

# **Annual Quality Assurance Report (AQAR) 2011-2012**



**Shri Shivaji Education Society Amravati's**

**SCIENCE COLLEGE**

Congress Nagar Nagpur-440 012

***(A grade accredited college by NAAC, Bengaluru)***

***A College with Potential for Excellence identified by UGC, New Delhi***

# **Annual Quality Assurance Report (AQAR)**

**of**

## **Internal Quality Assurance Cell (IQAC) in Accredited Institutions** *A Post-Accreditation Quality Sustenance Activity* **2011-2012**



Shri Shivaji Education Society Amravati's

## SCIENCE COLLEGE

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- 'A' Grade Reaccredited College by NAAC, Bangalore
- A College with Potential for Excellence identified by UGC, New Delhi



Adv. Shri Arunkumar B. Shelke  
President

Dr. D.K. Burghate  
Principal

Dr. Panjabrao alias Bhausaheb Deshmukh  
Founder President

No. Sc. | Est. / 7291 / 12 .

Date 22-06-2012 ,

To,  
**The Director**  
National Assessment and Accreditation Council (NAAC)  
P. O. Box No. 1075, Nagarbhavi  
**Bengaluru – 560 072**

**Subject: Submission of Annual Quality Assurance Report (AQAR)**

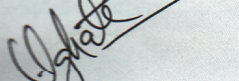
Dear Sir,

I am pleased to submit the Annual Quality Assurance Report of Internal Quality Assurance Cell (IQAC) for the session 2011-12, a post-accreditation quality sustenance activity of our institute. Two copies of the report are enclosed herewith.

I am also glad to inform you that IQAC has become a soul of the college and is helping us to achieve the goal of quality enhancement and sustenance.

With best regards,

Yours sincerely,

  
Principal

Enclosures: Annual Quality Assurance Report 2011-12 (two copies).

## Quality Advisory Committee (QAC)

<b>Chair person:</b>	Principal Dr. D K Burghate
<b>Senior Administrative Officer:</b>	A R Zodpe
<b>Teachers:</b>	
Dr A V Gomashe	Head, Department of Microbiology
S C Moholkar	Head, Department of Electronics
Dr K C Shah	Head, Department of Geology
Dr. G R Avchar	Head, Department of Mathematics
Dr.R S Sakundarwar	Head, Department of Botany
Dr. Bobadey	Head, Department of Zoology
H K Dahule	Head, Department of Physics
Dr D C Sindhimeshram	Head, Department of Chemistry
Mrs M A Pande	Head, Department of Statistics
S R Pande	Head, Department of Computer Science
Dr R S Dwivedi	Head, Department of Languages
R Y Deshmukh	Head, Department of Physical Education
Dr V A Dakhole	Librarian
<b>Member from the Management:</b>	Hon'ble Shri H Y Kalbande
<b>Nominees from Local Society:</b>	Dr R B Kharat
	Dr D B Tembhare
	Dr N S Bhawe
<b>Co-ordinator of IQAC:</b>	S C Moholkar
<b>Co-opted members:</b>	D W Deshkar

# Preface

## Vision

### “Tamaso Maa Jyotir Gamaya”

“To lead from darkness to light.”

To create human resources through quality, societal, progressive and affordable education. The Science College, Congress Nagar, Nagpur is working sincerely and putting all possible efforts to educate in a best possible ways with determination, dedication and a positive attitude. The college is constantly vigilant to see that the academic goals of the students are achieved and that they are guided as per capabilities depending on their inclination towards a specific subject.

## Mission

- To provide students with an environment for all round development of their intellectual, physical, aesthetic and social potentials.
- To discover and develop the academic and intellectual skills of the students.
- To encourage attitudes of integrity, hard work, honesty, fairness and tolerance in students so that they give their best to the society based on human values.
- To inculcate passion for excellence through information and communication technology, industrial exposures and scientific projects leading to elevated career profiles and national development.
- To stimulate the students to perform at the peak of their potentials.

The college is committed to life long learning. The college has an environment that emphasizes involvement, caring, individual achievement and success. The college, founded in 1967, has a proven record of excellence and a strong sense of continuity. The college recorded a rapid growth exponentially in academic excellence, infrastructure, and in the strength of staff and students. Our college is integrated into the community and there is a deep feeling of family involvement. National Assessment and Accreditation Council (NAAC), Bengaluru has reaccredited the college at the coveted **A Grade** level. Recently the institution is identified as “**College with Potential for Excellence**” by UGC, New Delhi.

The college is one of the 260 institutes run by the well-known “Shri Shivaji Education Society, Amravati”. The parent society has been awarded the best Education society award by the Government of Maharashtra. It is the second biggest education society in Maharashtra

State and probably in the country. This society was founded right back in 1932 by a man with a great vision, former Union Agricultural Minister Dr. Punjabrao alias Bhausaheb Deshmukh, with great determination and aim to overcome the low literacy rate specially among the disadvantaged, rural strata of the society and women.

The college is affiliated grant-in aid and affiliated to Nagpur University. The college is currently situated in the congress Nagar, which is the heart of the Nagpur city. It has extensive facilities in the form of specialist classrooms, laboratories, and two networked laboratories, Library, Administrative building, staff rooms etc.

At the moment, the college offers about 12 combinations of subjects at undergraduate level and four post graduate courses catering to about 1200 students, which is perhaps the maximum amongst the single science faculty colleges in central India.

We are concerned with the overall development of the students. The college has strong tradition of the excellence. We strive hard to extend all our students to realize their full potential while at the same time giving additional support to those with learning needs. The college aims at the integral, personal formation of youth by helping them to become men and women of character inspiring them to strive in excellence in every field. We believe that the education should equip the student to be a creative, positively oriented autonomous person striving for self-formation with a sense of identity and with feeling of citizenship to become a self-propelled, self-motivated and independent person capable of taking decisions for himself in all areas of life. When education equips one with these qualities of mind, instead of becoming a mere job seeker, he will become an active partner in the nation building process and in finding solutions to problems of India such as poverty, unemployment inequality, illiteracy, superstition and religious obscurantism.

- The college has provision of high quality teaching and supportive research with a caring environment.
- Strengthening Undergraduate/Post Graduate teaching.
- Improve and expand Research and sponsored projects.
- Increase use of IT in teaching, learning and research activities. We strongly encourage creativity and critical thinking.
- We believe in frequent communication with parents.

We have an open door policy through which the parents are able to have frequent contact with teachers and principal.

- Playing a leading role in providing the technical and vocational skills.
- Widening opportunities in learning.
- Providing a ladder of opportunity to higher education with a key focus on the foundation

degrees.

- To increase industry-college interaction to underpin, develop and strengthen innovative to meet the current and future needs of the country.
- We believe that education is the only instrument of peaceful social change.
- To create value-added human power we always keep in mind that unlike industries dealing with lifeless products, education deals with self-propellant, dynamic and often unpredictable human material.
- We have both resources and determination to impart quality education.
- We understand that teaching-learning evaluation are trinity of academic functions.
- The vision, goals, resources and work ethics of community on the campus can bring success.
- The college is committed to diversity and integration.

Thus, through teaching, research and extension services the college promotes regional economic and cultural development, explore solutions to local and national issues.

# Part A



In pursuance of National Action Plan of the National Assessment and Accreditation Council (NAAC), Bangalore for performance evaluation, assessment and accreditation and quality up-gradation of institutions of higher education, the college has established an Internal Quality Assurance Cell (IQAC) as per the guidelines of the NAAC, Bangalore. The IQAC has become a part of evaluation system in the college and work towards the goals of quality enhancement and sustenance.

In the beginning of the academic session, a meeting of IQAC members was held under the chairmanship of the Principal. A detailed discussion was held on various activities of the Institution, quality aspects, organization of workshops and seminars. It was unanimously resolved that

- Each Department will chalk-out its own plan of action for the academic enrichment of the Department.
- The Department will have a monthly staff meeting to review the progress of the plan.
- To make teaching and learning interesting and participatory using modern techniques and audio-visual teaching aids be promoted.
- To plan Lectures/Workshop/Seminars inviting eminent personalities in different subjects.
- To start job oriented courses.
- To arrange students seminar.
- To motivate research activity amongst the staff members.
- To motivate students for preparing charts, making models etc to make teaching learning process more meaningful.
- To enhance parent-teacher interaction to explore area of weakness amongst students and to find out remedial measures.
- Counseling and guidance will be provided for various job oriented/related competitive Examinations.
- Students will be encouraged to participate in geological wall magazine activities and it will be suitably rewarded.

**What is the plan of action chalked out by the IQAC in the beginning of the year towards quality enhancement and what is the outcome by the end of the year?**

## **I. Department of Botany**

Plan of action

The Department chalked out following action plan for the benefit of the students.

- To ensure maximum participation of students in seminar and other academic activities and to encourage them by giving certificates, mementoes or incentives.
- To organize the educational tours/excursions for studying the flora and biodiversity in their natural habitat of different regions.
- Installation of Botanical Society (Science association), organizing seminars, guest lectures, science exhibition and educational tours to various localities, reserve forest and wild life sanctuaries.
- To arrange counseling by ex-students and experts working in various disciplines for the upliftment of students and also importance of basic science.
- Visit to scientific labs NRCC and Biotechnology Department of Raison College to establish academic linkages.
- Extra guidance to weaker section and slow learner.
- To upgrade the laboratory by increasing the number of sophisticated instruments.
- To encourage the students to prepare charts and models for exhibition related to syllabus and for preparation of study.
- To guide the students for various entrance Examination.
- To inculcate spirit of research in students by giving various projects related to various topics.
- To study Mushroom cultivation.
- To organize Eco friendly activities to create environment awareness among the students.
- To organize Training program on Plant tissue culture techniques.
- To conduct unit test and surprise test and also provide Question Bank, scope and limitations of the syllabus.
- Use of OHP and LCD projector for effective teaching and learning process.

The Department chalked out following action plan for staff members.

- To encourage Participation in seminars, symposia, conferences, workshops, etc.
- To ensure Progressive research activity.
- MRP to be submitted by Faculty Members.
- To enact active participation of staff member in various activities of the college.

## **II Department of Bio-Technology**

Plan of action

- Renovation of the existing U.G. and P.G. laboratory
- To purchase sophisticated equipments viz. Primostar microscope, UV-visible spectrophotometer etc.

- To start M.Sc. Biotechnology course of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.
- To establish Animal Tissue Culture Laboratory.
- To establish Instrumentation room.
- To establish the Staff room.
- To chalk out academic calendar for session 2012-2013.
- To form Biotechnology Society.
- To arrange guest lectures to enrich the knowledge of students.
- To arrange students seminars.
- To evaluate students continuously through periodic tests, surprise tests and group discussions.
- To give special guidance to academically weaker students as and when required.
- To felicitate students having outstanding performance in Biotechnology.
- To guide students for various P.G. Entrance Examinations, various competitive Examination in life sciences.
- To arrange educational tours.
- To motivate the students for participation in science exhibition, cultural activities at college level and inter collegiate events.
- Preparation of study material (theory and practical).
- To arrange intercollegiate seminars, competition.
- To purchase new books for B.Sc. and M.Sc. Biotechnology course.
- To arrange parent teachers meeting.
- To arrange regular Departmental meetings for teaching staff.
- To take students feedback about teachers and departmental facilities.

### **III Department of Chemistry**

#### Plan of action

- Strengthening the infrastructure for UG & PG Laboratory.
- Preparation of study material (theory & practical) for the students.
- To start Certificate course in Nanomaterials.
- Inauguration of Chemical Society.
- To arrange Guest lectures for UG and PG students..
- To organize Industrial Visit for the students of B. Sc. And M. Sc.
- To provide Remedial teaching for academically poor students.
- To organize Visit to Raman Science Center.
- To organize Intercollegiate Seminar / Quiz Competition.
- To submit Proposals of minor & major research projects.
- To organize National conference
- To make extensive use of OHP and LCD for effective teaching & learning process
- To conduct unit tests & surprise tests.
- To run Extension activities
- Celebration of International year of Chemistry 2011

## **IV Department of Computer Science**

### Plan of action

- Review of practical to be conducted: July 2011
- Formation of computer science subject society for the 2011-2012 Session: July 2011
- To organize Guest lectures.
- To organize Interaction with industry persons.
- To conduct Surprise test of B.Sc. Computer Science Students
- To hold Students seminars: Every Saturday
- To conduct Test Examination: November and February & March
- To organize Industrial/Excursion Tours: March
- To organize Computer training program for students.
- To organize Computer training program for teaching and non-teaching staff of the college: April
- Repairing/ Maintenance of computer Hardware/Software.
- To enhance Participation of students and Teachers in a various workshops/ seminars/ conference.
- To monitor Software development cell.
- To provide Remedial coaching for weaker and disadvantaged students in a subject
- To organize Felicitation of Meritorious students
- To monitor Website development and Maintenance.
- To organize Felicitation of Meritorious students
- To monitor Website development and Maintenance.

## **V Department of Electronics**

### Plan of action

- Under Vocationalization of Education (Career Orientation programme) at UG level, the department has started Vocational subject Computer Maintenance as a part of existing B.Sc. Course in the College with main stream subjects Physics & Mathematics from the Academic Session 2002-2003. This course is to be continued.
- A new group of combination Electronics, Computer Science, Mathematics (ECSM) to be continued for B. Sc I from 2007-2008, B.Sc.II from 2008-2009 and B.Sc. III from 2009-2010 and Continued for subsequent years
- To increase infrastructural facilities
- To make Technological up gradation of the laboratory.
- To design and fabricate the new experimental boards.
- Modeling/Simulation of concept oriented topics
- To make improvement in the library services, the core library in the department in addition to college library to be continued.
- Formation of “Electronics society”
- Felicitation of Merit Students by “Electronics Society”

- Student's and Teacher's Seminars to be conducted.
- To provide a question bank to improve performance of students in their Examinations.
- To provide special guidance and additional facilities to the students who excel in their academics.
- Continuous evaluation and assessment of students to be continued as regular practice through class room tests, unit tests, terminal and test Examinations.
- Contact programmes to be conducted after terminal and test Examinations to improve the performance of the students in the University Examinations.
- Viva-Voce and extra revision practical classes of B.Sc.I to be conducted prior to the University Practical Examinations to improve the performance of the students.
- To provide remedial teaching to students with inconsistent academic performance.
- To enhance Parent-Teacher interaction.
- The concept of Students' Assessment of Teachers to be continued to improve the performance of teachers.
- To motivate teachers for pursuing research in the field of their interest.
- To establish a Guidance Cell in the Department for motivating students to appear at various competitive Examinations.
- To implement Students Mentoring System

## **VI Department of Geology**

### Plan of action

- To encourage students to make best use of teaching and learning facilities developed by the department e.g. audio-visual, computer and departmental library facility.
- Interactive session to assess students at the entry point of degree course and make necessary changes in teaching learning methodology.
- To arrange well-come function for introduction of new comer students with seniors to propagate atmosphere of better understanding.
- To identify failure and disadvantaged students, and organize remedial teaching for them.
- To provide required guidance and facilities to the students who excel in their academics.
- To organize Students' visits to various organizations related to earth science.
- To organize Field excursion of B.Sc. Part I, II and III Geology students to various places of Geological interest.
- Preparation and up-gradation of study material for practical as well as theory.
- Inauguration of Geological Society and Geological Wall Magazine and encourage students to participate in these activities.
- To arrange class room seminars on various aspects of Geology.
- To inculcate spirit of research in students by giving various project/assignments related to syllabus/ co-curricular aspects.
- To carryout continuous assessment and evaluation of students by oral tests, monthly tests, test and terminal Examinations, and assignments.
- To conduct contact programmers after Home Examinations.
- To conduct revision practical & test practical Examination.
- To encourage and motivate teachers to participate in workshops, seminars and symposia.
- To maintain and propagate research spirit.
- To organize community service / extension activities

## **VII Department of Mathematics**

### Plan of action

- Constitution of Mathematical society as a part of Science Association and arranging guest lectures for the students.
- Faculty improvement by attending conferences, Orientation, refresher courses and seminars to know recent trends in mathematics.
- Participation of Teachers in National and International Conferences\ Workshops.
- To organize seminar on Mathematics.
- To motivate and guide the students for post B. Sc. Courses in IITs, IIITs, IISc. etc.
- To felicitate Merit students and students securing distinctions in Mathematics in University Examinations.
- To encourage the students to prepare charts and models for exhibition.
- To organize Inter-Collegiate Quiz Competition
- To prepare Question Bank for the B.Sc. I, B.Sc. II and B.Sc. III students.
- Strengthen the Research Activity in the Department.
- Intra-collegiate Science Quiz
- To conduct surprise test for the students of B.Sc. I, II, III.
- To organize Workshop on Mathematica and MatLab.

## **VIII Department of Microbiology**

### Plan of action

- To start diploma course in Wine technology and food Processing approved by R.T.M. Nagpur University
- To chalk out academic calendar for session 2011-12
- To Plan Projects for M.Sc. Part II students.
- To initiate Major Research project work if sanctioned by U.G.C
- To organize Blood donation Camp
- To form Microbiological Society
- To arrange guest lectures
- To arrange students seminar
- To evaluate students through periodic tests and group discussions
- To give special guidance to academically and economically weaker students
- To felicitate students having outstanding performance in Microbiology
- To guide students for various P.G. Entrance Examinations
- To arrange educational tour
- To arrange Science exhibition
- To organize parent-teacher meetings
- To arrange regular Departmental meetings for teaching staff
- To organize intercollegiate seminar competition
- To obtain students feedback
- To organize workshop for P.G students

## **IX Department of Physics**

### Plan of action

- To set up new experiments for UG and PG as per R.T.M.N.U. syllabus.
- Up gradation and extension of laboratories of Under graduate and Post graduate.
- To enrich sophisticated instruments/research laboratory.
- To design and fabricate new experimental boards in Departmental workshop involving students.
- To develop experimental skill among the students through project assignment.
- To acquire recognition of laboratory for research work.
- To organize and motivate students for workshop/Seminars/ Quiz competitions/science exhibition and group discussion etc.
- To continue extension of Internet facility to the students.
- To arrange lectures of eminent personalities for benefit of the students.
- To motivate students to participate in academic and extracurricular activities.
- To display recent information about the subject on notice board.
- To inculcate competitive and humanitarian spirit in students to face all type of challenges.
- To arrange students visit to RSC, JNARC, RSIC, RRSC, major science exhibitions, Research Laboratories etc.
- To continue evaluation and assessment of students by conducting surprise tests, terminal and test Examinations.
- To provide remedial coaching to economically and academically weaker students.
- Felicitation of Meritorious students.
- To start carrier oriented certificate course in Maple -14.
- Continuation of research activities and submission of Major/Minor Research Projects.
- To organize seminar for students.
- To provide special guidance, books and facility of sophisticated instruments lab to advanced learners.
- Submission of Synopsis of students pursuing Ph.D.

## **X Department of Statistics**

### Plan of action

- Constitution of Statistical Society for the growth of academic activities and involvement of students.
- Felicitation of students of the Department for their outstanding academic performance.
- To motivate & guide students to prepare the models & charts in Science exhibition.
- To monitor Continuous evaluation & assessment of students through tests.
- To arrange Contact program after every test to improve students' performance.
- To organize seminars of ex-students working in various discipline for the final year students.
- To organize
  - Essay competition on subject related topics
  - Departmental quiz to generate interest about the subject.
  - Problem solving competition.
  - Project presentation competition
- To start problem section –a weekly problem solving competition

- To conduct various surveys on current burning topics.
- To organize seminars of students on their curriculum.
- To start
  - Statistical consultancy.
  - Certificate course in R-programming.
  - Post B.Sc. diploma in Operations Research.

## **XI Department of Zoology**

### **Plan of action**

#### **For students**

The Department chalked out the following action plan.

- To conduct educational tours to know the fauna of different regions and visit to malaria and filaria control centre, museum, Raman Science Park, apiculture and Sericulture centers, Regional forensic Science lab etc.
- Activity of nature's club by organizing guest lectures, watching of birds & variety of fauna & attending workshop/conferences/seminars on life sciences.
- To enhance participation of the students in classroom teaching by asking question, Group Discussion, giving topics for essays on science, conducting seminars etc.
- To conduct Surprise test, Oral test, Unit test (after completion of each Unit/topic) for theory and practical
- To encourage the students to prepare posters, charts, Logo and models of the Subject, wall magazines etc.
- To guide B. Sc. final students for various entrance Examinations.
- To arrange seminars of ex- students engaged in higher studies in the subject for the final year students.
- To inculcate a spirit of research by giving projects to students and participants will be awarded by certificates.
- To enhance and upgrade the Departmental library.
- Inauguration of Zoological Society (Biological Society/ Science Association) and holding seminars, guest lectures, science exhibition and study tours in wild Sanctuaries of Vidarbha region by this society.
- To encourage them to collect agricultural, medical and beneficial insects.
- To encourage the students to bring recent science articles for wall magazine.
- To encourage the students for higher studies abroad.
- Vermicompost, Vermiwash, Pest management & SODIS Awareness programme for farmers & Villagers.
- To undertake various awareness programmes like pollution, chikungunea, malaria, rearing of guppy fish for control of malaria, filaria, dengue in various slum areas, AIDS and Environmental awareness programme are arranged.

#### **For staff**

The Department chalked out the following action plan-

- To Increase research activity and improvement in the infrastructural facilities in the research Laboratory.
- Participation in Seminars, Conferences, Workshops and paper presentation
- To motivate Paper publication.



- To send the proposal for minor and major research project to UGC for financial assistance.

## **XII Department of Languages**

### Plan of action

- Debates, Elocutions and essay competitions will be organized so as to enhance writing and communication skills of students.
- To motivate students to improve their writing skills and expression of thoughts through writing articles and poems in daily newspaper.
- To encourage student to use their scientific and technical knowledge for state and national level competitions like UPSC/MPSC, Bank Examinations along with other Examination.
- To invite eminent personalities and organize guest lectures on various aspects of students personality so as to help students in their overall development.
- Students of B.sc final year will be guided on various career options through one day workshop and seminars.
- Scientific knowledge without human values hampers the proper development of students. Therefore certain programmes underlining right social and cultural values will be conducted for students benefits.

## **XIII Department of College Library**

### Plan of Action

- Enrichment of E-library
- Information literacy / Orientation programmes for students and staff regarding existing and new services in the Library and to motivate them to use free information resources available on Internet.
- To establish the connectivity to “UGC-Infonet E-journal Consortium” through INFLIBNET.
- Initiation of Creation of Institutional Repository by using Open Source Software “Greenstone”.
- Book and Non-book material exhibitions for strengthening the acquisition policy.
- Enrichment of collection for “Competitive Examinations” and conducting “Counseling Programmes” under Dr Panjabrao Deshmukh Career Development Academy.
- To impart training to the Internees in Library and Information Science students from the local LIS colleges.
- To enrich the collection of CDs, Cassettes and books on “Spoken English” for the activities of Language Laboratory. English Language Laboratory helps the Student to improve their communication skill.
- To enrich the collection on “Personality Development”
- Strengthening of the library under CPE scheme

## **XIV Department of Physical Education**

### Plan of Action

- To increase students participation in Inter-National/National/University/Inter-University/StateTournaments and Organization of private Institution, Association Federation Tournaments.
- To conduct Intramural tournaments.
- To conduct the guest lectures
- To conduct the coaching camps in Volleyball and Badminton for developing the new techniques and skills.
- To conduct the Sarwang Sundar Sahaj Yog programme for the staff members and college students.
- To conduct the programme on job opportunities in Indian Army and Air Force for college students.
- To conduct coaching camps in different games for school boys and girls.
- To conduct medical checkup camp for staff members of the college sugar, BP, ECG.

# **Part B**

**1. Activities reflecting the goals and objectives of the institution:**

<b>Department</b>	<b>Goals and Objectives</b>
Botany	To undertake students projects, Eco-exhibition, Eco-friendly activity, Environment awareness program, Career Counseling and Guidance for competitive Examinations. Question Bank, scope and limitations of the syllabus.
Bio-Technology	To continue vertical and horizontal expansion of the Department giving quality education to the students.
Chemistry	Department has conducted the various activities like National Conference, poster competition, guest lecturers etc and various extension activities.
Electronics	<ul style="list-style-type: none"> <li>• To impart quality education to the student.</li> <li>• Linking education to emerging career pattern.</li> <li>• To achieve global standard of excellence, training and research.</li> <li>• Developing skill in hardware engineering electronics.</li> <li>• Ensuring optimum utilization of facility.</li> <li>• Making Education more students centric.</li> </ul>
Geology	<ul style="list-style-type: none"> <li>• Use of audio-visual aids, models and charts for theory and practical teaching and encouraging students for interactive sessions.</li> <li>• Special lectures by staff members of the department by using power point presentation, slide and overhead projector.</li> <li>• Innovation in teaching and learning based on students' feedback.</li> <li>• Self learning through library, internet and e-journals.</li> <li>• Counseling and guidance to students for various entrance Examinations for their further study after graduation and various job related competitive Examinations.</li> <li>• Remedial teaching to failure and disadvantaged students from time to time throughout the year.</li> <li>• Students are encouraged to make use of Museum Facility.</li> <li>• Mentor system to minimize the dropouts and counseling to low as well as high achievers.</li> <li>• Students are encouraged to participate in the activities of Geological Society and Geological Wall Magazine. Prizes are given for active participation in related activities.</li> <li>• Students are motivated to participate in class seminars and carry out projects. They are also motivated to prepare charts &amp; models &amp; participate in science exhibition.</li> <li>• Meetings of teachers and students as well as teachers and parents to discuss the performance of students under Mentor-ward programme.</li> <li>• Student's feedback about teachers and Departmental facilities in Department and modifications as per need.</li> <li>• Planning the teaching and other activities in advance before the commencement of the session.</li> <li>• Contact and counseling session after terminal &amp; test Examinations.</li> <li>• Surprise theory tests conducted and counseling given.</li> <li>• Test practical conducted and result and outcome discussed with students and accordingly counseling was given during respective contact sessions with an aim to improve their performance.</li> <li>• Over-view sessions were conducted for students about their course content to give them more understanding and connectivity between</li> </ul>

	<p>different aspects.</p> <ul style="list-style-type: none"> <li>• Departmental theory test were conducted for B.Sc. I and, outcome with students who appeared, was discussed.</li> <li>• Under the student -mentor scheme Dr. K. C. Shah was entrusted with responsibility of B.Sc. II PCG &amp; CBG students and Dr. Ms. J. K. Kodate with responsibility of B.Sc. II CGM batch. Both the teachers arranged meeting with the students and where and whenever required some of the parents were called to discuss the absenteeism and performance of their ward.</li> <li>• <b>Two Geological Field Excursions were arranged:</b> This year two such field excursions were conducted. One for Dongargaon Fluorite mine and area around on 19<sup>th</sup> December, 2011. Another Field excursion visit was arranged for Armori and area around on 05<sup>th</sup> January, 2012. Student submitted reports of the same. <ul style="list-style-type: none"> <li>• <b>Visit to Maharashtra Remote Sensing Application Center, Nagpur:</b> Students of B.Sc. Final Geology were taken for a educational visit to <b>Maharashtra Remote Sensing Application Center, Nagpur</b> on 21st January, 2012. Director, MRSAC Kindly gave permission for the same. Shri Ajay Deshpande and Dr. D.M. Kolte and other scientists and staff members actively guided and helped students during this visit. Students submitted a report of the same.</li> <li>• <b>Visit to Geological Survey of India, Nagpur:</b> Students of B.Sc. II Geology were taken for a educational visit to Geological Survey of India, Nagpur on 22<sup>nd</sup> February 2012. Students then submitted a report of the same.</li> <li>• <b>Installation of Geological society &amp; Editorial board of Geological wall Magazine</b> was done under the aegis of Science association on 29<sup>th</sup> September 2011. Dr. K.C. Deshmukh, Dean, Science Faculty, RTM Nagpur University, Nagpur was the Chief Guest of the function. Honorable Principal Dr.D.K.Burghate presided over the function.</li> </ul> </li> <li>• <b>Wall Magazine Competition :</b> A wall Magazine Competition was organized on 7<sup>th</sup> September,2011 by Geological Wall Magazine Editorial board of the Department under the convener ship of Dr. Ms. J. K. Kodate, Assistant Professor in the Department of Geology under the guidance of Dr. K. C. Shah, Associate Professor, Chairman Geological Society &amp; Head of Geology Department. Honorable Principal Dr. D. K. Burghate was Chief Guest of the function while Dr. A. V. Gomashe, Head of the Microbiology Department in the College presided over the function. Judges were Dr. P. S. Utale, Chemistry Department, Dr. Mrs. S. D. Puranik, Botany Department of the college, Dr Mrs. Somaya Humane &amp; Dr.(Ms.) Bandana Samntha from PGTD, Geology, RTM Nagpur University. All the teachers present for the function were honored with giving a greeting card and flower on the occasion, as Teachers' day happened to be holiday. Everyone present appreciated the activity and wall magazines displayed for the competition. A large number of student and teacher were present.</li> <li>• <b>Geofest2011: Intercollegiate Geology Students' Seminar Competition:</b> A Vidharbha level Students' Seminar Presentation Competition Geofest 2011 was organized by the Department as a part of Yuva Mohotsava-2011, Celebrations of the Birthday of Founder President of our parent</li> </ul>
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	<p>Society Dr. Panjabrao Deshmukh. Geology Department Organised this event under the aegis of Geological Society of the department, on 22<sup>nd</sup> December 2011 in the college as part of Yuva Mohotsava. An Intercollegiate Geology Students seminar competition was organised in the college. Students from Shri Mathuradas Mohota College of Science, Nagpur; Shri Mahatma Gandhi College of Science, Armori; Shri Gurunanak College of Science, Ballarshah; Shri Sitna Science, Arts &amp; Commerce College, Chikhaldara; Shri Shivaji Science College, Nagpur participated and were present in the program. We will always remain indebted to Mr.V.M. Bothale for having accepted our invitation at last moment due to minor change in Scheduled program and Dr. D.M.Kolte and Dr.Ajay Deshpande for cooperating us in this effort. The Geofest was inaugurated by Mr. Vinod Bothale, Director, Maharashtra Remote Sensing Application Centre, Nagpur Dr.A.V.Gomashe, Officiating principal of the college presided over the function. The judges of the competition were Dr.Haribhau Kale, Associate Professor from PGTD, Geology, RTM Nagpur University; Mr. M. Chandradas from G S I, Nagpur; Mr.VM. Kale, Maharashtra Remote Sensing Application Centre, Nagpur Prizes and certificates were given to the winners at the hands of Dr. A. K. Chaterjee, Director, GSI, Nagpur, chief guest of valedictory function. Good numbers of student were present.</p> <ul style="list-style-type: none"> <li>• <b>Science Exhibition:</b> College organizes science exhibition as a part of Yuva Mohotsava to encourage scientific thinking and temperament amongst students and also to bring out students' hidden potential of creativity in science. A good number of our students participated with all the zeal and enthusiasm. Geological Society of the college motivates students of geology for this event. This event was organized on 24<sup>th</sup> &amp; 25<sup>th</sup> December, 2012.</li> <li>• <b>Farewell 2012:</b> B.Sc.II &amp; I student organized a farewell program for their B.Sc.Final Counterparts on 27<sup>th</sup> February, 2012, in Audiovisual hall of the college. Honorable Principal Dr. D. K. Burghate; Patron, Geological Society (G.S.) of the college, Dr. K. C. Shah, Head of Geology department and Chairman (G.S.), and Convener of (G.S.) Dr. Ms. J. K. Kodate Tokalwar guided all the students and extended their warm wishes for bright future of the final year students. Geological Society of the Department (G.S.) had launched two prizes for Final year students "Best student of the year" and "Student with maximum Attendance".</li> </ul>
Mathematics	<ul style="list-style-type: none"> <li>• To impart quality education to the student.</li> <li>• Linking education to emerging career pattern.</li> </ul>
Microbiology	Vertical and horizontal expansion of the Department giving quality education to the students.
Physics	<ul style="list-style-type: none"> <li>• To achieve the global standard of academic excellence using ICT, Laboratories and infrastructure is upgraded to meet the standard.</li> <li>• To inculcate the competitive and humanitarian spirit in the students to face all type of challenges, the counseling is done through out the year.</li> <li>• Regular counseling is under taken to prepare the student for self employment.</li> </ul>

Statistics	<ul style="list-style-type: none"> <li>• To impart quality education to students.</li> <li>• Linking education to emerging career pattern.</li> <li>• To foster excellence in teaching.</li> <li>• To prepare students with attitude, habits of life long learning with the competitive skills.</li> <li>• To encourage students to participate in subject quiz competition as well as problem solving competitions.</li> <li>• To impart practical knowledge of the subject amongst students through projects.</li> </ul>
Zoology	<p>To motivate teaching staffs for active research in the subject, paper publication and presentation.  <b>Achievement :-</b> Dr. Ghonmode have published 03 research papers, Dr. S.S.Deshmukh – 2 and Dr. A.D.Bobdey -10</p> <p>To organize workshop/ seminars on the subject to make aware students and teachers about recent trends in the subject development.  <b>Achievement:</b> - The students are upgraded about the use of vermiculture and sericulture practices by workshops.</p> <p>To organize seminar, essay, logo, quiz competition, group discussion, projects, awareness programme for the students.  <b>Achievement:</b> - The students have actively participated in the programmes, which increased their curiosity about the subject.</p> <p>To organize study tours for the collection of pests and beneficial insects and other fauna.  <b>Achievement:</b> - The students are motivated to conservation of biodiversity and to perform eco-friendly activities, and upgrade the subject knowledge during their excursions at different places.</p> <p>Started ongoing certificate courses as a job oriented courses.  <b>Achievement:</b> - Twenty students participated in the certificate courses of Vermicompost and Sericulture. Department have produced qualified and expert manpower in the same.</p> <p>To attend and organize seminar/ workshop/ conferences.  <b>Achievement:</b> - The teaching staff of the Department regularly attended national and international seminar and conferences to gain the ideas and knowledge about the framework of conferences and seminars, which is going to be attempted in the Department.</p>
Languages	<p>Debates, Elocutions, Essay writing Competitions, Career Counseling, Guidance for Competitive Examinations. Celebration Of Birth anniversaries and Observing death anniversaries of great Pioneers and Saints by the students.</p>
Library	<p>To strengthen the library collection and services, the library has initiated the activities like organizing books and non-book materials, automation of library services, access to Internet, digitization of material and creation of e-content.</p>

Physical Education	<ul style="list-style-type: none"> <li>• To motivate students in building health and to inculcate the good habits.</li> <li>• Active participation in various indoors and outdoors games to make aware about the science behind them.</li> <li>• To organize camps, workshops on various games to make aware about the science behind them.</li> <li>• Increase participation of students in Inter – collegiate tournaments of Nagpur University.</li> <li>• To encourage the students active participation in yoga and meditation through yoga classes in the college.</li> <li>• Guide the students for various games and sports competitions.</li> <li>• To encourage them to read the sports related Literature.</li> <li>• The books relating to sports and yoga have been added in the Library.</li> <li>• Organization of guest lectures</li> <li>• Organization of Activity through Girls students for awareness of population and pollution in slum areas.</li> <li>• Project on clipping book for the students,</li> <li>• Students socially aware of the social problems &amp; to develop the world knowledge.</li> </ul>
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## 2. New academic programmes initiated (UG and PG)

Department	New Academic Programmes initiated
Bio technology	M.Sc. Biotechnology course has started in current session with sanction intake capacity of 22 students.
Chemistry	Certificate Course in Environmental Analysis
Geology	Department has this year sent proposal to UGC for the New Certificate, Diploma and Advance Diploma courses under Career oriented program in “Application of Geomatics in Field Geology” Add on Diploma Course in ‘Groundwater Exploration (Hydrogeology)’ has been started. Department has also started ‘Certificate Course in Water Analysis’.
Microbiology	A diploma course titled Wine technology and Fruit Processing sanctioned by Rashtrasant Tukdoji Maharaj Nagpur University under Career Oriented Program was started.
Physics	<ul style="list-style-type: none"> <li>• “P. G. Diploma (one year) in Nano-technology”, under Innovative Programme of UGC in teaching, interdisciplinary and emerging areas is ongoing with an intake capacity of fifteen students.</li> <li>• M.Sc. Physics course has started in current session with sanction intake capacity of 22 students.</li> </ul>
Zoology	Department has proposed the M.Sc. course in Wildlife management and conservation from session 12-13, under innovative programme of UGC (11 th plan). The proposal is communicated with UGC, for financial assistance.

As per the UGC norms RTM Nagpur University has introduced the compulsory course in Environmental studies at UG level (B. Sc. II). The Examination was conducted and the grades were sent to University. The study tours, field work, Guest lectures were organized.



Projects were given to make students aware about environment.

### 3. Innovations in curricular design and transaction:

UGC model syllabus has been adopted by the University and implemented by the college with suitable innovations.

Department	Innovations
Botany	Applied for COP.
Chemistry	Curriculum was designed for Certificate Course in Environmental Analysis
Electronics	Project work assigned to students to improve their practical skills.
Geology	RTM Nagpur University syllabus was displayed year-long for the benefit of students Use of audio-visual aids, models and charts for theory and practical teaching and encouraging students for interactive sessions. Dr. K C Shah organized Students' Interactive Session on topic "If there would not have been soil" on Auspicious occasion of Gandhi Jayanti 2 <sup>nd</sup> October 2011, Around 10-12 Students expressed their views during this session in different ways. This exercise was to encourage students to think and evolve thoughts.
Physics	<ul style="list-style-type: none"> <li>Workshop activity: Few experimental boards were fabricated.</li> <li>Students were given assignments to prepare the charts and models based on practical physics.</li> </ul>
Zoology	<p>Students Projects:</p> <ul style="list-style-type: none"> <li>Dr. S.V. Ghonmode along with the students of B.Sc. III, are working on the project of Sickle cell anemia and Thalasemia, which is the burning issue in the vidharbha region. &amp; students visited slum areas to aware the society regarding its causes, symptoms and prevention.</li> <li>Dr. A.D.Bobdey and Dr.S.S.Deshmukh along with students of B. Sc. II &amp; III completed projects on Vermicompost &amp; SODIS respectively.</li> <li>Dr. A.D.Bobdey and Dr.S.V.Ghonmode along with the students of B.Sc.I completed project on "Sericulture" and to aware the masses regarding use of sericulture.</li> <li>Dr. A.D.Bobdey, along with the students of B. Sc. I &amp; II completed project on "Aquarium maintenance".</li> </ul>

### 4. Inter-disciplinary programmes Started:

- **Botany Department** : Yes, (Microbiology, Geology, Zoology, Biotechnology & Chemistry)
- **Bio-Technology:** An interdisciplinary research program with Botany department was started and two research papers are communicated for publication.
- **Chemistry Department:** Initiated research work with Physics, Botany and Zoology Department. Many extension activities conducted in collaboration with other Department.
- **Physics Department:** "P. G. Diploma (one year) in Nano-technology", a P.G. course under Innovative Programme of UGC in teaching, interdisciplinary and emerging areas has been continued for Physics and chemistry students.
- **Zoology Department**
  - Vermicompost, Vermiwash, SODIS and Water conservation for farmers & Villagers undertaken by Dr. S. V. Ghonmode and Dr. A. D. Bobdey, Dr. S. S.

Deshmukh in collaboration with Dr. S. S. Pawar, lecturer, V.M.V. Amravati, along with students of B. Sc. II and B. Sc. III.

- AIDS, malaria and filaria awareness programme, financial help to cancer and Critical patient along with Physical Education Department.
- Pollution awareness programmes was held in Chuna-Bhatti slum areas and Oscimum plants were distributed for maintaining eco-friendly environment. Some water filters were also distributed for purification of drinking water along with Physical Education & Chemistry Department.
- AIDS awareness week was organized in the Department by displaying the charts, posters and some news paper cuttings to make aware about the dreadly disease along with microbiology, Botany, Chemistry Department & students council. Also street plays and stage dramas were organized to aware the students and public. Poster competition was also organized for the B.Sc. students to create the awareness among them.
- Free refreshment, tea and mineral water was arranged for the pilgrims of shegaon, a holly place. Shed and stall was arranged in the way of Shegaon at Deori village. Honourable executive member of our parent society has inaugurated the same Dated 11<sup>th</sup> February 2012 to 15<sup>th</sup> February 2012 Nearly 5000 pilgrims visited the stall for refreshment, tea and their rest during the walking travel to shegaon. Shegaon town is located in Buldhana district of maharashtra state and hold great religious importance as appearence, and work place of Saint Shree Gajanan Maharaj.

#### **5. Examination reforms implemented:**

- For continuous evaluation every Department conducted class tests, unit tests and surprise tests to test understanding, skill and knowledge of the students. Students are equipped with Question banks and Discuss scope and limitation of every unit.
- Terminal and test Examination were conducted by the college. After analyzing the result the performance of the student was judged and they were guided properly to improve their performance in the University Examinations.
- Contact programmes were conducted from time to time to point out the mistakes made by the students and they were guided properly to correct their mistakes.
- Viva-Voce and extra revision practical classes were conducted prior to the University Practical Examinations to improve the performance of the students in University Practical Examinations.
- Objective type questioner was given in addition to the prescribed syllabus of the RTM Nagpur, University to test the knowledge of the students.
- Special guidance is imparted to the students who excel in their academics and to make the subject as their career and additional books were provided to such students.
- Guidance is provided to weak students in academics.
- Remedial teaching is provided to weak students in academics.

**6. Number of candidates qualified NET / SLET:** One each in Chemistry Department and Geology Department

**7. Initiative towards faculty development programme:**

The college encourages the staff for perusing higher academic qualifications and thus enhancing their academic qualities. The college provides all the necessary facilities like: infrastructure, Library and Laboratory facilities, recommendations for FDP programme under UGC, motivation for submitting Major/Minor Research Projects, participation in Conferences and Workshops at all levels of organizations, publishing research papers, authoring books, organize collaborative programmes, visit to colleges under Student and Faculty Exchange programmes and providing financial aid to meet part expenses.

The college has constituted the “Research cell” which supports above-mentioned activities. The college also subscribes National and International journals as per need of the researcher on the recommendation of the Research cell.

- Intercollegiate seminar competition on Biodiversity.
- Intercollegiate Logo competition.
- National poster competition on Water: The Elixir of Life.

In the Department of Bio-Technology Teachers are encouraged for higher education programme.

A teacher appointed on Ad-hoc basis viz. **Miss.Priyanka Sonabarse** has cleared NET and JRF of Agriculture and joined Central food Technology Research Institute, Mysore, Karnataka.

Another teacher appointed on Ad-hoc basis viz. **Miss.Gauri Pathak** has cleared NET and GATE in March-2012.

Yet another teacher appointed on Ad-hoc basis viz. **Miss. Ashlesha Chopade** has received Women Scientist Project of Rs.11, 64,000, from Department of Science and Technology, New Delhi in December 2009 and work is going on.

Three Faculty members have attended Refresher Course in Chemistry.

**Prof. R.N. Jugele has been awarded Teacher Fellowship under UGC FDP scheme.**

In the Department of Physics following activities are in progress:

- The computer and internet facilities and training has been extended to teachers and non-teaching staff.
- CPE and Nano Tech Laboratory has been made available to teachers for research work.
- Reference and text books have been provided to teachers from Departmental library.
- Shri H K Dahule submitted his work for Ph.D. degree
- The faculty members are encouraged to participate in State/ National and International seminars.
- Faculty members are encouraged to publish research papers
- Faculty members are given study leave to attend orientation/refresher courses
- Department of Chemistry of our college organized UGC Sponsored one day National Conference on “Materials Atom to Molecule” on 16<sup>th</sup> December 2011.
- Following faculty members from different disciplines are relieved to participate in refresher and orientation courses.
  - Dr. L. B. Hirulkar (English) – November 2011.
  - Dr. S. S. Darokar (Physics) – November 2011.

- Prof. M. P. Dhore from Department of Computer Science resumed his duties after the completion of two years FIP and Prof. R. N. Jugele from the same Department has been granted two years FIP and he will be relieved for the same shortly.

#### 8. Total number of seminars/workshops conducted:

Department	Number of Seminars/Workshops
Bio Technology	Two lectures were organized for students Mr.Manish Deshmukh has delivered a lecture on clinical research. Mr.Aditya Joshi and Mr.Sushant Bhusari has delivered a lecture on wild life.
Chemistry	One National Conference
Electronics	<p><b>Students Seminar-</b>  Ms. K K Chitanvis B.Sc.(Final) has delivered seminar on “Generations of Microprocessors”  Mr. A A Dani B.Sc.(Final) has delivered seminar on “Architecture of 8085 Microprocessor”  Mr D L Ghonge B.Sc.(Final) has delivered seminar on “PPI”  Ms. R R Khandelwal B.Sc.(Final) has delivered seminar on “Microcontroller”</p> <p><b>Teachers’ Seminar-</b>  S. C. Moholkar delivered talk on BP Measurement.  D. W.Deshkar delivered talk on Digital Clock.  M. J. Hedau delivered talk on Op-Amp Applications</p>
Microbiology	A one day workshop was conducted on Continuous Medical Education on Leprosy for M.Sc Part II students on 9 <sup>th</sup> August 2011.
Physics	<ul style="list-style-type: none"> <li>• Student Workshop on Practical -10</li> <li>• Student Class Seminars -20</li> </ul>
Statistics	<p>03 Seminars  By Mrs. M. A. Pande, and Ms. Madhuri Nasre and Ms.Rakhde</p> <ul style="list-style-type: none"> <li>• Understanding Statistics.</li> <li>• Applications of Statistics in various fields and opportunities to statistics students.</li> <li>• Workshop on TORA 98 for B.Sc. III year students.</li> </ul>
Zoology	Seminar/Workshop-Nil, Guest lecture-4, Student’s seminar-27
Language	03 Seminars

#### 9. Research projects:

Department	Research Projects	
	Newly implemented	Completed
Botany	03 Minor Research Project	-
Bio Technology	01 Major Research Project	-
Chemistry	01 Major Research Project	02 Minor Research Project
Geology	02 Minor Research Project	

Microbiology	Four projects sanctioned by DST under women scientist scheme are ongoing.	-
Physics	02	05
Languages		01
Zoology	01 Minor Research Project	01

**10. Patents generated, if any: Nil**

**11. New collaborative research programmes:**

Department	Programmes
Botany	Biotechnology Department of Rasoni college and Institute of science, Nagpur.
Bio-Technology	Interdisciplinary research programs with Botany department was started and two research papers are communicated for publication.
Chemistry	Research collaboration with <ul style="list-style-type: none"> <li>• Department of Applied Chemistry, B. D. College of Engineering and Management, Wardha.</li> <li>• Department of Chemistry, LIT, Nagpur</li> <li>• Department of Applied Chemistry, Priyadarshani College of Engineering and Technology, Nagpur</li> <li>• Department of Applied Chemistry, Yashwantrao Chavan College of Engineering and Technology, Nagpur</li> <li>• Department of Physics RTM Nagpur University Nagpur</li> </ul>
Geology	One Minor research project, sanctioned & funded by UGC, in technical collaboration with Maharashtra Remote Sensing Application Centre (MRSAC), VNIT Campus, Nagpur is ongoing..
Physics	The faculty members have collaborative research with Institute of Science and PGTD RTM Nagpur University, Nagpur.

Most of the teachers are working along with other teachers at their respective Departments of RTM Nagpur University campus and Institute of Science, Nagpur.

Mr D W Deshkar in collaboration with IUCAA, Pune and Centre for Theoretical Physics, Jamia Millia Islamia, New Delhi is working on related topics in astrophysics.

**12. Total research grants received from various agencies:**

Department	Grant received (from UGC)
Botany	Rs. 2, 99,000 = 00
Bio-Technology	Ms. Ashlesha Chopade received Women Scientist Project of Rs. 11, 64,000, from Department of Science and Technology, New Delhi in December 2009 and work is going on.
Chemistry	Dr.S.R.Thakare: Rs 3, 82,000/- Second installment of Major Project
Physics	<ul style="list-style-type: none"> <li>• Under Innovative Programme of UGC : Rs.3.20 lacs</li> <li>• Under CPE Programme Rs.6.0 lacs</li> <li>• Under carrier oriented programme: 10 lacs.</li> </ul>
Zoology	Rs. 95,000 = 00
Library	Rs. 25,000 = 00
Physical Education	Rs. 95,000 = 00

**13. Number of research scholars:**

Department	Number of Students
Botany	M.Phil.- 3 students
Bio Technology	One staff member Ms. Ashlesha Chopade's Women Scientist Project has been approved by Department of Science and Technology.
Chemistry	Total 16 research Scholars are registered under the supervision of faculty Members of the Department Dr. S. R. Thakare: 08 Dr. R. U. Khope: 04 Dr. P. S. Utale:04
Electronics	02
Geology	Both the staff members of the Department are recognized supervisor for Ph.D degree of Nagpur University. Dr.(Ms.) J.K.Kodate have worked as co-guide for one candidate who has been awarded Ph.D. Degree, while she is guide for another one registered student.
Mathematics	03
Microbiology	Ms Savita Sukdan, Mrs Pranita Gulhane, Mrs Sweta Rai Mrs. Nitu Pathak are the principal investigators under the women scientist scheme of DST
Physics	02
Zoology	05
Physical Education	01

**14. Citation index of faculty members and impact factor: -**

Name of Faculty	Citation Index
Dr.Mrs M.R.Lanjewar	04
Dr S.R.Thakare	1.6
Dr.R.U.Khope	1
D W Deshkar	02
Dr. A V Gomashe	1.67

- Dr.D.K.Burghate. Papers:32, Cites/paper:1.34,h-index:4, g-index: 6.
- Mr.H.K.Dahule. Papers: 01, Cites/paper:0.00,h-index:0, g-index: 0.
- Dr. S B Khasare. Papers:13, Cites/paper: 2.46,h-index:4, g-index: 4.
- Dr. S W Anwane. Papers:06, Cites/paper:1.67,h-index:2, g-index: 3.
- Dr.S.S.Darokar. Papers:08, Cites/paper:3.00,h-index:2, g-index: 4.

**15. Honors/ Awards to the faculty:**

Department	Honors/ Awards
Principal	Dr. D. K. Burghate – “Ideal Principal Award” of R. T. M. Nagpur University, Nagpur. Dr. D. K. Burghate visited Nadar Mahajana Sangam S.

	Vellaichamy Nadar College Nagamalai, Madurai-625019 Tamil Nadu in December 2011 as an Assessor of NAAC Peer Team.
Botany	Prof. R N Deshmukh honored with best teacher award constituted by institution
Bio-Technology	One staff member Miss.Ashlesha Chopade's Women Scientist Project has been approved by Department of Science and Technology.
Chemistry	Dr.Mrs Mamata R.Lanjewar, is bestowed with Late B.S. alias Dady Deshmukh, Best Teacher Award instituted by Shri Shivaji Education Society, Amravati.
Computer	Dr. M. P. Dhore Department of Computer Science presented paper on Circuits, System and Simulation (ICCSS 2011) at International Conference held in Bangkok.
Electronics	Mr P N Mehekare (lab. Asstt.) has been bestowed with "Best Service" Award instituted by college Prof. M. J. Hedau Department of Electronics presented paper on Circuits, System and Simulation (ICCSS 2011) at International Conference held in Bangkok.
Microbiology	Dr. Gomashe President Microbiologist Society, India Nagpur Chapter
Zoology	Dr. A. D. Bobdey, has worked as resource person for author and editor for Kumar Vishwakosh Published by Govt. of Maharashtra. Dr. A. D. Bobdey has appointed as a subject expert on the glossary preparation of Technical terminology commission, HRD Ministry, Govt. of India.
Language	Dr. L. B. Hirulkar's 'SPANDAN' an anthology of poems in Marathi released on 9 <sup>th</sup> March 2012.
Physical Education	Dr. Vandana K. Meshram, honoured with <b>International Award:</b> <b>Vishwashanti International Award-2012:</b> Awarded by Vishwashanti Vikas Charitable Trust, Mumbai held at Azad Bhavan Hall, Parvari, Goa on 19 <sup>th</sup> February 2012. <b>National Award:</b> <b>Mahatma Jyotiba Phule Krida Ratna National Award-2011:</b> Awarded by Human Welfare Social Organization, Mumbai held at G B Pantha, Megawadi Jogeshwari (East), Mumbai on 24 <sup>th</sup> December 2011. <b>Santha Tulsidas Rashtriya Gourav Award-2012:</b> Awarded by Santha Tulsidas Rashtriya Sansad, New Delhi. <b>Rashtriya Bhartiya Gunwant Gauran Award-2012:</b> Awarded by Shri Shanideo Maharaj Bahu Uddeshiya Sanstha, Pune at Pra. Ramkrishan More Preshagruh Chinchwad, Pune on 25 <sup>th</sup> February 2012. <b>Shirdi Shri Saibaba Rashtriya Gunwant Gaurav Award-2012:</b> Awarded by Shri Shanideo Maharaj Bahu Uddeshiya Sanstha, Pune at Shrisai Mangal Karyalaya,

	Shirdi on 6 <sup>th</sup> April 2012. <b>Savitribai Fule Talent Research Award-2012:</b> Awarded by Mahatma Fule Talent Research Academy, Nagpur at Purnachandra Buti Hall, Nagpur on 14 <sup>th</sup> April 2012. <b>State Award</b> <b>Maharashtra Suvarna Gourav Award-2012:</b> Awarded by Gourav Pratishthan, Pune at Swargate, Pune on 15 <sup>th</sup> January 2012
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**16. Internal resources generated:**

Computers with Broad Band Internet connectivity is made available to the students and teachers. For students, a nominal fee is Rs. 5/- per hour. The facility is extended free of charge to the teaching staff.

Year	No. of users	Resource Generated
2005 (Jan-Dec)	824	Rs. 4120/-
2006 (Jan- Dec)	1988 (students) 554 (teachers)	Rs. 9940/- -----
2007 (Jan-Dec)	656 (students) 513 (teachers)	Rs. 3280/- -----
2008 (Jan-Dec)	340 (Students) 100(Teacher)	Rs. 1700/- -----
2009 (Jan-Dec)	429(Students) 125 (teachers)	Rs. 214 -----
2010 (Jan-Dec)	256 (Students ) 105 (Teachers )	Rs. 1280 / -----
2011 (Jan-Dec)	732 (Students) 175 (Teachers)	Rs.3660/- -----

Course	Fee	Number of Students	Total
B. Sc. I Biotechnology	15,000 X	46	6,90,000=00
B. Sc. II Biotechnology	15,000 X	44	6,60,000=00
B. Sc. Final Biotechnology	15,000 X	41	6,15,000=00
BCA I	20000 X	25	5,00,000=00
BCA II	20000 X	26	5,20,000=00
M. Sc. I Computer Science	12000 X	39	4,68,000=00
M. Sc. II Computer Science	12000 X	28	3,36,000=00
M. Sc. I Chemistry	15000 X	21	3,15,000=00
M. Sc. II Chemistry	15000 X	19	2,85,000=00
M. Sc. I Microbiology	15000 X	21	3,15,000=00
M. Sc. II Microbiology	15000 X	20	3,00,000=00
M. Sc. I Bio-Tehnology	38000 X	03	1,14,000=00
M. Sc. I Physics	12000 X	06	72,000=00
MCA I	65000 X	30	19,50,700=00
MCA II	58090 X	30	17,42,000=00
MCA III	50000 X	25	12,50,000=00
Building Rent (Bank)	12,360 X	12	1,48,320=00
Research Fee			3,24,375=00
<b>TOTAL</b>			<b>1,06,05,395=00</b>



**17. Details of Departments getting SAP, COSIST IDST, FIST, etc assistance/ recognition: -**

Four women scientists are working under women scientist scheme of DST

Ms Savita Sukdan: Rs 2, 96,000/-

Mrs Pranita Gulhane: Rs 19, 90,000/-

Mrs Sweta Rai: Rs 11, 64,000/-

Mrs. Nitu Pathak: Rs 2, 23, 76,000/-

Physics Department received an assistance of Rs.19.20 lacs from UGC.

**18. Community services:**

<b>Department</b>	<b>Community services</b>
Botany	Awareness among the society about the importance of plants for the survival of the human being.
Bio-Technology	<ul style="list-style-type: none"> <li>▪ AIDS awareness programe,</li> <li>▪ Haemoglobin checkup camp.</li> </ul>
Chemistry	Socioeconomic Awareness Programme NET/SET coaching for Chemistry discipline
Electronics	Master Mrunal Mangeshkar was supported with his academic needs. Students and staff donated blood during Birth celebrations of Hon'ble founder president.
Statistics	We guide our ex- students in their projects for MCA, DCS Examinations. We help research scholars for statistical analysis of their data
Zoology	AIDS, Malaria and Filaria, Chikumgunia, Dengue, Sickle cell anaemia, Thalassmia awareness programme, Financial help to cancer and critical patient. Awareness programme for farmers regarding pest management Vermicompost, Vermiwash. Awareness regarding environmental pollution. Awareness for farmers regarding the disinfection of water by using solar energy (SODIS). Rearing of guppy fish as biological control for malaria & other diseases transmitted by mosquito.
Physics	<ul style="list-style-type: none"> <li>• Participated in blood donation camp</li> <li>• Participated in NSS camp.</li> <li>• Science awareness programs during exhibition and Yuwa Mahotsava</li> </ul>
Languages	<ul style="list-style-type: none"> <li>• Counsels students in tackling their personal and educational issues.</li> </ul>
Physical Education	<ul style="list-style-type: none"> <li>▪ Social awareness programme</li> <li>▪ For making the people aware about population and pollution.</li> <li>▪ Visit to Orphanage.</li> <li>▪ The Department of physical education presently run yoga classes. Yoga benefited to staff member &amp; students.</li> <li>▪ The Department has organized 7 days Yoga &amp; Meditation camp for Staff members of the College.</li> </ul>

**19. Number of teachers and officers newly recruited:**

<b>Department</b>	<b>No of Teachers</b>
Botany	01 Assistant Professor
Bio-Technology	Two teachers on Ad-Hoc basis are appointed for Post Graduate course and four teachers on Ad-Hoc basis appointed for Under Graduate course.
Chemistry	01 Assistant Professor
Computer Science	01 Assistant Professor
Mathematics	01 Assistant Professor
Microbiology	06 adhoc and 02 contributory staff members were appointed
Zoology	02 Assistant Professor
Library	01

**20. Teaching -Non-teaching staff ratio:**

<b>Department</b>	<b>Teaching: Non-teaching staff ratio</b>
Botany	5:3
Bio-Technology	6:2
Chemistry	1:1.2
Computer Science	4:2
Electronics	3:2
Geology	2:3
Mathematics	3:0
Microbiology	9:4
Physics	6:7
Statistics	1:2
Zoology	2:1
Languages	3:0
Physical Education	2:1

**21. Improvements in the library services:**

- A quality collection of books
- Availability of Research oriented, Competitive Examinations supporting and other recreational and informative journals
- Enrichment of Departmental libraries.
- Rich collection of Competitive Examination books under Dr Panjabrao Deshmukh Career Development Academy
- Rich Collection of MPSC-UPSC Competitive Examination.
- Number of computers in library:- 15
- Availability of HP DeskJet Printer and Scanner
- Availability of 2 Argox Bar Code Scanners and one HP Colour Laser Jet 2600n Printer for Bar Code Programme.
- A 3 in 1 machine (Laser Printer, Copier and Scanner) HP Laser Jet M1005 MFP.
- CCTV Camera available in the Library to monitoring all activities of the Library.
- OPAC (Online Public Access Catalogue) facility
- Book Bank Schemes / Deposit schemes

- Separate Reading Rooms for Staff, PG Students and UG students
- Display racks for current periodical issues
- Exciting “News Corner” which is updated daily
- Well established and organized “Departmental Libraries”
- Newspaper service (14 newspapers along with Employment News)
- Internet facility (Broad Band) (Wi-Fi).
- E- section having 875 CDs
- Photocopy services
- Current Awareness Service
- Regular Information Literacy Programmes

Department	Improvements
Botany	New titles are added
Bio-Technology	14 Books purchased costing Rs.9837/-.
Chemistry	26 Books purchased costing Rs.20,935/-.
Electronics	In addition to the college library, the Department of Electronics has its own Core Library having about 414 books which includes text books, project books, data manuals and instruction manuals.
Geology	Addition of new books and journals in the college and Departmental library. Database of books and journals present in the Departmental library is under preparation.
Microbiology	25 books costing Rs. 20,000
Physics	College and Departmental library were upgraded with new reference, text books and journals. The Departmental library was made easily accessible to students and staff.
Statistics	19 books and 1 journal cost Rs.8434.00
Zoology	Departmental library for benefit of students and increase in number of reference book received by donation from teachers, specimen copies from publishers and providing Internet facility. Inflation facility is started in department. The list of library books in zoology is displayed in the department, so as to ease the students to select proper literature in zoology. Books-5 and cost of books- Rs. 2070/-

**22. Number of new books/journals subscribed and their value:**

12 Geology books are purchased by college for central library while 40 Journals are gifted to Departmental Library.

Number of new books purchased	<b>811</b>	<b>Rs. 3,11,550/-</b>
Number of CDs	<b>55</b>	
Number of Journals	<b>30</b>	<b>(National 18 and International 06 including 01 e-journal, Magazines 25)</b>

**Department wise Expenditure on purchase of Books**

Sr.No.	Subject	Books in college	Expenditure
1	Mathematics	26	4,758 /-
2	Physics	47	15,483/-

3	Physics M.Sc	19	9,945/-
4	Chemistry	10	8,312/-
5	Chemistry (M.Sc)	09	5,232/-
6	Chemistry (NET)	42	25,015/-
7	Zoology	70	26,035/-
8	Botany	37	9,840/-
9	Statistics	20	8,434/-
10	Bio-Technology	24	12,544/-
11	Microbiology (M.Sc)	05	24,071/-
12	Geology	40	11,816/-
13	Electronics	58	18,625/-
14	Comp. Science	32	12,311/-
15	Comp. science (MCA-BCA)	32	14,275/-
16	Comp. Science M.Sc.	25	9,530/-
17	Language Eng,Hin,Mar.	22	2,727/-
18	General	86	8,612/-
19	Merged scheme(MPSC-	58	30,748/-
20	Nano-Technology	13	4,215/-
21	Che. Environmental(COP)	24	25,185/-
22	General	41	5,666/-
	<b>Total</b>	<b>654</b>	<b>2,74,767/-</b>

**Total Books & Expenditure - Books 654 Expenditure 2,74,767/-**

Total Expenditure of Journal and Magazine -

Total No. of Magazines & Periodicals - 18	Expenditure -	7,895/-
International Journal - 06	Expenditure -	8,800/-
National Journal - 24	Expenditure -	20,497/-
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Total - 48		37,192/-

**23. Number of courses for which student assessment of teachers is introduced and the action taken on student feedback:**

**Feedback on college campus**

Our endeavor is to impart the highest quality of education and grooming the students to fit in the corporate world every year we obtain feedback from the students to monitor their satisfaction level so that we can give better service to the forthcoming batches.

**Aim :** To achieve better position amongst all academic institutions.

**Objective:** To give better facilities to students enabling them to enhance their overall performance.

**General Feedback**

A questionnaire containing 17 parameters was prepared to obtain feedback from students to find out the image of the college. A random sample of 100 students was considered. Students have prominently mentioned the reason of selecting this college as: It is the best college in the city where regular and sincere teaching is available. Students had shown their satisfaction in almost all aspects covered in the Feedback form which is enclosed for your perusal. However, their major demands are Boys common room, compulsory dress code and Canteen facility in the college premises, gym for students, free coaching of MPSC and UPSC Examinations, more no. of books for competitive Examinations in the library.

**Feed back of Teachers:**

A questionnaire containing 13 parameters was considered to take feedback on individual teacher's performance from students. A random sample of 10 students for every teacher was taken. Students are satisfied with teachers' domain knowledge, their availability in the college sincerity and commitment with the students. However, there was mixed feedback as far as other aspects are concerned.

**Feedback Analysis (Sample size: 100)**

Sr. No.	Aspect	Always	Occasionally	Never	Can't Say
1.	The teachers are enthusiastic while teaching	43	37	0	5
2.	The teacher relates the knowledge to real world situations	37	38	2	7
3.	The teachers are helpful in suggesting required additional reading	59	25	1	
4.	The materials for lectures are well prepared and carefully explained	49	27	2	7
5.	The teachers explain the concepts clearly	56	22	4	2
6.	The syllabi of the courses have been duly completed in prescribed time	30	27	18	5
7.	The methods for evaluating students work are fair and appropriate	27	29	9	14
8.	The performance in test/seminar is discussed within reasonable time	29	31	16	6
9.	The teachers are accessible after class hours	36	27	11	4
10.	Students interaction in the class	39	29	13	3
11.	The students-teacher relationship is cordial	44	23	3	6
12.	The teachers make students comfortable in seeking help/advice inside and outside class	50	21	5	6
13.	Up-to-date learning resources like	51	10	12	4
	a) Library				
	b) Laboratory equipment	35	29	8	6
	c) Computer / LCD etc are available to students	37	25	9	7
14.	Participation in extra-curricular activities is encouraged	43	25	11	4
15.	The general amenities like playground is well maintained	31	15	22	14

16.	The office staff attend to matters of	49	16	4	7
	a) Fees				
	b) Examination related work	50	17	6	5
	c) Scholarships/Free ship	46	17	7	9
	d) General Administration	40	15	10	10
17.	Access to the Principal	32	21	11	10

18. Why did you choose this college for your education :-

Best college in Nagpur, regular and sincere teaching staff.

19. **Suggestions:** - Compulsory dress code, good canteen, common room for boys, gym for students, free coaching of MPSC and UPSC Examinations, more no. of books for competitive Examinations in the library.

#### Feed back of Teachers

4 point scale is used to measure the quality level of each aspect.

3.50-4-Very Good (A)

2.50 -3.49 -Good (B)

1.50 -2.49 -Satisfactory (C)

1- 1.49 -Unsatisfactory (D)

S. No	Aspect	Grade Point Average
1	Knowledge base of the teacher (as perceived by you)	<b>3.44</b>
2	Communication Skills	<b>3.31</b>
3	Sincerity / Commitment of the teacher	<b>3.47</b>
4	Interest generated by the teacher	<b>3.31</b>
5	Curriculum coverage	<b>3.10</b>
6	Ability to integrate course material with the environment/current issues	<b>3.28</b>
7	Ability to design quizzes/ Tests/ Examinations/ Assignments/Projects to evaluate student's understanding of the subject	<b>3.19</b>
8	Accessibility of the teacher	<b>3.39</b>
9	Interaction/Motivation	<b>3.37</b>
10	Punctuality	<b>3.40</b>
11	Availability of the teacher in the campus	<b>3.37</b>
12	Teacher as a mentor	<b>3.36</b>
13	Overall rating	<b>3.35</b>

Feedback about individual teacher was obtained from students. Students are satisfied with teachers' communication skills, knowledge of the subject, their accessibility, Sincerity and interest about the subject generated by them. They also appreciated teachers' ability to evaluate students' understanding of the subject.

As per the feedback from the Students, the performance of the Department is very good in the respect of academic contents, interaction with the teachers and library facility (Report on the survey from Department of Statistics)

A positive feedback from the student was treated as motivation and the negative feedback was considered as a measure for improvement of the faculty.

**24. Feedback from stakeholders**

Regular feedback from various stakeholders involved in the process of education and campus activities is taken. It is analyzed and corrective measures for overall improvement of academic and campus atmosphere are taken from time to time. This has helped in the development of the college.

25. Unit cost of education: **Rs. 59,157/-**

**26. Computerization of administration and the process of admissions and Examination results, issue of certificates:**

Administration is computerized and process of admission on the basis of merits. Result declared and certificate issued by RTM, Nagpur University, Nagpur.

Result of Home Examination has been computerized.

The library is fully computerized and the collection is bar-coded.

**Automation of College Library**

- 15 Computers with two LAN connectivity
- Digital Library Software ( ETH Pune)
- Lib-Man Library Software (Nagpur)
- Bar-Coding Completed.
- Internet Zone with Broad-Band Facility

**27. Increase in the infrastructural facilities:**

Department	Infrastructure Facilities
Botany	YES, Modified as per the need.
Bio-Technology	'Plant tissue culture' and 'Animal tissue culture' laboratories have been established, sophisticated equipments such as CO <sub>2</sub> incubator, PCR machine and Primostar have been purchased.
Computer Science	BCA (Computer Laboratory)
Physics	<ul style="list-style-type: none"> <li>▪ Five Computers are added to Physics computer laboratory.</li> <li>▪ One new laboratory is set up for M.Sc. I.</li> </ul>
Statistics	Computer Laboratory, 10 computers, LAPTOP, LCD Projector.
Zoology	A research room to inculcate the sense of research in students. Research Laboratory is modernized and equipped with latest technology instruments.
Library	<ul style="list-style-type: none"> <li>▪ Separate Broad Band Internet connection to Library.</li> <li>▪ The collection of CDs, Cassettes and Books on Spoken English and Personality Development has been enriched.</li> </ul>
Language	<ul style="list-style-type: none"> <li>▪ Language Laboratory</li> </ul>
Physical Education	<ul style="list-style-type: none"> <li>▪ Gym (Fitness Centre)</li> </ul>
General	<ul style="list-style-type: none"> <li>▪ Office Building.</li> <li>▪ Conference Hall</li> <li>▪ Four Classrooms</li> </ul>

**28. Technology up gradation:**

Department	Up-gradation
Botany	Purchased sophisticated equipments to enrich the Laboratory.
Bio-Technology	Purchased sophisticated equipments to enrich the Laboratory.
Chemistry	FTIR., HPLC

Electronics	<ul style="list-style-type: none"> <li>• Multimedia and OHP facility provided for effective teaching and learning.</li> <li>• To keep pace with time, the Department uses tutor software of electronics, which will help the students to learn more effectively the theory and practical using computer system.</li> </ul>
Microbiology	Purchased Sophisticated instrument viz. Gel Documentation Unit.
Physics	ICT facilities upgraded with Wi-Fi and latest configuration computers.
Statistics	OHP, LCD Projector, Computers, Printer, CD Writer LAPTOP
Zoology	Computer (03), Printer HP LJ 1020, Scanner, Disc writer, Research binocular microscope, Pocket Microscope, pH meter, OHP, Slide projector, LCD, Internet, Laptop, Student's microscope, Hot plate, Automizer, Haemoglobinometer, Haemocytometer, Noise detector, Haemocytometer (Coverslip), Haemocytometer pipette, microphotographic camera, oven, Distilled water plant, Electronic balance, dissolved oxygen meter, Spectro photometer, Centrifuge machine.
Library	Two separate LAN (one for Library automation and one for Internet access)
Physical Education	Gym Equipments are purchased

**29. Computer and Internet access and training to teachers and students:**

Computer facility and training is extended to students, teaching and non-teaching staff members. The college has provided Internet access for the teachers and the students. They use the Internet facility for the knowledge of recent research work and its use in recent technology. The college has centralized Internet facility for staff and students. Computer facility and training is extended to students, teaching and non-teaching staff members. All the Departments are equipped with the computer and subject CD's are provided to them.

**Internet Facility for Students:**

We have Broadband (512 KBPS) Connection, where we have connected both Laboratories and Library.

Department	Time
Physics	Mon/Tue 10 am to 11 am
Mathematics	Wed/Thurs 10 am to 11 am
Electronics	Fri/Sat 10 am to 11 am
Statistics	Mon/Tue 10 am to 11 am
Chemistry	Wed/Thurs 10 am to 11 am
Microbiology	Fri/Sat 10 am to 11 am
Geology	Mon/Tue 10 am to 11 am
Zoology	Fri/Sat 10 am to 11 am
Botany	Mon/Tue 10 am to 11 am
Physical Education	Wed/Thurs 10 am to 11 am
Language	Mon/Tue 10 am to 11 am



### **Staff Training Program**

A computer training programme was organized for the teaching and non teaching staff of the college in Computer Department Laboratory.

Date	Time	Subject
26/04/2011	11:00am to 12:30 pm	Intro. to Internet
27/04/2011	11:00am to 12:30 pm	Web Browsing
28/04/2011	11:00am to 12:30 pm	Searching websites
29/04/2011	11:00am to 12:30 pm	e-mail operation

### **30. Financial aid to students:**

Help to needy students extended from time to time.

Concession in fees is given to needy students.

A financial aid was given to needy and poor students under “**Earn while Learn**” scheme.

Master Mrunal Mangeshkar was supported with his academic needs.

Financial aid in the form of books, notebooks, field excursion fee etc is given to students by Department of Geology.

### **31. Activities and support from the Alumni Association:**

Floral tributes were paid to Dr. Sarvapalli Radhakrishnan on Teachers’ Day (5<sup>th</sup> September 2011), celebrated on the occasion of Birth anniversary of Dr. Sarvapalli Radhakrishnan. A Slogan Contest was organized & the teachers were felicitated on this occasion. Principal Dr. D.K.Burghate has presided over the function.

A guest lecturer was organized for the student of this college to make them aware of the traffic rules & traffic discipline by DCP Crime Mr. Zalke who is Alumni of this college.

A blood donation camp was inaugurated at the hands of Dr. Avinash L. Deshmukh of Ayush Blood Bank, who is also an alumnus of this college. Students & staff members generously donated 137 units of blood out of which 15 units were from the Alumni of this college & paid rich tributes to Dr. Panjabrao Deshmukh in a novel way. Up till now the students, staff members & Alumni of the college have donated above 1437 units of blood to various blood banks.

Dr.C.J.Chandekar a alumni of 1982 batch has organized a get-together program of his batch mates on 21<sup>st</sup> January 2012. This get-together got a very good response from his batch mates. A Cultural program was also organized in it, which was followed by high tea.

An Alumni Meet was organized on 22<sup>nd</sup> April 2011 followed by a dinner.

### **32. Activities and support from the Parent- Teacher Association:**

Regular meeting with parents to discuss regarding the academic and personal problem

Parent teachers meeting was organized and views of the parents were considered for betterment of the students and Department.

Problems are resolved through Parent- Teacher Meetings.

The teacher-mentor scheme and teacher-parent forum has been formed with the intension to established co-ordination among the students, parents and teacher. There was a time when the teacher-students relationship was quite harmonious. The teacher used to be an all time guide and guardian today with the flourish of coaching classes, his role has been reduced to that of a facet. This alarming transition has wiped out the glory and grandeur of this noble profession. Due to this reason, three things have become imperative-Curriculum column and character.

The actual teaching of all the degree classes in this college began in the first –week of July. The students who sought admission for B.Sc.I had no idea about the general

discipline of the college so the principal, Dr. D. K. Burghate addressed the students of B.Sc. I on 23<sup>rd</sup> July 2011. Dr. D.C. Sindhimeshram (convener), Prof .S.C. Moholkar, Dr. L.B. Hirulkar were present for this address. The principal in his address told the students that your teachers in the college are guardians in the college campus. Hence you should not hesitate to approach your teacher; On the contrary you should develop relations with all the teaching staff so as to overcome your personal and academic problems. The other teachers, present also addressed the students and gave them certain tips regarding the building of their carriers.

The meeting of executive members of teacher-mentor scheme was held on 01<sup>st</sup> August 2012 in the Department of Chemistry.

The convener Dr. D. C. Sindhimeshram discussed certain issue regarding the implementation of teacher mentor scheme. The purpose of this meeting was to decide the strategy regarding the scheme so as to make it more meaningful and successful.

After the first meeting executive members prepared the batches and each, teacher was designated as the in- charge of that batch who is termed as mentor. The teacher-mentor is instructed that it is your prime duty to help the students in every problems, he /she has to face in the campus. More over the mentor are informed that you should maintain such a co-cordial relation with pupil so that he or she will not have any kind of hesitation to approach you. When the actual functioning of teacher-mentor scheme began, the result of this was quite satisfactory the students approached their respective mentors to overcome their academic and personal problems. The teachers used to arrange their meeting and other activities according to the convenience of the students. The students who were from poor family were given some jobs in library.

### **33. Health services:**

Regular medical checkup organized by Physical Education Department for students was organized by the college for the staff members.

The health services center has been established through science college Nagpur, the renowned doctors are the members of this center. The basic purpose of this center is the general welfare of the staff and students.

The Doctors visit to the college on every Saturday to attend students for two hours.

- Students were encouraged to donate blood.
- AIDS awareness program.
- Haemoglobin checkup for girl students.
- Awareness about naturopathy and yoga.
- Blood donation camp, Blood donated by students and staff members of the college to the Govt. Medical College, Nagpur.
- Medical Examination is compulsory to all U. G. students and was organized by the Department of Physical Education by approved Doctor of the University.
- Physicals Efficiency test is compulsory for all students.
- Yoga classes presently run by the Department.
- Lecture cum demonstration on Yoga, pranayam and herbal chikitsa on diabetes, spondylitis, Heart diseases, blood pressure etc.

### **34. Performance in sports activities:**

- **Soft-ball (Boys)** - The team stood runner-up in RTM Nagpur University Inter Collegiate Tournament.
- **Soft-ball (Girls)** - The team secured third place in RTM Nagpur University Inter Collegiate Tournament.

- **Swimming and Water Polo (Boys)** - Mr. Abhishek Lambat selected in RTM Nagpur University participated in All India Inter University Competition held at Kolkatta from 17<sup>th</sup>-21<sup>st</sup> October 2011.
- **Net-ball (Girls)** - The team secured fourth place in RTM Nagpur University Inter Collegiate Tournament.
- **Korf-ball (Boys)** - The team secured third place in RTM Nagpur University Inter Collegiate Tournament.
- **Korf-ball (Girls)** - The team secured third place in RTM Nagpur University Inter Collegiate Tournament.
- **Judo (Girls)** - Ms. Shruti Runghe represented RTM Nagpur University.
- **Wrestling (Girls)** - Ms. Shruti Runghe represented RTM Nagpur University.
- **Volley-ball (Girls)** - The team stood runner-up in RTM Nagpur University Inter Collegiate Tournament.
- **Hand-ball (Girls)** - The team stood runner-up in RTM Nagpur University Inter Collegiate Tournament.
- **Basket-ball (Girls)** - The team stood runner-up in RTM Nagpur University Inter Collegiate Tournament.
- **Medical Examination and Physical Efficiency Test** – It was conducted in the month of February 2012.
- **Annual Sports Day** – In the memory of Dr. Panjabrao Deshmukh founder President of society, various sports activities are conducted from 20<sup>th</sup> – 26<sup>th</sup> December 2011.
- **Soft-ball (Boys)** - Mr. Aniruddha Dani and Mr. Sagar Chavan participated in All India Inter University Tournament held at Chandhigarh, Panjab University from 24<sup>th</sup> to 27<sup>th</sup> February 2012.
- **Soft-ball (Girls)** - Ku. Padmajalaxmi Ahir and Ku.Khangli Mohod participated in All India Inter University Tournament held at Chandhigarh, Panjab University from 16<sup>th</sup> to 22<sup>nd</sup> February 2012.
- **Korf-ball (Boys)** - Mr. Ankush Raje and Mr. Shishir Subba participated in All India Inter University Tournament held at Rohatak, Hariyana from 25<sup>th</sup> to 27<sup>th</sup> February 2012.
- **Korf-ball (Girls)** - Ku. Snehal Nandukar and Ku. Reenu Yadav participated in All India Inter University Tournament held at Rohatak, Hariyana from 25<sup>th</sup> to 27<sup>th</sup> February 2012
- **Net-ball (Boys)** - Mr. Anup Deshpande participated in All India Inter University Tournament held at Bilaspur Guru Ghasidas Vishwavidyalaya from 25<sup>th</sup> to 28<sup>th</sup> January 2012.
- **Net-ball (Girls)** - Ku. Snehal Dwivedi and Ku. Priyanka Khode participated in All India Inter University Tournament held at Bilaspur Guru Ghasidas Vishwavidyalaya from 20<sup>th</sup> to 23<sup>rd</sup> January 2012.
- **Cricket(Girls)** - Ku. Karishma Pateria participated in All India Inter University Tournament held at Vansthal, Jaipur University from 26<sup>th</sup> to 12<sup>th</sup> December 2011.

### 35. Incentives to outstanding sportspersons:

The following items were given as incentives to outstanding sportspersons.

- Track-Suit.
- Memento.
- Trophy.
- Certificate
- Cash Prize is awarded to the outstanding sport persons.
- Sports kit like shoes, stocking T-shirts and shorts.

- Incentive marks (up to 10 marks)

### 36. Student achievements and awards:

#### **Ku. Ketki Agasti (B.Sc.III –CBZ)– Secretary of Students Council**

- Gold Medal – flying – state level Flying competition
- Gold Medal – State level Skeet shooting competition.
- Gold Medal – State level health sciences competition.
- Attended All India Vayusainik Camp at Bengaluru ,Kar in 2009
- All India Skeet Shooting Gold Medal in AIVSC-2009
- Gold Medal for best flying subjects in Air Force best Academy Attachment Camp-2010
- Attended Indian Air Force Academy Attachment Camp,Dhindigal, AP- 2010
- Appointed “All India Senior” in AFA -2010
- Attended Pre RDC- I,II,III,IV,V,VI,CATC-I,II,III
- Attended All India Republic Day Parade Camp 2010-11
- Gold Medalist – Best cadet competition –MAHARASHTRA
- Recipient of “Governors Gold Medal” for Maharashtra
- Recipient of “Chief Ministers Trophy of Excellence”
- Adjudged as BEST & SW CADET OF MAHARASHTRA
- Recipient of ‘BEST SPEAKER OF STATE’ For line area briefing
- Recipient of ‘BEST FLAG AREA BRIEFER Award
- Selected as Best cadet to Represent in Delhi
- MARCHED THE RAJPATH ON 26<sup>th</sup> January 2011
- Awarded All India Best Cadet SW by PM, Dr. Manmoham Singh on 28<sup>th</sup> January 2011
- Selected as Chief briefing cadet, to brief the President, Vice -president, PM, Dr.Sheela Dikshit , CM, New Delhi Dr. M.M. Pallamraju, Raksha Rajya Mantri Mr. Prithiviraj Chauhan,CM, Maharashtra, Mr, K. Shankar Narayanaon, Governer Maharashtra,
- Recipient of Best Briefer Award in New Delhi
- Selected as Main Comparer in “All India Cultural Panorama of India I, II & III”
- Selected as officer cadet for Co-ordination of cadets from Singapore, Vietnam, Russia and Thailand
- Recipient of Air Chief Marshall’s best flying – fly pass trophy
- Recipient of Shyam Benegal Scholarship from Government of India.
- Recipient of CM’s excellence honour from CM, Mr. Prithiviraj Chauhan
- Recipient of Award of excellence from vice Admiral Sanjeev Bhausin Commander In Chief, HQS, Wester Naval Command, Indian Navy
- Stood 1<sup>st</sup> in state in B-Cert’ Examination with A+ + + grad
- Stood 1<sup>st</sup> in State in ‘C-cert Examination with A+ + + grad
- STOOD ALL INDIA RANK –01 IN Merit of YOUTH Exchange Programme
- Attended YEP at Bangladesh in 2011
- Appointed as Chief Speaker to all conferences and press in Bangladesh
- Recipient of Award for flying in Bangladesh, from BAF flown 3 microlite aircrafts for 30 hr.

#### **College Activities**

- Executive Member- Career Guidance cell in 2010

- Executive Member – Students Council in 2010
- Vice – President – Career guidance cell in 2011
- Secretary – Rotaract club of Shivaji fort ,RCNF, Nagpur
- Secretary - Students’ Council Shivaji Science College, Nagpur
- Recipients of Best Students award from college on 26<sup>th</sup> January 2011

### Sports

- Gold Medalist – Distict level Swimming competition

### **Ku. V. Janani (B.Sc.II- CMBT)**

#### **2010-11 (B.Sc-I YEAR)**

- Secured II Rank in Poster competition ( Topic: Water conservation and management, Department of Chemistry
- Participated in “Eco friendly Rakhi competition –An Environment Awareness Programme” (Department of Botany)
- Secured I – Rank in Microbiology Poster competition, under Yuva Mahotsava

#### **Academic Achievement:**

- Certificate of Merit an outstanding performance in B.Sc-I Year for - Chemistry, Microbiology & Biotechnology
- Secured I- Rank in B.Sc –I (Summer 2011) in the college.

#### **2011-12 (B.Sc.-II YEAR)**

- Participated in Chemistry workshop on “ Detergents & Allied Products,” conducted at
- LAD & Smt. R.P. College for women ( Seminary hills, Nagpur ) on 27<sup>th</sup> August, 2011
- Participated in “ACT-IYC CONCEPT TEST IN CHEMISTRY” as a part of International Year of Chemistry held on 17<sup>th</sup> December, 2011.

### **Aniruddha Dani B.Sc.III (ECSM)**

- Represented Maharashtra team in Soft –Ball in West Zone and won 3<sup>rd</sup> place in the tournament was held at Gawalior, Madhya Pradesh.
- Winner in Soft Ball Invitational Tournament organized by UFSA at Pimpri, Pune.
- Represented Nagpur Team in Senior State Soft Ball Championship held at Solapur.
- Runners up in the Inter Collegiate soft Ball tournament held at Shivaji Science College ground, Nagpur.
- Represented Nagpur University Soft Ball team in All-India Inter University held at Chandigarh.

**Botany-** Ku. Ketki Agasti received best cadet awarded of NCC Air wing and also selected as Indian ambassador to visit Bangladesh.

**Bio-Technology-** **Mr.Bhaskar Pradhan** pursuing MS course in Biotechnology in Manchester, United Kingdom.

Alumini of this Department **Mr.Sushant Bhusari and Mr. Aditya Joshi** presented paper at national conference on Biodiversity in our college. They actively participated in nature conservation program by forest department.

### **Electronics- R. T. M. Nagpur University Summer Examination 2011**

- Result of B. Sc. Final (Electronics) 80 %
  - Result of B. Sc. Final (Computer Maintenance) 100 %
- Toppers in B. Sc. Final Examination: Ms. Ashvini R Lalke (Electronics)  
Mr. Monali A Durgekar (Comp Main)

Students passed in Distinction grade in Electronics: -	<b>03</b>
Students passed in First class in Electronics: -	<b>10</b>
Students passed in Distinction grade in Comp Main: -	<b>01</b>
Students passed in First class in Comp Main: -	<b>05</b>

### **Geology- RTM Nagpur University Examination, Summer, 2011**

Pranay Bawangade, B.Sc. Final, recipient of Late Sitaramji Govindrao Malpe Memorial Prize for highest marks (125/150) in subject.

Mr.Prafulla Vairagade, B.Sc.II secured (115/150) marks in subject.

Ms. Priyanka Raman and Mr. Rachit Gupta, B.Sc.I secured (127/150) and (129/150) marks in subject respectively.

#### **• Students' achievements in Competitive Examination**

- Pranay Bawangade, B.Sc. Final Scored 6<sup>th</sup> All India Rank in ISM (INDIAN SCHOOL OF MINES, Dhanbad) Examination, 2011. He also secured 250<sup>th</sup> rank in JAM Examination conducted by IIT.
- Seven students of this Department participated in state level Examination "Jignayasa-2011" conducted by a Jalgaon based college- Dr.Annasaheb G.D.Bendale Mahila Mahavidyalaya. Ms. Harwardhini Pantatawne from B.Sc. I topped the merit list of the Examination at Taluka level and received a memento and a cash prize of Rs.3000/- While Ms. Jyotsana Shrivatra stood 3<sup>rd</sup> in the Examination and received a memento and a cash prize of Rs.1000/-. All the students who appeared from this Department qualified this Examination. Special credit goes to Dr. (Ms.) J. K. Kodate-Tokalwar, who guided the students in this endeavor.

- **Students' achievements in Sport field:** In addition to academic achievements our students also shine in sport field: Ms. K.P. Pateria Won Gold medal and silver medals at National level Cricket Tournament

#### **• Students' achievements in Wall Magazine Competition:**

The prizes were of various categories of presentation in wall magazine.

##### **Best Geological Article**

Prize	Name of Student	Topic
First	Ms.Dhanshree Raut	Coral Reef
Second	Mr.Sameer Ramteke	Universe
Third	Ms.Prajakta Pimple	Age Determination of Fossils

##### **News (Collection of maximum news cuttings)**

Prize	Name of Student
First	Ms.Chanchal Bante
Second	Ms. Anurag Bhand

##### **Articles on Famous Geologists**

Prize	Name of Student
First	Ms.Deepika Saire
Second	Mr. Aniket Bijwe and Mr.Saurabha Paunekar
Third	Mr. Pranav Waghmare

##### **Prizes were also given for different skill based categories:**

Categories	Name of Student
Best Sketches	Ms. Dhanshree Raut
Best Cartoons	Ms. Harshwardhini Pantawane Ms. Samiksha Aparajit and Ms.Megha Bhoyar
Best Photographs	Ms.Jyotsna Shrivatra and Mr.Prafulla Wairagade
Best Handwriting	Mr.Vikrant Nandagawali
Best Decoration and Arrangement	Ms. Dhanshree Raut
Innovative Idea	Mr.Abhishek Mishra

- **Students' achievements in Yuva Mohotsava-2011**

- **Geofest 2011**

- Total 20 students participated in Seminar competition.

- Harshwardhini Pantawne and Prafulla Wairagade Stood First and Third respectively

- **Winners of Science Exhibition: Yuva Mohotsava-2011**

Prize	Name of Student	Title of exhibit
First	Nikita Dhuare (B. Sc. I)	Glacier valley –Working Model
	Anurag Bhand (B. Sc. I)	Continental Drift- Working Model
Second	Harish Chopde and	Natural Hazard-Landslide
	Abhishek Bhad (B. Sc. III)	
Third	Mr.Prafulla Wairagade (B. Sc. III)	Contouring & Projections of contours on plan
Consolation	Mr.Pranav Waghmare (B. Sc. III)	Dinosaur Extinction

- **Farewell 2012:** Geological Society Of the Department (G.S.).has launched two prizes for Final year students: “Best student of the year” and “Student with maximum Attendance”. Following students won the prizes. “Best Student of the Year-2011-12” and “Student/Students with Maximum attendance” Mr.Prafulla vairagade and Mr.Pranav Waghmare, Ms. Rupali Barde respectively.

**Mathematics-** In Intercollegiate Mathematics Quiz Competition Ms. Ankush Raje, Mr. Amar Banerjee and Mr. Shardul Mahure bagged 1<sup>st</sup> Prize.

**Microbiology-** Ms. Karukriti Ghosh bagged Fifth Merit Position in B.Sc Examination summer 2010 conducted by RTM Nagpur university, Nagpur. She also received a Prize for securing highest marks in Microbiology in B.Sc Examination summer 2010 conducted by RTM Nagpur university, Nagpur.

Ms. Pragati Karwande bagged First Merit Position in M.Sc Examination summer 2010 conducted by RTM Nagpur university, Nagpur.

**Physics-**

- Ashish Deshmukh (B. Sc. Final) bagged prize in Vidarbha level Student’s Seminar Competition organized by Vidarbha University Physics Teachers Association (VUPTA), at R.S. Bidkar College, Hinganghat in January 2012.
- Ku.Preeti Bhatt secured 8<sup>th</sup> merit position in R.T.M. Nagpur University Summer 2010. (Declared in 2011-12 session.)
- Three students in L&T Computers, and Two Students in ACC Computers were selected in campus placement drive.
- The following students excelled in their studies and secured distinction in University Examinations.

**B.Sc.I**

Sr.No	Name of Students	Group	Marks Obtained	Percentage
1	Ku.Prinyanka S.Raman	PCG	125	83.33%
2	Mr.Harshal S.Dorkhande	PCsM	117	78.00%
3	Ku.Prinyanka O.Barad	PCsM	114	76.00%
4	Mr.Mahendra R.Nikhade	PCsM	114	76.00%

**B.Sc.II**

Sr.No.	Name of Students	Group	Marks Obtained	Percentage
1	Ku.Hemlata N.Sidam	PEM	129	86.00%
2	Ku.Rucha A.Barapatre	PCSM	127	84.66%
3	Mr.Indrajit P.Halder	PCM	123	82.00%
4	Ku.Prachi N.Sabal	PCSM	120	80.00%

5	Ku.Priyanka A.Pimple	PCSM	120	80.00%
6	Ku.Vaidehi P.Alode	PCSM	119	79.33%
7	Mr.Ashish D.Deshmukh	PCM	113	75.33%
8	Ku.Nilima M.Babhare	PCM	113	75.33%

**B.Sc.III**

Sr.No.	Name of Students	Group	Marks Obtained	Percentage
1	Mr.Atish M. Gour	PCSM	121	80.66%
2	Ku.Sonam S.Chandel	PCSM	118	78.66%
3	Ku.Radhika C. Raut	PCSM	114	76.00%
4	Mr.Ishwar R.Darode	PCM	113	75.33%

**Zoology-** Students awarded by gold and silver medals for scoring highest marks in zoology in H.S.S.C., B Sc. I and B. Sc. Final University Examinations.

Ku. Ketke Keshao Agasti (B.Sc-III) got selected for national parade from No. 2-Mah. Air Sq. NCC as a COU. and honored by the Department.

**Library-** Library Best User Award Felicitated to the Mr. Rupesh S.Awachat, B.Sc.III year in 2011 on the Birth Anniversary of Dr. S.R. Ranganathan father of Library and Information Science.

**37. Activities of the Guidance and Counseling unit/**

- Guidance and counseling given to the students at the time of admission and entire session regarding the subject in which they have been admitted.
- The students seeking admission in B. Sc. I were guided.
- The students interested in PG, various competitive and entrance Examinations were guided.
- To make students aware of the corporate demand and prepare them accordingly.

**38. Placement services provided to students:**

The goal of Training & Placement Cell is to provide employment opportunities & world class training to Final year students of B.Sc., B.C.A., M. Sc., and M.C.A. in leading organizations.

The Counseling, Training & Placement Cell is working since the inception of the College for the advancement of career & personality development, and for placement of the students of our College.

The College has a library with sufficient books for the preparation of different competitive Examinations, improve general knowledge, subjective knowledge, etc. are regularly available to the students. The students are acquainted with guidance on different issues, Most of the students of our PG Department are absorbed in industries and educational institutions. Through the placement cell number of industries and organizations are invited in the college for campus recruitment. It facilitates the company personnel to search for the required talents from the students. Similarly the students of the college also get benefited by getting employed while they are doing their final year studies. The students are also exposed to the interviewing skills and they try to explore themselves more and more in order to keep pace with the ongoing competition

In order to cater the need of industry personnel, college encourages the students for preparing themselves for many competitive Examinations, appearing for the campus interviews conducted by various companies. This year placement cell has organized campus interviews of Wipro, HCL Info system, ACC, Patni Computer Systems, L&TIT, IBM, TCS, etc. The college is proud of six students got placement in the most leading Companies like IBM, ACC & L&T IT etc.



The college provides internet access to all students where they can search for employment related sites and mail their resumes. The college also provides literature to the students by subscribing to various employment related magazines and weeklies such as Employment News, Competition Success Reviews, Competition Science Vision, Competition World, The Happening Nagpur, Pratiyogita Kiran, Pratiyogita Darpan, Pratiyogita Sagar and IAS. Every year lectures by experts of different faculties/subjects are arranged for the students to update their knowledge. This year, Students Counseling, Training & Placement Cell were conducted seminars of HR personnel's from various organizations like Wipro, HCL Info system, ACC, , IBM, Prima Institute, Nagpur, etc. related with Personality development, Self analysis, Interviewing skills, Time management etc. A four days workshop on "Employability Development" on 5<sup>th</sup> to 9<sup>th</sup> December 2011 was organized by the college.

**Highlights:**

- After getting awarded the CPE status, Industries are coming for campus interviews in a large number.
- Industries prefer our college for conducting joint campus interviews. Other colleges in the region are invited in our campus for the joint campus recruitment. The infrastructure, a big auditorium and other facilities available here, have made this possible.
- Number of companies is visiting the campus and hence number of students is getting placed. The placement rate has definitely increased to a greater extent.
- Companies are coming forward for various MOU's and Industry Institution Interaction Programmes are organized.
- The collaboration with industries have definitely helped us in bridging the gap between current student knowledge and industry expectations.

**39. Development programme for non-teaching staff:**

Computer literacy and awareness programme being conducted for non-teaching staff. They are being trained for better management and maintenance of stock.

- Annual development programme for non-teaching staff by parent society and the college
- Computer training programmes organized by college.
- Yoga classes for health awareness programme.
- Fitness activities.

**40. Healthy practices of the Institution**

- Every year at the beginning of the academic session, the results of the University Examination are discussed in the college council meeting. The results are analyzed subjectwise and paperwise, the reasons of the comparative poor performance of paper/subject are discussed in the meeting and corrective/ preventive measures are suggested the teaching faculty seriously tries to implement this suggestion.
- Every Department holds regularly Unit test and surprise test. The college holds regularly terminal and test Examination at the end of first session (month of October) and at the end of second session (month of January). The question papers for both of these Examinations are as per university pattern. Valued answer papers along with proper comments is given to the students personally by the teachers concerned. Students- parents-teacher meetings are held regularly, these meetings play an important role in maintaining academic discipline and quality control. For weaker students special effort in the form of books, notes and solution of their difficulties are made, these efforts are found to bear good fruits in improving the overall result.

- The college holds regularly terminal and test Examination at the end of first session (month of October) and at the end of second session (month of January). The question papers for both of these Examinations are as per University pattern. Valued answer papers along with proper comments is given to the students personally by the teachers concerned. Students- parents-teacher meetings are held regularly, these meetings play an important role in maintaining academic discipline and quality control. For weaker students special effort in the form of books, notes and solution of their difficulties are made, these efforts are found to bear good fruits in improving the overall result.
- Teachers of Department are giving guidance to the students for various entrance Examinations for their further study after graduation.
- Counseling and guidance is also being provided for various job related competitive Examinations.
- Remedial teaching to failure and disadvantaged students from time to time throughout the year.
- Teachers provide financial help to needy students.
- Earn While Learn Scheme- Students are doing jobs in the Pathology Laboratory, library etc. to get financial assistance for their studies.
- Personal counseling of the students regarding their studies, financial and personal matters.
- Parent- Teacher – Students meeting is organized in the Department.
- Senior students taught the topics of the syllabus to junior students on account of teachers' day.
- Teachers' Day celebration by students.
- Provision of certificate and mementoes from staff members for the best participants in various Departmental activities such as seminars, essay competition etc.
- Students projects, Eco-exhibition, Ecofriendly activity, Environment awareness program, Diagnostic camp.
- Wall magazine / seminar/ quiz/ surprise test.
- Eco-friendly Rakhi/Mushroom.
- Study tour.
- Participation of students in bringing out college magazine college functions. They actively participate and compare College functions. For enhancing their personally they organize and participate in Essay, Elocution, Debate, Rangoli and art competition.
- Special lectures by staff members of the Department by using audio-visual aids and guest lecturers by experts are regularly conducted.
- Student –Faculty exchange programme
- Students are encouraged to participate in the activities of Geological Society and Geological Wall Magazine. Prizes are given for active participation in related activities.
- Students are motivated to participate in class room seminars and carry out projects.
- Students are also motivated to prepare charts & models & participate in exhibition.
- Meetings of teachers and students as well as teachers and parents to discuss the performance of students under Mentor-ward programme.
- Financial aid in the form of books, notebooks, field excursion fee etc is given to Geology students in absolute need.
- Student's feedback about teachers and Departmental facilities has been taken in collaboration with statistics Department to take up corrective measures.

- Teachers of the Department are planning the teaching and other activities in advance before the commencement of the session. They modify teaching methodology based on students' feedback.
- Every year at the beginning of the academic session, the results of the University Examination are discussed in the college council meeting. The results are analyzed subject-wise and paper-wise, the reasons of the comparative poor performance of paper / subject are discussed in the meeting and corrective/ preventive measures are suggested the teaching fraternity seriously tries to implement this suggestion.
- **In-Service programme**  
The Librarian has attended Seven Days National Workshop “**Developing Digital library Using DSpace**” on Organized by Department of Library & Information science RTM Nagpur University Nagpur & INFIBNET Center, Ahmadabad. A workshop on ‘**Digital Libraries Initiatives in India**’. This helped in initiation of ‘Creation of Institutional Repository’ and Digitization of Library Resources.
- **Visits to other College Libraries**  
The library staff members visit other college libraries for the exchange of ideas and improving the practices. Librarian visited University Libraries in Sant Gadgebaba University Amravati and Gajanan Maharaj Engineering College Shegaon Dist. Akola Library on 2011-2012.
- **Special Deposit Scheme**  
Under this scheme the books are issued to the students after the clearance on deposit of the cost of the book. The full amount is returned after receiving the book back in the library. Special services to Backward Class (SC, ST) under Remedial Coaching Grant.
- **Special Issue-Return schemes**  
Merit as well as weaker students is identified and they are provided extra books for more time period.
- **Resource Generation through Internet Service**  
Computers with Broad Band Internet connectivity is made available to the students and teachers. For students, a nominal fee is Rs. 5/- per hour. The facility is extended free of charge to the teaching staff.
- **Student Internship Programme (For external Library Science students)**  
Total 6 students from local Library Science Colleges completed their Internship in this college library as a part of their curriculum.
- **Student Participation in library work through Earn and Learn Scheme**  
Earn and Learn scheme serves dual purpose of helping the students by paying them as per the quantum of work and increase students participation.
- **Collection development in Hybrid library**  
Regular purchase of CDs /DVDs (Educational / Recreational) enhances the collection of our hybrid library. Till date e-library has a rich collection of 835 CDs.
- **Information Literacy Programme**  
To raise the awareness about the services and to optimize the usage of the library, regular User Orientation and Information Literacy Programmes are carried out in the library. The Librarian has made a Power Point Presentation of e-resources available on the Internet like Directory of Open Access Journals, Institutional Repositories and Digital Library of India which helped in increasing the awareness among the staff and students. The Librarian has prepared a Power Point Presentation.
- **Helping in Students' projects**  
The library staff helps the students with the help of existing rich resources of the library in preparation of their projects.

- **Library Best User award**  
To attract more students to visit the library and use the resources the “Library Best User Award” is constituted, and felicitated to the Mr. Rupesh S. Awchat, BSC III in 2011-2012
- **User Feedback**  
User feedback is collected on all aspects of library services through “Suggestion Box”. One Library Science Internee has done a project on this college library as a case study, which helped a lot in improving the services.
- **Library web page for information dissemination**  
The website of any organization serves as the second front door for the organization. The college has its well organized web site [www.shivajisciencecollegenagpur.in](http://www.shivajisciencecollegenagpur.in) The home page carries a separate link to “College Library”.
- **Creation of Digital Institutional Repository**  
The work of building Digital Institutional Repository of the college by using Greenstone Open Source Software is in process.  
J – Gate is a database of global e-journals gateway providing seamless access to millions of (51000) e-journals, e-books, articles etc. hosted by informatics (India) Ltd.
- **Role of Library in Event Management**  
Science College, Nagpur is a college of great reputation especially for its meticulously organized events. The College conducts various curricular and co-curricular programs, courses, activities, seminars, workshops, conferences, exhibitions etc. for the benefit of its stakeholders. These events need planning and execution. While planning the event, there are certain formalities that are repetitive in nature. Library helps in managing these events. Library houses samples of the brochures of the previous events. Library staff retrieves the information and contact details of resource persons from various fields by using Internet.
- **Birth and Death Anniversary functions of eminent people**  
Birth and Death Anniversary functions of eminent people are organized in the library. On this occasion the staff members and the students give speech on the biography of the respective personality.

#### 41. Linkages developed with National/International, Academic/Research bodies

- Collaborative research programme with IUCAA, Pune.
- Bhabha Atomic Research Centre, Mumbai
- Atomic Minerals Directorate for Exploration and Research, Hyderabad
- Indian School of Mines, Dhanbad, Zarkhand
- Post graduate Department of Geology, R.T.M. Nagpur University, Nagpur
- Post graduate Department of Microbiology, R.T.M. Nagpur University, Nagpur
- Indian Bureau of Mines, Nagpur
- Maharashtra Remote Sensing Applications Centre, Nagpur
- Central Ground Water Board, Nagpur
- Geological Survey of India, Nagpur
- National Bureau of Soil Survey and Land Use Planning, Nagpur
- Regional Remote Sensing Service Centre, Nagpur
- Gondwana Geological Society, Nagpur
- Indian Water Resources Society (Nagpur Chapter), Nagpur
- Indian Society of Remote Sensing, Dehara Dun (Nagpur Chapter)
- Research Laboratories- PGTD of Botany, PGTD of Microbiology, RTM Nagpur University, Nagpur; CICR, Nagpur ; NRCC, Nagpur, etc.
- Bhabha Atomic Research Centre, Mumbai.

- Dr. Tarak Kate, Wardha (NGO)
- Shri Chintmalatpure, NGO, Friends International, Nagpur.
- Research supervisors have developed linkages with their counter parts in PG Departments of RTM Nagpur University for collaboration.
- Research Academy, Sewadal Mahila Science Mahavidyalaya, Nagpur.
- Rajiv Gandhi Biotechnology centre, Nagpur, Central Institute of Cotton Research.
- IBM Zensoft, Pune
- etrix solutions, Nagpur
- Botany Department RDVV Jabalpur, M.P.
- Shri Chintmalatpure, NGO, Friends International, Nagpur.
- PGTD of Botany, RTM N.U. Nagpur
- NRCC Nagpur; Biotechnology Department of Raisoni College.
- JMI Central University, New Delhi.
- Dr. A.D. Bobdey has been provided with the fellowship by IAAB and BBRC (National and International Research associations, respectively)

**42. Action taken report on IQAR of the previous year:**

**Botany-** Various academic & Environmental activities are conducted successfully.

**Biotechnology-** Almost all activities are implemented successfully.

**Chemistry-** All activities are monitored successfully.

**Computer Science-** All activities are monitored successfully.

**Electronics-** The proposed activities are monitored successfully.

**Mathematics-** The proposed activities are conducted successfully.

**Physics -** During the session the activities were carried out as per the plan of action spelt out in the beginning of the session as reported in AQAR.

**Statistics -** All activities are monitored successfully.

**Zoology-** All the mentioned activities of the plan are carried out successfully.

**Languages-** We conducted various programmes on communicative skills and personality development.

**43. Any other relevant information the institution wishes to add:**

**CPE Report**

Excellence refers to a state of exceptional or outstanding achievement in one's field of activity. Excellence of an academic institution involves reaching outstanding levels of performance in teaching, research and related academic pursuits, and attaining peerless position in the areas offered for study and research. Excellence is achieved in stages through a process of continuous improvement in content and quality of the pursuits. Committed academic community and adequate infrastructural facilities are essential ingredients of excellence. Often institutions with such potential merit need to be recognized and nurtured for the realization of their full potential.

During the IX Plan period, the University Grants Commission (UGC) had introduced a Scheme called "University with Potential for Excellence" (UPE) to encourage selected Universities to reach world-class standards in their chosen domain(s) by providing additional funds to them under the Scheme. This has helped a few Universities to better their achievements during the IX and X Plan periods. Apart from universities, there are colleges in the country where teaching and research are of high quality. These colleges have achieved better standards of teaching and research by harnessing human and physical resources in innovative ways. Many of these colleges have potential for academic excellence. Recognizing the need to pay special attention to such colleges, the UGC

introduced a Scheme, corresponding to the one for the Universities, during the X Plan called “College with Potential for Excellence” (CPE). This Scheme is to identify colleges which have attained high standards in teaching, research and extension activities and hold promise of excellence. A college selected under the CPE Scheme is provided substantial funds to improve and strengthen its infrastructure that would help it in attaining further higher academic standards. Here, UGC targeted 3% colleges to confer with this status.

The College with Potential for Excellence (CPE) was conferred to our institute in X Plan in 2004-05. The college was enlisted in the very first list of 97 colleges which were conferred with his status. Under this esteemed scheme the college has received grant of Rs 60 Lacs, the Rs 50 Lacs and then Rs 60 lacs in consecutive years. The college has fulfilled all the due needs towards the formality and progress. The college has submitted reports for span 2004-05 to 2008-09 to University Grants Commission under a title **Summative Report**. University Grants Commission has extended our CPE status till end of the XI plan, i.e. 2012. This has been conferred upon the college after an interface meeting with UGC Expert Committee. Principal Dr D K Burghate and Dr S W Anwane, Coordinator-CPE represented the college in the Interface Meeting held on October 28, 2010 at UGC, New Delhi. On the basis of Progress achieved by the college and the proposed plan for further development, the expert committee has allocated the college with the handful grant of Rs 50 Lacs. This has been envisaged for some beneficiary departments – Physics, Chemistry, Microbiology, Computer Science and Library for the period from 2010-11 and 2011-12. Out of this allocation, Rs 25 Lacs have been sanctioned for the current year 2010-11 recently. In this first installment, the Physics department will be enriched with equipments worth Rs 6 Lacs. The Chemistry department will be enriched with FTIR unit worth Rs 8 Lacs. The Microbiology department will also be enriched with equipments worth Rs 4 Lacs. In addition to this, the laboratories will be supplied with the adequate Chemicals, Glassware and consumables under CPE Program. The Faculty and the students undergoing various programmes are the direct beneficiaries of this development the college has achieved through the CPE status.

In the year 2011-12, the college envisaged funding assistance of Rs 25 lacs that was already sanctioned for; the development in terms of enhancing the computational facilities and strengthening the Internet through BSNL lease line & Wi-Fi Facility with more access points and routers in the premises. Moreover, the Library will be enriched with books worth Rs 4 Lacs. The funds have not been received till date.

The college is striving hard to meet the targets foreseen by the UGC through CPE programme in terms of infrastructure and academic excellence.

### UGC Schemes

1. Under Career Oriented Programme Following Proposals were submitted;

Disciplines	Subject	Coordinating Department
SCIENCE	Certificate/Diploma/Advanced Diploma in <b>Mathematical Modeling using Maple</b>	<b>Physics</b>
	Certificate/Diploma/Advanced Diploma in <b>Communication Electronics</b>	<b>Electronics</b>
	Certificate/Diploma/Advanced Diploma in <b>Maintenance of Home Appliances and Domestic Electric Wiring</b>	<b>Physics</b>
	Certificate/Diploma/Advanced Diploma in <b>Sericulture</b>	<b>Zoology</b>

Out of these one in **Mathematical Modeling using Maple** have been awarded.

- A proposal for Construction of Buildings in Colleges under the scheme of Development Assistance to Colleges has been prepared and will be submitted in a week or so for **Library Building & Extension work for Physics Department**. Two times query was asked by WRO office which was duly answered.
- A proposal for Additional Assistance for Rs 25 Lacs has been submitted to WRO.

### **Student Council**

The Students Council 2010-11 was constituted as per directions of R.T.M. Nagpur University, Nagpur vide section 40(2) (a) and (b) of Maharashtra University Act 1994.

Ku. Ketki K. Agasti was elected unanimously Secretary of Students Council for the current session.

The merit students of Summer-2011 Degree Examination as well as H.S.S.C. (XII Std.) Examination from our college were felicitated on 17<sup>th</sup> September 2011 at the hands of Hon'ble Dr. S.S. Gokhale, Director, V. N. I. T. Nagpur. Hon'ble Bal Kulkarni, Sr. Journalist, Nagpur was the guest of honour. Hon'ble Guests lauded the efforts of the institution in imparting quality education to the students and distributed the prizes to the meritorious students.

The guests congratulated all the functionaries of the college and institution for its tradition of excellence. Hon'ble Shri Arunkumar B. Shelke, President, Shri Shivaji Education Society, Amravati was presided over the function and showered blessings on galaxy of meritorious students and outstanding sports persons. The function was attended by executive members and office bearers of Shri Shivaji Education Society Amravati, parents, students and staff members.

Floral Tributes were paid to **Lokmanya Bal Gangadhar Tilak** on his Death Anniversary observed on 1<sup>st</sup> August 2011.

'**Independence Day**' was celebrated in the presence of students and staff members of the college. The meritorious students and outstanding sports persons were felicitated by **Teachers' Forum**. Prizes were distributed at the hands of Hon'ble Principal Dr. D. K. Burghate.

Floral Tributes were paid to **Dr. Sarvapalli Radhakrishnan** on '**Teachers Day**' (**5<sup>th</sup> September 2011**), celebrated on the occasion of Birth Anniversary of Dr. Sarvapalli Radhakrishnan. A Slogan Contest was organized and teachers were felicitated by the Students Council at the hands of Hon'ble Principal Dr. D. K. Burghate.

In appreciation of UNO's decision to celebrate **Gandhiji's Birth Anniversary** as a '**World Non-violence Day**', the Students Council and value addition committee jointly organized a programme on 2<sup>nd</sup> October 2011. Floral Tributes were also paid to Former Prime Minister **Lal Bahadur Shastri** in the presence of staff and students.

The Death Anniversary of **Rashtrasant Tukdoji Maharaj** was observed on 11<sup>th</sup> October 2011 by offering Floral Tributes to him.

"**Mahaparinirwan Din**" of **Dr. Babasaheb Ambedkar** was observed on 6<sup>th</sup> December

2011 by offering floral tributes to him.

**“Yuva Mahotsav”** 2011 was organized from 22 to 27 December 2011 to commemorate 113<sup>th</sup> Birth Anniversary of **Shikshan Maharshi Dr. Panjabrao Alias Bhausaheb Deshmukh**. Various activities were organized in Yuva Mahotsav like Games & Sports, Intercollegiate Seminar competition, Science & Art Exhibition, Essay & Elocution competition, etc.

**Campus cleaning programme** was organized on 22<sup>nd</sup> December 2011 at 08.00 a.m. with the help of N.S.S. Volunteers. Thereafter **Intercollegiate Seminar Competition** was organised by Geology Department at 10.00 a.m. inaugurated at the hands of Dr. Bothale, Director, MRSEC, Nagpur.

Essay and Elocution competition were organized on 23<sup>rd</sup> December 2011 to mark the Birth Anniversary on Dr. Panjabrao Deshmukh. Students were enthusiastically participated in both competitions.

Games & Sports activities were organized on 24<sup>th</sup> & 25<sup>th</sup> December 2011 in college campus. The students were actively participated in these activities.

Blood donation & Science exhibition were the most noteworthy activities of the event due to overwhelming response of students and staff members. **Science, Art, Rangoli, Poster Exhibition** was inaugurated at the hands of Hon’ble Dr. Patil, Head of the Department of Zoology, Institute of Science, Nagpur on 24<sup>th</sup> December 2011 at 10.00 a.m. in which students were actively participated and exhibited their scientific temper. Blood donation camp was inaugurated at the hands of Hon’ble Dr. D.K.Burghate on 24<sup>th</sup> December 2011 at 11.00 a.m. under guidance of Dr. A.V. Gomashe, Head of the Department of Microbiology. On this occasion, staff and students actively participated and donated 139 units of blood and paid rich tribute to Dr. Panjabrao Deshmukh. Blood donors were felicitated at the hands of Hon. Shri Adv. Arun kumar B. Shelke, President of Shri Shivaji Education Society, Amravati on 19<sup>th</sup> January 2012 in the programme organized by the college.

Floral tributes were paid to Hon’ble **Dr. Panjabrao Alias Bhausaheb Deshmukh** on 27<sup>th</sup> December 2011 in the college as well as at Maharaj Bagh Square in the presence of Hon. Dr. Adv. Eknath Salve, Co-ordinator, Satyashodhak Manch, Chandrapur. Society flag was also hoisted at the hands of Offg. Principal Dr. A.V. Gomashe in the presence of staff members on this occasion.

Offg. Principal, Dr. A.V. Gomashe, and Prof. R.N. Deshmukh, Convener, Students Council congratulated the winners of various competition of the event. Principal, Dr. D.K. Burghate appreciated the teaching and non-teaching staff members for their pain taking efforts for the success of the event.

**World Heritage Day** was organised on 12<sup>th</sup> January 2012 in the presence of Principal and staff members and birth anniversary of **Swami Vivekanand** was also celebrated on this occasion.

**63<sup>rd</sup> Republic Day** was celebrated in the presence of staff & students of the college. Prize distribution ceremony of **“Yuva Mahotsav”** 2011 was arranged for the winners of **Science & Art Exhibition, Essay & Elocution Competition, Sports, Cultural Activities, and Blood Donation etc.** On this occasion, winners were appreciated & awarded with prizes & certificates at the hands of Hon’ble Principal Dr. D.K. Burghate.

**“Chhatrapati Shivaji Maharaj Jayanti”** was celebrated with great fervour & gaiety in the presence staff & students on **9<sup>th</sup> February 2012**. Hon.Ashutosh Adoni was the Chief Guest & spoke on the life of Shivaji Maharaj.



“National Science Day” was organized by Department of Physics on **28<sup>th</sup> February 2012**. Prof. Suhas Moholkar, Head of the Department of Electronics spoke on this occasion. Rich tributes were paid to founder president of Shri Shivaji Education Society, Amravati and Independent India’s first agriculture minister **Dr. Panjabrao Alias Bhausaheb Deshmukh** on his 47<sup>th</sup> death anniversary on 10<sup>th</sup> April 2012. Principal Dr. D.K. Burghate and staff members paid floral tributes to great visionary. On this occasion, Dr. A.H.Salunkhe (well known writer & Philosopher), Dr. Ramesh Andhare, Dr. Babanrao Taywade etc. were present & paid rich tribute to him.

In the evening, Shivaji Science College & Dhanwate National College jointly organized lecturer series in the memory of **Dr. Panjabrao Deshmukh**.

Famous writer & Philosopher Dr. A.H.Salunkhe threw light on Dr. Panjabrao Deshmukh as a social reformer and his contribution towards agriculture, social, political, constitutional & cultural change. Hon’ble Shri Dilipbabu Ingole Vice-president, Shri Shivaji Education Society, Amravati presided over the function. It was well attended by eminent personalities from all walks of life, staff & students of both the colleges.

On 14<sup>th</sup> April 2012, 121<sup>st</sup> birth anniversary of **Dr. Babasaheb Ambedkar** was celebrated in the college with great fervour in the presence of Principal & staff members by offering floral tributes to him.

#### **Science, Arts and Rangoli Exhibition**

Every year we are celebrating the birth anniversary of Dr. Panjabrao alias Bhausaheb Deshmukh in our college in the month of December. On the eve of the 113<sup>th</sup> Birth Anniversary of Dr. Panjabrao alias Bhausaheb Deshmukh we had arranged Science, Arts and Rangoli exhibition on 24<sup>th</sup> and 25<sup>th</sup> December 2011 in our college. Science exhibition was inaugurated by the hands of Dr. K. G. Patil, Head, Department of zoology, Institute of Science, Nagpur in presence of Principal Dr. D. K. Burghate. Arts and Rangoli exhibition was inaugurated by the hands of Dr. R. V. Tijare, Associate Professor, Department of Zoology, Institute of Science, Nagpur.

All the departments of our college actively participated in the science exhibition. Students had prepared working models and posters for science exhibition. Students had prepared different arts and draw an excellent rangoli.

Departmentwise prizes were allotted for their exhibits. On 26<sup>th</sup> January 2012, prize distribution programme was organized in our college conference hall. Prize winner students were felicitated by giving the prizes and certificates by the hands of our Principal Dr.D.K.Burghate. On this occasion all the teaching, nonteaching staff and students were present.

#### **Teacher Parent Forum at a Glance**

The Teacher Parent Forum has been formed with the intention to establish coordination among the parents and teachers. There was a time when the teacher-pupil relationship was quite harmonious. The teacher used to be an all time guide and guardian. Today with the flourish of coaching classes, his role has been reduced to that of a facilitator. This alarming transition has wiped out the glory and grandeur of this noble profession. Due to this reason, three things have become imperative-classes, curriculum and character.

This is how Teacher Parent Forum came into being and has been active since last a couple of years. A committee has been constituted

- Principal Dr. D.K. Burghate - Chairman
- Dr. L.B. Hurulkar - Secretary
- Dr. P.S. Utale - Member
- Dr. Mrs. P.S. Tiwari - Member
- Dr. Ku. V.K. Meshram - Member
- Dr. S.S. Darokar - Member

The forum decided to initiate following measures to check the transition taking place in the academic sphere.

- It is reported to the students and parents as well that 75% attendance is compulsory.
- The students who did not appear for the first term Examination or whose score in each paper is below 25%, the names of such students are reported to the parents. They are further informed to meet the Principal or the members of the forum.
- The result analysis has been made and accordingly the students are given tips. The bright students are tutored in such a fashion so that they can secure good mark and appear in the merit list while the poor ones are given tips to achieve success in the University Examination.

The teacher parent forum pursued these activities and encouraged the students to participate in various activities. The impact of forum's activities appeared to be quite visible. The students began consulting their teachers whenever they used to have difficulties of their subject.

### **Teacher Mentor Scheme**

Teacher-Mentor Scheme has been introduced in this college in the year 2008. Dr. D.C. Sindhimeshram head Department of chemistry is the convener of this forum while the other teachers are the teacher-mentors of their respective batches. For better implementation of this scheme, a batch wise division of the students has been made and the responsibility of each batch is given to one teacher. This teacher is a teacher-mentor of that particular batch for one academic session.

The purpose of this activity is very simple. When one teacher has been given a batch of twenty pupils, he/she is the mentor and guardian of that group of students. In case, a pupil has any difficulty at any time, he or she can approach the respective teacher-mentor. At that time, it is the prime duty of the teacher to help him/her to overcome the problem. The teacher-mentor hold the meeting periodically and in these meetings he (the teacher-mentor) has interactions with his pupils. When he acts like their guardian and gives them confidence that he is there to help his pupil. Such kinds of gesture on the part of a teacher make the student feel at home in the campus of college.

### **Implementation of the Scheme**

The teacher-mentor scheme and teacher-parent forum has been formed with the intension to established co-ordination among the students, parents and teacher. There was a time when the teacher-students relationship was quite harmonious. The teacher used to be an all time guide and guardian. Today with the flourish of coaching classes, his role has been reduced to that of a facet. This alarming transition has wiped out the glory and grandeur of this noble profession. Due to this reason, three things have become imperative-Curriculum column and character.

The actual teaching began in the first week of July. The students who sought admission for B.Sc.I had no idea about the general discipline of the college so the principal, Dr.D.K. Burghate addressed the students of B.Sc. I on 23<sup>rd</sup> July 2011. Dr. D.C. Sindhimeshram (convener), Prof .S.C. Moholkar, Dr. L.B. Hirulkar were present for this address. The principal during his address told the students that your teachers in the college are guardians in the college campus. Hence you should not hesitate to approach your teacher. On the contrary you should develop relations with all the teaching staff so as to overcome your personal and academic problems. The other teachers, present also addressed the students and gave them certain tips regarding the building of their carriers.

The meeting of executive members of teacher-mentor scheme was held on 01<sup>st</sup> August 2012 in the Department of Chemistry.

The convener Dr. D. C. Sindhimeshram discussed certain issue regarding the implementation of teacher mentor scheme. The purpose of this meeting was to decide the strategy regarding the scheme so as to make it more meaningful and successful

After the first meeting executive members prepared the batches and each, teacher was designated as the in- charge of that batch who is termed as mentor. The teacher-mentor is instructed that it is your prime duty to help the students in every problems, he /she has to face in the campus. More over the mentor are informed that you should maintain such a cordial relation with pupil so that he or she will not have any kind of hesitation to approach you. When the actual functioning of teacher-mentor scheme began, the result of this was quite satisfactory the students approached their respective mentors to overcome their academic and personal problems. The teachers used to arrange their meeting and other activities according to the convenience of the students. The students who were from poor family were given some jobs in library.

### **Women Study & Service Center**

As per R.T.M. Nagpur University Act the Board of Adult and continuing Education and Extension services was formed 23<sup>rd</sup> June, 1995.

Women Study & service Center was established in the year 2004-2005 in this college.

**Aim:** The main aim of this center is to provide platform for the women to stand in the society and to achieve the full participation of women to strengthen democracy, peace and sustainable development globally. So that women can overcome their problems in all sectors.

**Objectives:** To develop research abilities in the students and to create interest towards analysis, so that they should know how to tackle the problems.

**Under the banner of Women Study Service Center this year we have** organized a workshop for encouraging students to prepare projects and to create interest towards research activities in which 20 students of B. Sc. and M. Sc. were participated and benefited by this workshop.

On the occasion of Worlds Women's Day Women Study Service Center and Women cell in collaboration with Indian Women Scientist Association (IWSA), Nagpur Branch organized a program on 17<sup>th</sup> March 2012 in which there was Best paper presentation on the topic "Women in Science & Technology," from which IWSA selected best presentation and felicitated the authors. On this occasion Dr. Kalpana Pawar, Convener of Women cell felicitated the Women Professors for rendering the best services in education and social fields in which Dr. Vandana Meshram and Dr. Mamta Lanjewar were felicitated by Bouquet and Memento as a token of love. Also Newly joined Women staff members were welcomed on this occasion. Dr. D. K. Burghate Principal was presided over the function and Dr. Alka Chturvedi, Head PGTD Botany RTM Nagpur University, Nagpur was the Chief Guest for this function.

All the Women staff members actively participated for the success of this Center.

### **Women Grievance / Redressal Cell**

(Prevention of Harassment to Women Internal Complaint Committee)

A quarterly meeting was arranged on 22<sup>nd</sup> February 2012 Wednesday to discuss the problems to be solved under **Women's Grievance Redressal Cell** during the session 2011-2012 at 1.00 pm in Zoology Department.

The aim of this committee is to redress the growing sense of insecurity and increasing incidence of crimes among women and to handle all matters related to insecurity of Women.

The main objective of this cell is that any Women, whether they are from affluent background or whether they live in City slums are beginning to demand safer place for

education and commutation since the safety of Women has become a serious concern area in the present society.

To redress the growing sense of insecurity and increasing incidence of crimes among women, the College has set up a “**WOMEN REDRESSAL CELL**” to handle all matters related to insecurity of Women.

Women, whether they are from affluent background or whether they live in City slums are beginning to demand safer place for education and commutation since the safety of Women has become a serious concern area in the present society.

The College Management has set up a “**WOMEN REDRESSAL CELL**” to address all problems related to safety of Women Students, Teachers and Staff. The Cell spearheads the “**Awareness Programme**” for all concerned towards safety within the College premises as well as during commutation from home. The Cell ensures the wearing of identity cards compulsory for all Students within the College premises to ensure identification of any outsiders. The Cell propagates the Safety issues through visual portraits i.e. Posters, Badges and Videos. The Cell also imparts training on self defence for Women and legal matters. The Cell also recommended the College authority to install Closed Circuit T.V. to monitor the activities of Students within the College premises. Teachers carries out Regular Rounds for monitoring of Students where about in the Canteen and Parking Space. The Cell has installed “**COMPLAINT BOXES**” in convenient places so that the grievances can be addressed timely and efficiently.

It is quite imperative that the Installation of “**WOMEN REDRESSAL CELL**” will definitely benefit the WOMEN in the Academic Fraternity.

The committee has circulated one notice yearly regarding the grievances of women staff members in the office or college premises. **No cases** have yet been registered by this Cell in the College premises. Further work will be done according to the grievances received from the women staff members.

#### **Cultural Activity**

On the Auspicious Occasion of 112<sup>th</sup> Birth Anniversary of Founder President of Shri Shivaji Education Society Amravati Dr. Panjabrao Alias Bhausahab Deshmukh, a Cultural Program was organized on 23<sup>rd</sup> December 2010, under the banner of Yuva Mohotsava.

#### **Value Addition Committee**

Value Addition Committee organizes various activities throughout the year to inculcate Social, Cultural, Ethical and Moral values in the students. To enhance these values in the young generation, we organize Guest Lectures, Essay Writing, Elocution and Debate Competitions. The students also participate in Birth and Death Anniversary functions of the great leaders and pioneers, who have enlightened the society and the country.

Following programmes were organized in the year 2011-12.

- An essay writing competition was organized on 16<sup>th</sup> July, 2011. The Topic was “Impact of population explosion on Environment”. In all twenty two students participated.
- Floral tributes were paid to Lokmanya Tilak on his death anniversary, observed on 1<sup>st</sup> August, 2011. Our student Ku.V.Janani enriched the audience with the portrayal of great leader.
- On 12<sup>th</sup> August 2011 Library Day was celebrated on the eve of birth anniversary of Dr.Ranganathan.
- 15<sup>th</sup> August, 2011 Independence Day was celebrated in the presence of students and staff members of the College. College students participated in Patriotic Group Song Competition.

- On 5<sup>th</sup> September, 2011, Teachers' Day was celebrated to commemorate the Birth Anniversary of the Great Philosopher Dr. Radhakrishnan. On the occasion Message Writing Competition was held.
- On behalf of "Swadeshi Jagran Manch", elocution competition was held on 9<sup>th</sup> September 2011.
  - The topic of elocution was "The challenges before India in 21<sup>st</sup> century and its solutions."
  - The programme received remarkable response.
- On 2<sup>nd</sup> October 2011, Rashtrapita Mahatma Gandhiji & Lal Bahadur Shastriji's Birth Anniversary was celebrated as a Non Violence Day. On this pious occasion, students and teachers recalled the teachings and life of great Saint.
- Floral tributes were paid to Rashtra Sant Tukdoji Maharaj on his death anniversary, observed on 11<sup>th</sup> October 2011.
- Floral tributes were paid to Dr. Babasaheb Ambedkar on his death anniversary in the presence of staff and students. An excellent speech was delivered by Hon'ble Principal Dr D.K Burghate.
- 114<sup>th</sup> Birth Anniversary of Dr. Panjabrao Deshmukh was celebrated as Yuva Mahotsava in the College from 24<sup>th</sup> December to 27<sup>th</sup> December, 2011.
  - On 24<sup>th</sup> December, 2011, Elocution Competition was organized. The Topic was - "Root cause of Corruption and its preventive measures". In all 22 students participated in the Competition.
  - An Essay Writing Competition was held on 26<sup>th</sup> December, 2011. The Topic was - "Dr. Panjabrao Deshmukh - As a versatile personality". In all 26 students participated.
- Floral tributes were paid to Savitribai Fule on her Birth Anniversary celebrated on 3<sup>rd</sup> January, 2012 in the presence of staff and students.
- On 12<sup>th</sup> January 2012, Youth Day was celebrated on the eve of 150<sup>th</sup> birth anniversary of Swami Vivekananda.
- 64<sup>th</sup> Republic Day was celebrated in the presence of staff and students of the college. Prize Distribution Ceremony of Yuva Mahotsav- 2012 was arranged for the winners.
- Chhatrapati Shivaji Maharaj Jayanti was celebrated with great fervor in the presence of staff and students on 9<sup>th</sup> March 2012. Shri Ashutosh Adone recalled the teachings and life of great Warrior Chhatrapati Shivaji Maharaj. On this occasion, "Spandan" a poetry book by Dr. L.B Hirulkar was released. Mr Wakudkar was the chief guest for this occasion.
- Rich tributes were paid to founder president of Shri Shivaji Education Society, Amravati Dr. Panjabrao Deshmukh on his 47<sup>th</sup> death anniversary on 10<sup>th</sup> April 2012. Principal Dr. D.K. Burghate, Principal Dr. B.B.Taywade and staff members paid floral tributes to great visionary. Dr. A.H Salunkhe, Satara threw light on the topic "Baliraja te Dr Panjabrao Deshmukh".
- On 14<sup>th</sup> April 2012, Birth Anniversary of Dr. Babasaheb Ambedkar was celebrated in the College in the presence of Principal and staff members by offering floral tributes to him.

#### **A report on Environmental Studies (a compulsory course for B.Sc. II students)**

The compulsory Course of Environmental Studies was conducted for the partial fulfillment of B. Sc. Degree, as per RTM, N.U. Nagpur and UGC guidelines, for B. Sc. II year students of all groups.

During session 2011-2012, total number of 342 students was enrolled for B. Sc. II of all groups. The staff members engaged the classes, allotted projects and arranged study tours

to various places. This year we arranged study tours to Bazargaon Forest, and Khekaranalha Dist. Nagpur and Armori, Dist. Gadchiroli to study flora and fauna, soil texture, topography, rain fall etc.

Number of students participated in competition on 'Recent Advances in Environmental Chemistry' organized by Department of Chemistry Dr. Ambedkar College, Nagpur. We also organized various Awareness program like AIDS, Nutrition, save water conserve water, Pollution etc. for the students of the college.

In the month of January 2012 as per the guideline of RTM, N. U. Nagpur, Objective test, Essay type Examination was conducted by the college. Every student asked to submit the Project / Tour report .The grades of the students were send to Controller of Examination, RTM, N. U. Nagpur.

This course was completed successfully under the guidance of Honorable Principal Dr. D. K. Burghate. Dr. R.S.Sakundarwar, coordinator, Dr.S.V.Ghonmode Asst. Coordinator, Dr. S. S. Darokar along with all the committee members worked for the success.

### **Report on Floriculture and Landscaping**

Gardens are considered to be the lungs of the city. They not only add to the beauty of a place but also makes our mind cheerful and healthy. Gardening's an art, which can be relaxing, absorbing hobby, or it can become a chore. Once you have a garden, it is impossible to ignore it. Anyone wishing to remodel their garden or who is starting a layout a new garden faces all sorts of difficulties about exactly what is not possible on that particular plot of land.

Gardens add to the quality of life and gardening is an absorbing pursuit. As the well-know gardening authority, Christopher Lloyd, Says, Gardening is one of those creative activities that produces an enjoyable sensation of enjoyment. "He goes on to say that it keeps us in touch with the earth, the seasons, and with that complex of interrelated forces both animate and inanimate, which we call nature. It is a humanizing occupation."

In India, we are fortunate to possess one of the richest floras on this earth, and a tremendous range of bioclimatic regions which make it possible to grow flowers, fruits and vegetables in a variety of forms which it is difficult to match elsewhere, we are in a position to enjoy the choicest varieties both of the temperate and the tropical zones. Keeping this in view it is rather disappointing that gardening is so limited in most part of our country. We do indeed have some magnificent parks and public gardens including botanical gardens, and those individuals here and there who maintain exquisite private gardens, searching all the time for new varieties and sparing no pains to make the spaces at their disposal into gardens of delight. Again, due to good planning and the enthusiasm of some, we have fine plantations of roadside trees in a few cities. But, by and large, it is unfortunately true that our country is not a land of gardens.

The course in Gardening, Floriculture and Landscaping will not only help the student to overcome the difficulties in garden planning like which plant species are to be grown and where to the planted.

The certificate course will not only provide self employment to the student but also will contribute in conserving and preserving the natural beauty of the area.

#### **Aims and Objectives:**

- Conservation of biodiversity by in – situ conservation.
- To create bio-aesthetic sense amongst the people this will ultimately be an indirect contribution to control the environmental pollution in various ways.
- To create JOB opportunities/self employment/consultancy.

- Garden will not only beautiful the house but can also fulfill the daily household requirements like flowers herbs etc.
- A beautiful sight of garden gives peace of mind to the person.

Floriculture and landscaping is grant in Aid course for career oriented programme. It is undertaken by the Department of Botany and running this course successfully from year 2006. It is in collaboration with the various nurseries, Industries, Government and non-government organization. Duration of the certificate course is three months. In this course students learn the techniques of Gardening Floriculture and Landscaping. For this programme students were enrolled and they have give training as per prescribed syllabus in Botanical garden of the college and theory classes were taken in the Diwali Vacation. The study tour was arranged to various nurseries. Final Examination on prescribed syllabus was conducted by the Department in month of February. All the students certificates were distributed to them.

Flower arrangement & bouquet making training programme was conducted on dated 04<sup>th</sup> January 2012. Many students participated in this programme. Flower in one of the gift given to human being by nature, being of any kind it is loved by everyone. Flower arrangement is an art in which, with little creativeness and experimentation could be beautifully arranged. Everybody gets attracted towards Flowers. Ikebana is a Japanese word meaning “Living flower arrangement ikebana is not a decoration of colorful Flowers, branches & leaves but is medium through which the arranger expresses his creative talents. It required consistency, variety, individuality.

Above techniques were taught by floriculture expert & Secretary of garden club Mrs. Sunita Sharma. She also guided the techniques of bouquet making. Different Types of flower arrangement and bouquet were made by the students as per here guidance. The object introducing behind floriculture and landscaping course is to create awareness amongst the student about conservation of biodiversity, control the pollution and develop the business in maintenance of flower. Dr. D.K. Burghate, Principal appreciated the efforts and interest shown by the student.

Recently a competition of flower arrangement floral carpet organized by Hitavada and Garden club on 25/09/2011 at Kusumtai Wankhade Hall and inaugurated at the hands of Dr. Wate, Director NEERI, Nagpur and also by Friends International, Nagpur, on 24<sup>th</sup> and 25<sup>th</sup> December 2011, at Institute of Engineers Association Hall, Nagpur and inaugurated at the hands of Dr. Pravin Darade, Chairman, NIT, Nagpur. Our college has participated and bagged “Second prize”. Pradip Kadu and his team won the second prize, Ku Varsha Wasnik won the consolation prize, while Ku Priti Parasmode won 1<sup>st</sup> prize in flower arrangement.

Dr. R.S. Sakundarwar, HOD, Prof. R.N. Deshmukh Convener, Botanical Garden encouraged the students. The programme was successful under the guidance of Dr. Mrs. S.D. Puranik, Incharge & other members of Botany Department. Through this, students were enriched with the skill of floriculture & landscaping. By this knowledge, students can start their own nurseries, floriculture emits & consultancies.

### **Students facility centre**

Students facility centre is in existence since the year 2003-04 in order to fulfill daily needs of the students community as well as faculty members. Institute granted permission and responsibility for opening the facility centre to Ms. Tirupati Printers and Stationers owned by Mr. Saoji. The objective of opening the facility centre was to save the valuable time of the students and faculty and to get the daily needs in reasonable rates.

The facility centre is located on the ground floor of the new building i.e. in Dr. Bhagyashree Survey Memorable Science Bhavan in the College Campus which is easily

accessible. All the daily needs like practical note books, copies, texts books, Floppy, Compact disc (C.D.) and other stationeries are available at reasonable prices not exceeding their maximum retail price (MRP). Considering health problems like obesity etc. all types of aerated drinks and the products made from tobacco have been strictly prohibited in the centre, instead, Fruit juices of branded companies like real, Lehaberry, Tropicana etc are available in the centre. Xeroxing facility has been provided in the centre. Committee consisting Prof. in charge, Head Clerk and accountant looks after the functioning of the students facility centre.

The Canteen Facility for the students and staff has been started from January 2010 due to heavy demand of students to fulfill their dietary requirements

### **NSS report**

It is a matter of great pride and pleasure that our college has constituted one N.S.S. unit with the cam of inculcating in the youngster the values of social responsibility, dedication and devotion to the noble cause. The meeting of N.S.S. Committee was conducted on 15<sup>th</sup> August 2011 under the chairmanship of Hon'ble Principal Dr. D.K.Burghate. The committee decided to undertake tree plantation social awareness programme, blood donation, hygiene and cleanliness drive, special camp etc. Some noteworthy activities are listed below.

**Tree plantation:** Our N.S.S. unit of 50 students arranged tree plantation programme on the Independence day and planted some medicinal plants at the hands of Hon'ble Principal Dr. D.K. Burghate, Dr. A.V. Gomashe, Dr. R.U. Khope, Prof. R.Y. Deshmukh were prominently present.

**Rally:** N.S.S. unit organized peace rally on 2<sup>nd</sup> October 2011 to mark Birth Anniversary of Late Mahatma Gandhi.

**Blood donation camp:** N.S.S. unit of this college was organized the blood donation camp 130 units were collected on the eve of Dr. Bhausaheb Deshmukh birth anniversary on 25<sup>th</sup> December 2011 Dr. D.K. Burghate, Dr. A.V. Gomashe, Dr. R.U. Khope, were prominently present on this occasion.

**Awareness Programme:** N.S.S. unit of this college organized awareness programme on swine flu. Vyasana Mukti rally was organized to aware the people.

The students of N.S.S. unit actively participated in awareness programme on rainwater harvesting held on 09<sup>th</sup> November 2011. Theme and processes were conveyed & communicated to lower strata of society.

**Visit to Fetari:** In the month of July 2011 the N.S.S. unit of this college visited fetari and interacted with the formers. The farmers made aware of the organic farming.

**Teachers Day:** Teachers day was celebrated on 5<sup>th</sup> September 2011 to mark the birth anniversary of Dr. S. Radhakrishnan Hon'ble Principal Dr. D. K. Burghate delivered speech on this occasion and guided the students.

**Hygiene and Cleanliness Drive :** Principal Dr. D.K. Burghate and staff members plated samplings in the college premises on this occasion. Hon'ble Principal told the students to maintain cleanliness and hygiene in the college. He also informed them that they should not spit in the campus and the loiter pieces of paper or anything.

**Special training programme of Yoga and meditation:** A special 5 day Training programme of Yoga and Meditation was organized in the college auditorium by the NSS unit of the college. The eminent expertise in the field of Yoga and meditation guided the students and the staff members. The programmed was found to be very beneficial and helpful to manage the stress In the busy schedule of present lifestyle.

Dr. P.S. Utale Programme officer, Dr. R.U. Khope Co-programme officer, officer, Prof. J.K. Gunjate, Prof. R.Y. Deshmukh, Dr. S. R. Thakare had taken keen effort for grow



success of life activities of the entire course under NSS of the entire year. Principal appreciated the efforts taken by the teachers and students.

### **Dr. Panjabrao Deshmukh Career Guidance and Counseling Cell**

- Inauguration and installation of office bearers of Dr. Panjab Rao Deshmukh Career Guidance and counseling cell and Rotract Club Of Shivaji Science College was organized on 05<sup>th</sup> September 2011 Formal inauguration & installation was done at the hands of Hon'ble Principal Dr. D.K. Burghate Sir.
- President of the sponsoring Rotary Club ,Rotary Club of Nagpur Fort Mrs.Vishkha Rao, Mr. Mahesh Gorle ,Secretary and The distinguished guests, i. e. the officers and members were present on the occasion.
- Training program on SELF IMPROVEMENT was organized; Dr. Surendra Gole, Vice Principal Jhulelal Institute of Engineering & Technology was the traininer. The program was well appreciated by Hon'ble Principal and students.
- Presentation on "Garbha Sanskar by Dr. Smita Deolekar , well-known Gynecologist was organized for the members .
- Students also attended a National Conference organized by Dr. Ambedkar College on 16<sup>th</sup> and 17<sup>th</sup> September. The conference was on Career Prospects for Women Empowerment.
- Various lectures on different career opportunities for women were introduced and guided efficiently. The topics were media, advertising, entrepreneurship, bureaucracy and also Armed Forces.
- My-FM organized City Jockey Competition. Students of P.D. Cell gave active participation.
- RJ Milind and RJ Nisha guided students on Career in Radio and Broadcasting media.
- Tuhina Mukherjee and Umesh Nandanwar were selected as City Jokey and felicitated with certificate and gift hamper.
- Two days workshop on Effective Public Speaking was organized on 23<sup>rd</sup> and 24<sup>th</sup> of September by renowned trainer Jc. Kumar Zilpelwar.
- He explained about Opening, Body and Closing (i.e. OBC) of Speech and parts of Effective Public Speaking.
- In 2 days workshop, it taught the speaking skills on the 1<sup>st</sup> day. And the next day was to test about what the participants had grasp followed by Best Participant's Award, Improved performance Award ceremony at the Hands of Hon'ble Principal Dr. D.K. Burghate Sir.
- A meeting of Rotract clubs from different colleges with the District Governor was attended by the members.DG Gopal Shiralkar took our views about various activities
- Guest lecture on First Aid was organized on 16<sup>th</sup> January in the University Department of Finance Management.
- This lecture gave information about first aid related to road accidents.
- I take this opportunity to our Hon'ble Principal "Dr.D.K.Burghate" sir for his constant encouragement and great Backup!
- I am whole heartedly thankful to Dr. Hirulkar. Mrs. M.J.Madhugiri, Mrs. Y.K.Meshram, Shri R.N.Deshmukh and Shri D.K.Kadu for support and cooperation.
- Training program on "Non Verbal Communication i.e. Body Language" was organized. Renowned trainer of Jc International Jc Tarun Shrivastav was the Faculty for the Event.
- Members of the cell took part in large number in "Cyclathon" organized by Rotary Club of Nagpur Fort.

- Students participated in Poster competition organized by Indian Women Scientists association On World Food Day.
- International Women's Day was celebrated in association with Indian Women Scientists association (IWSA), Nagpur chapter. Students and staff (women) members participated in essay competition on "Women in Science and Technology", and Project report competition.
- Students of the cell actively participated in various competitions organized by the college throughout the year and excelled in all areas. Thanks to all office bearers and members for their whole hearted support.
- Concluding and Award ceremony was organized on 28<sup>th</sup> January Dr. A.V. Gomashe sir, Ex Dean, Science faculty and H.O.D. Microbiology Department Presided over the function, Shri Alok Tiwari, senior journalist, Times group was the chief guest. He guided students on "Career in Journalism". Office bearers and members were felicitated for their outstanding performance and support rendered by them throughout the year.

### **Attendance Monitoring Committee**

It gives us immense pleasure while underlining the fact that our institution is one of the institutions reaccredited as A+ and recognized as CPE by NAAC Bangalore. Behind this success are no doubt the continuous efforts and well wishes of teaching faculty, non teaching staff, students, parents, alumni, management and the principal of this institution. But the students are the main focus of any educational institution for whose benefit each and every activity of the institute is planned and organized. It is the response of the students to these activities which help them to build their personality.

The ultimate goal of a really good educational institution is to produce responsible citizens having all round development along with best course studies. Our institution is always much concerned about very minute aspects of students development. The attendance of students in class is one of such important aspects as far as discipline rules are concerned. We feel proud while mentioning the fact that our students also understand the importance of classroom attendance. Daily recording of the attendance of the students is a routine practice of every teaching faculty in our institute. The office provided the well formatted attendance registers as well as updated roll lists of the students for academic session 2011-12 to every teacher in the beginning of the academic session. This year academic session started from 16<sup>th</sup> June 2011. Theory classes commenced from 27<sup>th</sup> June 2011 when majority of admission process came to an end. The regular time table having theory along with practical classes commenced from 11<sup>th</sup> July 2011. Regular teaching was possible up to third week of January 2012. Winter vacation divided the academic session in to two terms. General observation of all teachers was that attendance of students during first term is slightly less than required i.e. 75%. The main reason for this fact was traced from the students themselves and it was found that most of the students fall under ATKT category and spare time for the preparation of winter Examination, which ultimately affected their classroom attendance. Anyhow such students who have less attendance than required in first term of session were marked and warned by the teachers and message conveyed to parents during parent teacher meetings and the outcome was achieved in the second term of the session. The percentage of attendance of the marked students improved to required level at the end of the session.

Our committee therefore takes this opportunity to mention the fact that our students fulfilled the attendance criteria as required by university and UGC guidelines during session 2011-12.

### **Centre for Social Action Committee**

It gives us great pleasure to present the report of various activities in the college under the centre of Social Action during the academic year 2011-2012. Department wise activities are as given below,

#### **Chemistry Department:**

- Department of Chemistry has organized National Conference on Material: Atom to Molecule on 16<sup>th</sup> December 2011. Around 250 Scientists, Teachers & Students were participated in the conference. This conference provided the platform for young researchers from all discipline with eminent scientist from India. The conference was inaugurated by Prof Yasutake Teraoka and Prof. Jan-ichiro Hayoshi Department of Chemical Engineering Kyushi University Fukuoka Japan and Prof. R. Jayavel, Anna University was the chief guest.
- The Department has undertaken many activities with the view to impart additional knowledge for the betterment of society. For this, Department has started carrier oriented add-on course in Environmental analysis since last 3 years. The course was introduced in order to impart additional skill to the students so as to increase employment potential.
- On 16<sup>th</sup> September an Ozone day was celebrated by department of chemistry. Dr.N.S.Labsetwar, NEERI Nagpur was the chief guest of this function. In informative speech he has given information about ozone depletion, its consequences and preventive measures.
- Staff members and students were visited to slum area Chunna-Bhatti Nagpur to aware the people about water pollution and purification of water, and also done the sampling for analysis
- Special coaching has been given to poor students to prepare competitive Examination. Class counseling for average students had conducted in the department to motivate them and increase their interest in the subject.

#### **Visit to Home for aged people;**

Dr. Mrs. Reshal Deshmukh and Mrs. Yogita Meshram faculty members of this Department visited home for aged people and handicapped person Untkhana, Nagpur. The students and staff members distributed fruits and sweets to the aged people.

#### **Visit to Chunabhatti .**

In order to increase the socio- economic awareness in the society, staff members visited slum area, Chunabhatti and guided the residents about different method of purification of water, personal hygiene & cleanliness.

- Environmental Awareness Programme was organized for the student and parents of the college
- **Visit to A.M.D:** In order to create awareness about usage of Nuclear Energy the students of P.G. Department and Dr.Mrs.M.R.Lanjewar Coordinator have arranged visit to Atomic Mineral Division (AMD) Nagpur on 29<sup>th</sup> December 2012.
- **Student faculty exchange programme:** Under faculty exchange programme growing through consortium Mrs. Yogita.K.Meshram, Associate professor and Dr. Reshal Deshmukh were visited Mahila Mahavidyalaya of Arts and Commerce and Science Jabalpur, during 9<sup>th</sup> – 12<sup>th</sup> January 2012. The cultural heritage and knowledge were happily exchanged by our students.

#### **Zoology Department:**

The Department has undertaken many activities are as given below

#### **Inter-disciplinary Extension programmes Started:**

Vermicompost, Vermiwash, SODIS & Water conservation for farmers & Villegers undertaken by Dr. S. V. Ghonmode and Dr. A.D.Bobdey in collaboration with Dr. S.S.Pawar, lecture, V.M.V. Amravati, along with students of B. Sc. II and B. Sc. III.

AIDS, malaria and filaria awareness programme. Financial help rendered to cancer and critical patient.

Pollution awareness programmes was held in Chuna-Bhatti slum areas and Oscimum plants were distributed for maintaining eco-friendly environment. Some water filters were also distributed for purification of drinking water along with Physical education & Chemistry Department.

AIDS awareness week was organized in the Department by displaying the charts, posters and some news paper cuttings to make aware about the dreadly disease along with microbiology, Botany, Chemistry Department & students council. Also street plays and stage dramas were organized to make aware the students and public. Poster competition was also organized for the B.Sc. students to create the awareness among them.

Free refreshment, tea and mineral water was arranged for the pilgrims of shegaon. Shed and stall was arranged in the way of Shegaon at Deori village. Honourable executive member of our parent society has inaugurated the same on 11<sup>th</sup> February 2012 – 15<sup>th</sup> February 2012. Nearly 5000 pilgrims visited the stall for refreshment, tea and their rest during the walking travel to shegaon. Shegaon town is located in Buldhana district of maharashtra state and hold great religious importance as appearence, and work place of Saint Shree Gajanan

Community services: AIDS, Malaria and Filaria, Chikumgunia, Dengue, Sickle cell anaemia, Thalassemia awareness programme, Financial help to cancer and critical patient. Awareness programme for farmers regarding pest management Vermicompost, Vermiwash.

Awareness regarding environmental pollution. The farmers are made aware regarding the disinfection of water by using solar energy (SODIS), Rearing of guppy fish as biological control for malaria & other diseases transmitted by mosquito.

### **Microbiology Department:**

Microbiology Department carried out many Activities during the session 2011-12 as given below

- One day workshop for UG students on continuous medical education on leprosy was organized on 9<sup>th</sup> August 2011.
- Educational tour to kullu-Manali from 15<sup>th</sup> to 21<sup>st</sup> September 2011.
- Participation of staff and students in National seminar organized on 18<sup>th</sup> October 2011
- Felicitation Meritorious student organized by microbiological society on 21<sup>st</sup> October 2011.
- Students of department of microbiology actively participated and received prizes in elocution competition organized on 23<sup>rd</sup> December 2011.
- Students participated in essay competition held on 23<sup>rd</sup> December 2011.
- Science exhibition organized under the convenership of Dr. C.J. Chandekar on 24<sup>th</sup> December-2011.

- Students of our department enthusiastically participated in science exhibition.
- Participation of students in Art exhibition organized on 24<sup>th</sup> December -2011
- Inauguration of cricket match by Dr. A.V. Gomashe on 25<sup>th</sup> December 2011.
- Blood donation camp organized on 25<sup>th</sup> December 2011 under the convenership of Dr. A.V. Gomashe, Head Department of Microbiology.
- Participation of departmental students in cultural programs organized on 26<sup>th</sup> December.
- Students And staff members actively participated in Workshop on “Hands on Training Hand on DNA” organized by LAD college from 8<sup>th</sup>-10<sup>th</sup> January 2012
- Five projects costing approximately seventeen lakh thirty-nine thousand are going on under women scientist scheme approved by DST, New Delhi.
- Our students actively participated in various personality development programm organized by P.D.cell and Rotract club of our college.
- Our students actively participated in various sports.
- Parent teachers meeting was organized and views of the parents were considered for betterment of the students and department.
- **Health services:** Students were encouraged to donate blood.
- Homage paid to Dr. Bahusaheb Deshmukh on 27<sup>th</sup> December 2011

#### **Department of Botany**

Botany Department organized various activities to motivate the students for their overall development and the department.

- Every year Excursion tour is carried out by the Department to study flora of the different region in their natural habitat with special emphasis on biodiversity. This year students of B.Sc. I , II and III visited Khekra nullah and Bazargaon forest, district Nagpur.
- The students have prepared herbarium and field diary of the plants, collected and observed them during excursion tour to various localities in and around Nagpur district.
- Seminars are delivered by the students of B.Sc. – I, II and III on the topics related to the syllabus. Students also submitted projects on Lower plants, Plant Morphology, Genetics and Environmental Studies.
- Students of B.Sc. III along with staff members of department visited to Department of NRCC, Nagpur and Department of Biotechnology, Rasoni College Nagpur. The students studied about the various varieties of citrus, their cultivation and preservation. Students also studied various equipments & techniques related to Biotechnology and Plant Tissue Culture.
- Botanical Garden and beautiful landscapes of the college is developed by the students and staff of Botany Department. All the plants of the garden and premises are provided with the nameplates, so that the students other than Botany know the name of the plants.
- Every year students and staff members are involved in the tree plantation program of the college.
- Department organized demonstration and training on Flower arrangement. Students were given training on various types of flower arrangements.
- Students of the department actively participated in the various activities like Science Exhibition, Art exhibition, Blood donation, sports and cultural programs organized in the college during Yuva Mahotsava celebrated as birth anniversary of Dr. Panjabrao alias Bhausahab Deshmukh from 22<sup>nd</sup> - 27<sup>th</sup> December 2011.
- The students of B.Sc.-I and Part –II along with staff members carried out a project of Cultivation of Mushroom.

- On the eve of Raksha Bandhan students actively participated in Eco-friendly Rakhi exhibition and competition.
- The Eco-friendly Holi was also organized successfully by preparing herbal colors from various plant parts to aware the students from harmful effect of colors.
- Students also participated in various activities like cultivation and conservation of Medicinal plants, intercollegiate seminar and Poster competition. Students participated in intercollegiate competition on recent advances in Environmental Chemistry, organized by Dr. Ambedkar College, Nagpur and Wet Land Management, organized by Hislop college Nagpur.
- Staff members carried out Environmental awareness program in association with NGO's Friends International, Nagpur, Nagpur Environment action ( Srushti Paryavaran Mandal) and Garden club Nagpur.

### **Women Cell**

Meeting of Women Cell was held to discuss the agenda on 23<sup>rd</sup> September 2011 (Friday) at 12:30 p.m. in the Department of Mathematics. All the members were present in the meeting positively and gave suggestions for smooth functioning of the cell.

On 12<sup>th</sup> October 2011 Women Cell had organized an informative Program on "Women And Cancer: The Causes and Preventions of Cancer in Women," by Dr. Jaiprakash Baraskar, President of Central India Cancer Foundation, Nagpur in the Audio Visual Laboratory in which he had focused on preventions and causes of cancer specially in women . He had also given the tips to check our own body monthly for cancer and be your own doctor. He interacted with students and staff members to solve the queries regarding cancer. The lecture was mainly on Breast Cancer and Cervical cancer in women. Principal Dr. D. K. Burghate presided over the function. Program was conducted by Dr. Kalpana Pawar, convener, Women cell and Vote of Thanks was expressed by Mrs. Yogita Meshram. All the Women Staff members and Girl students were benefited by the lecture.

### **The students' Welfare & Counseling Committee**

The students' welfare & counseling committee has been formed with the intention to design a strategy for the well-being of students enrolled in this college. There was a time when the number of students on roll was limited and the students soon after their graduation or post-graduation could land jobs of their choice or interest. Today the gospel of L.P.G. i. e. Liberalization, Privatization and Globalization brought about a sea-change not only in our life-style but also in the field of education. In order to cope up with this transition, the students' welfare and counseling committee has been constituted as given below.

- |                                 |   |          |
|---------------------------------|---|----------|
| 1) Principal Dr. D. K. Burghate | - | Chairman |
| 2) Dr. L. B. Hirulkar           | - | Convenor |
| 3) Dr. D. C. Sindhimeshram      | - | Member   |
| 4) Prof. R. Y. Deshmukh         | - | Member   |
| 5) Prof. R. N. Deshmukh         | - | Member   |
| 6) Prof. Y. K. Meshram          | - | Member   |

The above-mentioned committee chalked out a plan for the implementation of certain activities which would help the youngsters to make their career during their stay in this college. In view of the prevalent scenario of education, the committee decided to initiate following measures.

**Counseling Regarding the Choice of Courses:** - Every year the admission of students to B.Sc. Part I & Part II begins in the first fortnight of June specifically after the declaration of XII Std. & B.Sc. Part I results. The chairman and members of admission committee advised the youngsters in terms of the choice of appropriate subject combinations so that they would be able to make their career in such disciplines which would suit their talent and temperament.

**Audition for Talent Search:** - Our College organized audition for talent search so that the students with extra-ordinary skills would come in the limelight. During the course of audition, it is found that some students have proficiency in solo dance, a few students handle musical instruments skillfully, a couple of teams or group of students demonstrate beautiful coordination in group dance while some individual are eloquent speakers. It is a tradition in this college to give opportunity to the students to develop their inherent capabilities. Most of the students participated in different cultural and extra-curricular activities arranged on the occasion of the birth anniversary of our founder president Dr. Panjabrao alias Bhausaheb Deshmukh. This event is celebrated as **Yuva Mahotsav** in our college.

**Gesture of Charity:** - Teacher-pupil relationship in our college is quite harmonious. Whenever the students come across any problem, they contact their teacher who would be able to deal with that problem. This year one girl of B.Sc. II Miss Kanchan Shrivastava approached the college office to take her leaving certificate. At that time one teacher asked her the reason of leaving the college. Upon interrogation, the teacher came to know that she was unable to continue her education because of financial problem. The teacher took her to the principal and narrated the whole episode to him. The principal gave her full exemption in her fees. Today the girl is on the roll of our college.

**Guest Lectures:** - Every year our college invites distinguished trainers, resource persons and HR personnel to train the students for different competitive Examinations. During this academic session, Prof. P. A. Warhadpande and Prof. Manoj Nimburkar from Raison College of Engineering were invited on 15<sup>th</sup> December 2011 as resource persons who trained them in terms of group discussion and personal interview.

**Earn while Learn Scheme:** - This scheme is basically meant for those students who belong to poor strata of society. The poor students do not have adequate fund to purchase books or study material. Such students work for a few hours either in the college library or in the botanical garden. The college gives them remuneration for their work. This gesture of college authority helps the poor students to overcome the untimely financial odds.

**Facilities in the Library:** - The students in this college have the facility of accessing internet at cheaper rate so that they can download whatever information they need in terms of their studies. Secondly one photocopier machine has been installed in the college library with a view to provide Xeroxing facility to the students.

**Evaluation:** - The process of evaluation helps the students to understand how far they are thorough with the subjects they offered for their University Examination. During one academic session the students have to appear for two college Examinations. The first terminal Examination takes place in the month of October while the test Examination is arranged invariably in the month of January when the entire curriculum is over. After each Examination, the teachers distribute the valued answer sheets to the students. This exercise helps the students to chalk out a strategy for the final Examination.

**Remedial Coaching:** - The students are basically categorized into two categories clever students and poor students. Those who are poor in the studies need extra coaching. Such students approach the teachers of respective subjects. This remedial coaching continues till the end of academic session.

**Grievance Redressal Cell:** - In case the students come across conspicuous lacuna either in terms of administration or regarding teaching learning process, they can approach the

grievance redressal cell. The members of this cell look into the matter and devise a strategy to overcome the problems of students.

This is how the students welfare and counseling committee adopted an all-inclusive strategy so that the education of students, their career and character-building would go hand in hand.

<b>Department</b>	<b>Relevant Information</b>
Botany	Earn and Learn – Culturing and marketing of Mushroom. Tissue culture technique.
Chemistry	03 - Research publications in International Journal by Dr. S. R. Thakare J. K. Gunjate and Mrs. Y. K. Meshram registered for Ph. D. programme at RTM Nagpur University, Nagpur.
Electronics	<ul style="list-style-type: none"> <li>• The Department of Electronics was established on 7<sup>th</sup> July, 1984. The college is the first in entire Nagpur University to start Electronics at the under-graduate level from the session 1984-85.</li> <li>• The college was selected by UGC for a special grant of Rs. 5 Lac to the Department of Electronics under the UGC scheme of Restructuring of courses in 1984.</li> <li>• The Department has received permanent affiliation from Nagpur University since 1994.</li> <li>• Under Vocationalization of Education (Career Orientation programme) at UG level, the department has started Vocational subject Computer Maintenance as a part of existing B.Sc. Course in the college with main stream subjects Physics &amp; Mathematics from the academic session 2002-2003. For this course UGC has sanctioned a grant of Rs.17 Lac.</li> <li>• The Department of Electronics has maintained the percentage of passes in B.Sc. Final Examinations above 80 % since last 8 years.</li> <li>• Various academic activities like Students' and Teachers' Seminars, Felicitation of Merit Students were organized by 'Electronics Society'.</li> <li>• Projects were given to the students in addition to their syllabi to develop research skill among the students</li> <li>• Faculties have attended State and National level conferences/seminars.</li> <li>• A Science Exhibition was arranged in the college premises to mark the 113<sup>th</sup> Birth anniversary of our founder president Dr. Panjabrao alias Bhausaheb Deshmukh.</li> <li>• Students actively participated in Science Arts and Rangoli Exhibition organized by the College in last week of December 2011.</li> <li>• A Guidance cell was established in the Department for motivating students to appear at various competitive Examinations.</li> </ul>
Physics	The Department was selected for the development under CPE scheme of UGC and received a grant of Rs 7.00 Lacs for instruments and infrastructure developments during the XI <sup>th</sup> plan. Upgraded Sophisticated instruments Laboratory and Computer Laboratory.



Zoology	<ul style="list-style-type: none"> <li>• 27 students delivered seminars. The best speakers of each class have been awarded by giving mementoes and certificates and participants by giving certificates.</li> <li>• Department takes keen interest to motivate the students to participate in Science, Arts, Rangoli and Flower exhibitions, Intercollegiate competitions for all round development and improvement in Confidence, attitude, behavior, personality and quality enhancement etc.</li> <li>• Participation of students and teachers in seminar/ conferences/ workshop.</li> <li>• <b>Interdisciplinary Extension activity</b> <ul style="list-style-type: none"> <li>▪ Vermicompost, Vermiwash, SODIS &amp; Water conservation for farmers &amp; Villegers undertaken by Dr. Mrs. S. V. Ghonmode and Dr. A.D.Bobdey in collaboration with Dr. S.S.Pawar, V.M.V. Amravati along with students of B. Sc. II and B. Sc. III.</li> <li>▪ AIDS, malaria and filaria awareness programme, financial help to cancer and Critical patient.</li> <li>▪ Pollution awareness programmes was held in Chuna-Bhatti, Sarvatra nagar slum areas and Oscimum plants were distributed for maintaining eco-friendly environment. Some water filters were also distributed for purification of drinking water.</li> <li>▪ AIDS awareness week was organized in the Department by displaying the charts, posters and some news paper cuttings to make aware about the dreadly disease. Street Plays and Stage Drama were also organized by the student to spread the awareness among the students and public.</li> <li>▪ The students collected agricultural, medical and beneficial insect fauna of Nagpur city under Biodiversity Strategy.</li> </ul> </li> </ul> <p><b>Participation of faculty members in seminar/ workshop/ conferences.</b></p> <p><b>Dr. S. V. Ghonmode:</b></p> <ul style="list-style-type: none"> <li>• Attended one day UGC sponsored National Conference on 2<sup>nd</sup> February 2012, on “Biodiversity conservation for a better biosphere” organized by Maharogi sewa samiti, Warora, Anand Niketan College of Science, Arts and Commerce College, Anandwan, Warora, Chandrapur, India.</li> <li>• Attended and presented paper ISSN No. UGC sponsored one day Interdisciplinary, International Conference on Reference of Buddhist Philosophy in the Globalised world on Sunday 4<sup>th</sup> September 2011 organized by PWS Arts and commerce college, Nagpur.</li> </ul> <p><b>Dr. A. D. Bobdey</b></p> <ul style="list-style-type: none"> <li>• International conference of WORLD CONGRESS FOR MAN AND NATURE ON Global climate change and biodiversity conservation, organized by department of Zoology and Env.</li> </ul>
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	<p>Science, Gurukul Kangri University, Haridwar, Uttarakhand state, held on 11<sup>th</sup>, 12<sup>th</sup> &amp; 13<sup>th</sup> November 2011.</p> <ul style="list-style-type: none"> <li>• UGC sponsored National seminar on Forest for the Peoples, organized by department of botany, R.T.M.Nagpur University, Nagpur on 28<sup>th</sup> &amp; 29<sup>th</sup> December 2011.</li> <li>• UGC sponsored National Conference on Current status of Freshwater Aquatic Biology and Wetland conservation, organized by Anand Niketan College, Warora, Dist. Chandrapur.on 2<sup>nd</sup> February 2012.</li> <li>• UGC sponsored national Seminar on Recent Innovation in Role of Free Radical on Global Warming, organized by Department of Chemistry M. F. College of Arts, Com. &amp; Sitaramji chaudhari Science college, Warud, Dist. Amravati, on 31<sup>st</sup> March. 2012.</li> </ul>
Language	<ul style="list-style-type: none"> <li>• Department has set up language Laboratory for enhancing students oratory skills.</li> </ul>
Library	<p><b>Library Holdings</b></p> <ul style="list-style-type: none"> <li>• Library Collection - 29735</li> <li>• No of Journals - 48</li> <li>• International Journals - 06</li> <li>• National Journals - 18</li> <li>• Magazines &amp; periodicals - 24</li> <li>• No of CD'S - 835</li> <li>• Online DOAJ Free access journals.</li> </ul> <p><b>Statistics of Use of Library Facilities</b></p> <ul style="list-style-type: none"> <li>• Books issued per Day - 208</li> <li>• Average No of users per Day - 218</li> <li>• Average No. of users per day- 99</li> <li>• Average No. of Internet users per day- 25 To 28</li> </ul> <p><b>Library Automation</b></p> <p>Automation of College Library</p> <ul style="list-style-type: none"> <li>• 15 Computers with two LAN connectivity</li> <li>• Digital Library Software ( ETH Pune)</li> <li>• Bar-Coding Completed.</li> <li>• Internet Zone with Broad-Band Facility</li> </ul> <p><b>Learning Resources</b></p> <ul style="list-style-type: none"> <li>• Reading Room</li> <li>• Automated Library Services</li> <li>• Computer Facility with Broad –Band Internet Connectivity</li> <li>• Dr Panjabrao Deshmukh Carrier Development Academy</li> <li>• OPAC ( Online Public Access Catalogue)</li> <li>• Discovery Channel CD-ROM</li> <li>• Competitive Books and CD-ROM</li> <li>• Personality Development Books and CD-ROM</li> <li>• Open Access Journals</li> <li>• Access to Open Access Resources, 6271 e-journals <a href="http://www.doaj.org">www.doaj.org</a>, UGC-Info net through INFLIBNET Consortia. (More than 2100 e-Journals and 51,000 e-books.) can be accessed 24x 7 hours due to Broad Band Internet connectivity in the library.</li> </ul>

**Other Resources**

- Availability of 2 Argox Bar code scanners and one Argox Barcode Printer.
- 3 in 1 machine (laser printer, copier and one scanner) HP Laser Jet M 1005 MFP
- Samsung LCD Television.
- CCTV Cameras available in the Library

**Library Highlights and Services:**

- Circulation Services
- Bibliographic Compilation of Information
- OPAC (online public Access Catalogue) service.
- Reference and Referral Service
- Career Guidance Service
- Book Bank Schemes/ Deposit Schemes

**Exciting 'News Corner' which is, updated daily.**

- Well established and organized 'Departmental Libraries'
- News Paper service.( 13 Newspapers along with Employment News)
- Newspaper clipping services
- Internet service (Broad- Band)
- E-services ( E-section having 835 CD's)
- Photocopy services
- Current awareness service
- Regular Information Literacy Programme
- Special Facilities to Merit and Weaker, Poor and Disadvantaged Students.
- Regular Orientation Programmes for Students.
- Dr. Panjabrao Deshmukh Career Development Academy

**National and State Level Publications**

- **Human resource management of Academic Library.**  
V. A.Dakhole , P.N.Dhote State Level Seminar "An Evaluation of Human Resource management Issues in Academic Libraries" on 13<sup>th</sup> March 2011.
- **Library & Information Center And Resource Sharing.**  
V.A.Dakhole ,P.N.Dhote,One Day National Seminar "Impact Of Information & Communication Technology on Library and it's Services." 9<sup>th</sup> February 2011.
- **Baudha Dhamma & Tattwadhyan. (Marathi)**  
D.B.Taywade V.A.Dakhole. Two Days National Seminar "Buddhism The Way Towards Perfect Humanity "on 28<sup>th</sup> -29<sup>th</sup> September 2011.
- **Information Technology In LIS Curriculum Need And Some Suggestion.**  
V.A.Dakhole, D.B.Taywade, V.G.Bhose. "National Conference On Hundred Years of LIS Education In India:Future Perspectives" on 10<sup>th</sup> January 2012.
- **Human Resource Management (HRM) Of Academic Library.**  
V.A.Dakhole, P.N.Dhote. Research Paper At Publish On

	<p>Research Journals SUJAN PRABHAT at Amravati. June 2011.</p> <ul style="list-style-type: none"> <li>• <b>Library and Information Center: A Review of Indian Library Center.</b> D.B.Taywade, V.A.Dakhole. Reserch Paper at Publish On Research Journals SUJAN PRABHAT at Amravati. December 2011.</li> <li>• Published one Book in Marathi Language entitled on “<b>Library and Information Science</b>” author Prof. Mrs.R.K.Badkalwar &amp; <b>Prof.V.A.Dakhole.</b> First.Edition 2012.</li> <li>• <b>Need of Information Technology Skills,in Curriculum of Library and Information Science Education. V.A.Dakhole D.B.Taywade</b> Research Paper Publish On Research Journals Exploration Indian Journal of Multidiscipline At Dhanwate National College Nagpur. <b>December 2011</b></li> </ul> <p><b>Conferences attended</b></p> <ul style="list-style-type: none"> <li>• National Conference on “<b>Academic Librarianship in India in 21<sup>st</sup> Century: Challenges and Opportunities</b>” organized by Annasaheb Gundewar College Nagpur. On 23<sup>rd</sup> January 2011.</li> <li>• State Level Seminar on” <b>An Evaluation of Human Resource Management Issues in Academic Libraries</b>” organized by Mahatma Fule Arts, Commerce &amp; Sitaramji Chaudhri Science Mahavidyalya, Warud Dist. Amravati on 13<sup>th</sup> March 2011.</li> <li>• National Seminar on “<b>Impact of Information and Communication Technology on Library and it’s Services</b>” organized by Dr. Babasaheb Ambedkar College, Bramhapuri on 9<sup>th</sup> February 2011</li> <li>• National seminar on “<b>Buddhism the Way towards Perfect Humanity</b>” organized by Dhanwate National College Nagpur.on 28<sup>th</sup> -29<sup>th</sup> September 2011.</li> <li>• National Level Seminar on “<b>Role of Rural College Libraries In Community Development</b>” organized by Shardchandra Arts &amp; Commerce College Butibori .Nagpur on 17<sup>th</sup> December 2011.</li> <li>• National Conference on “<b>Hundred Years of LIS Education in India:Future Perspective</b>” Organized By Department of Library &amp; Information Science RTM Nagpur University Nagpur.</li> </ul>
Physical Education	<ul style="list-style-type: none"> <li>• Participation in inter collegiate tournaments of Nagpur University in various games like Ball Badminton, Basket Ball, Cricket, Table Tennis, Chess, Badminton, Atheltics, Volleyball, swimming, Foot ball, Judo, Hockey, Roller Skating in which total of 13 students participated.</li> <li>• Intramural tournaments organized in cricket, volley ball, Table Tennis, chess and traditional indoor and out door games for girls like memory and musical chair etc.</li> <li>• College Athletic meet is organized.</li> <li>• Participation in inter collegiate tournament organized by different association.</li> <li>• Yoga classes run by the Department for students, staff and needy people.</li> <li>• Stress management and fitness improvement is justified.</li> <li>• In inter collegiate state tournament organized by Nagpur University a total of 512 boys and girls participated.</li> </ul>

# Part C

## **I. Department of Botany**

### Outcome

- The students prepared charts and models related to various topics and were displayed in laboratory and in science exhibition.
- In nursery and in college botanical garden training of vegetative propagation, budding, preparation of soil, filling of pots, flower arrangement etc. is implemented.
- Topics related to the syllabus were allotted to the students for seminar and the best speaker was felicitated in Botanical Society function.
- Students prepared various projects under the title - Environmental studies and plant morphology, Utilization of plants and Biotechnology.
- Training Program on Tissue culture Techniques was successfully carried out.
- Edible Mushroom culture techniques.
- Student actively participated in science exhibition, quiz contest, elocution, debate, rangoli, art exhibition, tree plantation, campus beautification and social awareness activities Every year on the occasion of Yuva Mahotsav celebrated as birth anniversary of late Dr. Panjabrao Deshmukh.
- Department has organized botanical excursion of student to study biodiversity and environment of various localities of Nagpur district.
- B.Sc. Final year students visited NRCC and Biotechnology Department of Rasoni college .
- The staff members of the Department provided guidance and counseling to the weaker and slow learner as regular Departmental activity.
- Inauguration of Science Society (Botany, Zoology, Microbiology, Biotechnology, Chemistry.) at the hands of Dr. K.C. Deshmukh, Dean Faculty of Science RTMNU, Nagpur. He spoke on “Inter disciplinary research technique.”
- Funds, received from UGC, Pune utilized for ongoing three Minor Research Projects.

## **II Department of Bio-Technology**

### Outcome

- M.Sc. Biotechnology course of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur has been started.
- U.G. Biotechnology laboratory has been conveniently strengthened by procuring Sophisticated equipments such as Primostar microscope
- Plant Tissue Culture Laboratory has been established.
- Instrumentation room has been established.
- Academic calendar for session 2011-2012 was meticulously planned during staff meeting.
- Biotechnology Society was inaugurated by the hands of Dr. K. C. Deshmukh, Professor and Head of the Department of Mathematics of Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.
- Meritorious and distinction class students were felicitated during inaugural function of Biotechnology society.
- Guest lectures were arranged to enrich the knowledge of students.
- Students seminars were arranged.

- Students were continuously evaluated through periodic tests, surprise tests and group discussions.
- Special guidance was given to academically weaker students as and when required.
- Students were actively participated in Science exhibition arranged on 24<sup>th</sup> and 25<sup>th</sup> December 2011 at our college.
- Goa and Mahabaleshwar tour was arranged from 24<sup>th</sup> to 30<sup>th</sup> November 2011.
- Students were guided for various P.G. Entrance Examinations, various competitive Examination in life sciences.
- An Institution visits were arranged to National Institute of Oceanography Goa.
- Students were motivated for participation in science exhibition, cultural activities at college level and inter collegiate events.
- Study materials (theory and practical) were prepared.
- New books were purchased for B.Sc. and M.Sc. Biotechnology course.
- A parent teacher meeting was arranged.
- Regular Departmental meetings were arranged for teaching staff.
- Students feedback about teachers and departmental facilities were obtained.

The Department of Biotechnology has successfully implemented all the plans of action.

### III Department of Chemistry

#### Outcome

- To fulfill basic requirement of UG & PG Laboratories, the Laboratories were conveniently strengthened.
- The self-prepared printed notes were distributed to the students.
- UGC Sponsored Certificate course in water analysis has been started with good response of 10 students. Dr. R. U. Khope coordinator and Mrs Y. K. Meshram assistant coordinator caring the students.
- Chemical society was inaugurated at the hands of Dr.K.C.Deshmukh Dean faculty Science RTM Nagpur university Nagpur.
- Guest lectures were arranged for M.Sc. and NET-SET classes by faculty members namely Dr. Prashant Mandlik, Dr. S. D. Deosarkar, Dr. P. V. Tekade, Dr. H.M. Daga, Dr. R. N.J ugade, Dr. N.N. Karde, Dr. Mamata Wagh

- **CELEBRATION OF INTERNATIONAL YEAR OF CHEMISTRY**

#### **National Conference:**

Department of Chemistry has organized National Conference on Material: Atom to Molecule on 16<sup>th</sup> December 2011. Around 250 Scientists, Teachers & Students were participated in the conference. This conference provided the platform for young researchers from all discipline with eminent scientist from India. The conference was inaugurated by Prof Yasutake Teraoka and Prof. Jan-ichiro Hayoshi Department of Chemical Engineering Kyushi University Fukuoka Japan and Prof. R. Jayavel, Anna University was the chief guest.

#### **Intercollegiate poster competition**

On account of International year of chemistry Department has organized Intercollegiate poster competition on Chemistry in everyday life. Around 60 students were participated in this competition. Poster competition was judged by Dr. Bhotmange, LIT, Nagpur and Dr. N.N. Karde, Associate Professor PGTD. RTM. Nagpur University, Nagpur. First prize was bagged by Shivaji Science College.

### **Ozone Day Celebration 16<sup>th</sup> September**

16<sup>th</sup> Sept a Ozone day was celebrated by department of chemistry. Dr.N.S.Labhsetwar,NEERI Nagpur was the chief guest of this function . In informative speech he has given information about ozone depletion, its consequences and preventive measures.

- Staff members and students were visited to slum area Chunna-Bhatti Nagpur to aware the people about water pollution and purification of water, and also done the sampling for analysis.
- Special coaching has been given to poor students to prepare competitive Examination. Class counseling for average students had conducted in the department to motivate them and increase their interest in the subject.

Students of this Department actively participated in Science Exhibition in the Yuva Mahotsava.

- **Research Activity**

Some staff members are actively involved in research activities .Sixteen students are carrying out research work for their Ph.D.under the supervision of three supervisors (Dr.Thakare, Dr.Khope, Dr.Utale) at different research centers.

- The Unit test and Surprise test are regularly conducted and results are analyzed.

- **Extension activities.**

- Visit to Home for aged people;**

Dr. Mrs. Reshal Deshmukh and Mrs. Yogita Meshram faculty members visited home for aged people and handicapped person Untkhana, Nagpur.

The students and staff members distributed fruits and sweets to the aged people.

- Visit to Chunabhatti.**

In order to increase the socio- economic awareness in the society, staff members visited slum area, Chunabhatti and guided the residents about different method of purification of water, personal hygiene & cleanliness.

Environmental Awareness Programme was organized for the student and parents of the college

- **Visit to A.M.D**

In order to create awareness about usage of Nuclear Energy the students of P.G. Department and Dr.Mrs.M.R.Lanjewar Coordinator have arranged visit to Atomic Mineral Division 9AMD) Nagpur on 29<sup>th</sup> December 2012.

- **Student faculty exchange programme**

Under faculty exchange programme growing through consortium Mrs. Yogita.K.Meshram, Associate professor and Dr. Reshal Deshmukh were visited Mahila Mahavidyalaya of Arts and Commerce and Science Jabalpur, on 9<sup>th</sup> 12<sup>th</sup> January 2012. The cultural heritage and knowledge were happily exchanged by our students.

## **IV Department of Computer Science**

### **Outcome**

- The meeting of the teachers of Computer Science department was organized in the month of July. The list of practicals to be conducted for **UG & PG courses like B.Sc., B.C.A., M.Sc. (Computer Science) and MCA** were updated. The admissions of PG courses were reviewed and accordingly the time table for theory and practical was prepared.



- The inauguration of Computer Science subject society for the session 2011-12 was done at the hands of Dr. K. C. Deshmukh, Dean and Head, Department of Mathematics, Nagpur University, Nagpur. Principal Dr. D. K. Burghate presided over the function.

- **Interaction with industry personnel's**

During this session our students had the privilege to interact with the industry personnel's from

- IBM Zensoft, Pune,
- etrix solutions, Nagpur
- Ascent Transcription Services (India)
- Ask India, Nagpur.
- Infosys Software, Pune
- SEED software, Nagpur

- **Surprise tests** were conducted by the teachers for B.Sc. Part-I, II and III classes individually.

- **Students Seminar**

Student seminars were organized on regular basis. Students of PG courses were given some topics from the syllabus contents and accordingly the seminars were conducted.

Seminars of M. Sc. were conducted from 2<sup>nd</sup> September 2011 to 7<sup>th</sup> September 2011 and seminars of MCA were conducted from date 12<sup>th</sup> August 2011 to 14<sup>th</sup> August 2011.

**The Topics of the Seminars were:**

Biometric Authentication, Flash Memory, Cyber Terrorism, Robotics Surgery, Wearable Computer, Biometric Authentication, Language Integrated Query (LINQ), Network security, Smart Quill and RFID.

- **Group Discussion:**

Group discussions were organized on every Saturday the topics are as follows:

How to deal with high oil prices, Advantages of co-education, Balance between professionalism and family, Does banning fashion shows and New Year parties save our culture?, Will punch line rules the advertisements, Modern cinema is a boon to Indian society, Food comes first ethics later, Corruption is the main outcome of democracy, Wisdom does not come with age.

- **Test Examination**

Test and terminal Examination of M.Sc. and M.C.A. students were conducted as per the schedule

**MSc. Part-I and M.Sc. Final**

Date	Time
11-10-2011	09.00 AM to 12.00 PM
13-10-2011	09.00 AM to 12.00 PM
15-10-2011	09.00 AM to 12.00 PM
18-10-2011	09.00 AM to 12.00 PM
20-10-2011	09.00 AM to 12.00 PM

**MCA Part-I, Part-II and MCA Final**

Date	Time
12-10-2011	09.00 AM to 12.00 PM
14-10-2011	09.00 AM to 12.00 PM

17-10-2011	09.00 AM to 12.00 PM
19-10-2011	09.00 AM to 12.00 PM
21-10-2011	09.00 AM to 12.00 PM

**M.Sc. Part-I and M.Sc. Final**

Date	Time
05-03-2012	10.30 AM to 01.30 PM
07-03-2012	10.30 AM to 01.30 PM
10-03-2012	10.30 AM to 01.30 PM
12-03-2012	10.30 AM to 01.30 PM
14-03-2012	10.30 AM to 01.30 PM

- **Industrial/Excursion visits :**  
M.C.A. Part-I and M.C.A. Part-II students visited the various places from 15<sup>th</sup> - 25<sup>th</sup> March 2012. **Delhi, Chandigarh, Shimla & Kulu Manali**
- **Computer training programme for students:**  
Computer facility is extended to the non-computer science students. Non-computer science students can avail the computer facility.
- **Computer training programme:**  
A computer training programme was organized for the teaching and non teaching staff of the college in the Computer Department Laboratory..

Date	Time	Subject
25/04/2012	11:00am to 12:30 pm	Study of Internet
26/04/2012	11:00am to 12:30 pm	Web Browsing
27/04/2012	11:00am to 12:30 pm	Website operations
28/04/2012	11:00am to 12:30 pm	e-mail operations

**Internet:**

Extension of Internet and Computer facility –Broadband internet facility of 02 Mbps has subscribed by the college. Both laboratories of computer Science department are having internet facility. The same facility is also extended to the Library and other departments.

- Staff of the Computer Science department was actively involved in troubleshooting of the Local area networking, maintenance of Computer Systems and installation of various software's in Computer Science Department as well as in other Departments and office of the college.
- Teachers of the Computer Science department participated in various National conference/ workshops

Name of Lecturer	Conference/Workshop	Paper Accepted /Published in Souvenir of National Conference
S.R. Pande	03	02
R.N. Jugele	03	03
M.P. Dhore	03	01

- **Software Development Cell**  
Software Development Cell was formed comprising of M.Sc. and M.C.A. students and were involved in developing number of utility software Like Admission, Result processing and web designing.

Staff of the Computer Science department was actively involved in troubleshooting of the Local area networking, maintenance of Computer Systems and installation of various softwares in Computer Science department as well as in other departments and office of the college.

#### **Activities of Software Development Cell:**

Following Software developed by our staff and students

- College website hosted and managed by Software Development Cell  
([www.shivajisciencecollegenagpur.in](http://www.shivajisciencecollegenagpur.in))
- College Admission System
- Result Processing System
- **Remedial Coaching**  
Special guidance was given to students who were weak in subject.
- **Felicitation of meritorious students**  
On the occasion of inauguration Computer Science Society the distinction holder students of B.Sc., M.Sc. M.C.A & B.C.A.. in Computer Science were felicitated.

## **V Department of Electronics**

#### **Outcome:**

- Under Vocationalization of Education (Career Orientation programme) at UG level, the department has started Vocational subject Computer Maintenance as a part of existing B.Sc. Course in the college with main stream subjects Physics & Mathematics from the academic session 2002-2003. This course is continued.
- A new group of combination Electronics, Computer Science, Mathematics (ECSM) has started for B.Sc I from the session 2007-2008 and continued for B.Sc. I, B.Sc. II and B.Sc. III and continued for subsequent years
- Conducted unit tests, terminal, test Examinations.
- Viva-Voce and extra revision practical classes were conducted for B.Sc.I students prior to the University Practical Examinations to improve the performance of the students in University Practical Examinations.
- Conducted students, and teachers, seminars based on topics from syllabus:

#### **Students Seminar-**

1. Ms. K K Chitanvis B.Sc.(Final) has delivered seminar on “Generations of Microprocessors”
  2. Mr. A A Dani B.Sc.(Final) has delivered seminar on “Architecture of 8085 Microprocessor”
  3. Mr D L Ghonge B.Sc.(Final) has delivered seminar on “ PPI”
  4. Ms. R R Khandelwal B.Sc.(Final) has delivered seminar on “Microcontroller”
- And many more

#### **Teachers' Seminar-**

1. S. C. Moholkar delivered talk on BP Measurement.
  2. D. W.Deshkar delivered talk on Digital Clock.
  3. M. J. Hedau delivered talk on Op-Amp Applications
- Enriched library by purchasing books.
  - Student's participated in Science Exhibition.
  - Student's feedback is taken to improve performance of teachers.

The department of Electronics has successfully implemented almost the entire plan of action

## VI Department of Geology

Outcome

### Geology- RTM Nagpur University Examination, Summer, 2011

Pranay Bawangade, B.Sc. Final, recipient of Late Sitaramji Govindrao Malpe Memorial Prize for highest marks (125/150) in subject.

Mr.Prafulla Vairagade, B.Sc.II secured (115/150) marks in subject.

Ms. Priyanka Raman and Mr. Rachit Gupta, B.Sc.I secured (127/150) and (129/150) marks in subject respectively.

### • Students' achievements in Competitive Examination

- Pranay Bawangade, B.Sc. Final Scored 6<sup>th</sup> All India Rank in ISM (INDIAN SCHOOL OF MINES, Dhanbad) Examination, 2011. He also secured 250<sup>th</sup> rank in JAM Examination conducted by IIT.
- Seven students of this Department participated in state level Examination "Jignayasa-2011" conducted by a Jalgaon based college- Dr.Annasaheb G.D.Bendale Mahila Mahavidyalaya. Ms. Harwardhini Pantatawne from B.Sc. I topped the merit list of the Examination at Taluka level and received a memento and a cash prize of Rs.3000/- While Ms. Jyotsana Shrivatra stood 3<sup>rd</sup> in the Examination and received a memento and a cash prize of Rs.1000/-. All the students who appeared from this Department qualified this Examination. Special credit goes to Dr. (Ms.) J. K. Kodate-Tokalwar, who guided the students in this endeavor.

- **Students' achievements in Sport field:** In addition to academic achievements our students also shone in sport field: Ms. K.P. Pateria Won Gold medal and silver medals at National level Cricket Tournament

### • Students' achievements in Wall Magazine Competition:

The prizes were of various categories of presentation in wall magazine.

### Best Geological Article

Prize	Name of Student	Topic
First	Ms.Dhanshree Raut	Coral Reef
Second	Mr.Sameer Ramteke	Universe
Third	Ms.Prajakta Pimple	Age Determination of Fossils

### News (Collection of maximum news cuttings)

Prize	Name of Student
First	Ms.Chanchal Bante
Second	Ms. Anurag Bhand

### Articles on Famous Geologists

Prize	Name of Student
First	Ms.Deepika Saire
Second	Mr. Aniket Bijwe and Mr.Saurabha Paunikar
Third	Mr. Pranav Waghmare

### Prizes were also given for different skill based categories:

Categories	Name of Student
Best Sketches	Ms. Dhanshree Raut
Best Cartoons	Ms. Harshwardhini Pantawane Ms. Samiksha Aparajit and Ms.Megha Bhoyar
Best Photographs	Ms.Jyotsna Shrivatra and Mr.Prafulla Wairagade
Best Handwriting	Mr.Vikrant Nandagawali

Best Decoration and Arrangement Ms. Dhanshree Raut  
 Innovative Idea Mr. Abhishek Mishra

• **Students' achievements in Yuva Mohotsava-2011**

**Geofest 2011**

Total 20 students participated in Seminar competition.

Harshwardhini Pantawne and Prafulla Wairagade Stood First and Third respectively

• **Winners of Science Exhibition: Yuva Mohotsava-2011**

Prize	Name of Student	Title of exhibit
First	Nikita Dhuare (B. Sc. I)	Glacier valley –Working Model
	Anurag Bhand (B. Sc. I)	Continental Drift- Working Model
Second	Harish Chopde and Abhishek Bhand (B. Sc. III)	Natural Hazard-Landslide
Third	Mr. Prafulla Wairagade (B. Sc. III)	Contouring & Projections of Contours on plan
Consolation	Mr. Pranav Waghmare (B. Sc. III)	Dinosaur Extinction

• **Teachers' Academic Activities and Achievements:**

Workshop/ Trainings/ Conferences/Seminars Attended:	Dr. K.C. Shah	Dr. (Ms.) J.K. Kodate ( Tokalwar)
Papers Published	01	02
Any other information:	Bestowed with 'Best Teacher' Award at the hands of our honorable President of our parent Society Shri Arunkumar Shelke,	Dr. M.S. Krishnan National Geoscience Award instituted by Mahatma Fule Talent Research Academy, Nagpur.

## VII Department of Mathematics

Outcome

The said plan was executed cent percent efficiently.

## VIII Department of Microbiology

Outcome

- One day workshop for UG students on continuous medical education on leprosy was organized on 9<sup>th</sup> August 2011.
- Educational tour to kullu-Manali from 15<sup>th</sup> to 21<sup>st</sup> September 2011.
- Participation of staff and students in National seminar organized on 18<sup>th</sup> October 2011
- Felicitation Meritorious student organized by microbiological society on 21<sup>st</sup> October.
- Students of department of microbiology actively participated and received prizes in elocution competition organized on 23<sup>rd</sup> December 2011.

- Students participated in essay competition held on 23<sup>rd</sup> December 2011.
- Science exhibition organized under the convenership of Dr. C.J. Chandekar on 24<sup>th</sup> December-2011.
- Students of our department enthusiastically participated in science exhibition.
- Participation of students in Art exhibition organized on 24<sup>th</sup> December -2011
- Inauguration of cricket match by Dr. A.V. Gomashe on 25<sup>th</sup> December 2011.
- Blood donation camp organized on 25<sup>th</sup> December 2011 under the convenership of Dr. A.V. Gomashe, Head Department of Microbiology.
- Participation of departmental students in cultural programs organized on 26<sup>th</sup> December.
- Homage paid to Dr. Bahusaheb Deshmukh on 27<sup>th</sup> December
- Students And staff members actively participated in Workshop on “Hands on Training Hand on DNA” organized by LAD college from 8<sup>th</sup>-10<sup>th</sup> January 2012
- Five projects costing approximately seventeen lakh thirty-nine thousand are going on under women scientist scheme approved by DST, New Delhi.
- Our students actively participated in various personality development programm organized by P.D.cell and Rotract club of our college.
- Our students actively participated in various sports.

## **IX Department of Physics**

### Outcome

- “P. G. Diploma (one year) in Nano-technology”, under Innovative Programme of UGC in teaching, interdisciplinary and emerging areas has picked up momentum.
- Various experiments given in UGC syllabus for B.Sc.I, II, III and M.Sc.I were discussed at length. The faculty members and students participated in designing and setting up the new experiments.
- Computer laboratory in Department has been upgraded by adding three computers of latest configuration. B.Sc. and M.Sc. students have performed the experiments on C/C++ programs in their syllabus.
- Internet facility has been provided to students.
- Audio-Visual aids like OHP, charts and models were used for effective teaching and learning.
- Students prepared some posters for conferences and participated in Science, Arts and Poster Exhibition during “Yuva Mahotsav-2011”.
- The student seminars were conducted in the classroom.
- Students visited Raman Science Centre along with the faculty in the department.
- Students were regularly assessed and evaluated throughout the session by giving assignment and conducting surprise tests, terminal and test Examinations.
- Faculty members of the department attended the National/ International level conferences and presented and published research papers / abstract in the proceedings.
- Faculty members of the Department published 16 research papers in the reputed International journals.
- M.Sc. Part I Physics course has started from 2011-12.
- Major research project entitled “Polymer-matrix Nanocomposites: Processing, Manufacturing and Application” submitted to UGC for sanction. Principal Investigator Dr.D.K.Burghate.

- Major research project entitled “Synthesis and Characterization of Iridium Complexes for Fabrication of OLEDs.” submitted to UGC for sanction. Principal Investigator Prof. H. K. Dahule.
- Minor Research Project entitled “Synthesis and Characterization of Phosphorescent Materials for Display Applications” has been sanctioned by UGC. Mr. H. K. Dahule is Principle Investigator. (Grant of Rs.1.20 Lacs) work is in progress.
- Ashish Deshmukh III<sup>rd</sup> year student won prize in Vidarbha level Student’s Seminar Competition in Physics organized by Vidarbha University Physics Teachers Association (VUPTA), at R.S.Bidkar College, Hinganghat
- Ku.Pooja Bhatt secured 8<sup>th</sup> merit position in R.T.M. Nagpur University summer-2010 Examination .
- An invited talk of Dr.K.C.Deshmukh, Professor and Head Department of Mathematics P.G.T.D. R.T.M. Nagpur University was arranged .He has guided the students on the topic of Mathematical Physics.
- Department of Physics felicitated Prof .D.W. Khade on his superannuation on 31<sup>st</sup> July 2011.
- Department of Physics organized workshop on “Employability Development” during 5<sup>th</sup> to 9<sup>th</sup> December 2011.
- National Science day was celebrated on 28<sup>th</sup> February 2012.
- Principal Dr.D.K.Burghate worked as PEER Team Member of NAAC Bengaluru.
- A Minor Research Project entitled “Interactive Physics by Simulations” submitted by Dr.S.W.Anwane was completed in the Department with UGC funding of Rs. 1.55 Lacs.
- A Major Research Project entitled “Synthesis, Characterization of Lithium compounds and its Utilization as electrolyte in Rechargeable Lithium Ion Batteries” is submitted by Dr. S. W. Anwane
- A Minor Research Project entitled “Synthesis and Electronic characterization of Lithium Cermagnet” is sanctioned by UGC. Dr. S. S. Darokar is Principal Investigator and Prof. H. K. Dahule is co-investigator. The grant of Rs. 165000/- is sanction by UGC.
- A Minor Research Project entitled “Synthesis and characterization of phosphorescent materials for display applications” submitted by Prof.H.K.Dahule Principal Investigator and Dr.S.S.Darokar co-investigator is sanction by UGC with a funding of Rs. 1.20 Lacs.
- Dr. S. W. Anwane published and presented two research papers in conference/seminar.
- Dr. S. S. Darokar published and presented one research papers in conference/seminar.
- Dr.S.B.Khasare published Nine research papers in International Journal.
- Prof. H.K.Dahule presented and published five research papers in National Conferences and two research Papers in international conference. Three research papers were published in International journals.
- The Department has received grant of Rs.6.0 Lacs from UGC under the CPE scheme for academic and infrastructural development. The CPE status the department has been continued in the XI<sup>th</sup> plan of UGC.
- Prof. H.K.Dahule, convener of Placement cell has arranged the interaction of different personalities from the reputed companies and conducted interview for placement in Wipro, IBM, ACC, L&T, Patni Computers, etc.

- **Research Output**  
**Research Paper Published in National/International Journal**

#### **Dr.S.B.Khasare**

- A comprehensive approach to an equation of state for hard spheres and Lennard Jones fluids. Chin. Phys. B Vol. 20, No. 8 (2011) 085101, 1-8
- Equation of State for a Hard-Sphere and Lennard-Jones Fluid Mixture, CHINESE JOURNAL OF PHYSICS VOL. 49, NO. 5 October 2011, 1070-1092
- Perturbation and variational approach for equation of state for hard-sphere and Lennard-Jones fluids. Chin. Phys. B Vol. 21, No. \* (2012) \*\*\*\*\*, \*\*\_\*\*
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#### **H. K. Dahule:**

- Synthesis and photo physics of a new deep red soluble phosphorescent Iridium(III) complex based on chlorine- methyl-substituted 2,4 diphenyl quinoline. **H. K. Dahule**, S. J. Dhoble, J-S. Ahn and Ramchandra Pode, Journal of Physics and Chemistry of Solids. Vol.72 (2011) 1524-1528.
- Synthesis and characterization of red iridium (III) complex containing 2- (4 methyl phenyl) 4-phenyl quinoline based on main ligand for solution-processed phosphorescent organic light-emitting diodes. **H.K. Dahule**, S.J.Dhoble, and R.B. Pode .Search and Research. Vol.III, No.1, 72 (2011) 50-54.
- Synthesis and characterization of new red soluble phosphorescent Iridium(III) quinoline complex. **H. K. Dahule**, S. J. Dhoble, and Ramchandra Pode Search and Research. Vol.III, No.1 (2011) 75-82.
- "Effect of substituents on the photoluminescence performance of Ir (III) complexes: Synthesis and photo physical properties".**H.K. Dahule** and S.J.Dhoble Adv. Mat. Lett.( Communicated)

#### **Research Paper Published in National/international Conference**

##### **H. K. Dahule:**

- **“Synthesis of new red soluble phosphorescent Iridium (III) complex based on methoxy -substituted 2,4 diphenyl quinoline ligand”** H.K. Dahule, S. J. Dhoble, P.



W. Yawalkar and R.B. Pode Presented at National Conference on “Luminescence & its Application” [Proceeding - NCLA-2011/ 120].Organized by Luminescence Society of India, Pt. Ravishankar Shula University, Raipur and Disha Institute of Management and Technology Raipur Chhattisgarh On February 7<sup>th</sup> - 9<sup>th</sup>, 2011.

- **“Red Phosphorescent Iridium (III) complexes based on methyl and methoxy substituted 2,4 -diphenylquinoline ligand”** H. K. Dahule , S. J. Dhoble, R.B. Pode and G. D. Zade. Presented at National Conference on “Nanoscience & Technology” [Proceeding –NCNST 2011/251-260].Organized by Department of Physics, Shivaji Science College, Congress Nagar, Nagpur on February 21<sup>st</sup> – 22<sup>nd</sup>, 2011
- **“Blue emitting phosphors for organic light emitting diodes”** G. D. Zade, S. J. Dhoble, R. B. Pode and H. K. Dahule Presented at National Conference on “Nanoscience & Technology” [Proceeding –NCNST 2011/ 149-154].Organized by Department of Physics, Shivaji Science College, Congress Nagar, Nagpur on February 21<sup>st</sup> – 22<sup>nd</sup>, 2011
- **“Blue emitting methoxy and methyl substituted DPQ with PS and PMMA organic phosphors for organic light emitting diode”** H.K. Dahule , S. J. Dhoble, Proc. National Conference on” Materials :Atom to Molecules.” [NCMAM 2011]. Department of Chemistry, Shivaji Science College, Congress Nagar, Nagpur India, December 16<sup>th</sup> 2011. pp 28
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- **“Highly efficient phosphorescent iridium (III) Chlorine -Methoxy substituted 2, 4diphenyl quinoline complex”**.H. K. Dahule, S. J. Dhoble and G. D. Zade Presented at International Conference on LUMINESCENCE AND ITS APPLICATIONS (ICLA-2012) 7<sup>th</sup> - 10<sup>th</sup> February, 2012, Hyderabad, India Organized by Rajiv Gandhi University of Knowledge Technologies, Hyderabad, India, Indian Institute of Chemical Technology, Hyderabad, India and LUMINESCENCE SOCIETY OF INDIA.

## X Department of Statistics

### Outcome

Many constructive activities like surveys, projects and workshops are carried out by our students to reinforce their theoretical knowledge with practical like....

- Celebration of Statistics day on 29<sup>th</sup> June 2011
- A workshop on TORA 98 for B.Sc. III students.
- Burdon of illiteracy on us.
- Educational status of suicide.
- The naksali attacks.
- Identity crimes.
- Year wise distribution of identity theft.
- An intensive study of population of Maharashtra.
- Game of Sachin Tendulkar-an interesting study

In addition to above , every year Statistics Department has been assigned a task of collecting and analyzing student feedback which is always useful to take necessary steps for enhancing image of the college.

- Toppers of the department in University Examination 2011 are felicitated.
- Essay competition on “Why Statistics?” was organized in the Department.
- Eight students of the Department attended Workshop on “Actuarial Statistics with R programming” in Hislop College, Nagpur during 20<sup>th</sup> to 22<sup>nd</sup> 2011.
- 20 students attended Workshop on “Impressions of Statistics in diverse fields on 28<sup>th</sup> January 2012.

## **XI Department of Zoology**

Outcome

### **Students**

- Educational tours and visits were arranged and students studied and collected medicinal, veterinary and beneficial insects from Vidarbha region. Students visited to Nagpur University Sericulture Centre to observe the rearing of mulberry silkworm, *Bombyx mori*.
- Visited Apiculture center at wardha, to study the process of bee keeping and production of honey. Visited to Central museum, Nagpur and poster competitions and science exhibition organized by different Institutes of Nagpur.
- Guest lecture on Museum specimen by Mrs Sambre (Central Museum, Nagpur) Mosquito as a vector of Malaria therefore rearing of Guppy fishes as a biological control by Shri Moon (Malaria and Filaria Centre, Nagpur). Scientific attitude & Biodiversity by Dr. Sawarkar. Sericulture by Dr. M. Rai (Sericulture Centre RTM Nagpur University). Dr. S.S.Pawar, Lecturer, Vidhbha Mahavidyalaya, Amravati on Vermicompost. Prof. Ms. U.R. Pabley, ex-head, Department of Zoology delivered lecture on different kinds of pollution. Shri Ramteke delivered lecture on developmental stages of *Antheraea mylitta* and Shri Nikhade CTRTI Dawdipar, Bhandara on preparation of tassar silk fibre.
- Miss Pooja Waghmare from B.Sc. II bagged 2<sup>nd</sup> prized in poster competition in LAD College, Nagpur.
- Miss Saumaya Bharal from B.Sc. II bagged 2<sup>nd</sup> prized in poster competition in LAD College, Nagpur.
- Mr.Amit Guntewar from B.Sc. I participated in the photo competition in the UGC sponsored national symposium on Invertebrates for Biomonitoring of Ecosystem and Health, organized by, Department of Zoology, Hislop college, Nagpur, on 17<sup>th</sup> to 18<sup>th</sup> January 2011.
- Student participated in science exhibition bagged prize in Vermiculture project - Kamlesh Thumsare and Shubham Thumse from (B.Sc.-I).
- Student participated in science exhibition bagged prize in Sericulture project - Chinmay Upathele and Rohit Mahale from (B.Sc.-I).
- Student participated in science exhibition bagged prize in Rearing of Guppy Fish - Sumit Mendhe and Yadav Rajput from (B.Sc.-I).
- Twenty seven Students delivered seminars. The best speakers of each class have been awarded by giving mementoes and certificates and participants by giving certificates in the seminar competition organized by the Department.
- A question-answer and discussion type session in the classroom after completion of a topic and sometimes unit. Students prepared charts and models for the use in classroom teaching , conducted surprise test and Unit tests.

- Students prepared 10 models on animal ecology, cell biology, pollution, Environment, Embryology etc. They also prepared 14 charts on the various subjects of bioscience like entomology, pollution, physiology, environment and bacteria borne diseases, Vermicompost, Vermiwash, Sericulture, guppy fish, SODIS, Animal fossils etc. in the science exhibition organized by the college in Yuva Mahotsava.
- Many of our students were guided for various entrance Examinations and some passed with flying colour.
- Dr. A.D.Bobdey and Dr. S.V.Ghonmode has guided the B.Sc. III students by delivering informative lectures on “What after B.Sc. and Scope of Zoology after their graduation.
- Interdisciplinary Extension activity
  - Vermicompost, Vermiwash, SODIS & Water conservation for farmers & Villagers undertaken by Dr. S.V.Ghonmode and Dr. S.S. Deshmukh, along with Kamlesh Thumsare(B. Sc.I) and Shubham Mendhe
  - AIDS, malaria and filaria awareness programme, financial help to cancer and Critical patient.
  - Pollution awareness programmes was held in Chuna-Bhatti, Sarvatra Nagar slum areas and Oscimum plants were distributed for maintaining eco-friendly environment. Some water filters were also distributed for purification of drinking water.
  - AIDS awareness week was organized in the Department with poster competition on 1<sup>st</sup> December 2011 by displaying the charts, posters and some news paper cuttings to make aware about the deadly disease, also street plays and stage dramas were organized to create awareness among the students and public. Poster competition was organized in the department.  
Miss Ashwini Thawkar, Miss Pranali Gajbhiye, Miss Manali Chimote and Ms. Lekha Nair all from B.Sc. I (CZM) bagged 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> and consolation prize in poster competition respectively.
- The students collected agricultural, medical and beneficial insect fauna of Nagpur city under Biodiversity Strategy
- Purchase of recent books for library.
- “Science Society” was inaugurated at the hands of Dr. K.C. Deshmukh Dean faculty of science, R.T.M.Nagpur University, Nagpur and Dr. A.V.Gomase, Ex-Dean of science R.T.M. Nagpur University, Nagpur. an eminent personality in the field of college education, Nagpur on 29/09/2011.
- Guidance and counseling – some students who lagged behind in studies and living in hostels to know their difficulties by face to face interaction and sometimes visited their homes to interact with their parents, guardians to know the background and problems of their wards.
  - a) Ms. S. Kurup doing teaching orientation course in Australia, Mr. M Prasad pursuing research in molecular biology in Missipi ( Texas- USA).
  - b) Ms. Suprita Dogra working in Indian Army (Lieutenant) short service Commission.
  - c) Ms. Ketki Agasti, participated in republic day parade at Delhi on 26<sup>th</sup> January 2011
  - d) Some other ex- students are involved in research work and working abroad in Germany, London etc. for higher research.

- Pabley memorial silver medal for scoring highest marks in Zoology in B.Sc.I Examination.
- Students participated in Science exhibition competition organized by college in Yuva Mahotsava.
- Students brought recent science articles and prepared wall magazine on SODIS Chikungunea, career in Biology and career guideline.

#### **Students Projects:**

- Sericulture (Ongoing)
- Apiculture
- Vermicompost & Vermiwash (Ongoing)/ Vermiculture
- Rearing of Guppy fish as biological control (Ongoing)
- SODIS
- Aquarium maintenance

#### **Awareness Programmes:**

- Water pollution awareness
- Air pollution awareness
- Land pollution awareness
- Noise pollution awareness
- SODIS, Vermicompost, Vermiwash, Chickungunia, Malaria, Filaria, Dengue, Sickle cell anaemia, Thalassaemia awareness programme. All these awareness programmes were organized by visiting Nanadevi, Chuna-bhatti, Ambika Nagar, Sarvatra Nagar, etc.
- AIDS awareness programme.
- Remedial teaching and feedback for students who are weak in the subject.
- Review of University and college Examination results to know the paper wise Performance of the students and remedial measures to improve their score in the papers.
- Students were motivated to improve the score in Examination by giving them question banks.
- Use of more audio-visual aids like charts, model, OHP, LCD, Computer, Laptop, Internet.
- Students were motivated to participate in Science, flower, arts and Rangoli exhibition of college and intercollegiate competition for development of personality, behavior, positive attitude and quality enhancement etc.
- Departmental equipments are upgraded.
- Purchase of recent books for library.
- Departmental library is upgraded by donation of books from teachers and providing e-library facility for students and teachers.
- Students brought subject articles for Zoological world magazine and college wall magazine.

#### **Staff**

- Dr. A. D. Bobade – Major Research Project submitted by UGC (Rs. 11,40000 /-)
- Dr. S.V. Ghonmode - Minor Research Project Ongoing (Rs. 950000 /-)

Refresher course.

- Life Science refresher course organized by UGC –Academic Staff College from 4<sup>th</sup> March 2011 to 24<sup>th</sup> March 2011.

state / National / International conferences / workshop/ symposium.

- Dr. S.V.Ghonmode attended one National and one International conference

- Dr. A.D.Bobdey attended one National, one International and two National seminars.
- Remedial teaching and feedback from the students who are weak in the subject. Remedial teaching has been done on Departmental level also.
  - Review of University and college Examination results to know the paper wise performance of the students and remedial measures to improve their score in the paper.
  - Review of background and environment of students causing poor attendance in theory and practical's and finding out solutions to improve their attendance under teacher-mentor scheme.
  - Some students who lagged behind in studies and living in hostels to know their difficulties by face to face interaction and sometimes visited their homes to interact with their parents, guardians to know the back ground and problem their wards.
  - Teacher Mentor scheme – One batch to each teacher from B. Sc. I, II and III.
  - Parent Teacher meeting – Arranged parent teacher meeting on college level.
  - SWOT analysis is regularly made having students centered programmes.
  - Teachers participated in International Marathon Rally on account of International Non-Violence Day on 31<sup>st</sup> January 2012.

## **XII Department of Languages**

### Outcome

- 5<sup>th</sup> September 2011, A programme was organized where students expressed their views on Dr. Sarvapalli Radha Krishnan.
- 15<sup>th</sup> December 2011 Mr. V P Vardpande from Raisonni college of Engineering was invited as a Recourse person, who gave student valuable tips regarding personnel interview and group discussion.
- On 9<sup>th</sup> August 2011, Department organized inauguration of UPSC/MPSC guidance cell. Dr. Ankush Dhanvijay-Commissioner of Police, Nagpur was the chief guest. He guided students on how to prepare for UPSC/MPSC Examinations.
- On 3<sup>rd</sup> September 2011, Department organized workshop on civil services. Mr. Jadhav from IAS Academy gave valuable tips and guided students.
- On 7<sup>th</sup> January 2012, An Elocution competition was organized on behalf of Raisonni Engineering College. They visited various colleges for selection of “Best orator of the city” Hemant Gangwani was selected for the first round. The topic was “Withdrawl of U.S. forces – A threat to the work”.
- We motivate student to write articles in the column “youth zone” of “Hitvada”. Some of our students have contributed article and poems in youth zone.

## **XIII Department of College Library**

### Out Come

- The library has been enriched with e-information resources. Total 55 CDs were added to the collection in the year 2011-12.
- Throughout the year regular orientation programmes were conducted in the library, which included using reference sources on CDs, creating awareness about free information sources available on Internet through “Information Literacy

Programmes". It is possible due to 24 X 7 hours Broad Band Internet Connectivity extended to the library.

- UGC – Info net Digital Library Consortium has decided to provide e-resources not only to the Universities but also to the colleges. Being recognized as “College with Potential for Excellence”, this college has received the communication from INFLIBNET vide letter No. DIR/CPE/2007 dated 3<sup>rd</sup> December 2007 along with proforma and application form. The work is in progress.
- Greenstone Digital Library Software, an Open Source Software for building digital library has been successfully installed in the system. The work of creation of Intuitional Repository of science college, Nagpur is initiated.
- Total 7 students of Library and Information Science from local LIS colleges and from DLISc RTM Nagpur University, Nagpur completed their Internship from this college library.
- The collection of CDs, Cassettes and Books on Spoken English and Personality Development has been enriched.
- The collection and infrastructure of the library has been strengthened under CPE scheme.
- Celebrated Librarians Day dated 12.08.2011
- The publications of the Librarian (2011-2012)
- Organized Books & Non Books Material Exhibition on 16<sup>th</sup> October 2011.

#### **XIV Department of Physical Education**

Out Come

- Students got various awards and prizes in various competitions in the National, international University, Inter University & State level tournament in sports activities etc.
- Intramural tournaments were held on the auspicious occasion of Dr Panjabrao Deshmukh Birth anniversary celebrations.
- Students showed awareness through their maximum participation in yoga and meditation classes.
- A coaching camp was organized for Soft Ball. Number of players were benefited through coaching camps in different games
- Sarwang Sundar Sahaj Yog programme for the staff members and college students was conducted.
- Conducted the programme on job opportunities in Indian Army and Air Force for college students.
- Conducted medical checkup camp for staff members of the college sugar, BP, ECG

# Part D

**Explain the plans of the institution for the next year.**

We believe that College has tremendous potential for development. We are trying to motivate the staff and students to put in extra labour to increase their efficiency. The parents are also taken in to confidence to cooperate. We propose to make every teacher a guardian of a group of students. The teacher will make himself aware of the domestic, social and financial background of his group and, suggest ways and means to improve upon. The teacher guardian will look into all problems and difficulties faced by these students.

To overcome all these hurdles, we feel that “Academic Autonomy” status is a better option and we propose to have it.

We have found that the students are more inclined towards theoretical knowledge without practical skill. The education pattern of the University gives more weightage to theory in terms of marks. This has led to a situation where one finds that the students are lacking in practical and job oriented skills.

Therefore, the college plans to supplement regular courses with following useful job oriented short-term courses.

1. MS Office
2. Web Designing
3. Computer Hardware Maintenance
4. DTP Job work Training
5. Windows Programming
6. Chemical Analysis of Soil, Water and Ores
7. Fabrication of electronic components of common use
8. Motor winding
9. Repairs and Maintenance of Domestic electrical Appliances
10. Photography and Video Shooting
11. Extraction of Essential Oil
12. Cultivation of Ornamental Fishes and Fish Farming
13. Medicinal Plant Nursery
14. Apiculture
15. Floriculture
16. Fabrication of Low cost Laboratory Equipments
17. Glassblowing
18. Sericulture
19. Mushroom Culture
20. Optometry
21. Hospital management
22. Hospital Assistant



The Department wise plan of the institution for the next year is-

## **Department of Botany**

- To Assign the students with various projects related to syllabus.
- To study the Biodiversity of various plants by B.Sc. – II students.
- Inauguration of Science society.
- To arrange guest lecture.
- To organize visits and to establish Linkages to various scientific laboratories and institutes for collaborative research, teaching & consultancy.
  - Post Graduate Teaching Department of Botany
  - Remote Sensing.
  - Central Institute of Cotton Research National Research Center for Citrus
  - NEERI, NRCC
  - Forest Department
  - Nursery.
  - Department of Biotech. Rasoni College.
  - Institute of Science, Nagpur.
  - Educational tours to Various localities
- To arrange seminars of the students.
- Inter collegiate seminar.
- Eco-friendly & Environment awareness activity.
- Cultivation of Mushroom
- Training program on Plant tissue culture technique.
- Provide coaching to the students for various competitive Examinations.
- Upgradation of Laboratory
- COP in Biofertilizer
- To provide question bank to improve performance of student in their Examination
- To chalk out academic calendar.
- To acquire recognition of laboratory for research activity.
- Remedial teaching for economically backward and slow learner
- MRP to be submitted.

## **Department of Bio-Technology**

- To submit the Major Research Project to University Grants Commission, Delhi.
- To submit the career oriented programe- Medical Laboratory Technology to University Grants Commission, Delhi.
- To enrich Animal Tissue Culture Laboratory.
- To enrich Instrumentation room.
- To establish the Staff room.
- To chalk out academic calendar for session 2012-2013.
- To form Biotechnology Society.
- To arrange guest lectures to enrich the knowledge of students.
- To arrange students seminars.
- To evaluate students continuously through periodic tests, surprise tests and group discussions.
- To give special guidance to academically weaker students as and when required.
- To felicitate students having outstanding performance in Biotechnology.

- To guide students for various P.G. Entrance Examinations, various competitive Examination in life sciences.
- To arrange educational tours.
- To motivate the students for participation in science exhibition, cultural activities at college level and inter collegiate events.
- Preparation of study material (theory and practical).
- To arrange intercollegiate seminars, competition.
- To purchase new books for B.Sc. and M.Sc. Biotechnology.
- To arrange parent teachers meeting.
- To arrange regular Departmental meetings for teaching staff.
- To take students feedback about teachers and departmental facilities.

## **Department of Chemistry**

- Strengthening the infrastructure for UG & PG Laboratory.
- Preparation of study material (theory & practical) for the students.
- Certificate course in “Nanomaterials and Environmental Analysis
- Inauguration of Chemical Society.
- Industrial Visit for the students of B. Sc and M.Sc.
- Remedial teaching for academically poor students.
- Visit to Raman Science Center/ Forensic lab/ AMD.
- Intercollegiate Seminar / Quiz / Poster Competitions.
- Guest Lectures for B.Sc. and M. Sc. Students.
- Proposals of minor & major research projects.
- Workshop on RTM, Nagpur University syllabus.
- Use of OHP and LCD for effective teaching & learning process
- Conduction of unit tests & surprise tests.
- Extension activities:
  - Awareness program- visit to Chunabhatti
  - Awareness program on pesticides for farmers
  - National environmental awareness campaign
  - Visit to residence of Students.
  - Parent teachers meeting
- Awareness program on water conservation and management.

## **Department of Computer Science**

- Review of the practical's to be conducted: July 2012-2013
- Formation of computer science subject society for the 2012-2013 sessions: July 2012
- To arrange Guest lectures:
- To hold Interaction with industry persons:
- To conduct Surprise test of B.Sc. Computer Science Students
- To organize Students seminars: Every Saturday
- To conduct Test Examination: November and February
- To organize Industrial/Excursion Tours: December
- To impart Computer training program for students:

- To impart Computer training program for teaching and non-teaching staff of the college: April
- Repairing/ Maintenance of computer Hardware/Software :
- To enhance Participation of students and Teachers in a various workshops/ seminars/ conference.
- To monitor Software development cell:
- To provide Remedial coaching for weaker and disadvantaged students in a subject:
- Felicitation of Meritorious students
- To monitor Website development and Maintenance.

## **Department of Electronics**

- Under Vocationalization of Education (Career Orientation programme) at UG level, the department has started Vocational subject Computer Maintenance as a part of existing B.Sc. Course in the college with main stream subjects Physics & Mathematics from the academic session 2002-2003. This course is to be continued
- A new group of combination Electronics, Computer Science, Mathematics (ECSM) to be continued for B.Sc I., B.Sc II and B.Sc III .
- To increase infrastructural facilities
- To make Technological up gradation of the laboratory.
- To design and fabricate the new experimental boards.
- Modeling/Simulation of concept oriented topics
- To make improvement in the library services, the core library in the department in addition to college library to be continued.
- Formation of “Electronics society”
- Felicitation of merit students by “Electronics society”
- Student’s and Teacher’s Seminars to be conducted.
- To provide a question bank to improve performance of students in their Examination.
- To provide special guidance and additional facilities to the students who excel in their academics.
- Continuous evaluation and assessment of students to be continued through class room tests, unit tests, and terminal & test Examinations.
- Contact programmes to be conducted after terminal and test Examinations to improve the performance of the students in the University Examinations.
- Viva-Voce and extra revision practical classes to be conducted prior to the University Practical Examinations to improve the performance of the students.
- To provide remedial teaching to students with inconsistent academic performance.
- To enhance Parent-Teacher interaction.
- The concept of Students’ Assessment of Teachers to be continued to improve the performance of teachers.
- To motivate teachers for pursuing research in the field of their interest.
- To establish a Guidance cell in the Department for motivating students to appear at various competitive Examinations.
- To arrange campus interviews for Electronics and Computer Maintenance students.

## **Department of Geology**

- To encourage students to make best use of teaching and learning facilities developed by the department e.g. audio-visual, computer and departmental library facility.
- Interactive session to assess students at the entry point of degree course and make necessary changes in teaching learning methodology.
- To identify disadvantaged students, and organize remedial teaching for them.
- To provide required guidance and facilities to the students who excel in their academics.
- Students' visits to various organizations related to earth science.
- Field excursion of B.Sc. Part I, II and III Geology students to various places of Geological interest.
- Preparation and up-gradation of study material for practical as well as theory.
- Inauguration of Geological Society and Geological Wall Magazine and encourage students to participate in these activities.
- To arrange seminars on various aspects of Geology.
- To inculcate spirit of research in students by giving various project/assignments related to syllabus/ co-curricular aspects, participation in Science Exhibition and various Competitive Examinations as per their eligibility.
- Continuous assessment and evaluation of students by oral tests, monthly tests, test and terminal Examination, and assignments project work.
- To conduct contact programmes after tests and terminal Examinations.
- To conduct revision practical & test practical Examination
- To encourage and motivate teachers to participate in workshops, seminars and symposia.
- To maintain and propagate research spirit.

## **Department of Mathematics**

- To organize International Conference on Mathematical Sciences – 2012.
- Constitution of Mathematical society and arranging guest lectures for students.
- Faculty improvement by attending conferences, refresher courses and seminars to know recent trends in mathematics
- To provide better facilities like use of OHP, LCD Projectors, Internets etc
- Participation of Teachers in National and International Conferences \ Workshops.
- To organize seminars.
- To motivate and guide the students for post B. Sc. Courses in M. Sc., JAM, IITs, IIITs, IISc. etc.
- To felicitate Merit students and students securing distinctions in Mathematics in University Examinations.
- To encourage the students to prepare charts and models for exhibition.
- To organize Inter-collegiate Quiz Competition
- To prepare question Bank for the B.Sc.1, B.Sc. II and B.Sc. III students
- Strengthen the research activity in the department.
- Inter-collegiate Science Quiz
- To conduct surprise test for the students of B.Sc. I, II, III.

## **Department of Microbiology**

- To chalk out academic calendar for session 2012-13
- To enroll students for Doctoral research
- Planning Project/dissertations for M.Sc. Part II students.
- To organize Blood donation Camp
- To form Microbiological Society
- To arrange guest lectures
- To arrange students seminar
- To evaluate students through periodic tests and group discussions
- To give special guidance to academically and economically weaker students
- To felicitate students having outstanding performance in Microbiology
- To guide students for various P.G. Entrance Examinations
- To arrange educational tour
- To arrange Science exhibition
- To organize parent-teacher meetings
- To arrange regular Departmental meetings for teaching staff
- To organize intercollegiate seminar competition
- To obtain students feedback

## **Department of Physics**

- To set up new experiments for B.Sc.I, II, III and M.Sc.I & II as per RTM Nagpur University new syllabus.
- Up gradation and extension of laboratories for UG, PG and Nanotech.
- To enrich sophisticated instruments/research laboratory.
- To design and fabricate new experimental boards in departmental workshop involving students.
- To develop experimental skill among the students through Physics Project Assignment and M.Sc. Project.
- To acquire recognition of laboratory for research work.
- To organize and motivate students for workshop/ Seminars/ Quiz competitions/science exhibition and group discussion etc.
- To continue extension of Internet facility to the students.
- To arrange lectures of eminent personalities for benefit of the students.
- To motivate students to participate in academic and extra curricular activities.
- To display recent information about the subject on notice board.
- To inculcate competitive and humanitarian spirit in students to face all type of challenges.
- To arrange students visit to RSC, JNARC, RSIC, RRSC, major science exhibitions, Research Laboratories etc.
- To continue evaluation and assessment of students by conducting surprise tests, terminal and test Examinations.
- To provide remedial coaching to economically and academically weaker students.
- Felicitation of Meritorious students.
- To start integrated M.Sc. Physics course.
- Continuation of research activities and submission of Major/Minor Research Projects.
- To organize seminar for students.

- Motivate the students to participate in students seminar/workshop/exhibition organized by different colleges.
- To organize international conference in Mathematical sciences in collaboration with department of Mathematics.
- To provide special guidance, books and facility of sophisticated instruments lab to advanced learners.

## **Department of Statistics**

- Constitution of Statistical Society for the growth of academic activities and involvement of students.
- Felicitation of students of the Department for their outstanding academic performance.
- To motivate & guide students to prepare the models & charts in Science exhibition.
- To monitor continuous evaluation & assessment of students through tests.
- To arrange contact program after every test to improve students' performance.
- To organize seminars of ex-students working in various discipline for the final year students.
- To organize
  - Essay competition on related topics.
  - Departmental quiz to generate interest about the subject.
  - Problem solving competition.
  - Project presentation competition
- To start problem section –a weekly problem solving competition.
- To conduct various surveys on current burning topics.
- To organize seminars of students on their curriculum.
- To start
  - Statistical consultancy.
  - Certificate course in R-programming.
  - Post B.Sc. diploma in Operations Research.

## **Department of Zoology**

### **For Students: -**

- To study additional animal fauna of Vidarbha region by arranging study tours.
- (Oct.-Nov. 12).
- To conduct seminar/ workshop for students/ teachers.
- To give projects to the students, arrangement of guest lectures, arrangement of seminars and essay competition for students. (Last week of every month)
- Surprise test, Unit test, Oral test,( after the completion of each Unit/Topic)
- To encourage students to prepare charts, posters models of the subjects and assignments to motivate them by giving prizes and certificates.
- Guidance by senior students for various entrance Examinations and to encourage the student for higher study abroad.
- Upgradation of Departmental library.
- Inauguration of Zoological society. (Sep. 12)
- Environment awareness programme.
- Inter-disciplinary inter departmental projects of Students.

- Motivating the students to participate in more number in science exhibition, photographic exhibition, seminars, projects by giving prizes and certificates.
- To encourage students to participate in student- faculty exchange programme.
- Blood Grouping Camp for student to aware the people about blood donation and blood diseases.
- Counseling of girls by the experts Gynecologist to aware the girl student about personal hygiene and diseases.
- Motivating the students to participate in more number in photography competition and exhibition.
- To conduct the social programme about 'Save Tiger' project to aware the people.
- To encourage students towards 'Go-Green Campus' concept by plantation.

### **Innovative Programme**

- **Students Project:**
  - Vermicompost & Vermiwash (Ongoing)
  - Rearing of Guppy fish as biological control (Ongoing)
  - SODIS
  - Aquarium maintenance.
  - Conservation of lakes
  - Assessment of potable water quality
- **Awareness Programmes:**
  - Water pollution awareness
  - Air pollution awareness
  - Land pollution awareness
  - Noise pollution awareness
  - Light pollution awareness
  - Chikungunya, malaria, filaria, dengue, sickle cell anaemia, thalassemia awareness
  - Awareness regarding the importance of spider to farmers.
  - Awareness regarding the importance of Dragonflies (Ganja) to villagers.
  - SODIS, Vermicompost, Pest management and Vermiwash awareness programme for farmers and villagers, Conservation of lakes, Assessment of potable water quality.
- Remedial teaching for students who are weak in subject.
- Review of University & college Examination results to know the paper wise performance of the students and remedial measures to improve their score in the papers.
- Motivating the students to improve the score in Examination by giving them Question banks and writing practice.
- Guidance & counseling to needy students regarding their study, family background, financial matter etc.
- Use of more audio-visual aids like Charts, Model, OHP, LCD, Computer, Laptop, Internet etc.
- Visit to Central Museum, Raman Science Park, Nagpur to observe the models of dinosaurs.
- AIDS awareness program by arranging exhibition and organized street plays and stage dramas.
- To motivate students for participation in science exhibition & other competitions. Intercollegiate competitions, etc.
- Stimulating the students to bring subject articles for Zoological Wall Magazine.
- Encouragement of the students to take higher studies abroad.

- Upgradation of Departmental equipments and infrastructure.
- Submission of Minor and Major Research Projects by faculty members.
- Award of Gold & Silver Medals for students of H.S.S.C. & B. Sc. I & III University Examination for scoring highest marks in Zoology.

#### **For teachers**

- To guide the research student for Ph.D.
- Increase research activity.
- Participation in Seminars, Conferences and Workshops.
- Motivating the teachers for more research activity & provision of research facilities.
- Encouragement of faculty members for the submission of Minor & Major Research Project.
- Encouragement of faculty for attending and organizing the State/ National/ International level seminars/ workshop/ conference/ symposium/ quiz/ for students and teachers.
- Encouragement of teachers for attending the orientation and refresher courses.
- To motivate teachers to enhance their academic qualifications.
- To collaborate and link with industries and social institutions in around Nagpur.

#### **Up gradation of the Department:**

- Purchase of equipments and material required for conduction of practicals.
- Renovation of Department.
  - Granite top on practical table. (research lab. & dark room)
  - Tiles flooring (research lab., museum& dark room )
  - Window replacement.(Aluminum sliding )
  - Tap fitting (research lab.& dark room)
  - Showcases. (lab, museum, research lab.& dark room)
- To get recognition of Laboratory for research from RTM Nagpur university, Nagpur.

### **Department of Languages**

- Student will be given a platform where they will get an opportunity to express themselves through debate and elocution competitions.
- To conduct a workshop where student will be given guidance on communicative skills and creative writing.
- To conduct a seminar where student will be counseled to select right career after graduation.
- To arrange guest lectures, covering topic on communicative skills.
- In order to enhance creativity and develop imaginative skills of the students, story telling competition will be organized.
- Eminent people representing different academic arena will be invited to guide and inculcate right social and moral values among students.
- A seminar will be organized to council students on selection of various career prospects.
- To organize a work shop where students will be guided on the skills of presenting themselves efficiently in group and public.
- Guest lectures will be organized for guiding students on Journalism and personality development.



- To organize Essay, debate and Elocution competitions for enhancing students creative and oratory skills.
- To start UPSC and MPSC coaching for the students of B.Sc., MCA and M.Sc.
- To arrange a work shop on Phonetics so as to enhance student's pronunciation.
- Students will be given opportunity to conduct college programmes , so as to develop their self confidence and speaking skills.

## **Department of College Library**

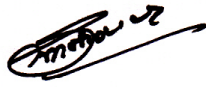
- Enrichment of E-library
- Information literacy/Orientation programmes for students and staff regarding existing and new services in the Library and to motivate them to use free information resources available on Internet.
- To establish the connectivity to “UGC-Infonet E-journal Consortium” through INFLIBNET.
- Creation of Institutional Repository by using Open Source Software “Greenstone”.
- Creation of Web-OPAC
- Creation a Question Bank.
- Establishment of Departmental libraries Network
- E-content creation (Digitization of the Lecture Notes of eminent faculties in the college)
- Book and Non-book material exhibitions for strengthening the acquisition policy.
- Enrichment of collection for “Competitive Examinations” and conducting “Counseling Programmes” under Dr Panjabrao Deshmukh Career Development Academy.
- To impart training to the Internees in Library and Information Science students from the local LIS colleges.
- Proposal for National Conference On Titled “**Trend and challenges in management of Academic Libraries in new Information Environment**”
- To enrich the collection on “Personality Development”
- Strengthening of the library under CPE scheme
- New Library Building Proposal is ready for submission to provide more space for the Library.
- 2012 A start Online National Council of Education Research & Training at NCERT.

## **Department of Physical Education**

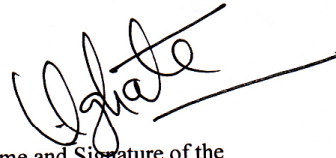
- To increase students participation in Inter-National/National/University/Inter-University/StateTournaments and Organization of private Institution, Association Federation Tournaments.
- To conduct Intramural tournaments.
- To conduct the guest lectures.
- To conduct the coaching camps in Volleyball and Soft Ball for developing the new techniques and skills.
- To conduct the programme on job opportunities in Indian Army and Air Force for college students.

- To conduct coaching camps in different games for school boys and girls.
- To conduct medical checkup camp for staff members of the college sugar, BP, ECG, etc.

- To conduct coaching camps in different games for school boys and girls.
- To conduct medical checkup camp for staff members of the college sugar, BP, ECG, etc.



Name and Signature of the  
Coordinator IQAC  
(Prof. S C Moholkar)



Name and Signature of the  
Chairperson QAC  
(Principal Dr. D K Burghate)  
**Principal**  
**S. S. E. S. Amravati's**  
**Science College, Nagpur.**