

# Annual Quality Assurance Report (AQAR) 2010-2011



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*  
**2010-2011**



Shri Shivaji Education Society Amravati's

## SCIENCE COLLEGE

Congress Nagar, Nagpur-440 012 (M.S.) INDIA  
Tel. : +91-712 2423432 (O) Telefax : +91-712 2440955  
E-mail : shivajiscience\_ngp@yahoo.com  
Web. : www.shivajisciencecollegenagpur.in

- Accredited "A" Grade College by NAAC, Bangalore
- An institution recognised by UGC as "College with Potential for Excellence"



Adv. Shri Arunkumar B. Shelke  
President

Dr. D.K. Burghate  
Principal

Dr. Panjabrao alias Bhausaheb Deshmukh  
Founder President

Sl. No. Estt/6220/11

Date 24/05/2011

To,  
**The Director**  
National Assessment and Accreditation Council (NAAC)  
P. O. Box No. 1075, Nagarbhavi  
Bangalore – 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 2010-11, 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 2010-11 (two copies).



राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद  
विश्वविद्यालय अनुदान आयोग का स्वयत्त संस्थान

**NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL**  
*An Autonomous Institution of the University Grants Commission*

## *Certificate of Accreditation*

*The Executive Committee of the  
National Assessment and Accreditation Council  
on the recommendation of the duly appointed*

*Peer Team is pleased to declare the*

*Shri Shivaji Education Society, Amravati's*

*Science College*

*Congress Nagar, Nagpur, affiliated to Rashtrasant Tukadoji Maharaj Nagpur University, Maharashtra as*

*Accredited*

*with CGPA of 3.19 on four point scale*

*at A grade*

*valid up to March 27, 2015*

*Date : March 28, 2010*



*HARSHAN*  
*Director*



EC/52/RAR/21

## 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. Avchar	Head, Department of Mathematics
Dr.R S Sakundarwar	Head, Department of Botany
Dr. Mrs. S V Ghonmode	Head, Department of Zoology
D W Khade	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 Bhave
<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.



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.

# **Part A**

**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 increase participation of the students in classroom teaching.
- To ensure maximum participation of students in seminar and other academic activities to acknowledge them by giving certificates, mementoes or prizes.
- To encourage the students to prepare charts and models for exhibition related to syllabus.
- To guide the students for various entrance Examinations.
- To arrange counseling of ex-students working in various disciplines for the upliftment of students and also importance of subject.
- To inculcate spirit of research in students by giving various projects related to subject.
- To upgrade the Departmental library.
- To organize the educational tours/excursions for studying the flora and biodiversity in their natural habitat of different regions.
- Installation of Botanical Society (Biological Society), organizing seminars, guest lectures, science exhibition and educational tours to various reserve forest and wild life sanctuaries.
- To organize Eco Exhibition to create awareness about various aspects of Plants (Medicinal, Food, Pollution, Spices, Oil etc.).
- Mushroom cultivation.
- Floriculture – preparation and selling of saplings of ornamental plants and flower arrangement.
- To undertake Eco friendly activities to create environment awareness among the students.
- Training program on Plant tissue culture techniques.

The Department chalked out following action plan for staff members.

- Participation in seminars, symposia, conferences, workshops, etc.
- Progressive research activity.
- MRP to be submitted by Faculty Members.

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

### **Plan of action**

- Renovation of the existing U.G. Laboratory under C.P.E. infrastructure development Grant.
- To purchase sophisticated equipments viz. Primostar microscope, UV-visible spectrophotometer etc.
- To apply for approval of M. Sc. Biotechnology to 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 2010-2011.
- 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. Biotechnology.
- 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.
- To prepare of study material (theory & practical) for the students.
- To start Certificate course in environmental Chemistry.
- To start Certificate course in Nanomaterials.
- Inauguration of Chemical Society.
- To arrange Guest lectures on Quantum mechanics.
- To organize Industrial Visit for the Undergraduate students.
- To extend remedial teaching for academically poor students.
- To organize Industrial Visit for the Post graduate students.
- To arrange visit to Raman Science Center.
- To organize Intercollegiate Seminar / Quiz Competition.
- To arrange Guest Lectures for M. Sc. students
- To prepare Proposals of minor & major research projects.
- To organize National conference On advanced Material and Technology
- Use of OHP and LCD for effective teaching & learning process
- To conduct unit tests & surprise tests.
- To undertake Extension activities:
  - Awareness programme – visit to Chunabhatti
  - Awareness programme on pesticides for farmers
  - National environmental awareness campaign.
  - Parent teachers meeting
  - Visit to residents of students
  - Awareness programme on ' Water Conservation And Management

## **IV Department of Computer Science**

### Plan of action

- Review of the practicals to be conducted: July 2010
- Formation of computer science subject society for the 2010-2011 session: July 2010
- To arrange 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
- 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.

## **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
- To organize a presentation on Virtual Campus scheme as "A new generation teaching aid".

## **VI Department of Geology**

### Plan of action

- Continuation to provide widening opportunities in learning and providing ladder of opportunity to higher education with a key focus on foundation degree.
- Continue to ensure increased participation and achievement on broad and balanced programmes of study.
- Continuation of up gradation of infrastructure facility.
- Providing better teaching and learning facilities for students e.g. audio-visual aids, computer and library facility.
- To organize Interactive session to assess students at the entry point of degree course.
- 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 Guest lectures of eminent persons from various earth science organizations situated in Nagpur like GSI, CGWB, IBM, MRSAC, RRSSC etc.
- To arrange Students visit 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 practicals as well as theory.
- Inauguration of Geological Society and Geological Wall Magazine at the hands of eminent earth scientist and encourage students to participate in these activities.
- To organize "Wall Magazine Competition"
- To encourage students to participate in the wall magazine activities, in 'Science Exhibition', "Geological quiz" and motivate them to prepare charts and models.

- 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.
- Continuous assessment and evaluation of students by oral tests, monthly tests, test and terminal Examinations, and assignments.
- To conduct contact programmers after terminal and test Examinations.
- To conduct revision practicals & test practical Examination.
- Continuation of Mentor-ward scheme to minimize the dropout's rate and counseling to low as well as high achievers.
- To enhance Parent-Teacher contacts for better performance of students.
- Student's appreciation for meritorious achievements and also to encourage participation in extra curricular activities to be continued.
- To start third module (Advance Diploma) of Add-on course in "Groundwater Exploration".
- To introduce certificate course in Astronomy, after necessary formalities, from next academic session.
- The concept of Students' Assessment of Teachers to be continued for motivation and corrective measures.
- To encourage and motivate teachers to participate in workshops, seminars and symposia.
- To encourage and motivate teaching staff of the Department towards research work.
- To maintain and propagate research spirit.
- To organize one day workshop for students for Geology students on 'Study techniques in Geology'
- To organize following community service / extension activities:
  - Awareness amongst school students about geology and space science and to motivate them to join science faculty for their career..
  - Hydro geological and groundwater quality assessment studies in villages of Nagpur district
  - Water conservation and rooftop rain water harvesting awareness campaign in villages of Nagpur district to be taken up.

## VII Department of Mathematics

### Plan of action

- Constitution of Mathematical society and arranging guest lectures for the students.
- Faculty improvement by attending conferences, Orientation, refresher courses and seminars to know recent trends in mathematics.
- To motivate 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 viz. 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.
- To 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 Mat Lab.

## **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 2010-11
- To enroll students for Doctoral research
- Planning 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 various cultural activities
- To organize intercollegiate seminar competition
- To organize international conference
- To organize Quiz 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 B. Sc. I, II, and III as per UGC syllabus.
- Up gradation and extension of laboratories.
- To enrich Department/Research Laboratory with sophisticated instruments.
- To design and fabricate new experimental boards in Departmental workshop involving students.
- 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 inculcate competitive and humanitarian spirit in students to face all type of challenges.
- To arrange students visit to Raman Science Centre, Regional Sophisticated Instrumentation Centre, Science Exhibitions, Research Laboratories etc.
- To continue evaluation and assessment of students by conducting surprise tests, terminal and test Examinations.
- To use audio-visual aids, Broadband Facility for effective teaching and learning.
- To provide remedial coaching to economically and academically weaker students. Felicitation of meritorious students.
- To start PG course in Continuation of research activities through Major and Minor Research Projects.
- To organize seminar for students and to prepare students for VUPTA annual seminars competitions.
- To provide special guidance, books and facility of sophisticated instruments Laboratory to advanced learners.

## **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 'Why Statistics?'
  - 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 Laboratory etc.
- Activity of nature's club by organizing guest lectures, watching of birds & variety of fauna & attending workshop/conferences/seminars on life sciences.
- Increase 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 wildlife 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 student 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

- To organize workshop on “Personality development” for the benefit of the students.
- To organize seminar and workshop for the students where they will be guided on various career options after B.Sc. Final year.
- To organize one day workshop where students will be taught to present themselves confidently and efficiently before the audience.
- To organize Elocution competitions for enhancing student’s communicative skills.
- To organize Essay competitions for improving students writing skills.
- To organize programmes that will unstill traditional and cultural values among students.
- To motivate students to express their views and difficulties in class.

## **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.
Bio-Technology	To continue vertical and horizontal expansion of the Department giving quality education to the students.
Chemistry	<ul style="list-style-type: none"> <li>• To fulfill basic requirement of UG &amp; PG Laboratories, the Laboratories were conveniently strengthen. Microprocessor based Conductivity meter, Colorimeter, Potentiometer has been purchased.</li> <li>• The self-prepared printed notes are distributed to the students.</li> <li>• UGC Sponsored Certificate course in water analysis has been started with good response of 15 students. Last year student submitted their project reports on water analysis of the various location of Nagpur city and surrounding area. Dr. R. U. Khope is coordinator.</li> <li>• Chemical society was inaugurated and Guest lecture was organized under the banner chemical society on Chemical behaviors microbes.</li> <li>• Department organized poster competition on water conservation and its management. The selected students were sent to inter-collegiate competition organized by Social Forestry, Maharashtra Government to create awareness about conservation of environmental elements.</li> <li>• Special coaching has been given to poor students to prepare competitive Examination. Class counseling for average and below average students had conducted in the Department to motivate them and increase their interest in the subject.</li> <li>• One Major Research Project, one innovative programme is ongoing and two new minor research projects are ongoing.</li> <li>• Every year in December, college organizes the science exhibition in the Yuva Mohotsava, students of this Department actively participants in this exhibition by making models and charts. Some staff members are actively participated in research activities .Fifteen students are careering out research work under the supervision of three supervisors(Dr. Thakare, Dr. Khope, Dr. Utale) at different centers</li> <li>• The Unit test and Surprise test are regularly conducted and results are analyzed.</li> <li>• Extension Activities: Department has conducted various extension activities.</li> </ul> <p><b>Visit to sewage treatment plant</b> Students of B.Sc. III year along with staff members of Department visited Sewage Treatment Plant at Bhandewadi to Make them aware about the treatment given to the drainage water and utility of recycled water for irrigation purpose and also the use of sludge as manure. Students are also acquainted with some modern</p>

	<p>techniques used for purification of water.</p> <p><b>Visit to Chunabhatti.</b></p> <p>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 &amp; cleanliness.</p> <p>Environmental Awareness Programme was organized for the students and parents of the college.</p>
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>• Back volumes of Journals in Departmental library have been got bounded.</li> <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. Guest lecturers by experts.</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 collaboration with statistics Department and modifications as per need.</li> <li>• Planning the teaching and other activities in advance before the commencement of the session.</li> <li>• Geological Field Excursions: This year two such field excursions were arranged. One for Pachmarhi during 16<sup>th</sup></li> </ul>

December to 19<sup>th</sup> December, 2010. Another Field excursion visit was arranged for Adasa & Goghara Mahadeo and area around Parseoni on 4<sup>th</sup> January, 2011. Student submitted reports of the same.

- Guest Lecture by Alumni: One of our alumni Shri Amol Nakhle presently working in Schulmberger HER Division, India, during his visit to Nagpur expressed his willingness to interact with Geology students of Department and he presented two Powerpoint presentations for their benefit 1) Introduction to drilling and 2) drilling operations and equipments in oilfields. This interaction was arranged on 26<sup>th</sup> August, 2010 in Pre-lunch Hours in the Geology Department.
- Visit to Maharashtra Remote Sensing Application Center, Nagpur: Students of B.Sc.Final were taken for a educational visit to Maharashtra Remote Sensing Application Center, Nagpur on 26<sup>th</sup> August, 2010 in the Post Lunch time. Director, MRSAC Kindly gave permission for the same. Shri Ajay Deshpande and Dr. Kolte and other scientists and staff members actively guided and helped students during this visit. Students submitted a report of the same.
- Visit to Raman Science Center, Nagpur: Students of B.Sc. I were taken for a educational visit to Raman Science Center, Nagpur in August, 2010. Students submitted a report of the same
- Installation of Science Association, Geological society & Editorial board of Geological wall Magazine was done under the aegis of Science association on 11 December, 2010. Dr. Suresh Chari Well known personality Trainer was the Chief Guest of the function. Honorable Principal Dr. D. K. Burghate presided over the function.
- Under Student Exchange Programme Geology Students from Gurunanak College of science Ballarpur visited Geology Department. They were accompanied by their teachers Dr. K. B. Korde, Head and Associate Professor and Dr. R. M. Dani, Associate Professor Geology Department on 17<sup>th</sup> January, 2011. All the staff members of geology Department actively guided these students during their Departmental visit. Our College also made arrangement for stay of girl students of this team, in our College Girls Hostel. Our honorable Principal Dr. D. K. Burghate gladly gave permission for the same. Dr. Mrs. P.M. Tiwari, Hostel In-charge and Shri Umesh Dhumale and Mrs. Dhumale took keen interest in making various arrangements during their stay in the College Girl Hostel.

Geofest2010 : Geology Department Organised this event under the aegis of Geological Society of the Department , on 23<sup>rd</sup> December 2010 in the college as part of Yuva Mohotsava. It was arranged in two parts namely Intercollegiate Geology Students seminar competition and Intercollegiate students' Geology Quiz. The



	Geofest was inaugurated by Mr. K.K.K Nair, Retired D.D.G. Geological Survey Of India, Central Region, Nagpur and presently President of Gondwana Geological Society, Nagpur. Dr. K. B. Korde, Ex-Chairman, Board of Studies in Geology, R.T.M. Nagpur University, Nagpur was Guest of honor. Dr. A. V. Gomashe, Officiating principal of the college presided over the function. All undergraduate professors and professors from Nagpur University were present in this inaugural function. Total around 120 students from various colleges of Nagpur University attended Geofest 2010.
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	<ul style="list-style-type: none"> <li>To motivate teaching staffs for active research in the subject, paper publication and presentation.</li> <li>To organize workshop/ seminars on the subject to make aware students and teachers about recent trends in the subject development.</li> <li>To organize seminar, essay, logo, quiz competition, group discussion, projects, awareness programme for the students.</li> <li>To organize study tours for the collection of pests and beneficial insects and other fauna.</li> <li>To continue ongoing certificate courses as a job oriented courses.</li> <li>To attend and organize seminar/ workshop/ conferences.</li> </ul>
Languages	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.
Library	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.
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>

## 2. New academic programmes initiated (UG and PG)

Department	New Academic Programmes initiated
Bio-Technology	College has received approval letter for M.Sc.Biotechnology from Yashwantrao Chouhan Maharashtra Open University of Nashik.
Chemistry	Certificate Course in Environmental Analysis
Computer Science	BCA course started in the session 2010-2011
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	“P. G. Diploma (one year) in Nano-technology”, a P.G. course under Innovative Programme of UGC in teaching, interdisciplinary and emerging areas is ongoing with an intake capacity of fifteen students.

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 2010, 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	Students Projects: <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 Chikungunea: A crippling fever hits Nagpur &amp; nearby areas. Teachers &amp; students visited slum areas to aware the society regarding its causes, symptoms and prevention.</li><li>• Dr. S. V. Ghonmode along with students of B. Sc. II &amp; III completed projects on Vermiwash &amp; SODIS respectively.</li><li>• Dr. S. V. Ghonmode along with the students of B.Sc.I completed project on "Rearing of guppy fishes as a Biological control to eradicate malarial vectors" and to aware the masses regarding use of "Biological Control" instead of hazardous chemical pesticides.</li><li>• Dr. A. D. Bobdey, along with the students of B. Sc. I &amp; II completed project on "Vermicompost".</li><li>• Dr. A. D. Bobdey along with the students of B. Sc I working on project of "Aquarium maintenance".</li></ul>

### 4. Inter-disciplinary programmes Started:

- **Botany Department** : Yes, (Microbiology, Geology, Zoology, & chemistry)
- **Chemistry Department** has 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 & Water conservation for farmers & Villagers undertaken by Dr. S. V. Ghonmoke and Dr. A. D. Bobdey 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.

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

- For continuous evaluation our Department conducted class tests, unit tests and surprise tests to test understanding, skill and knowledge of the students.
- 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 (Harshul Mishra qualified GATE 2010)

#### **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 programmes. One Ad-hoc basis teacher has cleared NET and JRF of Agriculture.

One Ad-hoc basis teacher Ms. Ashlesha Chopade has received Women Scientist Project of Rs.11, 64,000, from Department of Science and Technology, New Delhi in December 2009.

The Librarian has attended one National level workshop this year.

Three Faculty members has attended Refresher Course in Chemistry.

Prof. M.P. Dhore from Department of Computer Science was awarded Teacher Fellowship under UGC FDP scheme during 17-07-2008 to 16-07-2010.

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

In the Department of Geology:

Trainings undergone by teachers:

- Dr. Ms. J. K. Kodate undergone training for operation of software “Rockworks 15” at Data code, one of the software companies at Nagpur during 31<sup>st</sup> August to 2<sup>nd</sup> September, 2010. It is important to note here that Department has procured this software earlier and hence her experience and knowledge in the operation will help in capacity building of the Department in general .and giving new exposure to Students of geology in particular.
- Dr. K. C. Shah completed refresher course on “Analysis of pumping Test Data” held at Central Ground Water Board, Central Region, Nagpur during 29<sup>th</sup> November to 3<sup>rd</sup> December, 2010.
- Dr. Ms. J. K. Kodate Undergone training on “Self Awareness and Motivation (SAM) for Women Academicians “at Academic staff college of Nagpur University, Nagpur from 11<sup>th</sup> January, 2011 to 15<sup>th</sup> January, 2011.
- Dr. Ms. J. K. Kodate also undergone training on Ground water development & Management Organised at Central Ground Water Board, Central Region, Nagpur during 17<sup>th</sup> January to 21<sup>st</sup> January, 2011.

Symposium/ Workshops and Seminars attended by teachers:

- Dr. K C. Shah Attended One day interactive workshop on “**Carbon Footprint Analysis** “on 19<sup>th</sup> September, 2010 Jointly organized by Vanarai & Vidarabha Environmental Action Group. Nagpur, at Nagpur.
- Dr.KC.Shah Attended One day UGC sponsored National Seminar on “Recent Trends in Bio-Geo Sciences” organized by Shri M. Mohota College of Science, Nagpur on 14<sup>th</sup> October, 2010.. He also Co-chaired one of the sessions during the seminar and appreciated by best poster prize.
- Dr. Ms. J. K. Kodate Attended One day UGC sponsored National Seminar on “Recent Trends in Bio-Geo Sciences” organized by Shri M. Mohota College of Science, Nagpur on 14<sup>th</sup> October, 2010. She also presented one poster during the event.
- Dr. K. C. Shah Attended Two days’ National Seminar on “Sedimentary Basins of India: Economic Potential and Future Prospects” Organised by

Gondwana Geological Society, Nagpur, held at Nagpur on 22<sup>nd</sup> and 23<sup>rd</sup> October, 2010.

- Dr. Ms. J. K. Kodate attended State level Seminar on “Motivation and self confidence “organized by Yashoda girls Arts & Commerce College, Nagpur on 24<sup>th</sup> & 25<sup>th</sup> February, 2011.
- Both the Teachers attended national symposium NCNST2011 at Nagpur.
- Both the Teachers attended National Seminar cum workshop ESD-MISM-2011 at Visakhapatnam.

Paper presentation & publication

- NCNST: Physics Department of our college organized two day national conference on 21<sup>st</sup> January, 2011 & 22<sup>nd</sup> January, 2011. Dr. Ms. J. K. Kodate gave oral presentation of paper entitled “Dimensions of Nanoscience in Geochemistry” on 22<sup>nd</sup> January, 2010. The same has been published in the proceeding volume of the symposium.
- ESD-MISM-2011: A national Seminar cum workshop on Environment & sustainability development in Mineral Industry & Solid waste management was organized by the Department of Geology, Andhra University, Viskhapatnam during 14<sup>th</sup> and 15<sup>th</sup> March, 2011.
  - Dr. Ms. J. K. Kodate & Dr. K. C. Shah Co-authored one paper titled “Environmental Pollution and its Mitigation in Coal Mine Areas: An overview”, published in the Indian Mining & Engineering Journal (proceeding Volume ESD-MISM-2011). Same was presented by Dr. K. C. Shah.
  - Dr. Ms. J. K. Kodate Co-authored with Mr. Prafulla Vairagade & Pranab Waghmare, both B.Sc. II Geology students, one paper titled “Quality of Groundwater in and around Durgapur Coal mines Area of Chandrapur District Maharashtra”, published in the Indian Mining & Engineering Journal (proceeding Volume ESD-MISM-2011). Same was presented by Dr. Ms. J. K. Kodate

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 is pursuing research leading to 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

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

Department	Number of Seminars/Workshops
Bio Technology	One Inter collegiate working model and poster competition “VISION BIOTECH” was arranged on 24 <sup>th</sup> and 25 <sup>th</sup> December 2010.

Computer Science	70 Students Seminars and Group discussion of PG students.
Electronics	<p><b>Students Seminar-</b>  Ms .P. P. Kotecha B.Sc.(Final) has delivered seminar on “Instruction set of Intel 8085”  Ms. A. K. Zoldeo B.Sc.(Final) has delivered seminar on “Microcontroller”  Ms Bincy Baboo B.Sc.(Final) has delivered seminar on “ PPI”  Ms. A Lalke B.Sc.(Final) has delivered seminar on “Microprocessor 8086”</p> <p><b>Teachers’ Seminar-</b>  S. C. Moholkar delivered talk on Physiological Transducers.  D. W. Deshkar delivered talk on Digital Multimeter.  M. J. Hedau delivered talk on Regulated power supply</p>
Microbiology	A two days workshop was conducted on Continuous Medical Education on Leprosy for M. Sc Part II students
Physics	<ul style="list-style-type: none"> <li>• Student Workshop on Practical -07</li> <li>• Student Class Seminars -18</li> </ul>
Statistics	03 By Mrs. M. A. Pande, Ms. Madhuri Nasre, Ms Krutika Thawale. <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-8, Student’s seminar-27
Language	03

### 9. Research projects:

Department	Research Projects	
	Newly implemented	Completed
Botany	02	
Bio Technology	One staff member Miss.Ashlesha Chopade’s Women Scientist Project of Rs.12, 00,000/- has been approved by Department of Science and Technology on medicinal plants, project entitled "invitro regeneration and biochemical characterization of regenerated plants of bacopa monneiri".in December 2009.	
Chemistry	Major: 01 Minor: 02	Major: 01 Minor: 02
Geology	01	
Mathematics	One Minor Research Project sanctioned by UGC	

Microbiology	One project was sanctioned approximately costing Sixteen lacs under women scientist scheme of DST (Mrs. Nitu Pathak is the principal investigator). Three projects sanctioned by DST under women scientist scheme are ongoing.	-
Physics	01	10
Languages		01
Zoology	01	-

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

**11. New collaborative research programmes:**

Department	Programmes
Botany	Collaboration with forest Department for the up gradation of forest herbaria i.e. from herbs to trees.
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> </ul>
Geology	Collaborative research programme leading to Ph.D. degree started with scientist from Atomic Minerals Directorate for Exploration and Research, Nagpur.
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. 2,12,000 = 00
Chemistry	Rs. 60, 1650 = 00
Geology	Rs. 110,000 = 00
Physics	<ul style="list-style-type: none"> <li>• Under Innovative Programme of UGC : Rs.3.20 lacs</li> <li>• Under Major Research Project: Rs. 2.73 lacs</li> <li>• Under Minor Research Projects : Nil</li> <li>• Under CPE Programme Rs.7.0 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 18 research Scholars are registered under the supervision of faculty Members of Department Dr. S. R. Thakare: 10 Dr. R. U. Khope: 04 Dr. P. S. Utale: 04
Electronics	02
Geology	<ul style="list-style-type: none"> <li>• Ph.D. Awarded: 01 Thesis Submitted</li> <li>• Registered for Ph.D.: 03</li> </ul>
Mathematics	01
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	09
Physical Education	01

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

Name of Faculty	Citation Index
Dr. S B Khasare	02
Dr. S W Anwane	02
D W Deshkar	02
Dr. A V Gomashe	1.67

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

Department	Honors/ Awards
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.
Electronics	Prof. S C Moholkar bestowed with best teacher award constituted by institution
Microbiology	<ul style="list-style-type: none"> <li>• Dr. Gomashe published one paper entitled "Antibacterial investigation of <i>Punica granatum</i>(Pomegranate Rind) extract against different plant pathogenic bacteria" (Journal of Bioscience, Biotechnology Research, Asia).</li> </ul>

	<ul style="list-style-type: none"> <li>President Microbiologist Society, India Nagpur Chapter</li> </ul>
Zoology	Visited Tuli public school, Koradi as a Judge for science exhibition.

#### 16. Internal resources generated:

Course	Fee		Number of Students	Total
B. Sc. I Biotechnology	15,000	X	430(52)	6,450,000 7,80,000
B. Sc. II Biotechnology	15,000	X	311(41)	4,665,000 6,15,000
B. Sc. Final Biotechnology	15,000	X	225(35)	3,375,000 5,25,000
BCA I	20000	X	40	8,00,000
M. Sc. I Computer Science	12000	X	40	4,80,000
M. Sc. II Computer Science	12000	X	36	4,32,000
M. Sc. I Chemistry	15000	X	22	3,30,000
M. Sc. II Chemistry	15000	X	17	2,55,000
M. Sc. I Microbiology	15000	X	22	3,30,000
M. Sc. II Microbiology	15000	X	22	3,30,000
MCA I	54790	X	30	1, 643, 700
MCA II	47229	X	24	1, 133, 496
MCA III	36400	X	29	1, 055, 600
Building Rent (Bank)	12,360	X	12	1,48,320
Building Rent (Examination)				10,000
Internet Fee				830
Research Fee				8,500
<b>TOTAL</b>				<b>82,96,446</b>

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

In the Physics Department an assistance of Rs.11.90 Lacs is received from UGC for MRP.

In the Department of Microbiology four women scientists are working under women scientist scheme of DST

Ms Savita Sukdan :	Rs 15, 000
Mrs Pranita Gulhane:	Rs 25, 000
Mrs Sweta Rai:	Rs 14, 000
Mrs. Nitu Pathak:	Rs.16, 000

#### 18. Community services:

Department	Community services
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	NET/SET coaching
Geology	<ul style="list-style-type: none"> <li>▪ “Fluorosis Awareness Programme” was conducted by the Dr. Ms. J.K.Kodate with some of the students of geology Department at Pisdura village, on 13 November, 2010.</li> <li>▪ “Do and Don’ts during and after earthquake” flax Chart prepared by B.Sc.I Students Mr. Rachit Gupta, Ms. Priyanka Raman under the guidance of Dr.K.C.Shah and was displayed by some B.Sc.II&amp; I students, in science exhibition for awareness.</li> <li>▪ Drinking water testing of sources in college premises was taken up along with Chemistry Department, on the Occasion of World Water Day.</li> <li>▪ Blood Donation Camp: College Organises a Blood Donation Camp in the Department of Geology from many years and all the staff members of the Department actively work for this blood donation camp. This year same was organized on 24<sup>th</sup> December, 2010 in the Geology Laboratory. Many of the students of Geology Department donated blood, maintaining the tradition of the Department.</li> </ul>
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 Filariasis, Chikungunya, Dengue, Sickle cell anaemia, Thalasemia 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> </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:**

Department	No of Teachers
Bio-Technology	04 adhoc teachers were appointed
Mathematics	01
Microbiology	06 adhoc and 02 contributory staff members were appointed
Zoology	01
Library	01

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

Department	Teaching: Non-teaching staff ratio
Botany	1:1
Bio-Technology	4:3
Chemistry	1:1
Computer Science	4:1
Electronics	3:2
Geology	2:2
Mathematics	3:0
Microbiology	8:4
Physics	6:7
Statistics	1:2
Zoology	1:2
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
- Number of computers in library: 11
- 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 UGstudents
- Display racks for current periodical issues
- Exciting “News Corner” which is updated daily
- Well established and organized “Departmental Libraries”
- Newspaper service (13 newspapers along with Employment News)
- Internet facility (Broad Band)
- E- section having 635 CDs
- Photocopy services
- Current Awareness Service
- Language Laboratory
- Regular Information Literacy Programmes

Department	Improvements
Botany	200 Hundred New titles are added
Bio-Technology	Books purchased costing Rs.50,000/-.
Chemistry	04 Journals are subscribed

Electronics	Department of Electronics has its own Core Library having about 409 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.
Mathematics	57 titles are added costing Rs 9179/-.
Microbiology	6 books costing Rs. 9247/-
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.
Zoology	Departmental library for benefit of students and increase in number of reference book received by donation from teachers and providing Internet facility. Books-6 and cost of books- Rs. 2380/-.

## 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.

### Departmentwise Expenditure on purchase of Books

Sr.No	Subject	Books in college	Expenditure	Books in Remedial	Expenditure
1	Mathematic	115	15280 /-	14	3400/-
2	Physics	17	5568 /-	218	64248/-
3	Chemistry	30	7807/-	77	14651/-
4	Chemistry	40	11527/-	-	-
5	Chemistry	226	75410/-	-	-
6	Zoology	06	2380/-	88	18690/-
7	Botany	12	2280/-	10	1740/-
8	Statistics	08	1976/-	-	-
9	Microbiology	-	-	20	13480/-
10	Microbiology	-	-	-	-
11	Geology	29	4048/-	45	19129/-
12	Electronics	15	4150/-	69	25327/-
13	Comp. Science	158	46201/-	83	29440/-
14	Language	-	-	-	-
15	General	86	8612/-	-	-
16	Bio-	07	15457/-	-	-
17	Nano-	-	-	-	-
18	Competitive	-	-	29	10000/-
	<b>Total</b>	<b>749</b>	<b>200696/-</b>	<b>653</b>	<b>200105/-</b>

**Total Books & Expenditure - Books 1402 worth Rs. 4,00801/-**

Total Expenditure of Journal and Magazine -  
Item

Expenditure

Magazines & Periodicals - 24	8560/-
International Journal - 06	8800/-
National Journal - 18	17585/-

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

Department of Botany has introduced two courses from this session viz. Certificate Course in Vermicompost and Certificate course in Vermiculture (Sericulture) in Collaboration with Department of Zoology.

**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.

Department of Statistics tried to peep into the hearts of our students to know their feeling about the college. They have chosen our college for their studies because of its Five Star and CPE status, discipline, regular and good teaching, and quality education.

According to students our Principal is disciplined, encouraging, supportive, considerate, helping, kind and caring. They admired his ever accessibility.

Students appreciated teacher's enthusiasm while teaching, sincerity helping nature and cordial relationship with them. They are also satisfied with the learning resources provided to them. Students appreciated cooperation of office staff regarding matters of fees, Examination related work etc.

**Suggestions:**

Provision of Boys Common Room and Canteen facility.

**Feedback on 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. However, there was mixed feedback as far as other aspects are concerned. A 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)

Sr. No.	Aspect	Grade point average
1.	Knowledge base of the teacher (as perceived by you)	<b>3.56</b>
2.	Communication Skills	<b>3.32</b>
3.	Sincerity / Commitment of the teacher	<b>3.47</b>
4.	Interest generated by the teacher	<b>2.57</b>
5.	Curriculum coverage	<b>3.19</b>
6.	Ability to integrate course material with the environment / current issues	<b>3.18</b>
7.	Ability to design Quizzes / Tests / Examinations / Assignments / Projects to evaluate students' understanding of the subject	<b>3.10</b>
8.	Accessibility of the teacher	<b>3.21</b>

9.	Interaction/Motivation	<b>3.29</b>
10.	Punctuality	<b>3.43</b>
11.	Availability of the teacher in the campus	<b>3.31</b>
12.	Teacher as a mentor	<b>3.09</b>
13.	Overall rating	<b>3.42</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.

#### **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. 31,000/-**

#### **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.

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

<b>Department</b>	<b>Infrastructure Facilities</b>
Bio-Technology	'Plant tissue culture' and 'Animal tissue culture' Laboratories have been established, sophisticated equipments such as CO <sub>2</sub> incubator and PCR machine have been purchased.
Microbiology	<ul style="list-style-type: none"> <li>▪ UV Clear Electrophoresis System</li> <li>▪ Refrigerator system</li> <li>▪ Inverter</li> </ul>
Physics	<ul style="list-style-type: none"> <li>▪ Five Computers are added to Physics computer Laboratory.</li> <li>▪ The Laboratory has been upgraded.</li> <li>▪ Infrastructural facility has been upgraded through UGC grants under CPE scheme and Infrastructure Development Grants.</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>

#### **28. Technology up gradation:**

Department	Up-gradation
Botany	Purchased sophisticated equipments to enrich the Laboratory.
Bio-Technology	Purchased sophisticated equipments to enrich the Laboratory.
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>
Mathematics	Multimedia and OHP facility provided for effective teaching and learning.
Microbiology	Purchased sophisticated equipments to enrich the Laboratory.
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.

Date	Time	Venue	Subject
26/04/2011	11:00am to 12:30 pm	Computer Deptt. Lab	Intro. to Internet
27/04/2011	11:00am to 12:30 pm	Computer Deptt. Lab	Web Browsing
28/04/2011	11:00am to 12:30 pm	Computer Deptt. Lab	Searching websites
29/04/2011	11:00am to 12:30 pm	Computer Deptt. Lab	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.

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:**

Alumni arranged guest lecture and cultural activities for the students and teachers. Alumni visit the Department regularly and guide our students regarding future studies. A get together was arranged to have an interaction with ex-teachers on 22<sup>nd</sup> April 2011.

### **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.

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

Regular medical check up 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 secured third place in RTM Nagpur University Inter Collegiate Tournament held at Wardha from 13<sup>th</sup> -14<sup>th</sup> September 2010. Mr. Aniruddha Dani, Mr. Sagar Chauhan and Mr. Rahul Tichkule were selected in RTM Nagpur University participated in All India Inter University Tournament held at Vijaywada from 10<sup>th</sup> -13<sup>th</sup> January 2011.
- **Soft-ball (Girls)** - Ms. Megha Kadu, Ms. Sneha Panchbhai were selected in RTM Nagpur University participated in All India Inter University Tournament held at Vijaywada from 23<sup>rd</sup> - 27<sup>th</sup> January 2011.
- **Swimming (Boys)** - Mr. Abhishek Lambat selected in RTM Nagpur University participated in All India Inter University Competition held at Kolkatta from 16<sup>th</sup> - 20<sup>th</sup> August 2010.
- **Net-ball (Boys)** - Mr. Anup Deshpande, Mr. Ankush Raje were selected in RTM Nagpur University participated in All India Inter University Tournament held at Chandigarh 2010.
- **Net-ball (Girls)** - Ms. Deepti Gogiya was selected in RTM Nagpur University participated in All India Inter University Tournament held at Chandigarh 2010.
- **Korf-ball (Boys)** - Mr. Ankit Kasturkar was selected in RTM Nagpur University participated in All India Inter University Tournament held at Chandigarh from 20<sup>th</sup> – 23<sup>rd</sup> January 2011.
- **Korf-ball (Girls)** - Ms. Neeta Singh was selected in RTM Nagpur University participated in All India Inter University Tournament held at Chandigarh from 20<sup>th</sup> – 23<sup>rd</sup> January 2011.
- **Judo (Boys)** - Mr. Prashant Deotale was selected in RTM Nagpur University participated in All India Inter University Tournament held at Pune from 10<sup>th</sup> – 13<sup>th</sup> December 2010.
- **Volley-ball (Girls)** - Ms. Nupur Chikulwar was selected in RTM Nagpur University participated in All India Inter University Tournament held at Gwalior.
- **Hand-ball (Girls)** - Ms. Snehal Nandurkar was selected in RTM Nagpur University participated in All India Inter University Tournament held at Chandigarh.
- **Basket-ball (Girls)** - Ms. Neha Bhagat was selected in RTM Nagpur University participated in All India Inter University Tournament held at Ajmer from 15<sup>th</sup> – 20<sup>th</sup> November 2010.
- **Medical Examination and Physical Efficiency Test** – It was conducted in the month of February 2011.
- **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 2010.

#### **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:

#### Department of Bio Technology:

Alumni of this Department Mr.Sushant Bhusari and Mr. Aditya Joshi presented paper at national conference on Biodiversity at our college actively participated in nature conservation program by forest Department. One student has cleared Tata Fundamental Research Institute entrance test. Ms. Renu Sorte, B.Sc final year score 61.1% in MAT, in 2010.

Mr. Ashish Deshmukh has been selected for KVSP programme of DST, INDIA

#### Department of Electronics:

R. T. M. Nagpur University Summer Examination 2010

- Result of B. Sc. Final(Electronics) 100 %
- Result of B. Sc. Final(Computer Maintenance) 100 %

Toppers in B. Sc. Final Examination: Ms. Mayura K Zade (Electronics)  
Mr. Gurudeo P Tarare (Comp Main)

Students passed in Distinction grade in Electronics: - 03

Students passed in First class in Electronics: - 13

Students passed in Distinction grade in Comp Main: - 01

Students passed in First class in Comp Main: - 11

#### Department of Geology:

Toppers in B. Sc. Final Examination: Mr.Mahesh Ramteke

Toppers in B. Sc. I Examination: Mr. Amit Fadanavis - 127

Mr.Prafulla Vairagade - 125

Ms.Noopoor Deshpande - 115

Toppers in B. Sc. II Examination: Mr. Pranay Bawangade - 119

Students' Participation and achievements in Geofest2010

Intercollegiate Geology Students' Seminar Competition: Total 13 students participated in Seminar competition, out of which 5 were from M. M. College of science, Nagpur, 6 students were from Shivaji Science College, Nagpur and 02 were from M.G.College, Armori.

Prafulla Vairagade and Priyanka Raman bagged 2<sup>nd</sup> and 3<sup>rd</sup> positions respectively.

Intercollegiate students' Geology Quiz Competition: Among the participating colleges M. M. College of Science, Nagpur, M.G. College, Armori and Shivaji Science College Nagpur, our's team emerged as winner.

#### Department of Mathematics: Intercollegiate Mathematics Quiz Competition

Mr. Girish Dorkhande 1<sup>st</sup> Prize

Ms. Ankush Rajee 1<sup>st</sup> Prize

Mr. Amar Banerjee 1<sup>st</sup> Prize

**Department of Microbiology:** First five positions were bagged by the students of this Department in M.Sc Examination summer 2010 conducted by RTM Nagpur University, Nagpur

**The Department of Physics** has the Honour:

- Atish Gour III<sup>rd</sup> year student won 2<sup>nd</sup> prize in Vidarbha level Student's Seminar Competition in Physics organized by Vidarbha University Physics Teachers Association (VUPTA), at Kamla Nehru College, Nagpur on 25<sup>th</sup> – 26<sup>th</sup> December 2010
- Mr. Ashish Deshmukh from II<sup>nd</sup> year has cleared the screening test in the same event.

The following students excelled in their studies and secured distinction in University Examinations.

**B. Sc Final**

Sr. No.	Name of the students	Group	Obtained Marks	%
01	Pravin Ninave	PCM	131	87.33
02	Umesh Ghuse	PCSM	131	87.33
03	Ku.Praveena Singh	PCSM	126	84.00
04	Ku. J.L.Kokanti	PCM	125	83.33
05	Ku.Swati Gaidhane	PCSM	124	82.66
06	Ku.Ashika k.Agrawal	PCSM	122	81.33
07	Ku.Trupi Bagwe	PCSM	121	80.66
08	Ankush P.Sakhare	PCSM	120	80.00
09	Ku.Pranali Bhoyar	PCSM	119	79.33
10	Ku.Prity Bhatt	PCSM	118	78.66
11	Ku.Bhavna Likhar	PCSM	114	76.00

**B. Sc II**

Sr. No.	Name of the students	Group	Obtained Marks	%
01	Ku.Radhika C.Raut	PCSM	114	76.00

**B. Sc I**

Sr. No.	Name of the students	Group	Obtained Marks	%
01	Ashish A. Deshmukh	PCM	132	88.00
02	Indrajit Haldhar	PCM	118	78.66
03	Ku.Pranita Hedao	PCSM	118	78.66
04	Ku.Priyanka Pimple	PCSM	121	80.66

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.

**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 & 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, Thermax, IBM, TCS, Chester Education Services etc. The college is proud of eight students got placement in the most leading Companies like IBM, Cognizant, TCS, Wipro, 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, TCS, Chester Education Services, Service Net, Octave etc. related with Personality development, Self analysis, Interviewing skills, Time management etc.

The students who are selected Ku.Bincy BABu, Ku.Jyoti Pawar, Ku.Nayan Shahu, Mr.Purvash Iyear, Mr.Vijeet Meshram in IBM; Ku Aboli Aloni, Ku Sandhya Adewar in Cognizant and Mr.Purvash Iyer in Wipro BPO.

### **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**

- 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 one tutorial on ‘Building Digital Libraries by using Open Source software ‘Greenstone’. This helped in initiation of ‘Creation of Institutional Repository.
- **Visits to other College Libraries**  
The Librarian has visit all the University Libraries in Maharashtra and Some college libraries for the exchange of ideas and improving the practices.
- **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 60 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 Sources**  
Earn and learn scheme serves dual purpose of helping the students by paying them as per the quantum of work and increase students’ participation. At present 1 student is working in the library under this scheme.

- **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. In this year library Best User Award felicitated to Miss. Mukta Kadam B. Sc III.
- **User Feedback**  
User feedback is collected on all aspects of library services through "Suggestion Box". Two 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.
- **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)
- Academic- Dr. Tarak Kate, Wardha (NGO).
- 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 (CICR).
- IBM Zensoft, Pune
- etrix solutions, Nagpur

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

**Botany**-Various academic & Environmental activities are conducted successfully according to IQAR report.

**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**-

- Mathematical Society was constituted as a part of “Science Association”, on 11<sup>th</sup> December 2010 M
- Facilities like use of OHP, LCD Projectors, Internets etc. are provided
- One Research Paper entitled as ‘Role of Motivation and Self Confidence in the Development of Personality’ has been presented in National Conference of Physical Education held on 24-25 Feb 2011.
- Merit students and students securing distinctions in Mathematics in University Examinations are felicitated in the function Inter-Collegiate Mathematics Quiz Competition held on 4<sup>th</sup> Jan. 2011.
- The students are encouraged to prepare charts and models for exhibition held in YUVA MAHOTSAVA – 2010.
- Inter-collegiate Mathematics Quiz Competition is held on 4<sup>th</sup> Jan. 2011.
- Remedial Classes are conducted

**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 last years AQAR. The report is

as per submission given in section B of this report.

**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:**

##### **NAAC Cell Report**

NAAC Re-accreditation Steering Committee has monitored the process of re-accreditation of the college. The Re-accreditation Report (RAR) was sent to NAAC in January 2009. The NAAC has sent the Peer Team for validation of the report and overall assessment of the college on 21<sup>st</sup>-23<sup>rd</sup> January 2010. The Peer Team comprised of Dr. M. Abdul Rahiman, Ex-Vice Chancellor of Calicut and Kannur universities, Dr. C. Muthimizhchelvon from Kattanklathur (T.N.) and Dr. Amrit Gogoi from Dibrugarh, Assam. The Peer Team appreciated the efforts of the management, Principal, teaching and non teaching staff members of the college in keeping the tradition of excellence in higher education and the commendable work done by all stakeholders to improve the standards of teaching, learning and evaluation. The team members shared their views with all and gave useful suggestion to scale greater heights in future. In the Exit Meeting the Chairmen of NAAC Peer Team handed over the assessment report to the Principal Dr. D. K. Burghate and wished success in the all round development of the college.

The result of the assessment was declared by NAAC in its Executive Committee meeting dated 28<sup>th</sup> March 2010. The college is rewarded with the highest grade in present system of evaluation by NAAC i.e. Grade 'A' meaning "Very Good" with CGPA of 3.19. At present the college has the honour of being at the top in NAAC gradation in RTM Nagpur University. The steering committee expresses its gratitude to the guidance and help rendered by the management of the college, parents, alumni's, Principal, teaching and non teaching staff members without whose whole hearted support a Herculean task of NAAC assessment would not have been possible. The steering committee shared its joy and satisfaction over the outstanding achievement and enhancement in the glory of the college with all motivated and committed colleagues and endeavours to work hard with missionary zeal in future.

##### **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 this 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 28<sup>th</sup> October 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 envisages 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 college is striving hard to meet the targets foreseen by the UGC through CPE programme in terms of infrastructure and academic excellence.

### **UGC Schemes**

Under **College Development Grant** our college is allocated with a handful grant of **Rs 11.5 Lacs** in the XI Plan of UGC. This grant was released in installments since 2007 and has been used for the purposes for which it was sought.

Under **13 Merged Schemes**, the college has been allocated with **Rs 37.8 Lacs** and **Rs 17.03 Lacs** have been sanctioned in 2010-11. Under this scheme, the college is running different schemes that include NET/SET, Remedial Coaching, Scholarship to Reserve Category/Handicapped/Financially Deprived Students, Competence Building, Network Resource Center, Career Counseling, Equal Opportunity Center etc. Under NET/SET Coaching Programme of UGC, the college has commenced a **NET/SET Guidance Centre in Chemistry** and registered 33 students. Under coordinator ship of Prof J K Gunjate, 12 Faculties were invited for the coaching which span from July 2010 to February 2011. The prominent among the faculty invited were; Dr N N Karade-Reader Post Graduate Teaching Department of Chemistry, RTM-Nagpur University, Dr Prashant Mandlik Assistant Professor, Shri Shivaji Science College, Amravati, Dr Santosh Desarkar, Assistant Professor, Post Graduate Teaching Department of Chemistry, SRT-Marathwada University Nanded, Dr Pratibha Agrawal, Department of Chemistry, Hislop College and Dr Pradeep Tekade, J B Science College, Wardha. The college is expecting that at least 25% students will qualify the NET/SET eligibility test. The college has identified 15 students under **Scholarship to Reserve Category/Handicapped/Financially Deprived Students**. These students are recipient of this scholarship under which an amount of Rs.500/- per month has been provided to them as scholarship to meet expenses towards books, stationary and other educational materials.

Under **Competence Building** various activities were conducted to motivate beginner teachers for acquiring classroom skills. Also administrative staff of the college was educated with soft skills and methodology of studying. Under **Network Resource Center** program of UGC, the college has established a Network Resource Centre in the library under in-chargeship of the Librarian. Students and faculty members use the computing facility, Internet access, INFLIBNET facility through network resource center. The college also runs Remedial Coaching coordinated by Dr R U Khope to provide coaching to the students appearing in the supplementary Examination. Moreover, a **Career Counseling** and **Equal Opportunity Center** is also functional catering to the students of the college. The University grant commission sanction INFLIBNET program to our college. Under this facility the faculty and students of the college can access the 5100 e- book and volumes of 2100 reputed international journals for their academic ventures.

The college has been allocated with a handful grant of **Rs 100 Lacs** for **Girls Hostel**. Up till, **75 Lacs** are utilized for the construction of hostel building and since July 2010 girls students have been accommodated in the hostel. However some construction work is yet pending in want of the balance grant of Rs 25 Lacs.

The college is conducting a one year P G Diploma in Nano Technology under Innovative Programme of UGC. The third batch has undergone this programme and 100% students have qualified in the University Examination in last two years.

The college is running a Career Oriented Programme (CoP) in Fruit Processing and Wine Technology under coordinator ship of Dr C J Chandekar.

Under Building Grants, the college has submitted an ambitious proposal worth **Rs 137 Lacs**. UGC has asked for Compliance like Soil Report in this regard. It has been duly satisfied. We are hopefully looking forward for the sanction that will enable us to establish a **state-of-the art Library Building and Physics Laboratory**.

### **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. Rohini Nimbekar** was elected unanimously as **Secretary of Students Council** for the current session.

The merit students of Summer-2010 Degree Examination as well as H.S.S.C. (XII Std.) Examination from our college were felicitated on 11<sup>th</sup> September 2010 at the hands of Hon'ble **Dr. S. N. Pathan**, Vice-chancellor, R.T.M. Nagpur University, Nagpur. Hon'ble Swamiji **Brahmasthananda**, President, Ramkrishna Math, Dhantoli, 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 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 2010.

'**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 2010), 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 2010. 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 2010 by offering Floral Tributes to him.

"**Mahaparinirwan Din**" of **Dr. Babasaheb Ambedkar** was observed on 6<sup>th</sup> December 2010 by offering floral tributes to him.

Shivaji Science College, Congress Nagar, Nagpur organized "**Yuva Mahotsav**" 2010 from 22<sup>nd</sup> to 27<sup>th</sup> December 2010 to commemorate 112<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 2010 at 08.00 a.m. with the help of N.S.S. Volunteers. Thereafter **Intercollegiate Seminar Competition** was conducted by Microbiology Department at 11.00 a.m. inaugurated at the lands of **Dr. A.B. Dongre** Sr. Scientist C.I.C.R., Nagpur.

Essay and Elocution competition were organized on 23<sup>rd</sup> December 2010 to mark the Birth Anniversary on Dr. Panjabrao Deshmukh. Students were enthusiastically participated in both competitions.

Games & Sports activities were organized on 23<sup>rd</sup> & 24<sup>th</sup> December 2010 in college campus. The students were actively participated in these activities.

Intercollegiate seminar & quiz competition was organized by Geology Department on 23<sup>rd</sup> December 2010 inaugurated at the hands of K.K.K. Nair, Retired Deputy

Director General, G.S.I., Nagpur & Dr. Korde, Chairman, B.O.S. Geology was present as guest of honour. Offg. Principal Dr. A.V. Gomashe was presided over the function. 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. A. B. Dongre** Sr. Scientist C.I.C.R., Nagpur on 24<sup>th</sup> December 2010 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. Manohar Muddeshwar of Super Specialty Hospital, Nagpur on 24<sup>th</sup> December 2010 at 11.30 a.m. under guidance of Offg. Principal Dr. A.V. Gomashe. On this occasion, staff and students were actively participated and donated 50 units of blood and paid rich tribute to Dr. Panjabrao Deshmukh.

Floral tributes were paid to Hon'ble **Dr. Panjabrao Alias Bhausaheb Deshmukh** on 27<sup>th</sup> December 2010 in the college as well as at Maharaj Bag Square at the hands of Hon'ble Offg. Principal Dr. A.V. Gomashe and staff members. 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 2011 in the presence of Principal and staff members and birth anniversary of **Swami Vivekanand** was also celebrated on this occasion.

**62<sup>nd</sup> Republic Day** was celebrated in the presence of staff & students of the college. Prize distribution ceremony of "**Yuva Mahotsav**" 2010 was arranged for the winner 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 **19<sup>th</sup> February 2011**.

"**National Science Day**" was organised on **28<sup>th</sup> February 2011**. Dr. G.S. Natrajan, Director, VIT, Nagpur was present as a guest & delivered talk on "Bottle Water" on this occasion. Principal Dr. D.K. Burghate was presided over this function.

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 46<sup>th</sup> death anniversary on 10<sup>th</sup> April 2011. Principal Dr. D.K. Burghate and staff members paid floral tributes to great visionary. Society flag was also hoisted at the hands of Principal Dr. D.K. Burghate in the presence of staff members on this occasion.

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

Former Minister of Maharashtra **Shri Surendra Bhuyar & Prof. Prabhakar Pawade**, Vice-Principal, P.W.S. College, Nagpur threw light on Dr. Panjabrao Deshmukh as a social reformer and his contribution towards 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 life, staff & students of both the colleges.

On 14<sup>th</sup> April 2011, 120<sup>th</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.

### **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 use 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 kind of

gesture on the part of a teacher make the student feel at home in the campus of college.

#### **Implementation of the Scheme**

The meeting of Teacher Mentor Forum was held on 22<sup>nd</sup> September 2010 at 02.00 p.m. in Department of Chemistry. The convener and the members of this forum chalked out a strategy for the implementation of this scheme.

Each teacher-mentor was given required number of forms in which the details of each individual student were furnished. This information includes this personal bio-data, address, income and occupation of parents. When the teacher-mentor holds the meetings with those students, he extracts information in the light of details given there. This is how the teacher-mentor develops intimacy with those students. In a nutshell he becomes their academic guardian in the campus of college.

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

(Prevention of Harassment to Women Internal Complaint Committee)

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.

No cases have yet been registered by this Cell till date in the College premises.

#### **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 Bhausaheb 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 through out 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 2010-11.



On the occasion of “World Population Day” an essay writing competition was organized on 15<sup>th</sup> July, 2011. The Topic was population Explosion and Environment. Twenty two students participated.

The best written essays were from Ku. Neha Mahurle, Ku. Priyanka Dambhare and Mr. Amar Banerjee.

Floral tributes were paid to Lokmanya Tilak on his death anniversary, observed on 1<sup>st</sup> August, 2010. Our student Amar Banerjee enriched the audience with the portrayal of great leader.

15<sup>th</sup> August, 2010 Independence Day was celebrated in the presence of students and staff members. The meritorious students and outstanding sports persons were felicitated by Teacher’s Forum. Ku. Priyanka Raman & Team bagged prize in Patriotic Group Song Competition.

27<sup>th</sup> August, 2010, an Elocution Competition was organized for enhancing communicative skills among students. The topic was “Modern day life style is making Indian’s stressed out and disease prone”. Ku. V Janini, Ku. Pooja Sharma and Dalendra Patle adjudged best.

On 5<sup>th</sup> September, 2010, Teachers’ Day was celebrated to commemorate the Birth anniversary of Dr. Sarvapalli Radhakrishnan. On the occasion Message Writing Competition was held.

On 2<sup>nd</sup> October, 2010, Rashtrapita Mahatma Gandhi & Lal Bahadur Shastriji’s Birth Anniversary was celebrated as a non-violence day. Ku. Mukta Kadam recalled the teachings and life of great Saint Dr. L.B. Hirulkar and Dr. Shah emphasized on the importance of Non-violence.

The Death Anniversary of Rashtasant Tukdoji Maharaj was observed on 11<sup>th</sup> October, 2010 by offering floral tributes to him. On this occasion the contribution of Tukdoji Maharaj for upliftment of masses was highlighted by Priyanka Barwad.

Floral tributes were paid to Dr. Babasaheb Ambedkar on his death anniversary in the presence of staff and students. Dr. Chandekar expressed his views.

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, 2010.

On 26<sup>th</sup> December,2010, Elocution Competition was organized. The Topic was “Roll of every citizen in conservation of environment”. Rohini Nimbekar, Atish Gaur and Shrutika Ambhare bagged First, Second and Third positions respectively.

An Essay Writing Competition was held on 26<sup>th</sup> December, 2010. The Topic was - “A Scientific views of Dr. Panjabrao Deshmukh”. About 26 students participated. Ku. Rani Rathod, Ku. Apoorva Malpure and Ku. Ishwari Deshmukh bagged First, Second and Third positions respectively

A floral tributes were paid to Savitribai Fule on her Birth Anniversary celebrated on 3<sup>rd</sup> January, 2011 in the presence of staff and students.

Jijamata and Swami Vivekanand Jayanti were celebrated on 12<sup>th</sup> January, 2011. Pooja Tiwari spoke on the contribution of Ma Jijamata and Ku. Mukta Kadam expressed her views on Swami Vivekanand.

On 26<sup>th</sup> January, 2011 - Republic Day was celebrated in the presence of staff and students of the College. On this occasion, winners of Yuva Mahotsava were appreciated and awarded with prizes and certificates at the hands of Hon'ble Principal Dr. D.K.Burghate.

Chhatrapati Shivaji Maharaj Jayanti was celebrated with great fervour in the presence of staff and students on 19<sup>th</sup> February, 2011.

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

RTM, Nagpur University, Nagpur and UGC has introduced the syllabus of compulsory course in Environment Studies at undergraduate level (B.Sc. II) of all branches and faculties of higher education from the session 2007-08. The same course was continued in the session 2009-10.

All the efficient staff members engaged the classes of B.Sc. II and covered the maximum syllabus. Proper counseling regarding the syllabus and other factors were provided to the students.

This year college conducted the compulsory Course Environmental Studies for B. Sc. II year students of all groups as a regular practice of RTM, N.U. Nagpur and UGC guidelines.

This year 311 students were enrolled for B. Sc. II of all groups. The staff members engaged the classes, allotment of projects and arranged study tours to various places. This year we arranged study tours to Salbaldi Dist. Amravati, Khekaranalha Dist. Nagpur and Nawegaon Khairi Dist. Nagpur to study flora and fauna & environment of various localities. Number of students participated in competition on 'save water conserve water' organized by Department of Chemistry. 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 2011 as per the guideline of RTM, N. U. Nagpur, the Examination was conducted by the college. The grades of the students were sent to Controller of Examination, RTM, N. U. Nagpur.

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

**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. Any one wishing to remodel their garden or who is starting a lay-out 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 be 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 which 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 allotted to Shri Shivaji Education Society Amravati's Science College, Congress Nagar, Nagpur. M.S. 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 the third batch of this programme students were enrolled and they have given 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 on roll cleared the Examination with an average of 75% to 85% and certificates were distributed to them.

Flower arrangement & bouquet making training programme was conducted. Many students participated in this programme. Flower is one of the gifts 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.

The object introducing behind floriculture & landscaping course is to create awareness amongst the student about conservation of biodiversity, control the pollution & develop the business in maintenance of flower. Dr. D.K. Burghate, Principal appreciated the efforts and interest shown by the student.

### **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 fulfilled their dietary requirements

### **NSS report**

It is a matter of great pride and pleasure that our college has constituted 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 12<sup>th</sup> September 2010 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 comp. etc. Some noteworthy activities are listed below.

**Tree plantation** : Our N.S.S. unit of 65 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, Prof. D.W. Khade, Prof. R.Y. Deshmukh were prominently present.

Rally (1) N.S.S. unit organized peace rally on 2<sup>nd</sup> October 2010 to mark Birth Anniversary of Late Mahatma Gandhi.

(2) The students, Staff members

**Blood donation camp**: N.S.S. unit of this college will organize the blood donation camp on the eve of Dr. Bhausaheb Deshmukh birth anniversary .Blood donation camp will organize in special camp held at Fetari.

The programme officer was honored by giving certificate by N.M.C. Commissioner for this noble activity.

**Eye Donation Camp**: The N.S.S. Unit of this college aware the people and students for eye donation.

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

The students of N.S.S. unit were actively participated in awareness programme on rainwater harvesting held on 10<sup>th</sup> December 2010. Theme and processes were conveyed & communicated upto lower strata of society.

**Visit to Fetari:** In the month of July 2010 the N.S.S. unit of this college visited to fetari and interacted with the formers. The farmers are urged to go for organic farming.

**Teachers Day:** Teachers day was celebrated on 5<sup>th</sup> September 2010 to mark the birth anniversary of Dr. S. Radhakrishnan Hon'ble Principal Dr. D. K. Burghate delivered speech on this occasion and accorded guidance to the students.

**Hygiene and Cleanliness Drive:** Hon'ble Principal Dr. D.K. Burghate and staff members assembled and each member planted a sapling in the college. On this occasion the Hon'ble Principal urged the students that they should 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 any thing.

**Special camp:** A 7-day special services camp was organized at Fetari village on the aegis of National Service Scheme (NSS). The camp was inaugurated at the hands of Hon'ble Off. Principal Dr. A. V. Gomashe, Prof. D. W. Khade was the Chief Guest of the occasion, Sarpanch Shri Premkumar Dhone, Grampanchayat member Shri Ravindrabhai Khambalkar were prominently present on this occasion. Dr. N. N. Dongarwar, Associate Professor Zoology, PG Department R. T. M., Nagpur University, Nagpur, Dr. Mrs. M. R. Lanjewar, Dr. Mrs. Reshal Deshmukh, Prof. Yogita Meshram Department of Chemistry, Science College, Nagpur had expressed their views before villagers. Cleanliness, shramdam, prayer, Yoga were the special features of this camp.

Dr. P.S. Utale Programme officer, Dr. R.U. Khope Programme Co-officer, Prof. J.K. Gunjate, Prof. R.Y. Deshmukh, Dr. S. R. Thakare had taken keen efforts for success of activities.

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

Dr. Panjabrao Deshmukh Career Development cell works in collaboration with the Training and Placement Cell in the college. This cell arranges counseling programmes for the students and also lectures workshops & interactive sessions by eminent personalities in the respective fields.

The cell also concentrates on developing a rich collection of books on Career prospects, Competitive Examinations and Personality development in college library. Cell also has CDs containing demonstrations on Interview skills, Resume writing, Personality development, Communication skills etc.

Carrier development cell support students to develop their confidence to perform better in academics as well as in various other fields. Cell addresses both the career concern & personality development.

The cell functions on following objectives :

- To inculcate the ability to think independently & positively and develop better intra & inter personal relationship.
- To promote discipline, healthy outlook and positive attitude and removal of narrow thinking & complex by improving their self esteem, self awareness & self confidence.
- To impart training in soft skills for developing their communication skills confidence, leadership skills, managerial skills and decision making capabilities.

**Let others lead small lines, but not you  
Let others argue over small things, but not you,**

**Let others leave their future in some one else's hand, but not you.**

Inspired by above lines Dr. Panjabrao Deshmukh career development cell of the college organized various training programs this year also.

- Formal inauguration and installation of office bearers of the cell was done on at the Hands of Hon'ble Principal Dr. D. K. Burghate Sir, Dr. S W Anwane, Dr. Mrs. R S Dvivedi, Dr. J K Kodate were eminently present on the occasion.
- A lecture on "Emotional Intelligence" by Renowned Psychologist & columnist in "Hitavada" daily, Dr. Reeta Agrawal was organized on the occasion. In her speech she focused on Handling Situation and role of E.Q. in enhancing personality & academics.
- To guide about various career opportunities in India Abroad, a presentation by Dilip Upgalanwar, Director ICAD was organized. The topic was "Career & studies abroad".
- The Power of Water fall is nothing, but a lot of drops working together. The above statement is about power of team spirit. "Leadership and team building" was the training session organized by the cell and the trainer for the program was Dr. Suman Tiwari, National Trainer of Indian Jaycees.
- Competition & guidance on creative speech & speaking skills was conducted by "My FM Broadcasting centre Nagpur". Radio Jockey Milind & Nisha from My FM guided the students about career as Radio Jockey & how to be creative and fluent in speech.
- Director of Radio broadcasting centre, Mrs. Poonam Siraskar organised a Talent competition which included Talent show, creative writing, how to speak in front of camera. They also selected some students for giving free training about Radio Jokey and Housing TV shows.
- Personals from Radio Mirchi also conducted program for college students and selected some of them to represent college events on air.
- During Yuva Mahotsav Training program on Positive Attitude was organized. Trainer for the event was Jc. Suman Tiwari.
- Managers are not born, they are made. This was the objective of the last and the most powerful training work shop conducted by a well known figure in training in National and international scenario. Topic for this one day workshop was "Express yourself". In concluding session certificates were distributed to the participants and office bearers. Thanks to, Hon'ble Principal, Dr. R S Divivedi, Mrs Y.K. Meshram and all students specially final year students for support and encouragement.
- At the end of the year concluding ceremony was organized and Certificate were distributed to all student office bearers and executive members at the hands of Hon'ble Principal Dr. D K Burghate. On the occasion students felicitated Dr. Mrs. P. S. Tiwari Convener, career Development cell as best supportive teacher.

**Attendance Monitoring Committee**

We feel proud to say that our institution is one of the prestigious educational institution in Central India re-accredited as A+ and recognized as CPE by NAAC, Bangalore.

We can achieve this success because of some basic discipline which we inculcate in the students. The most important of the basic discipline rules is the attendance of the students in class which is of great concern to us. As a matter of fact the work of

recording attendance of students begins when admission process comes to an end and regular teaching starts. The process of admission to B.Sc I and II classes continued throughout the month of June this year, while that of B.Sc III continued up to mid July. Due to this reason, the regular teaching of B.Sc I and II started bit earlier i.e. from 21<sup>st</sup> June 2011, while regular teaching of B.Sc III commenced from 15<sup>th</sup> July 2010. Following the completion of formalities of admissions, the batch wise roll lists were distributed to the respective teachers for maintaining the record of attendance. In order to prevail healthy and friendly relation amongst staff, students and parents, the principal requested the teachers to have an interaction with parents. Accordingly teachers explained the importance of regular attendance in class room coaching which ultimately leads to the progress in academic performance of the students. It is a matter of general observation that attendance of students during the first term is slightly less because most of the ATKT students spare time for the preparation of winter Examination. The students with less attendance were marked and they were warned to make 75% of attendance. As a result of this the percent of attendance of such students improved during the second half of academic session. Truly speaking now-a-days the students have apathy for attending classes in college. When we go to the genesis of the problem, we come to know that the reasons are different but the insecurity in terms of securing job makes them rather nervous. Being teachers of this college we guide our students and boost up them so that they would come out of this state and teachers would be happy that the students come to college not merely for attending the classes but for broadening the horizon of their knowledge. In a nut shell the admission monitoring committee has accepted their assignment not merely as a formality but to create intimacy between the teachers and students.

#### **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 Committee during the academic year 2010-2011.

#### **Chemistry Department:**

- The Department has undertaken many activities with 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.
- Students of B.Sc.III year along with staff members of Department visited Sewage Treatment Plant at Bhandewadi to aware about the treatment given to the drainage water and utility of recycled water for irrigation purpose and also the use of sludge as manure Students were also acquainted with some modern technique use for purification of water
- Staff members of the Department and students visited the slum area to aware the people about hygiene and purification of water
- Department organized Poster competition on, *Water conservation and its management*. They present useful information about different methods of water conservation and its management.
- Department of chemistry celebrated National Science Day on 28<sup>th</sup> February 2011. Popular talk on Bottled water by Dr.G.S. Natrajan was oaganised on that occasion. Students and faculties were actively participated in YUWA Mahotsaya

- One of our staff member conducted N.S.S. Camp near Fetary District Nagpur. In that, various Activities were conducted such as tree plantation, Blood Donation Awareness programme on Swine Flue and Vasayan Mukti

### **Geology Department:**

Department of Geology runs the following activities:

- Organized Rainwater Harvesting Awareness Workshop
- Introduced vocational Job-oriented subject “Geo explorative and drilling technology”
- Introduced certificate course, Diploma and Advanced Diploma on Hydrocology”
- Conducts student’s seminars.
- Counseling and guidance for further studies and competitive Examination.
- Organized various activities such as quizzes, competition, Wall magazine (Explorer) Group discussion, students display written articles, photos, news items. Etc.
- Students along with faculties of the Department visited to various Geological Institutes.
- Under the Geological Society, Department arranged “Geofest 2010” during YUVA MAHOTSAVA. Geofest 2010 was held on 23<sup>rd</sup> December 2010 and ingrates by Mr.K.K.K.Nair, retired D.D.G.Geological survey of India center Region Nagpur.
- Intercollegiate seminar and quiz competition was agganged with the collaboration of P.G.Department of Geology of RTM Nagpur University Nagpur. Prof. D.B.Malpe and Prof.Pradeep Kundal guided to the students.
- Arranged the guest lecture by Alumni of the Department Shri.Amol Nakhale presently working in schumberger HER Division, India.
- Visit to Maharashtra Remote Sensing Application Centre, Nagpur, Raman Science centre.
- Arranged flurosis Awareness programme on 13<sup>th</sup> November 2010 at Pisdura village.
- Arranged Geological field Excursion on 16<sup>th</sup> – 19<sup>th</sup> December 2010 at Pachmadhi and on 4<sup>th</sup> January 2011 at Parshioni.
- Under student exchange programme students from Gurunanak College of Science Ballarpur visited to the Department. Faculties of the Department guided to the students.
- Organized students interactive session for B.Sc.I students on the topic “If there would not have been soil” on the occasion of Gandhi Jayanti 2<sup>nd</sup> October 2010.
- Under the guidance of faculties, students of B.Sc.II, Shri. Prafulla Vairagade submitted the project of KVPY, IISC, Banglore.
- Students and faculties of the Department were attended workshop and National Conference and Seminars.
- Students of the Department were donating the blood the Blood bank for needy and poor persons.

### **Electronics Department:**

Department reflecting activities are as follows.

- To impart quality education to students.
- Linking education to emerging earlier pattern.
- To developed skill in hardware engineering and electronics.
- Ensuring optimum utilization of faculty.
- Making education more students centric.



- Students of the Department participated in blood donation, sport, science, arts, exhibition in YUVA MAHOTSAVA.
- Department has organized the teacher seminars, students seminars and farewell function for students.

#### **Mathematics Department:**

- Department organized intercollegiate Mathematics Quiz Competition on 4<sup>th</sup> Jan 2011. Total 21 terms of different colleges been participated in this competition inaugurated by Dr.T.M.Karade Ex Dean And Head PGTD RTM Nagpur University Nagpur and presided over by Dr.D.K.Burghate Principal of this college.

#### **Zoology Department:**

- Department was arranged Pollution awareness programme was held in slum areas on 15<sup>th</sup> September 2010.
- SODIS, Vermicompost, Vermiwash and Water Conservation awareness programmes were arranged by Zoology Department visited various slum areas of Nagpur city under the guidance of Dr. S. V. Ghonmode and Dr. A.D. Bobdey. Students also participated in the Street play to make aware about the importance of the above said projects.
- Chikungunea, malaria, filaria, Dengue awareness programmes were held in slum areas near Chunabhatti, Sarvatra Nagar and Ambika Nagar. Guppy fishes and information leaflets were distributed.
- AIDS awareness week was celebrated in the Department by displaying the charts, posters and some news paper cuttings to make aware about the dreadly disease. Street play was also organized by the students among public to spread about the knowledge of the disease. AIDS poster competition was also organized in the Department of Zoology for the B.Sc. students.
- Students of B.Sc. participated in one month certificate course organized by Sericulture Department, Biological Pest Management Control Board, Nagpur.
- Teachers participated in International Marthon Rally on account International Non violence Day on 31<sup>st</sup> January 2011.
- The Department also arranged essay competitions on the topics from their syllabus this inculcated skill of writing amongst them. The Department distributes prizes, mementoes & Certificates to the winner students to motivate them to participate in more number.
- Department arranged study tours to fish farm Pench, (Sivni), sericulture(Nagpur, Daudipar), apiculture(Wardha, Kamptee) and National Parks(Pench, Tadoba, Nagzira, Melghat) to study fauna in artificial and Natural environment. They also visited Mahabaleshwar, Chikhaldara, Ghodazari, Panchmari Salbardi, Malaria & Filaria Centre, Central Museum, Raman Science Park and Regional forensic Laboratory, Nagpur.
- The college has organized 112<sup>th</sup> Birth anniversary of Dr. Punjabrao alias Bhausaheb Deshmukh. The students of B.Sc. I, II and III actively participated in the exhibition like arts, rangoli, science etc. They also participated in blood donation camp organized by Department of Microbiology.

#### **Botany Department:**

- Department of Botany was organized various activities to motivate the students for the intellectual enlistment of the students
- The students have prepared herbarium and field diary of the plants collected and observed them during excursion tour around Nagpur district.

- Every year Educational tours are arranged 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 visited to Bore Forest, Dist. Wardha and Salbuldi, Dist. Amravati.
- Students of B.Sc. III along with staff members of Department visited to Department of Biosciences and Biotechnology, R.D.V.V. Jabalpur, M.P. The students studied about the various equipments & techniques related to Biotechnology and Plant Tissue Culture.
- Botanical Garden and beautiful landscapes of the college is developed and maintained 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.
- Tree plantation is done in the college premises by the students and staff members of Department and college.
- Department organized demonstration and training on Flower arrangement. Students were given training on various types of flower arrangements.
- Department organized lecture By Dr. Suresh Chari, Renowned Career Counselor of the city for the students of the Department.
- Students and faculties of the Department actively participated in the **Science Exhibition** organized in the college during **Yuva Mahotsava** celebrated as birth anniversary of Dr. Panjabrao alias Bhausaheb Deshmukh. from 22<sup>th</sup> & 27<sup>th</sup> December-2010.
- On the eve of Raksha Bandhan Eco-friendly Rakhi exhibition was organized successfully. The Eco-friendly Holi also organized successfully by preparing herbal colors from various plant parts.
- Students also participated in various activities like Presentation of medicinal plants, intercollegiate seminar and Poster competition.

#### **Language Department:**

- Language Department enhancing communicative and writing skill of the students. Department organized elocution, essay writing, debate competition, guest lectures and seminar to create awareness about various competitive Examination among students to personality development and various cultural and social issues.
- Essay competition held on 15<sup>th</sup> July 2010 on a topic Impact of pollution exposition on environment
- A personality development programme was organized on 8<sup>th</sup> November 2010. J.C. member and past president of J.C. wing Mrs. Suman Tiwari Guided to students on enriching there personality and effective public presentation.
- One day workshop on “Speaking skill and confidence building was organizing on 12<sup>th</sup> December 2010 in collaboration with Dr. Panjabrao Deshmukh Career development and guidance cell.

#### **Microbiology Department.**

- The Department was organized the Blood Donation Camp on 112 birth Anniversary of dr Bhausaheb Deshmukh held on 22<sup>nd</sup> December 2010 in Laboratory of Geology Department.
- Students and staff member of the Department were activity participated in science exhibition and YUVA Mahotsav also intercollegiate quiz and seminar competition.
- Department was organized international conference with collaboration of Dr Ambedkar collge & Sindhu Mahavidyalay Nagpur. on 13<sup>th</sup> and 14<sup>th</sup> January 2011.

- Department was arranged the intercollegiate students seminar and Quiz Competition. Department was organized continuous medical education on leprosy by LEAP foundation Nagpur.

#### **Statistic Department:**

- The Department of statistic constructs the activities such as serves, projects and workshops for the students to rain forcing the knowledge.
- The Department arranged the workshops on TORA for B.Sc.III year students, Corruptions in Indian mind, Tiger Population in India and Mobile Phones an intensive study.

#### **Women Cell**

- The year started with a Get-together program organized to welcome new girl students and felicitate new achievers at girls hostel.
- Guest lecture on “Thoughts of Vivekanand” and book exhibition was organized in association with Vevekanand Kendra, Nagpur.
- Three day workshop on “Aerobics for Health” was conducted by Mrs. Kalpana Pandey, PTI, Modern School, NGP. The Program was further extended for Dance Aerobics.
- Women cell celebrated Birth Anniversary of “Savitri bai Phule Birth Anniversary on 3<sup>rd</sup> January 2011.
- Members of the women cell also celebrated “Basant Panchami Utsav” and organized Yellow matching competition for Ladies and students of the college.
- “Soch Ka jadoo” was the training program organized by the cell. Dr. Kalpana Date, HR Trainer and Asst. Prof. at Lata Mangeshkar Medical College.
- International womens day was also celebrated in association with Women cell Dhanwate National College. Dr. Mrs. M. Fadnavis delivered lecture on” Managing personal and Priffessional Roll”.
- Ms. Ketki Agasti B.Sc. II year student was selected for RD Parade and awarded as best Cadet in Air Force.
- Ku. Rohini Nimbeker bagged 1<sup>st</sup> Prize in Poster competition in National conference at Jabalpur, M. P,
- Girl Students participated in various activity Like Inter and Intra collegiate Poster, Rakhi, Science exhibition Talent hunt, etc.
- Ku. Neha bagged 3<sup>rd</sup> position in Inter collegiate Personality contest organized by JCI Nagpur Central.
- Dr. Mrs. Punita Tiwari and Dr. Mrs. Jaya Kodate attended UGC, SAM Work shop,at NGP.
- Mrs. Yogita Meshram, Dr. Mrs. Punita Tiwari, Dr. Mrs. Ghonmode, Dr. Mrs Puranik, Dr. Mrs Dwivedi, Dr. Mrs Kodate published paper in National Conference on “Motivation and Self confidence”.

#### **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) Prof. D. W. Khade - Member
- 3) Dr. D. C. Sindhimeshram - Member
- 4) Prof. R. Y. Deshmukh - Member
- 5) Prof. R. N. Deshmukh - Member
- 6) Dr. L. B. Hirulkar - Convenor

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 live life. 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 the 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.

**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 and Amravati 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 110<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 2008.</li> <li>• A Guidance cell was established in the Department for motivating students to appear at various competitive Examinations.</li> </ul>
Microbiology	Department of Microbiology has submitted a Major Research Project to U.G.C, New Delhi and Rajiv Gandhi Science and Technology Commission Mumbai.
Physics	The Department was selected for the development under CPE scheme of UGC and received a grant of Rs 7.00 Lacs for instruments

	<p>and infrastructure developments during the XI<sup>th</sup> plan. Upgraded Sophisticated instruments Laboratory and Computer Laboratory.</p>
Zoology	<ul style="list-style-type: none"> <li>• 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 &amp; Biodiversity by Dr. Sawarkar. Sericulture by Dr. M. Rai &amp; Dr. Rathod (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 <i>Antheraea mylitta</i> and Shri Nikhade CTRTI Dawdipar, Bhandara on preparation of tassar silk fibre.</li> <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> </ul> <p><b>Interdisciplinary Extension activity</b></p> <ul style="list-style-type: none"> <li>▪ Vermicompost, Vermiwash, SODIS &amp; Water conservation for farmers &amp; Villagers 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 dreadful disease. Street Plays and Stage Drama were also organized by the student to spread the awareness among the students and public.</li> </ul> <ul style="list-style-type: none"> <li>• The students collected agricultural, medical and beneficial insect fauna of Nagpur city under Biodiversity Strategy.</li> <li>• “Science Society” was inaugurated at the hands Dr. Suresh Chari, Director Lata Mangeshkar Medical College, and of Human Resource Development, an eminent personality in the field of medical biochemistry and management, Nagpur on 11<sup>th</sup> December 2010. Mementoes were distributed to the students scoring highest marks in B.Sc. I, II and Final at the hands of the</li> </ul>

	<p>chief guest.</p> <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>▪ National conference on Recent Trends in Bio-Geo Sciences (RTBGS-10), organized by Department of Botany and Geology, held at Shri M. Mohota Science College, Nagpur on 14<sup>th</sup> October 2010.</li> <li>▪ UGC sponsored national symposium on Invertebrates for Biomonitoring of Ecosystem and Health, organized by, Department of Zoology, Hislop college, Nagpur, on 17 to 18<sup>th</sup> January 2011.</li> <li>▪ UGC sponsored national symposium on Environment and Human Rights, organized by Mohota Science, Nagpur, in technical collaboration with NEERI, Nagpur on 20<sup>th</sup> January 2011.</li> <li>▪ UGC sponsored state level seminar on Motivation and Self confidence organized by Department of physical education, Purusottam Khaparde health and education society, Yashoda girls Arts and Com College, Nagpur on 24 to 25<sup>th</sup> February 2011.</li> <li>▪ UGC sponsored national conference on Nanoscience and Technology on 21 to 22 February 2011 organized by Department of physics, Shri Shivaji Science College, Nagpur.</li> </ul> <p><b>Dr. A. D. Bobdey</b></p> <ul style="list-style-type: none"> <li>▪ National conference on Recent Trends in Bio-Geo Sciences (RTBGS-10), organized by Department of Botany and Geology, held at Shri M. Mohota Science College, Nagpur on 14<sup>th</sup> October 2010.</li> <li>▪ UGC sponsored state level seminar on Recent Trends on Global Environmental Issues, organized by Department of chemistry and botany, shri Shivaji College, Akot on 14<sup>th</sup> January 2011</li> <li>▪ UGC sponsored National seminar on Biodiversity and its Conservation: Need of the Day, organized by Department of zoology, shri Shivaji College. Akot on 15<sup>th</sup> January 2011.</li> <li>▪ UGC sponsored national symposium on Invertebrates for Biomonitoring of Ecosystem and Health, organized by, Department of Zoology, Hislop College, Nagpur, on 17 to 18<sup>th</sup> January 2011.</li> <li>▪ UGC sponsored International seminar on Biodiversity and Aquatic Toxicology, organized by Department of zoology, Acharya Nagarjuna University, Guntur, (A.P.) on 12<sup>th</sup>, 13<sup>th</sup> and 14<sup>th</sup> Febuary 2011.</li> <li>▪ UGC sponsored national conference on Nanoscience and Technology on 21<sup>st</sup> and 22<sup>nd</sup> February 2011 organized by Department of physics, Shri Shivaji Science College, Nagpur.</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> </ul>

- National Journals - 18
- Magazines & periodicals - 24
- No of CD'S - 835

• Online DOAJ Free access journals.

#### **Statistics of Use of Library Facilities**

- Books issued per Day - 208
- Average No of users per Day - 218
- Average No. of users per day- 99
- Average No. of Internet users per day- 25 To 28

#### **Library Automation**

Automation of College Library

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

#### **Learning Resources**

- Reading Room
- Automated Library Services
- Computer Facility with Broad –Band Internet Connectivity
- Dr Panjabrao Deshmukh Carrier Development Academy
- OPAC ( Online Public Access Catalogue)
- Discovery Channel CD-ROM
- Competitive Books and CD-ROM
- Personality Development Books and CD-ROM
- Open Access Journals
- Access to Open Access Resources, 6271 e-journals [www.doaj.org](http://www.doaj.org), 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.

#### **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



	<ul style="list-style-type: none"> <li>• Internet service (Broad- Band)</li> <li>• E-services ( E-section having 835 CD's)</li> <li>• Photocopy services</li> <li>• Current awareness service</li> <li>• Regular Information Literacy Programme</li> <li>• Special Facilities to Merit and Weaker, Poor and Disadvantaged Students.</li> <li>• Regular Orientation Programmes for Students.</li> <li>• Dr. Panjabrao Deshmukh Career Development Academy</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

Students –

- The students prepared charts and models related to various topics and were displayed in Laboratory and during science exhibition.
- Job oriented course in Floriculture and Landscape Gardening like vegetative propagation, budding, preparation of soil, filling of pots, flower arrangement etc .is implemented by giving training in nursery and in college botanical garden.
- 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 – 1. Environmental studies (B.Sc. II year students) 2. Utilization of plants (B.Sc. final year students) 3. Plant morphology (B.Sc. II year students.)
- Training Program on Tissue culture Techniques was successfully carried out for the students of B.Sc. III year under the guidance of Dr. Mrs. P. S. Tiwari.
- Students along with Dr. (Mrs.) S. D. Puranik successfully carried out a project - “Edible Mushroom culture and its marketing”.
- Students prepared various projects under the title 1) Diversity in Plant Morphology 2) Different methods of vegetative propagation as a part of B.Sc. second year syllabus.
- Every year on the occasion of late Dr. Panjabrao Deshmukh birth anniversary celebration, student actively participate in science exhibition, quiz contest, elocution, debate, rangoli, art exhibition, tree plantation, campus beautification and social awareness activity.
- Department has organized botanical excursion of student to study biodiversity around Nagpur city area.
- B.Sc. Final year students visited Bioscience Department, Jabalpur. (M. P.)
- The staff members of the Department provided guidance and counseling to the weaker and needy students as regular Departmental activity.
- Inauguration of Science Society (Botany, Zoology, Microbiology, Biotechnology, Chemistry.) at the hands of Dr. Suresh Chari, Renowned and Senior counselor of Nagpur. He spoke on “Importance of soft skill in career”.
- Received funds from UGC, Pune, for two Minor Research Projects.
  - Invitro propagation, Genetic manipulation and Phytochemical studies in some numbers of family Leguminosae. Amount sanctioned Rs. 1, 60,000 = 00; received Rs. 1, 30,000 = 00.
  - Investigation and exploration of fossiliferous Localities from M. P. and Vidarbha. Amount sanctioned Rs. 1, 10,000 = 00; received Rs. 82,000 = 00.

## II Department of Bio-Technology

Outcome

- U.G. Biotechnology Laboratory has been conveniently strengthened by procuring Sophisticated equipments viz. Primostar microscope
- Plant Tissue Culture Laboratory has been established.
- Instrumentation room has been established.

- Academic calendar for session 2010-2011 was meticulously planned during staff meeting.
- Biotechnology Society was inaugurated by the hands of Dr. Suresh Chari, Professor, Lata Mangeshkar Medical College, Nagpur.
- Meritorious and distinction class students were felicitated during inaugural function of Biotechnology society.
- Guest lectures were arranged to enrich the knowledge of students.
- Student's 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.
- Inter collegiate working model and poster competition "VISION BIOTECH" was arranged on 24<sup>th</sup> and 25<sup>th</sup> December 2010.
- Kerala tour was arranged from 17<sup>th</sup> to 23<sup>rd</sup> November 2010.
- Students were guided for various P.G. Entrance Examinations, various competitive Examination in life sciences.
- An Institution visits were arranged to Central Institute of Cotton Research (CICR) and Forensic Laboratory, Nagpur.
- 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. Biotechnology.
- Parent teachers 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 PC controlled UV-Visible spectrophotometer (Shimadzu UV-1800), The PC controlled spectrofluorophotometer (RF-5301) and Impedence analyzer (Agilents) has been purchased under the UGC Innovative programme grant.
- The self-prepared printed notes were distributed to the students.
- Certificate course in water analysis has been started with good response of 15 students. Last year student submitted their project reports on water analysis of the various location of Nagpur city and surrounding area. Mrs. Y.K Meshram was coordinator.
- Chemical society was inaugurated and Guest lecture was organized under the banner, chemical society on Chemical Behaviors of microbes.
- Department organized Essay, poster and elocution competition on Environment, water and forest conservation. The selected students were sent to inter-collegiate

competition organized by Social Forestry, Maharashtra Government to create awareness about conservation of environmental elements.

- The Department of chemistry hoisted a two day National Conference on “Advanced Materials and Technology” on 29<sup>th</sup> – 30<sup>th</sup> December 2009. About 250 delegates participated in this conference. The subject was of utmost importance in the relevant national context which was indeed memorable occasion in the History of this institution.
- Special coaching has been given to poor students to prepare competitive Examination. Class counseling for average and below average students had conducted in the Department to motivate them and increase their interest in the subject.
- One Major Research Project, one innovative programme is ongoing and two new minor research projects are ongoing.
- Every year in December, college organizes the science exhibition in the Yuva Mohotsava. Students actively participated in this exhibition by making models and charts. Some staff members are actively involved in research activities .Ten students are pursuing research under the supervision of Dr. Thakare, Dr. Khope, Dr. Utale.
- The Unit test and Surprise test are regularly conducted and results are analyzed.
- Extension Activities:
  - **Visit to sewage treatment plant**  
Students of B.Sc. III year along with staff members visited Sewage Treatment Plant at Bhandewadi to make them aware about the treatment given to the drainage water and utility of recycled water for irrigation purpose and also the use of sludge as manure. Students are also acquainted with some modern technique used for purification of water.
  - **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 students and parents of the college.

## 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 viz. 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 2010-11 was done at the hands of Dr. Suresh Chari GMC 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 personals from
  - IBM Zensoft, Pune,

- etrix solutions, Nagpur
  - Ascent Transcription Services (India)
  - Ask India, Nagpur.
  - Infosys Software, Pune
  - SEED software, Nagpur
  - At Bangalore:     Visvesvaraya Industrial and Technological Museum  
                          Centre for Development of Telematics (C-DOT)  
                          Hindustan Aeronautical Limited (HAL)  
                          COAST Guard at Cochin
  - Surprise tests were conducted by the teachers for B.Sc. Part-I, II and III classes individually.
  - Students Seminar was 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 2010 to 7<sup>th</sup> September 2010 and seminars of MCA were conducted from date 12<sup>th</sup> August 2010 to 14<sup>th</sup> August 2010.

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 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 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
20-10-2010	09.00 AM to 12.00 PM
22-10-2010	09.00 AM to 12.00 PM
24-10-2010	09.00 AM to 12.00 PM
27-10-2010	09.00 AM to 12.00 PM
29-10-2010	09.00 AM to 12.00 PM

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

Date	Time
21-09-2010	09.00 AM to 12.00 PM
23-09-2010	09.00 AM to 12.00 PM
26-09-2010	09.00 AM to 12.00 PM
28-10-2010	09.00 AM to 12.00 PM
30-10-2010	09.00 AM to 12.00 PM

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

Date	Time
07-03-2011	10.00 AM to 01.00 PM
08-03-2011	10.00 AM to 01.00 PM
09-03-2011	10.00 AM to 01.00 PM

10-03-2011 10.00 AM to 01.00 PM  
 11-03-2011 10.00 AM to 01.00 PM

- **Industrial/Excursion visits**

M.C.A. Part-I and M.C.A. Part-II students visited the various places from 2<sup>nd</sup> - 10<sup>th</sup> March 2011.

Cochin : At Coast Guard

Bangalore : Visvesvaraya Industrial and Technological Museum  
 Centre for Development of Telematics (C-DOT)  
 Hindustan Aeronautical Limited (HAL)

- **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.

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

**Internet:**

Extension of Internet and Computer facility –Broadband internet facility of 512 Kbps 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 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	01 Accepted
R.N. Jugele	04	--
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)
- College Admission System
- Result Processing System

- **Remedial Coaching**

Special guidance was given to the students who are weak in subject.

- **Felicitation of meritorious students**

On the occasion of inauguration Computer Science Society the distinction holder students of B.Sc., M.Sc. and M.C.A. in Computer Science were felicitated.

<b>B.Sc. Part-I</b>				
Ku.	Pranita M. Hedaoo	114	PCSM	
Ku.	Arti G. Bhawnani	113	SCSM	
<b>B.Sc.Part-II</b>				
	Atish M. Gour	116	PCSM	
Ku.	Vrushali S. Bhusari	124	SCSM	
Ku.	Ashwini R. Lalke	121	ECSM	
<b>B.Sc. Final</b>				
Ku.	Praveena Singh	119	PCSM	
<b>M.Sc. Part-I</b>				
Ku	Rohini S Bhagat	75.00	Pass	1 <sup>st</sup>
Ku	Vinita R Shrivastava	73.00	Pass	2 <sup>nd</sup>
Ku	Divya P Kanoongo	72.80	Pass	3 <sup>rd</sup>
Ku	Preeti S Soni	72.60	Pass	4 <sup>th</sup>
Ku	Pooja D Kavishwar	72.00	Pass	5 <sup>th</sup>
<b>M.Sc. Final</b>				
	R. J. Rao	71.40	Pass	1 <sup>st</sup>
	G. G. Toye	65.60	Pass	2 <sup>nd</sup>
	A. K. Mandal	64.30	Pass	3 <sup>rd</sup>
	A. J. Thakur	64.00	Pass	4 <sup>th</sup>
	H. S. Dharamkar	63.10	Pass	5 <sup>th</sup>
<b>M.C.A. Part-I</b>				
	Harsha N. Ghadge	72	Pass	1 <sup>st</sup>
	Swati U.Jaiswal	70	Pass	2 <sup>nd</sup>
	Mangesh s. Kherdekar	69	Pass	3 <sup>rd</sup>
	Pranali D. Bhende	69	Pass	4 <sup>th</sup>
	Vijay C. Shegokar	69	Pass	5 <sup>th</sup>
<b>M.C.A. Part-II</b>				
	S. S. Chepe	73.38	Pass	1 <sup>st</sup>
	S. D. Bhasme	73.13	Pass	2 <sup>nd</sup>
	A. W. Sadarang	72.13	Pass	3 <sup>rd</sup>
	P. M. Gahalot	71.88	Pass	4 <sup>th</sup>
	K. G. Bakade	71.5	Pass	5 <sup>th</sup>
<b>M.C.A. Final</b>				



	B. Kumar Sinha	73.71	Pass	1 <sup>st</sup>
	T. G. Bakde	72.8	Pass	2 <sup>nd</sup>
	S.M. L. Naidu	72.53	Pass	3 <sup>rd</sup>
	A. M. Tamgadde	71.64	Pass	4 <sup>th</sup>
	H. T. Dumbhare	70.13	Pass	5 <sup>th</sup>

- **Ph.D. Award: Dr. M. P. Dhore**, Assistant Professor, has been awarded Ph.D. in Computer Science by Sant Gadgebaba Amravati University, Amravati vide notification dated 5<sup>th</sup> February 2011. The topic of his Ph.D. work was “Document Analysis : A Text Based Approach” and was guided by Dr. K.V. Kale, Professor & Head, Department of Computer Science & Information Technology, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

## 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 .P.P.kotecha B.Sc.(Final) has delivered seminar on “Instruction set of Intel 8085”
2. Ms. A.K.Zoldeo B.Sc.(Final) has delivered seminar on “Microcontroller”
3. Ms Bincy Baboo B.Sc. (Final) has delivered seminar on “PPI”
4. Ms. A Lalke B.Sc. (Final) has delivered seminar on “Microprocessor 8086”

### Teachers’ Seminar-

1. S. C. Moholkar delivered talk on Physiological Transducers.
2. D. W.Deshkar delivered talk on Digital Multimeter.
3. M. J. Hedau delivered talk on Regulated power supply

- 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 about 85 % of the plan of action

## VI Department of Geology

### Outcome

- Two Geological Field Excursions were organized
- One Guest Lecture by Alumni was arranged
- Students' Visits to Maharashtra Remote Sensing Application Center, Nagpur & Raman Science Center, Nagpur
- Organisation of Geofest 2010
- Organisation of Students' Interactive Session on topic "If there would not have been soil"
- Total four trainings undergone by teachers
- Total Seven Academic events of Symposium, Seminar and workshops were attended by teachers.
- Four research publications and Three Presentation were made at national seminar / symposium by the teachers of the Department
- One Ph.D. thesis submitted and Three Ph.D. Students registered
- Community services through awareness programmes & activities viz. Blood donation, conducted
- Back volumes of Journals have been got bounded for Departmental library.
- Recognition of Best student of the Department has been launched from this year. Mr.Pranay Bawangade of B.Sc.III was winner of the same.
- One on-going Minor research project funded by UGC.
- Three BSc II students and one B.Sc.II student got Distinction in R.T.M. Nagpur University Examination, Summer, 2010.

## VII Department of Mathematics

### Outcome

- This year Mathematical Society was constituted as a part of "Science Association", on 11<sup>th</sup> December 2010 at the hands of renowned personality Hon'ble Dr. Chari as a Chief Guest and Principal Dr. D. K. Bughate presided over Inaugural Function. This year Mathematical Society has organized Inter-Collegiate Mathematics Quiz to inculcate awareness about Mathematics among students, to increase interaction between teachers and students, for career guidance in Mathematical and Applied fields.
- Our students participated in the Science Exhibition of "Yuva Mohotsav", of our college during 24<sup>th</sup> -25<sup>th</sup> December 2010.
- On the Eve of 112<sup>th</sup> Birth Anniversary of Dr. Panjabrao alias Bhausaheb Deshmukh and YUVA MAHOTSAVA – 2010, an Inter-Collegiate Mathematics Quiz Competition was held on 4<sup>th</sup> January 2011, in which in all 21 teams consists of 63 participants from different colleges of RTM Nagpur University area have been participated. Host team of Shivaji Science College, Nagpur represented by
  1. Girish Dorkhande B. Sc. III
  2. Ankush Raje B. Sc. II
  3. Amar Banerji B. Sc. IBagged the First Prize and the Running Shield.  
Team of the S.F.S. College bagged Second Prize of First Runner-Up Team.

Teams of S. F. S. College, Nagpur bagged Second Prize and Third prize along with Best College Team prize. Also the consolation prize was given to the team of Hislop College, Nagpur.

This Competition was inaugurated by Dr. T. M. Karde, Ex. Dean and Ex. Prof. & Head, PGTD, RTM Nagpur University, Nagpur and presided by Dr. D. K. Burghate, Principal, Shivaji Science College, Nagpur along with Vice-President NUMTA Ex. Head Prof. Nikhade, Guest of Honour and Prof. Rishi Agrawal, Secretary NUMTA.

On this occasion, all the distinction holder students in mathematics in the University Examinations of Summer 2010 were felicitated at the hands of Chief Guest, Guest of Honour and President of the function by presenting the Mementoes and certificates of appreciation,

Prof. Mrs. U. Datta, Ex. President of NUMTA and Ex. Prof. Vyavahare distributed the prizes to winners of Quiz Competition in Valedictory function.

Our student of Ms. Pranita Hedadoo (B. Sc. II) won the first prize of Inter-collegiate Mathematics Seminar Competition organized by Hislop College, Nagpur in collaboration with NUMTA held on 19<sup>th</sup> January 2011.

## VIII Department of Microbiology

### Outcome

- Existing U.G. Laboratory was upgraded by procuring sophisticated instruments.
- Heads Cabin was renovated.
- A diploma course titled Wine technology and Fruit Processing was started.
- Approval for Central Research Laboratory is under processing.
- Academic calendar for session 2010-11 was meticulously implemented.
- Twenty two dissertations of M. Sc Final Year students were completed successfully.
- One project was sanctioned approximately costing sixteen lacs under women scientist scheme of DST.
- Three projects sanctioned last year under women scientist scheme of DST are ongoing.
- Blood donation Camp on birth anniversary of founder president Dr Punjabrao Deshmukh 26<sup>th</sup> December 2010 was organized with overwhelming response from staff and students.
- Microbiological Society was formed and meritorious students were felicitated.
- Guest lectures were organized.
- Students' seminars were arranged.
- Periodic tests and group discussions were conducted to evaluate students.
- Seminar was arranged to guide students for various P.G. Entrance Examinations.
- Students actively participated in Science exhibition.
- Parent-teacher meetings were organized.
- Departmental meetings for teaching staff were organized.
- Intercollegiate quiz competition for UG and PG students was organized.
- Intercollegiate seminar competition for UG and PG students was organized.
- Student's feedback about Departmental facilities and teachers was taken.
- International conference in collaboration with Dr. Ambedker College and Sindhumaha Vidyalay was successfully organized.

- One student was awarded P.h.d.degree by RTM Nagpur University Nagpur under the guidance of Dr. A. V. Gomashe.
- Two days workshop for PG students on Continuous medical Education on Leprosy was organized.
- Education tour to Goa was organized.

## IX Department of Physics

### Outcome

- “P. G. Diploma (one year) in Nano-technology”, a P.G. course 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 and III 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 five computers of latest configuration. 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 “Yuwa Mahotsav”.
- 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 level seminars and conferences and published research papers / abstract in the proceedings.
- Faculty members of the Department published research papers in the reputed journals.
- The proposal to start M. Sc. Physics course was submitted to Government of Maharashtra through RTM Nagpur University.
- Major research project entitled “Synthesis, Characterization and Properties of Advanced Materials Conducting Polymers Nanocomposites” sanctioned by UGC is in progress.
- 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.
- Atish Gour III<sup>rd</sup> year student won 2<sup>nd</sup> prize in Vidarbha level Student’s Seminar Competition in Physics organized by Vidarbha University Physics Teachers Association (VUPTA), at Kamla Nehru College, Nagpur on 25-26 Dec.2010 Mr. Ashish Deshmukh from II<sup>nd</sup> year has cleared the screening test in the same event.
- Two of our students **Vishwajeet Gaikwad** and **Ajay Fulbandhe** secured **Fifth** and **Sixth merit position** respectively in **Summer 2009**, B.Sc. Examination of R.T.M. Nagpur University. Congratulations to both them.

- One of our B.Sc.II student Ashish Deshmukh after submission and evaluation of his project has been selected to appear for an interview to pursue **Science Research as a Career by Kishor Vaigyanik Protsahan Yojna 2010** under the aegis of Indian Institute of Science Bangalore. He has given personal interview in February, 2011. The college wishes him success in his endeavour.
- An invited talk of Dr. S. J. Dhoble, Associate Professor P.G.T.D. R.T.M.Nagpur University was arranged on **Effect of Nano Particles on Thermoluminescence Dosimetry** on 23<sup>rd</sup> January 2011. He has guided the students on the topic of Nano Science & Technology.
- The Department has organized **National Conference on Nano Science & Technology** on 21<sup>st</sup> -22<sup>nd</sup> February 2011. The UGC has given a grant of Rs.80,000/- for the purpose. About 200 delegates from Maharashtra and other states attended the conference. Dr. S. B. Khasare was the Convener while Prof. H. K. Dahule was the Organizing Secretary. The conference was inaugurated at the hands of Hon'ble Dr. V. S. Sapkal Vice Chancellor RTM Nagpur University and presided over by Hon'ble Dr. S. T. Deshmukh, former Vice Chancellor of SGB Amravati University and present Director of Ramdeobaba Kamla Nehru Engineering College Nagpur. Dr. Mushahid Husain, Professor Jamia Milia Islamia University New Delhi delivered Key Note address. Invited talks were delivered by Dr. P. D. Sahare Department of Physics and Astrophysics Delhi University, Dr. R. B. Pode Kynug Hee University, Seoul, Korea. Dr. D. R. Peshwe Professor VNIT, Nagpur, Dr. R. M. Patrikar Professor VNIT Nagpur, Dr. S. V. Moharil Professor and Head, Department of Physics RTM Nagpur University. The conference concluded by Valedictory Address of Hon'ble Dr. S. V. Mohril. Dr. B. B. Taywade Principal D.N.C. Nagpur presided over the function. Best poster presentation and best oral presentation awards were given on this occasion. Dr. P. V. Khandekar, Dr. D. K. Kulkarni, Dr. K. G. Rewatkar acted as judges.
- On the occasion of National Conference on Nano Science and Technology delegates from different states, senior researchers, physicists and academicians, and dignitaries Hon.ble Dr. V. S. Sapkal, Hon'ble Dr. S. T. Deshmukh, Dr. Mushahid Husain, Dr. P. D. Sahare, Dr. R. D. Pode, Dr. D. R. Peshwe and Dr. R. N. Patrikar visited the Physics Department.
- Principal Dr.D.K.Burghate visited Abant Izzet Baysal University Turkey for attending International Conference on Astrophysics. He signed MOU with the University for Research cooperation between the institutions. He published five research papers in National Conferences.
- **A Major Research Project** entitled "Fabrication of Solid State SO<sub>2</sub>/SO<sub>3</sub> Electrochemical Gas Sensors" submitted by Dr. S. W. Anwane is sanctioned by UGC. The Department has received a grant of Rs. 2, 73,000/- for this purpose.
- **A Minor Research Project** entitled "Interactive Physics by Simulations" submitted by Dr. S. W. Anwane is being carried out 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. 1, 65,000/- 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 sanctioned by UGC with a funding of Rs. 1.20 Lacs.
- Dr. S. W. Anwane published and presented two research papers in conference/seminar. He has delivered **expert lecture on EMF** at Pankaj Laddhad Institute of Technology, Buldhana (M.S.)
- The Department has received grant of Rs.7.0 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 D. W. Khade Head Department of Physics and NAAC Coordinator of the college visited Mohta Science College, Nagpur and Nilkanthrao Shinde Arts & Science College, Bhadravati (Chandrapur) and conducted **Mock Visit** to oversee preparation of NAAC reaccreditation of these colleges.
- Prof. H. K. Dahule published and presented five research papers in National Conferences and three research papers were communicated to International journals.
- 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, Servicenet, Patni Computers, and Octave etc.
- The college has submitted proposal for starting M. Sc. in Physics from the session 2011-12. The sanction is awaited.

- **Research Output (10-11)**

**Dr.S.W.Anwane**

**National Conferences( Research Papers)**

- 1.“Lattice Distortion Related Ion Conduction Mechanism in  $\beta$ -Li<sub>2</sub>SO<sub>4</sub>” K.Singh, S.W.Anwane and 2.“Yttrium Substituted Silver Sulphate Suitable for SO<sub>2</sub> Gas Sensors”, S. W. Anwane at National Conference on Nano-Science and technology, organized by Shri Shivaji Education Society Amravati’s Science College, Nagpur. (21<sup>st</sup> -22<sup>nd</sup> February 2011).

**H.K.Dahule**

**National Conferences (Research Papers)**

1. “Photoluminescence of red phosphorescent iridium (III) quinoline complexes” H. K. Dahule, S. J. Dhoble and R. B. Pode.- National Conference on “Synthesis of Advanced Materials and Their Applications” (Proceeding-SAMA 2010) organized by N. H. College, Brahmपुरi.
2. Highly efficient phosphorescent- bis-cyclometalated iridium complex based on methyl-substituted 2,4 diphenyl quinoline ligand” H. K. Dahule, S. J. Dhoble and R. B. Pode.-National Conference on Novel Materials and Their Applications” (Proceeding-NCNMA-2010/108-113) organized by Nilkanthrao Shinde Science and Arts College, Bhadravati Dist. Chandrapur on 18<sup>th</sup> December 2010.
3. “Synthesis of new red soluble phosphorescent Iridium (III) complex based on methoxy-substituted 2, 4 diphenyl quinoline ligand” H. K. Dahule, S. J. Dhoble and P. W. Yawalkar and R. B. Pode.- National Conference on “Luminescence & its Application” (Proceeding –NCLA-2011) organized by Luminescence Society of India, Pt.Ravishankar Shukla University, Raipur and Disha Institute of Management and technology Raipur Chhattisgarh on February 7<sup>th</sup> – 9<sup>th</sup>, 2011.
4. “Red phosphorescent Iridium (III) complex based on methoxy-substituted 2,4 diphenyl quinoline ligand” H. K. Dahule, S. J. Dhoble, R. B. Pode and G. D. Zade.-National Conference on “Nano Science and Technology”(Proceeding-

NCNST 2011/251-260) organized by Department, of Physics Science College Nagpur. On 21<sup>st</sup> -22<sup>nd</sup> February 2011.

5. Blue emitting phosphorus for organic light emitting diode” G. D. Gade, S. J. Dhoble, R. B. Pode and H. K. Dahule.- National Conference on “Nano Science and Technology” (Proceeding-NCNST 2011/149-154) organized by Department of Physics Science College, Nagpur on 21<sup>st</sup> -22<sup>nd</sup> February 2011.

## 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....

- A workshop on TORA 98 for B.Sc. III students.
- A survey on “Students’ view regarding an ideal Vice Chancellor”
- Corruption on Indian mind.
- Tiger population in India.
- Mobile phones –an intensive study.
- Tiger Population in India.
- National sample survey organization.
- Functions of Central Statistical Organization.
- Sampling procedures.

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 2010 are felicitated.

Department is instrumental in taking students’ feedback on teachers, various Departments and college campus.

## 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*. They also visited Central Tasar Sericulture and Training Institute, Dawadipar, Bhandara (MS) to study the rearing of silkworm, *Antheraea mylitta* and reeling of silk threads from the cocoons. They further visited to Central museum, Nagpur and poster competitions and science exhibition organized by different Institutes of Nagpur.
- A Guest lecture was arranged 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 Filariasis Centre, Nagpur). Scientific attitude & Biodiversity by Dr. Sawarkar. Sericulture by Dr. M. Rai & Dr. Rathod (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 Neha Kopre bagged 2<sup>nd</sup> prize in floral carpet, organized by friends international and engineers association at Nagpur.
- 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 colours.
- Ms. S. Kurup, Mr. M. Prasad, Ms. Abha Chalpe ( researcher in U.S.A.) are academically brilliant students guided the students of B.Sc. final by delivering informative lectures on “ what after B. Sc.” and “scope of zoology” and “Careers in Biology” after B. Sc.
- Interdisciplinary Extension activity
  - Vermicompost, Vermiwash, SODIS & Water conservation for farmers & Villagers undertaken by Dr. Ms. S. V. Ghonmode in collaboration with Dr. S.S.Pawar, lecture, Vidharbha Mahavidyalaya, 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.
  - 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 by displaying the charts, posters and some news paper cuttings to make aware about the dreadly disease, also street plays and stage dramas were organized to create awareness among the students and public. Poster competition was organized in the Department.
- 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. Suresh Chari, Director Lata Mangeshkar Medical College, and of Human Resource Development, an eminent personality in the field of medical biochemistry and management, Nagpur on 11<sup>th</sup> December 2010.
- 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.



- Ms. S Kurup doing teaching orientation course in Australia, Mr. M Prasad doing research in molecular biology in Missipi ( Texas- USA).
- Ms. Suprita Dogra working in Indian Army (Lieutenant) short service commission.
- Ms. Ketki Agasti, participated in republic day parade at Delhi on 26<sup>th</sup> January 2011.
- Some other ex- students are involved in research work and working abroad in Germany, London etc. for higher research.
- Ku. Karukriti Gosh bagged late L.D. Deshmukh, Ex-Principal memorial gold medal award for highest score in Zoology in B.Sc. Examination and topper in B.Sc. Examination.
- Ku. Karukriti Gosh also bagged late Ramchandra B. Pabley and late Vimal R. Pabley memorial silver medal for scoring highest marks in Zoology in B.Sc.I Examination.
- Ku. Karukriti Gosh was awarded Student's Council medal for topper in B.Sc. Examination. She is likely to be merit in the Examination conducted by RTM Nagpur University Nagpur, Summer-2010. She was also awarded Late Nimbaji Saste and Late Kausalyabai Saste Memorial Cash prize for topping among girl candidates in the college in B.Sc. Examination and also awarded Department of Microbiology gold medal for highest score in Microbiology in B.Sc. 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)
  - 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
  - Light pollution awareness
  - SODIS, Vermicompost, Vermiwash, Chickungunia, Malaria, Filariasis, 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, behaviour, 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. S. V. Ghonmode - Minor Research Project sanctioned by UGC (95000 /-)
- Dr. A. D. Bobdey – Submitted Minor Research Project to UGC.
- Attended refresher course.
- Attended state / National / International conferences / workshop/ symposium.
- Remedial teaching and feedback from the 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 paper.
- Review of background and environment of students causing poor attendance in theory and practicals 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.
- 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 2011.

## **XII Department of Languages**

### **Outcome**

- On 15<sup>th</sup> July 2010 – an essay competition was organized for the students. The topic was “Impact of Population explosion on Environment” Ku. Neha Mahurle, Priyanka Dambhare and Amar Banerjee bagged first, second and third prize respectively. 22 students participated in it.
- On 27<sup>th</sup> August 2010 – an Elocution competition was organized for enhancing communicative skills of students. The topic was “Modern day lifestyle is making Indian’s stressed out and disease prone”. Ku. V. Janini, Pooja Sharama and Dalendra Patale bagged first, second and third prize respectively. About 20 students participated in it.
- About five students contributed articles in Youth Zone of Newspaper ‘The Hitvada’.

- A programme on personality development was organized on 8<sup>th</sup> November 2010. JC member and past president of J.C. wing Mrs. Suman Tiwari guided the students on enriching their personality and effective public presentation.
- One day workshop on “speaking skills and confidence building” was organized on 12<sup>th</sup> December 2010. Dr. Suresh Chari was the resource person. This programme was organized in Collaboration with ‘Dr. Panjabrao Deshmukh Career Development and guidance cell. Large number of students participated and appreciated the programme.
- One of the students of B. Sc. III Dalendra Patale, designed the cover page of the college magazine Bharti 2009-2010. He was appreciated by awarding a cash prize of 1000 Rs. in a college function.
- On 23<sup>rd</sup> December 2010 an Essay Competition was organized. The topic was Scientific Views of Dr. Panjabrao Deshmukh. Rani K. Rathod, Apurva R. Malpure and Atish Gaur received first, second and third prize respectively.
- On 23<sup>rd</sup> December 2010 again an elocution competition was organized for the students. The topic was “Cut throat Competition among educated persons”. Rohini Nimbekar, Atish Gaur and Anamika Tiwari bagged first, Second and Third Prize respectively.
- On 21<sup>st</sup> February 2011 – A lecture was organized for the students. Retired ACP Kedar Sharma guided students on various career options after B. Sc. Final. Large number of students participated in the programme.

### **XIII Department of College Library**

#### Out Come

- The library has been enriched with e-information resources.
- 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.
- 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 on 12<sup>th</sup> August 2010

### **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 plant parts by B.Sc. – II students.
- Inauguration of Botanical society.
- To arrange guest lecture for B.Sc. – I, II & III.
- To organize visits to various scientific Laboratories viz.  
Post Graduate Teaching Department of Botany

Remote Sensing  
Central Institute of Cotton Research  
National Research Center for Citrus  
NEERI  
Forest Department  
Visit to Nursery  
Department of Pathology, Agriculture College, Nagpur  
Institute of Science, Nagpur

- To arrange Educational tours to various locality.
- To arrange seminars of the students.
- To organize Inter collegiate seminar in Botany subject.
- To monitor Ecofriendly & Environment awareness activity.
- Recognition of the Laboratory for research work leading to Ph.D.
- Cultivation of button Mushroom.
- Training program on Plant tissue culture technique.
- Provide coaching to the students for various competitive Examinations.
- Up gradation 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.
- To provide Remedial teaching for economically backward and slow learner.

## **Department of Bio-Technology**

- To start M. Sc. Biotechnology course of Rashtasant Tukadoji Maharaj Nagpur University, Nagpur.
- To start M.Sc. Biotechnology course of Yashwantrao Chavhan Maharashtra Open University of Nashik.
- To establish Animal Tissue Culture Laboratory.
- To establish Instrumentation room.
- To establish the Staff room.
- To chalk out academic calendar for session 2011-2012.
- 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.
- To start Certificate course in Nanomaterials.
- Inauguration of Chemical Society.
- To arrange Guest lectures.
- To organize Industrial Visit for the students of B. Sc.
- To provide Remedial teaching for academically poor students.
- To arrange Industrial Visit for the Post Graduate students.
- To pay visit to Raman Science Center.
- To organize Intercollegiate Seminar / Quiz Competition.
- To arrange Guest Lectures for M. Sc. Students.
- To prepare Proposals of minor & major research projects.
- To organize National conference.
- Use of OHP and LCD for effective teaching & learning process.
- To conduct unit tests & surprise tests.
- To monitor Extension activities.
- Celebration of International year of Chemistry 2011.

## **Department of Computer Science**

- Review of the practical's to be conducted: July 2011-2012
- Formation of computer science subject society for the 2011-2012 session: July 2011
- 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 .
- A new group of combination Electronics, Computer Science, Mathematics (ECSM) will be introduced for B.Sc III from the session 2009-2010.
- 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.
- A work shop on “Microcontroller and Embedded System” to be organized in the last week of September 2011.
- To arrange campus interviews for Electronics students.
- Establishment of virtual Campus Scheme.

## **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 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.
- 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 practicals 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.
- 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 practicals & 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.

## **Department of Mathematics**

- 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 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.1, B.Sc. II and B.Sc. III students.
- Strengthen the research activity in the Department.
- To propose Minor Research Project.
- To Organize Inter-collegiate Science Quiz.
- To conduct surprise test for the students of B.Sc. I, II, III.
- To organize an International Conference
- To submit the proposal for starting P.G. Course (M. Sc.) in Mathematics.

## **Department of Microbiology**

- To chalk out academic calendar for session 2010-11.

- 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 various cultural activities.
- To organize intercollegiate seminar competition.
- To organize quiz competition.
- To obtain students feedback.

## **Department of Physics**

- To set up new experiments for B.Sc. I, II, and III as per UGC syllabus.
- Up gradation and extension of Laboratories.
- 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.
- 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 PG course in Physics.
- 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 Laboratory 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. (October-November 2011).
- 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 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. (September 2011)
- Environment awareness programme.
- Inter-disciplinary inter Departmental projects of Students.
- Motivating the students to participate in more number in seminars, projects by giving prizes and certificates.
- To encourage students to participate in student- faculty exchange programme.

### **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 programme.
  - 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 laboratory & dark room)
  - Tiles flooring (research laboratory, museum& dark room )
  - Window replacement.(Aluminum sliding )
  - Tap fitting (research laboratory& dark room)
  - Showcases. (laboratory, museum, research laboratory & dark room)
  - To get recognition of Zoology Laboratory for research from RTM Nagpur University, Nagpur.

## **Department of Languages**

- To conduct a work shop for guiding students on communicative skills, creative writing, applications and job resume.
- To organize story telling session to increase students creativity and develop logical thinking.
- 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 organized 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**

- Establishment of Departmental libraries Network.
- Establishment of Local libraries Network.
- Digitization of Copy left material in the library.
- E-content creation (Digitization of the Lecture Notes of eminent faculties in the college).

- E-Theses and Dissertation Repository (Digitization of Theses of the faculty and Dissertations of the students).
- Web-OPAC.
- Building of Institutional Repository (Digitization of Publications of faculties, Annual Report of the institute, Magazines of the college, etc.).
- Development of College Library website.
- Improved document delivery
- New Library Building Proposal is ready for submission to provide more space for the Library.
- J – GATE is a database of global e-Journals, gateway providing seamless access to millions of 51,000 e-journals & e-Books articles, hosted by informatics (India) Ltd.

## 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.

