments are annually cleaned and maintained by the concerned departments and record of maintenance is maintained by lab technicians and supervised by HoDs of the concerned departments. There is systematic disposal of waste of all types such as biodegradable chemical/chemical and e-waste. Library:-The requirement and list of books is taken from the concerned departments HoDs. The finalized list is duly approved by the Principal. The 'Library Advisory Committee' meets periodically to review the needs of the Library. To ensure return of books, 'no dues' from the library is mandatory for students before appearing in exam. The proper account of visitors (students and staff) on daily basis is maintained. Other issues such as weeding out of old titles, schedule of issue/return of books etc. are chalked out and resolved by the library committee. Computers:- Computer maintenance through AMC is done regularly by the college staff and non-repairable systems are disposed off. Software and hardware are periodically reviewed and upgraded as per requirement. The ICT smart classrooms and the related systems are maintained with AMC of the corresponding service provider. The college Website is maintained and updated regularly by AMC with WINSPIRE technologies web designer, Nagpur. The AMC of software is made with Kumar Computers Nagpur. Classrooms:- The college has a building committee for maintenance and upkeep of infrastructure. At the departmental level, HoDs submit their requirements to the principal regarding classroom furniture and other things. The college development fund is utilized for maintenance and minor repair of furniture and other electrical equipment. Students are vigilant regarding cleanliness and motivated for energy conservation by careful use of electricity in classrooms. The maintenance and cleaning of the classrooms, library and the laboratories are done with the efforts of the cleaning services employed on contract. There are technicians, mason, plumbers, carpenters deputed by management who ensure the maintenance of classrooms and related infrastructure. Sports facilities:- The college has its own sports ground that is maintained and upgraded regularly with the help of the ground staff and other contracting agencies. In the indoor hall Table Tennis, Carom, and Chess is played. A good Gym is available in the sports department where students are beneficiaries. For swimming competitions nearby swimming pool is hired for the purpose.

http://mohotasci.edu.in/wp-content/uploads/2020/10/Procedure-and-Policies-for-Maintaining-and-Utilizing-Physical.pdf

CRITERION V – STUDENT SUPPORT AND PROGRESSION

5.1 – Student Support

5.1.1 – Scholarships and Financial Support

	Name/Title of the scheme	Number of students	Amount in Rupees
Financial Support from institution	Promotion for sports and cultural activity and incentives to meritorious students	405	190568
Financial Support from Other Sources			
a) National	Government of India /Maharashtra Scholarship for SC, ST, NT, OBC, SBC, PWD EBC	837	7842542
b)International	None	0	0

View File

5.1.2 – Number of capability enhancement and development schemes such as Soft skill development, Remedial coaching, Language lab, Bridge courses, Yoga, Meditation, Personal Counselling and Mentoring etc.,

Name of the capability enhancement scheme	Date of implemetation	Number of students enrolled	Agencies involved
Student Counselling and Career Guidance Clinical Research Awareness Seminar	12/01/2019	103	Dr. Poonam Lokhande from Clinomic Center, Nagpur
Bridge Courses	30/07/2018	432	All (UG) Teachers, SMMCS
Short Term Certificate Courses	23/07/2018	432	All (UG) Teachers, SMMCS
Lecture on Legal Awareness	25/07/2018	300	Dr. Mrs. Sandhya Kalamdhad
Yoga Camp	10/06/2018	60	Department of Physical Education and Sports, SMMCS

View File

5.1.3 – Students benefited by guidance for competitive examinations and career counselling offered by the institution during the year

Year	Name of the scheme	Number of benefited students for competitive examination	Number of benefited students by career counseling activities	Number of students who have passedin the comp. exam	Number of studentsp placed
2018	None	0	0	0	0
2019	None	0	0	0	0

No file uploaded.

5.1.4 – Institutional mechanism for transparency, timely redressal of student grievances, Prevention of sexual

harassment and ragging cases during the year

Total grievances received	Number of grievances redressed	Avg. number of days for grievance redressal
0	0	0

5.2 – Student Progression

5.2.1 – Details of campus placement during the year

On campus			Off campus		
Nameof organizations visited	Number of students participated	Number of stduents placed	Nameof organizations visited	Number of students participated	Number of stduents placed
Reliance Jio	133	6	Axis Bank Ltd., Goyal software, Ph armaceutical industry	3	3
View File					

5.2.2 – Student progression to higher education in percentage during the year

Year	Number of students enrolling into higher education	Programme graduated from	Depratment graduated from	Name of institution joined	Name of programme admitted to
2019	4	B.Sc.	Botany	Shri Mathuradas Mohota College of Science, Nagpur	M.Sc. Botany
2019	11	B.Sc.	Geology	PG Departments of various institutions	M.Sc. (Please refer to the file attached for further details)
2019	2	B.Sc.	Physics	PG Departments of various institutions	M.Sc. (Please refer to the file attached for further details)
2019	5	B.Sc.	Mathematics	PG Departments of various institutions	M.Sc. (Please refer to the file attached for further details)
2019	3	B.Sc.	Zoology	PG Department of Zoology,	M.Sc. Zoology

2019	2	B.Sc.	Electronics	PG Departments of various institutions	M.Sc. (Please refer to the file attached for further details)
2019	12	B.Sc.	Chemistry	PG Departments of various institutions	M.Sc. (Please refer to the file attached for further details)
2019	2	B.Sc.	Mathematics, Botany	Different institutions offering M.B.A.	M.B.A. (Please refer to the file attached for further details)
2019	1	B.Sc.	Zoology	Dr. Babasaheb Ambedkar Law College, Nagpur	LL.B. (3Yrs.)
2019	4	B.Sc.	Please refer to the excel file	Please refer to the excel file	Please refer to the excel file

[View File](#)

5.2.3 – Students qualifying in state/ national/ international level examinations during the year (eg:NET/SET/SLET/GATE/GMAT/CAT/GRE/TOFEL/Civil Services/State Government Services)

Items	Number of students selected/ qualifying
NET	1
SET	2
Any Other	4

[View File](#)

5.2.4 – Sports and cultural activities / competitions organised at the institution level during the year

Activity	Level	Number of Participants
Sports and Cultural Activities	Intracollegiate	820
Sports	Intercollegiate	770

[View File](#)

5.3 – Student Participation and Activities

5.3.1 – Number of awards/medals for outstanding performance in sports/cultural activities at national/international level (award for a team event should be counted as one)

Year	Name of the award/medal	National/ Internaional	Number of awards for Sports	Number of awards for Cultural	Student ID number	Name of the student
2018	All India Folk Dance and One act play Competition (Himachal Pradesh), Third Prize in Folk Dance	National	0	1	Please refer to the excel file	Please refer to the excel file
2018	All India Folk Dance Competition (Odisha), First Prize	National	0	1	Please refer to the excel file	Please refer to the excel file

[View File](#)

5.3.2 – Activity of Student Council & representation of students on academic & administrative bodies/committees of the institution (maximum 500 words)

Shri Mathuradas Mohota College of Science has a student council as per the directions of the Director, Student Welfare, RTM Nagpur University, Nagpur. Every year Vice-Chancellor of the university exercises his powers under section 12(8) of Maharashtra public university Act (VI of 2017) fixes the dates of constitution of students' council for each affiliated college. Students from B.Sc. and M.Sc. are elected unanimously. Also one student from NSS unit, cultural and sports are elected. The election of its secretary on behalf of the Management Council of the university is undertaken annually. Objectives of the active student council : 1) To develop cordial relations among the students, teachers, principal and non teaching staff members. 2) To stimulate the functioning of various committees. 3) To participate institution at intra and university level. 4) To act as a catalyst for the noble cause of nation building by working together. 5) To inculcate brotherhood. 6) Students of the institution play important role in various committees such as college development committee, anti-ragging committee, IQAC, college annual magazine committee, internal complaints committee. The students are motivated to participate in these activities by the respective activity coordinator. They are also guided and monitored in all these academic, cultural, and social activities. The students also participated in IQAC, which gives valuable suggestions and feedback, on the basis of which necessary and corrective steps are undertaken. Some of students work as volunteers to promote various curricular, co-curricular, cultural, social and sports activities in the college. But in the session 2018-19 Students Council election were not held, since there were no instructions from RTM Nagpur University, Nagpur in this concern.

5.4 – Alumni Engagement

5.4.1 – Whether the institution has registered Alumni Association?

Yes

Alumni Association of the college was formed in 2008 and duly registered by the authority on 01.10.2016. Students from the year 1965 to 2008 were invited for

the meeting to form this association. Alumni association is functional since 2008. The basic objective of this association is to maintain better link between the institution and its alumnae to share details of growth, achievements and progress in various fields. The executive body of the association meets once in two or three month regularly. The alumni association during its executive meeting discusses various plans and activities to be carried out during the years. The life member fees is Rs. 1000/-. There are 292 life members registered as on 31 March 2018 in the association. The total fund deposited so far by the members is Rs 281212. The alumni association had performed various cultural, educational and social activities in the college. The Association extends its help to IQAC of the college by inducting one of the members of IQAC. The functions and various activities of the association is also displayed in the college website. The total number of alumni as on 31 March 2018 is 292 with total deposits of Rs. 281212/-

5.4.2 – No. of enrolled Alumni:

2

5.4.3 – Alumni contribution during the year (in Rupees) :

6500

5.4.4 – Meetings/activities organized by Alumni Association :

1) Interactive meet on "Indigenous Way of Managing Urban Waste". 2) Lecture-cum – Power point presentation regarding "Career in Defense". 3) Lecture on "Personality Development". 4) Interview of Students for Employment by Reliance Jio Co.

CRITERION VI – GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 – Institutional Vision and Leadership

6.1.1 – Mention two practices of decentralization and participative management during the last year (maximum 500 words)

The College Development Committee (CDC), Principal, Vice Principal, heads of the departments and IQAC play key role in the institution to monitor and implement the plans of the institution. College has adopted decentralization of an administrative works which has resulted in increasing the overall quality, efficient and effective functioning of the college The Principal, vice-principal, heads or coordinators of the departments have been given department level freedom / autonomy for teaching method / plan, time table distribution, conduction of internal examinations, conduct workshops/ hands on training, organization of guest lecturers, activities of departmental societies, etc. The departments are also empowered for contingency and miscellaneous purchases. With prior approval, even costly chemicals, equipment are authorized to purchase. The authorities have always been in favor of participative management and motivates faculty for their actions or voluntarily participation in curricular, co-curricular and extracurricular activities in the academic year. The departments are always encouraged and supported financially to arrange various activities for the benefit of students and faculty. These activities also include field tours / educational tours, etc. The IQAC is at the centre of all academic, extracurricular activities of the college and acts as a liaising between management, principal and the departments various cells. The CDC functions efficiently because of valuable inputs from IQAC and other stakeholders. On behalf of the principal, even faculty members attend meetings with University offices, NAAC sponsored seminars and conferences.

6.1.2 – Does the institution have a Management Information System (MIS)?

Yes

6.2 – Strategy Development and Deployment

6.2.1 – Quality improvement strategies adopted by the institution for each of the following (with in 100 words each):

Strategy Type	Details
Admission of Students	For the undergraduate admissions the college follows the University schedule and guidelines for the process of admission as per merit. The policy of reservations and merit are strictly followed. Students from economically weaker section are permittedto pay the fees by provision of instalments.The economically weaker students have access to quite a few government schemes of scholarship. Admission committee consists of teaching and non-teaching guides the students and parents by counselling. For the PG admissions, a centralized admission committee of RTM Nagpur university, Nagpur finalizes the admissions and allots the college.
Industry Interaction / Collaboration	To accustom students with current industrial, corporate scenario and to polish their employability skills, departments promote interaction of students with industry personnel through invited talks and industry visits. Specially to mention in this context is that two MoUs were carried out during the academic year 2018-19. Placement cell of the college organizes campus interviews with companies to provide job opportunities. The college encourages regular visits to industries by the staff along with students. The college alumni are regular visitors to the college for interactions with students. The career guidance cell regularly arranges counselling and exposure sessions for the students.
Human Resource Management	College authorities always maintain healthy environment by providing welfare schemes its employees. Festival advance is given to desirous support staff members. To upgrade and enhance the standards of academic environment, teachers are encouraged to participate in faculty development programs. Teachers are made in-charges of committees to look after aspects of college development for effective use of talent and ability. Various theme based programs like cultural, social, motivational, inspirational, etc. are conducted organized to maintain a balanced environment. Various

		committees like grievance redressal cell, sexual harassment committee are also constituted to look after the welfare of employees.
	Library, ICT and Physical Infrastructure / Instrumentation	The library added 217 books and 150 volumes of journals in 2018-19 to the collection of 30690 text books, eBooks, 7380 journal volumes, open source database, 186 CDs all managed with LIBMAN. Library has a reading hall with capacity of 150. The entire college is Wi-Fi enabled and equipped with computers having updated hardware and software. Teachers communicate with students through social media also. In addition to having required infrastructure for all rooms, the college is having three classrooms with audio-visual systems for special lectures and seminars. Laboratories are also equipped with LCDs for interactive teaching as and when required.
	Research and Development	During the academic year 2018-19 three faculties were recognized as a Research Guide in different subjects by RTM Nagpur University, Nagpur. 03 students were awarded with Ph.D. Degree by RTM Nagpur university, Nagpur, research papers were published by the faculty in International / National / journals. Faculty members actively participated in various Conferences/ Workshops/ Seminars at International /National /State repute. During this year one symposium was organized by the Electronics departments. The institution has 2 recognized research centres in Chemistry and Physics affiliated to RTM Nagpur University.
	Examination and Evaluation	Each department prepares teaching plan and internal examination calendar. Accordingly, home assignments, seminars and internal examination are taken as a part of continuous assessment. College conducts test examination and prepares results of programs in each of the departments. Teachers participate in various examinations related activities like paper setting, assessment program, internal and external examiner for practical, examination etc. Continuous evaluation process is also adopted topic based assignments, problem solving, quiz, etc. are taken periodically.
	Teaching and Learning	The college imparts quality education.

	The teaching and learning is supported by the various ICT tools which includes animations, videos, and power point presentations etc. Additionally students participate in students seminars, they visit different research institutes and industries, field visits, field works, lab visits, excursion tours etc.
Curriculum Development	As the college is affiliated to RTM Nagpur University, the syllabus designed by the university is effectively implemented by the college. The curriculum is supported by organizing workshops, hands on trainings and field/industry visits. The students are also motivated to participate in curricular and co-curricular activities. Some of the faculties represented college in senate, Board of Studies etc. of the university and thus participated in syllabus framing and revision. Value added courses, soft skill programmes were conducted during academic year 2018-19.

6.2.2 – Implementation of e-governance in areas of operations:

E-governace area	Details
Planning and Development	Academic calendar is designed before the beginning of the session and implemented meticulously during the session. It is made available on the website. The website is regularly updated so that the students, teachers are well informed.
Administration	The faculties, departments have WhatsApp groups. Communication is made also through email and WhatsApp in an attempt to reduce the use of paper. The communication with Joint director of Education, University, UGC is also through emails. The use of LIBMAN software has been useful in the library administration and also to the students.
Finance and Accounts	The accounts are maintained in the form of soft copy also. Salary of faculty is transferred directly to the bank account of the employees. We have a provision of online deposition of PF and TDS.
Student Admission and Support	Academic calendar is made available in the online mode through the website. The entire college campus is Wi-Fi enabled which helps the students in

	many ways. The internet connectivity is also available in the library which helps the students to browse online resources.
Examination	As per the instructions of RTM Nagpur University, Nagpur, the examination question papers are received online method one hour prior to the starting time of the examination which are then printed and distributed to the examinees. The college has the complete facility for the receipt of question papers through the online mode, their photocopying, etc.

6.3 – Faculty Empowerment Strategies

6.3.1 – Teachers provided with financial support to attend conferences / workshops and towards membership fee of professional bodies during the year

Year	Name of Teacher	Name of conference/ workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Amount of support
2018	Dr. N. D. Meshram	International Conference on " Multifunctional Advanced Materials"	NA	3500
2018	Dr. M. G. Dhonde	International Conference on " Multifunctional Advanced Materials"	NA	3000
2019	Dr. M. G. Dhonde	International Conference on "Energy and Environmental Challenges"	NA	3200
2019	Dr. S. S. Bhonsale	International Conference on "Sports Psychology Yogic Sciences - 2019"	NA	1500
2019	Dr. M. G. Dhonde	NAAC sponsored National Seminar on "New NAAC Parameters for Accreditation Assessment of Colleges: Challenges Stra tegies-2019"	NA	600
[View File](#)				

6.3.2 – Number of professional development / administrative training programmes organized by the College for teaching and non teaching staff during the year

Year	Title of the professional development programme organised for teaching staff	Title of the administrative training programme organised for non-teaching staff	From date	To Date	Number of participants (Teaching staff)	Number of participants (non-teaching staff)
2019	Workshop on "Interactive Session on NAAC: A concept and related Aspects" by Dr. N. S. Dharmadhikari	Workshop on "Interactive Session on NAAC: A concept and related Aspects" by Dr. N. S. Dharmadhikari	20/02/2019	20/02/2019	35	30
2019	Workshops on Madhubani Art Painting	Workshops on Madhubani Art Painting	08/03/2019	08/03/2019	4	3
2019	Chocolate Making Workshop	Chocolate Making Workshop	09/03/2019	09/03/2019	5	3
2019	Training Workshop on 'BEEKEEPING'	Training Workshop on 'BEEKEEPING'	11/03/2019	15/03/2019	6	4
2019	'Marathi Bhasha Gourav Din' by Dr. A. S. Sahasrabuddhe	'Marathi Bhasha Gourav Din' by Dr. A. S. Sahasrabuddhe	27/02/2019	27/02/2019	35	30
2019	Talk on "Importance of Organ Donation" by Dr. Ravi Wankhede	Talk on "Importance of Organ Donation" by Dr. Ravi Wankhede	28/03/2019	28/03/2019	25	15
2019	World Book Day Celebration. Addressed by Dr. S. G. Charalwar and Dr.	World Book Day Celebration. Addressed by Dr. S. G. Charalwar and Dr.	23/04/2019	23/04/2019	8	4

	Mrs. R. S. Saha.	Mrs. R. S. Saha.				

View File

6.3.3 – No. of teachers attending professional development programmes, viz., Orientation Programme, Refresher Course, Short Term Course, Faculty Development Programmes during the year

Title of the professional development programme	Number of teachers who attended	From Date	To date	Duration
Refresher Course on Life Sciences	1	20/09/2018	11/10/2018	22
Short Term Faculty Development Programme on Innovative Teaching Skills for Mathematics Teacher	1	12/11/2018	18/11/2018	7
Refresher Course on ICT Application and Soft Skills (Inter Disciplinary Course) Mathematics	1	04/01/2019	24/01/2019	21
Short Term Course on "Nanoscience and Nanotechnology'	1	11/02/2019	16/02/2019	6

View File

6.3.4 – Faculty and Staff recruitment (no. for permanent recruitment):

Teaching		Non-teaching	
Permanent	Full Time	Permanent	Full Time
0	0	0	0

6.3.5 – Welfare schemes for

Teaching	Non-teaching	Students
Long and short term loan facility through cooperative society Staff welfare fund Plot Scheme	Long and short term loan facility through cooperative society Staff Welfare Fund Plot Scheme	Students from financially weaker sections of the society are allowed to pay the fees in installments.

6.4 – Financial Management and Resource Mobilization

6.4.1 – Institution conducts internal and external financial audits regularly (with in 100 words each)

Financial audit is conducted at two levels. An internal audit by a private auditor and two others by the Joint Director's Office and Accountant General's

6.4.2 – Funds / Grants received from management, non-government bodies, individuals, philanthropies during the year(not covered in Criterion III)

Name of the non government funding agencies /individuals	Funds/ Grnats received in Rs.	Purpose
Philanthropists	19368	Motivation to meritorious students

View File

6.4.3 – Total corpus fund generated

0

6.5 – Internal Quality Assurance System

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

Audit Type	External		Internal	
	Yes/No	Agency	Yes/No	Authority
Academic	Yes	External AAA Committee	Yes	IQAC
Administrative	Yes	External AAA Committee	Yes	IQAC

6.5.2 – Activities and support from the Parent – Teacher Association (at least three)

1. Parent-teachers meeting was held. 2. Revisions were made in implementation process of mentor-mentee scheme. 3. The difficulties and problems of the parents regarding their child were given a patient hearing and the teachers tried to solve many of them.

6.5.3 – Development programmes for support staff (at least three)

NIL

6.5.4 – Post Accreditation initiative(s) (mention at least three)

1. Industry Academia linkages and collaborations through 02 MoUs 2. Two Competitive Examinations coaching workshops organized by IQAC 3. Competitive Examinations corner is strengthened in library

6.5.5 – Internal Quality Assurance System Details

a) Submission of Data for AISHE portal	Yes
b)Participation in NIRF	No
c)ISO certification	No
d)NBA or any other quality audit	Yes

6.5.6 – Number of Quality Initiatives undertaken during the year

Year	Name of quality initiative by IQAC	Date of conducting IQAC	Duration From	Duration To	Number of participants
2018	Rakshabandhan for Old Age Home	08/08/2018	24/08/2018	24/08/2018	72

	(Deptt of Life Long Learning Extension)				
2018	Celebration of National Sports day	08/08/2018	29/08/2018	29/08/2018	56
2018	Blood Donation Camp	08/08/2018	25/09/2018	25/09/2018	23
2019	Clinical Research awareness seminar	08/08/2018	12/01/2019	12/01/2019	100
2019	Voter Awareness Elocution by NSS volunteers on occasion of Voter's Day	08/08/2018	25/01/2019	25/01/2019	225
2019	Workshop on "Interactive Session on NAAC: A concept and related Aspects" by Dr. N. S. Dharmadhikari	18/02/2019	20/02/2019	20/02/2019	65
2019	Celebration of National Science Day with the theme Science for the people and people for the science	08/08/2018	27/02/2019	28/02/2019	200
2019	'Marathi Bhasha Gourav Din' by Dr. A. S. Sahasrabuddhe	08/08/2018	27/02/2019	27/02/2019	68
2019	Talk on "Importance of Organ Donation" by Dr. Ravi Wankhede	08/08/2018	28/02/2019	28/02/2019	350
2019	Self	08/08/2018	08/03/2019	08/03/2019	30

Employment courses for Girls: a) Madhubani Fabric Painting	

<div align="center">View File</div>

CRITERION VII – INSTITUTIONAL VALUES AND BEST PRACTICES

7.1 – Institutional Values and Social Responsibilities

7.1.1 – Gender Equity (Number of gender equity promotion programmes organized by the institution during the year)

Title of the programme	Period from	Period To	Number of Participants	
			Female	Male
Legal Awareness	25/07/2018	25/07/2018	177	123

7.1.2 – Environmental Consciousness and Sustainability/Alternate Energy initiatives such as:

Percentage of power requirement of the University met by the renewable energy sources
The college campus is kept clean and green. About 20 shaded trees were planted in the college and play ground. The college used 18 LED bulbs to reduce electricity consumption. The college is planning to install more solar panels to optimize use of solar energy as an alternate source of energy.

7.1.3 – Differently abled (Divyangjan) friendliness

Item facilities	Yes/No	Number of beneficiaries
Physical facilities	Yes	2
Provision for lift	No	0
Ramp/Rails	Yes	3
Braille Software/facilities	No	0
Rest Rooms	Yes	3
Scribes for examination	Yes	7
Special skill development for differently abled students	No	0

7.1.4 – Inclusion and Situatedness

Year	Number of initiatives to address locational advantages and disadvantages	Number of initiatives taken to engage with and contribute to local community	Date	Duration	Name of initiative	Issues addressed	Number of participating students and staff
2018	1	1	10/06/2018	12	Yoga Camp	Fitness	45
2018	1	1	18/07/2018	1	Tree Plantation	Environment Conservation	60

2018	1	1	24/08/2018	1	Visit to Old Age Home	Problems of Old Age and Health	72
2018	1	1	25/09/2018	1	Blood Donation Camp and Medical Health Checkup Camp	Idea of Donation	23

<div align="center">

View File

</div>

7.1.5 – Human Values and Professional Ethics Code of conduct (handbooks) for various stakeholders

Title	Date of publication	Follow up(max 100 words)
Code of conduct for students (Prospectus)	15/06/2018	The institute ensures that the students and staff members maintain a high standard of discipline and uphold the reputation of the institution. Students and non-teaching staff are required to wear uniform compulsorily on college campus. Strict vigilance is maintained so that no student visits college without identity card. The committees ensure cleanliness on campus. Students with license and helmet only are permitted to come to the college by two wheelers. Strict guidelines for discipline are given to students and it is ensured that these are followed with utmost priority. The institute doesn't tolerate ragging. Violators are punished with severely.

7.1.6 – Activities conducted for promotion of universal Values and Ethics

Activity	Duration From	Duration To	Number of participants
Foundation Day	18/07/2018	18/07/2018	85
Independence Day	15/08/2018	15/08/2018	40
Teachers' Day	05/09/2018	05/09/2018	186
Mahatma Gandhi Jayanti and Lal Bahadur Shastri Jayanti	02/10/2018	02/10/2018	155
Samwidhan Din	26/11/2018	26/11/2018	77

Marathi Bhasha Gaurav Din	27/02/2019	27/02/2019	68
International Women's Day	08/03/2019	08/03/2019	30

View File

7.1.7 – Initiatives taken by the institution to make the campus eco-friendly (at least five)

1. Tree plantation drive 2. Regular cleaning in the college 3. Ground water recharge pits 4. Composting and Vermi-composting unit 5. Minimum use of plastic The college has an Environmental Cell. It promotes the use of cycles among the students and use the sharing vehicles for transportation. Even some faculties share the vehicles on some working days and occasions. Plastic free campus drive is organized on regular basis to keep campus plastic free. The college undertakes plantation drives regularly on various occasions. The landscaping carried out in the college entrance and in-front of the college has developed the aesthetic look of the campus. In response to the waste management module - Green and blue color dustbins are installed in the college for separate collection of dry and wet solid waste. In the college, biodegradable solid waste from garden and some labs are put into a pit and converted into organic manure in the form of vermi-compost. College has a well maintained botanical garden where some medicinal plants and plants required for B.Sc., M.Sc. practical purpose are grown. The college has a provision of rain water harvesting system where the rain water on the terrace is diverted into the well located in the college campus.

7.2 – Best Practices

7.2.1 – Describe at least two institutional best practices

FIRST: Title of the practice: BRIDGE COURSE (Criterion I) Objectives of the Practice: To make the students well aware of the education system in a college. The context: The students who take up admissions in B. Sc. I are from diverse social, cultural and socio-economic background and come from different pre university colleges or schools. They are totally new to the degree level college. As they start coming to the college they are completely unaware of the system in which they have to take up education for at-least next three years. Therefore the bridge course is meant to give them a detailed account on basically two aspects – academic and administrative. First – with reference to their XII standard subject(s) knowledge they are given an insight as to how to go ahead with the academics at the degree level. How they are expected to refer various reference books, text books and try to be independent. They are given an exposure of the laboratory discipline and the importance of laboratory work in academics. They are made aware of the various careers available in pure sciences so they are motivated. Revision of previous knowledge and its requirement for higher academics is also taught to them. Second aspect is to make them aware of facilities including various scholarships available provided by the government and various facilities provided by the college. They are also explained with reason the DOs and DONTs when they are in the classrooms, laboratories, canteen, playground and also in the college campus. They are made aware of the semester pattern to which they are exposed for the first time in life and also of the ATKT rules and regulations. The Practice: • At the beginning of every academic session, newly admitted students are oriented through this bridge course organized by the college. It includes an interaction session with the Principal followed by presentation about the college campus and its facilities. The interaction with the faculties for academic part is conducted. Evidence of Success • Students become aware of the facilities provided by the college. • They feel comfortable to use the facilities. Problems Encountered and Resources Required: • Admissions of new students

continue for about two months. • No specific resources are required. SECOND: Title of the practice: 'Multi Skill Development Programme' (Criterion I) Title of the Practice: Conducting'Multi Skill Development Programme' The context: It is a week long course conducted by the college. The college offers various value added courses as part of the 'Multi Skill Development Programme' to all the students admitted to B.Sc. semester I. These courses are divided in two groups, namely, personality development and subject specific for vocational and entrepreneurial development. The first part of this course is a is compulsory for all the students which includes topics of general importance like public speaking technique, importance of reading habits, legal awareness, health and hygiene (only for boys), woman's reproductive system and its hygiene (only for girls), social ethics, etc. The subject specific courses are offered to students according to the subject groups they choose for the degree course. Mushroom cultivation, Sericulture, Ground water prospecting, Noise pollution and its control, Water and Soil Analysis, Printed Circuit Board design Computer Fundamentals. The ccurriculum or syllabi of all these courses are designed by the respective subject coordinators who are the faculty members of the college in consultation with the experts from the subject. Theory as well as experimental or practical exposure is given to the students. The students have been enjoying the experimental sessions a lot and find them to be quite useful. The Practice: • At the beginning of every academic session this week long Multi Skill Development Programme is conducted. Problems Encountered and Resources Required: No problems were encountered, as the resources are the experts from their respective fields and the college faculty is contributing voluntarily towards the cause.

Upload details of two best practices successfully implemented by the institution as per NAAC format in your institution website, provide the link
http://mohotasci.edu.in/wp-content/uploads/2020/10/7.2.1.pdf

7.3 – Institutional Distinctiveness

7.3.1 – Provide the details of the performance of the institution in one area distinctive to its vision, priority and thrust in not more than 500 words

The vision of our institute and parent society, Nagpur Shikshan Mandal, is to generate and disseminate knowledge in basic sciences to further enhance the physical, economical and intellectual well being of students and to motivate and guide students to achieve the highest levels in their personal and professional life. The college focuses on development of mutual respect among teaching, non-teaching, administrative staff, students and various stakeholders. The college supports and encourages the professional training and development of teaching, non-teaching and administrative staff. The college has set and will continue to set the high standard for all activities like debate, sports, educational visits to the fulfillment of our vision and mission. The short term certificate courses like Mushroom cultivation, Noise pollution, water and soil analysis, ground water prospecting, printed circuit board design and computer fundamentals, functional English, introduction to women's reproductive health and hygiene etc. are organized in the college for newly admitted students by the skill development cell of the college. The policies and programmes set by college and management are as per the requirements of the social needs and which are essential for personal development of each member of the college. The college is working hard to provide various scholarship schemes provided by central and state government for the improvement of the students belonging to backward categories. This is assured by the personal involvement of concerned administrative staff.

Provide the weblink of the institution
http://mohotasci.edu.in/wp-content/uploads/2020/10/PERFORMANCE-OF-THE-

8.Future Plans of Actions for Next Academic Year

• The college plans to start new courses in the field of Bio-technology, microbiology and bio-chemistry at UG and PG level. • The college proposes to organize a programme exclusively for the girls on the self-defense theme. • The college is also planning to organize National level workshop by IQAC and the preparation of proposal is in process and will be submitted to NAAC with due course of time. • It is also planned to introduce job oriented certificate courses. These courses are prepared in such a way that the students gain the update knowledge and also help them to face challenging world. • The college also promotes the online courses related to scheme of SWAYAM and MOOCs. • The college has initiated a process to start consultancy services by the department of Chemistry, Botany and Geology. • The college has decided to renew the website with a latest dynamic interface, rich contents, user friendly and detailed information about each department and all the activities planned and conducted by the college. • We are planning to establish central research laboratory for the benefit of faculties as well as PG and research students. • We are planning to conduct academic audit. This will help us to evaluate the faculties as well as the students. This will be performed and implemented by the IQAC of the college. The outcome of this audit will be analyzed in department wise and used to enhance the overall quality of each department. • The faculties and research scholars will be encouraged to publish their research work in the Scopus journals or those journals included in UGC care list. The faculties are motivated to submit their proposals of minor and major research project to various funding agencies like UGC, DST, and CSIR. • The college proposes to organize multi-disciplinary international conference in the academic year by the department of Physics, Chemistry and Mathematics.