PROSPECTUS 2012

TEZPUR UNIVERSITY
(A Central University)
www.tezu.ernet.in
Napaam, Tezpur, Assam 784028

CONTENTS

IMPORTANT POINTS

This prospectus contains a set of application forms for applying in various programmes offered by the university. The academic programmes are mentioned below.

- **B.Tech. Programme** in (i) Civil Engineering, (ii) Computer Science & Engineering, (iii) Electronics & Communication Engineering, (iv) Mechanical Engineering, and (v) Food Engineering & Technology. A single application is to be filled -in by the candidate for all these five programmes with his/her priorities of disciplines. As selection will be based on AIEEE score, candidates appearing in **AIEEE 2012** are only eligible for the B.Tech. programme at Tezpur University.

- **Integrated M.Sc. and Integrated B.Sc., B.Ed. Programmes** in Bioscience & Bioinformatics, Chemistry, Mathematics and Physics. The University also offers Integrated B.Sc.B.Ed. programme with Chemistry/ Mathematics/ Physics (major in B.Sc.). Candidates need to fill in separate application form for each subject (Bioscience & Bioinformatics, Chemistry, Mathematics and Physics). Further, priority for the Integrated M.Sc. or Integrated B.Sc.B.Ed. programme can be given by ticking their priority in item no. 2 "Choice of programme" in the application form. Selection for these programmes in each discipline will be on the basis of the combined merit list for each subject.

- **Integrated M.A. and Integrated B.A. B.Ed. Programmes**: Candidates need to fill in a single form ticking their priority for the Integrated M.A. or Integrated B.A.B.Ed. programme in item no. 2 "Choice of programme" in the application form. Selection for these two programmes will be on the basis of the combined entrance examination.

- **M.Tech./Integrated M.Tech./MCA/M.Sc./ M.A./ P.G. Diploma/Certificate course**
  Candidates may apply for more than one programme separately. Selection will be based on the performance in TUEE-2012. For some programmes (Post B.Sc. Integrated M.Tech. and M.Tech. (lateral entry) in Food Engineering & Technology, M.A. in Mass Communication and Journalism, M.A. in English, P.G. Diploma in Mobile & Multimedia Communication and P.G. Diploma in Tourism Management), personal interview/GD are also conducted.
  Mathematics at 10+2 level is compulsory for candidates applying for Integrated M.Tech. and M.Tech. (lateral entry) in Food Engineering & Technology and MCA programmes.
  Integrated M.Tech. is a four-year course for B.Sc. students and M.Tech. (lateral entry) is a two-year course for B.Tech./M.Sc. students in Food Engineering & Technology.
  From this year, a new M.A. programme in Linguistics and Language Technology will be started.

- **Ph.D. Programme**
  Selection is based on written test and personal interview, to be conducted at the respective departments as per schedule.

- **NE domicile / Permanent Residence Certificate (PRC)** is required for candidates applying for NE quota in (i) M.Sc. in Molecular Biology and Biotechnology and (ii) B.Tech. programme.

- **GATE for M.Tech.**
  GATE qualifying applicants will be given preference for admission in M.Tech. Applicants with a certain cut off GATE score may seek admission directly without writing the TUEE entrance. In case if adequate number of GATE qualified candidates apply for M.Tech. the admission of candidates through TUEE will be subject to the availability of seats.

- **Eligibility**
  It is the responsibility of the candidate to ascertain the fulfilment of the Tezpur University admission eligibility criteria.

- All testimonials, in original, will be verified at the time of admission. In case of any discrepancy, admission shall not be considered.

- One set of attested copies of marks sheets and certificates of all examinations will be required to be submitted at the time of admission. The other documents required at the time of admission are 1) Migration Certificate, 2) Sponsorship / No Objection Certificate from the employer (if applicable), 3) SC/ST/OBC (Non-creamy layer) Certificate (if applicable), 4) Person with Disability (PWD) Certificate issued by the Competent Authority, (if applicable), 5) latest OBC -Non-Creamy layer (NCL) Certificate in the prescribed format given at Annexure-IX must be submitted by the candidates claiming for admission against OBC-NCL seats, 6) Permanent Residential Certificate (PRC) of North-Eastern States (applicable to candidate applying for admission into B.Tech. programmes and M.Sc. in MBBT under North-East Quota as per the format given in Annexure –X), 7) Affidavits in Non-Judicial stamp paper signed by the candidate and parents/guardians and countersigned by the Oath Commissioner (Notary) as per the UGC's format given at Annexure-XI (a & b), 8) Gap Certificate from the District Police Authority or court affidavit, in case of a gap of one year or more in study after qualifying Examination. 9) AIEEE score card (for B.Tech.) candidates only. 10) Character Certificate from the Head of the institution last attended. 11) Proof of taking the examination at the time of admission in case the result of the qualifying examination is awaited.

- **Provisional Admission**
  Candidates who have appeared/are appearing in the qualifying examination before the date of admission in the year 2012 may be admitted provisionally if otherwise found eligible at the entrance examination and/or interview.

- **No separate call letter will be sent to the candidates selected/waitlisted for admission. Results of the entrance examinations along with instructions will be available in TU website: www.tezu.ernet.in**

- The University has a provision for admission under **Self Supported Scheme** (SSS).

TEZPUR UNIVERSITY

THE UNIVERSITY

Tezpur University was established on 21st January in 1994 by an Act of Parliament of India, *The Tezpur University Act, 1993 (Act No. 45),* as a non-affiliating and residential Central University. The University is located at Napaam, about 15 Km. east of Tezpur town in the Sonitpur District of Assam. It has a campus of 252 acres of land, in which required infrastructure is developed to provide an excellent atmosphere for quality education and research.

The University offers Doctor of Philosophy programme in 17 disciplines, Masters Degree programme in 20 disciplines, Post-Graduate Diploma in 3 disciplines, B. Tech. in 5 disciplines, Certificate programme in 3 disciplines, Integrated M.Sc. programme in 4 disciplines, Integrated B.Sc.B.Ed. programme in 3 disciplines, and Integrated M.A./B.A.B.Ed. In English. The academic programmes have a distinct focus on science, technology and humanities, reflecting the objective of the University.

During the last fifteen years of its existence, the University has engaged itself in the process of capacity building, both in terms of infrastructure and human resource development. The University has mounted tremendous efforts in developing it into a modern university incorporating all elements from the contemporary scientific and socio-cultural milieu.

The University has already developed a few state-of-the-art laboratories, computing facilities, internet connectivity, a dedicated power supply system and a relatively small but rich library having connectivity to several digital libraries. While students' accommodation is provided in 10 well-designed hostels, several residential quarters have been built for accommodating teachers and non-teaching staff. Other basic amenities like central water supply, campus security, guest house, canteen, gymnasium, outdoor & indoor sports facilities, post office, banks, school, etc. are also available to cater to the various needs of the university community.

Being a Central University, the University is privileged to receive funds from the Ministry of Human Resource Development, Government of India, through the University Grants Commission. Assistance has also been received from the Non-Lapsable Central Pool of Resources of the Government of India. Faculty members of different academic departments have been able to earn a large number of research projects worth crores of rupees from different sources. The University promotes industry-academy alliance and the existence of a few prestigious industry sponsored projects in the university bear testimony to this.

FACILITIES AND SERVICES

The University has the following facilities and services for the students and research scholars.

University Library
The University has a Central Library with a rapidly increasing collection of books, periodicals and journals. The library has the INFLIBNET connectivity to access other libraries. Most of the necessary books are available. Besides, the individual departments also have their own libraries. Online catalogue of books and journals is available for users.

Computing Facilities
The University has elaborate computing facilities accessible to the students. There is a modern state-of-the-art Central Computer Centre for use by the students and research scholars of Tezpur University in addition to the Departmental computer laboratories. Apart from a large number of PCs and several servers, all connected to the campus LAN, the Centre also has a 4-processor SGI ALTIX-350 server, high quality laser printers, scanners, multimedia accessories, etc. Various software systems are available that run in environments such as UNIX/LINUX, MS-Windows-2000/NT/XP, and Novell Intra Netware. The campus LAN is connected to the Internet through its 512 kbps SCPC VSAT station of the ERNET.

Hostel Accommodation
The University has separate hostels for boys and girls to accommodate all students and research scholars.

Scholarships

A limited number of scholarships are offered to Tezpur University students by various Government/ Semi-government organizations such as NEC, DBT, ITDP, MNES, DTE, AICTE, DST, UGC etc. Free student-ships are also provided to a limited number of meritorious students belonging to economically weaker families.

There is provision of UGC for single girl child of the family pursuing non professional PG courses for granting scholarship under "Indira Gandhi Post Graduate Scholarship for Single Girl Child Scheme". University provides institutional fellowship to eligible full time Ph.D students.

Health Services

The University has a Health Centre to provide basic medical services with its own medical and paramedical staff. Further, the students are provided with the benefit of health insurance scheme.

Games and Sports

The University provides opportunities for students to excel in various departments of sports. The University has basketball, volleyball and tennis courts, cricket and football grounds with playing facilities under flood light. Indoor facilities like multi gymnasium and badminton arena of international standard are also available.

Tezpur University Alumni Association (TUAA)

TUAA was formed in the year 2000 to create a network of the Alumni of the University. The website of the association provides full listing of events, news and other relevant information.

Instruction Methodology

The medium of instruction/examination in the University at all levels is English. In framing the courses, care has been taken to see that they are NOT burdened with formal lectures only. There is adequate provision for seminars, tutorials, case studies, guided field works, etc., whatever necessary, to promote the habit of independent thinking.

To relate theoretical knowledge to the practical field, proper measures are taken to conduct case studies and guided field works. Group discussion is an integral part of the pedagogy to help students in increasing their analytical capability and creativity.

Academic Calendar

The University strictly adheres to a well planned academic calendar specifying the schedule of academic activities. Detailed academic calendar is made available in the University Website as well as in the departments in due time.

CURRICULUM

Each academic programme is designed to provide enough flexibility in the choice of courses for the students. Besides core (compulsory) courses for each programme, the students also have the option to choose courses of their own interest from the elective courses.

In framing the courses, proper care is taken to avoid over-emphasis on formal lectures alone. There is adequate provision for laboratory works, seminars, tutorials, case studies, guided field work, etc., wherever appropriate, to inculcate the spirit of independent thinking and enrich hands-on experience. Group discussion is an integral part of the curriculum in some of the programmes.

Evaluation System

Continuous, comprehensive evaluation with internal relative grading is followed. Relative grading is awarded on the basis of continuous internal assessment through class tests, assignments, term-papers, seminars and term tests.

Grades signify the level of standard of qualitative/quantitative academic achievement, which   the students attain in a particular course/ research work. Each of the letter grades represent a Grade Point as tabulated below. The letter grades A+ to D are considered as Pass grades and F is considered as Fail grade.

Letter Grade	Grade Point	Description
A+	10	Outstanding
A	9	Excellent
B+	8	Commendable
B	7	Very Good
C+	6	Good
C	5	Average
D	4	Marginal
F	0	Poor

In addition, there are other grades as stated below:

Letter Grades	Status	Remarks/Context
I	Incomplete	Assigned in case any evaluation component remains to be completed due to an extraordinary situation faced by the student. This grade must be converted to any of the regular grades above within the first month of beginning of the following semester by completing the remaining evaluation component(s).
X	Extended project	Assigned in case project work remains incomplete and the work is extended to the following semester.
S	Satisfactory	Assigned against satisfactory performance
U	Unsatisfactory	Assigned against unsatisfactory performance
W	Withdraw	Assigned if a student withdraws from a course after the last date for withdrawal of course.

Abridged Academic Calendar 2012 (provisional)

JANUARY 18	Commencement of classes for spring semester
MARCH 12-20	Mid-Term tests
MAY 16-25	Spring semester End-Term examinations
JULY 31	Counselling and course registration for new entrants
AUGUST 01	Commencement of classes for autumn semester
SEPTEMBER 19-27	Mid-term tests
DECEMBER 3-11	Autumn semester end term examinations

Detail academic calendar is available in the University website **(www.tezu.ernet.in***)* as well as in the departments.

PLACEMENT

The Training and Placement Cell of the University is the nodal agency in arranging summer and final placement of the students of the University. Many reputed organizations are taking active interest on our students in offering placements.

The professional and intellectual excellence of the students has succeeded in creating an impact in the corporate, government and other employment sectors within and outside the country. Our *Alumni* are the brand ambassadors of teaching & research programme of the University.

List of Major Recruiters of Tezpur University Students

Private Sector Organizations

Aircel	ITC Limited
Accenture	Jungle Travels India
Aircel	Jenson & Nicholson
Airtel (Bharti Telecom)	Mahindra Finance
American Embassy, New Delhi	LG Soft
Apcotech Pvt. Ltd.	Look East Channel
Aricent	Nagaland Fruit & Veg. Prod. Unit
Asia Carbon Limited	NDTV
Asian Paints	Nestle India Ltd.
Axis Bank	NE Chronicle
Bajaj Alliance Life Insurance Co. Ltd.	NE TV
Bank of Maharashtra	NewsLive
Channel Look-East	Nilon's, Jalgaon,
Chembiotek Life Science	Nokia
Cipla Ltd.	OCWEN
CNN-IBN	Oracle
Colgate-Palmolive	Philips
Delphi	Powergrid Corporation
Diamond Fabcare, New Delhi	PRADAN
Disha, New Delhi	Press Trust of India,
DSCL	Q-Tech Nano Systems
Dymanics Orbit	Reliance
Dyna Roof	RelLife
ETV-Ramoji Film City, Hyderabad	RIMS, Dibrugarh.
Genpact	Satyam
GE Health Care	SBI Life
GLAXO-Smithkline	Shalimar Paints
Godrej & Boyce Manuf. Co. Ltd.	SIEMENS Technology
Hindustan Lever Ltd.	SmithKline Beecham (Horlicks)
Housing Dev. Finance Co. (HDFC)	SRD Nutrients, Mangaldoi
Huawei Technologies	Star Cement
IBM	Samsung
ICI Paints	Sunrise Biscuits (Britannia)
ICICI Bank	Symphony
ICICI Lombard	Tata Consultancy Service
Indian Express	TATA-ELEXI
Industrial Development Bank of India (IDBI)	Tech Mahindra
Infosys	The Press Trust of India
i-Process Services (I) Pvt. Ltd.	Wipro

Public Sector Units of the Govt. of India

Bharat Sansar Nigam Ltd.(BSNL)	Indian Oil Corporation Ltd. (IOCL)
Bongaigaon Refineries & Petrochemicals Ltd (BRPL)	NRHM, Govt. of Assam
Brahmaputra Cracker and Polymer Ltd. (BCPL)	National Thermal Power Corporation Limited
Centre for Sc. & Env., Delhi	Numaligarh Refinery Limited (NRL)
DRDO	Oil India Limited (OIL)
Gas Authority of India Limited (GAIL)	ONGC
ICAR	ISRO

Institutions of Higher Learning

Assam Don Bosco University	Institute of Genomics and Integrative Biology (IGIB)
Assam Engineering College, Guwahati	J. B College, Jorhat
Assam University, Silchar	JNU, New Delhi
Banaras Hindu University	Jorhat Engineering College
Jadavpur University	Konkuk University, Korea
Bareilly Engineering College	M.S University of Baroda
Bielefeld University, Germany	National Centre for Genome Research, New Delhi
Central Institute of Post Harvest Engg. & Tech.	National Institute of Cholera & Enteric Diseases, Kolkata
Central IT College, Guwahati	NCL, Pune
Dibrugarh Polytechnic	North Eastern Hill University, Shillong
Dibrugarh University	Royal Group of Institutions
Edinburgh University England	Sikkim Manipal Institute of Technology
Epitome College, Diphu	Silchar Polytechnic
Galgotia Institute of Technology, Noida	Sognag University, Korea
Gauhati Univeristy	Sona College of Technology, Salem, Tamil Nadu
Girijananda Choudhury Institute of Management & Technology	St. Anthony's College, Shillong
Hyderabad University	University College of Cork, Ireland
IISC, Bangalore	Rajiv Gandhi University
IIT, Delhi	University of Pune
IMPRS, Halle, Germany	IIT Guwahati
Indian Academy of Science, Bangalore	

STUDENTS' CODE OF CONDUCT

Students are to follow discipline as prescribed in the regulations on Maintenance of Discipline of the University. Violation of any clause by any student may lead to disciplinary action as per the regulations.

Ragging in any form is strictly prohibited inside or outside the University. Students found indulging in ragging shall be subjected to punishment as per rule. Candidates are advised to visit the website: www.ugc.ac.in or www.tezu.ernet.in for UGC Regulations on curbing the menace of ragging in Higher Educational institutions, 2009.

IMPORTANT ACADEMIC RULES

Course registration

The courses opted by the students in a particular semester are to be registered on some specific date (s). For newly admitted students, registration of courses will be done on 31st July.

Attendance requirement

All students must attend every lecture, tutorial and practical classes, of the course registered by him/ her. However, to account for late registration, sickness or such other contingencies, the attendance requirement will be a minimum 75% of the classes. Students with deficiency in attendance in a course will be awarded W grade in the course.

Renewal of admission

Every student will renew his/her admission in the successive semesters on the notified dates. No student is allowed to get himself/herself admitted after the scheduled date.

Requiremnt for award of degree/diploma

A student shall be required to satisfy the following conditions for award of degree/diploma
  (a) Obtain a pass grade in each of the courses.
  (b) Earn the minimum credit required for award of degree/diploma within the prescribed maximum duration of the programme (maximum credit load allowed per semester is 25).
  (c) Secure a minimum CGPA of 4.5.

ADMISSION PROCEDURE

How to Apply

Candidates applying for more than one programme must apply separately for each programme. However, for the Integrated M.Sc. and Integrated B.Sc.B.Ed programmes, candidate needs to apply in a single application form for the respective subject. Similarly for Integrated M.A. (English) and Integrated B.A.B.Ed. (English major in B.A.), candidate needs to apply only a single application form.

Candidates who have appeared/are appearing in the qualifying examination before the date of admission may also apply. Please fill in the application form neatly using capital letters.

One side of the application form is for B.Tech. programme and the reverse side is for all other programmes. Fill-in the side relevant for you and tick the appropriate boxes. Data sheet is to be filled-in by all the candidates. Duly filled-in and signed application form must reach on or before the specified date as given below:

(i) **For B.Tech. programmes:** The Controller of Examinations, Tezpur University on or before **May 7,** 2012.

(ii) **For Integrated M.Sc./B.Sc.B.Ed. programmes:** The Controller of Examinations, Tezpur University on or before **April 9, 2012.**

(iii) **For all other programmes:** The concerned Head of the Department on or before **April 9, 2012**.

(iv) For Integrated M.A. (English)/Integrated B.A.B.Ed. (English Major in B.A.), the application form should reach the Head, Department of English on or before **April 9, 2012**.

It may be noted that Tezpur University is located outside the Tezpur city and some private courier services may not deliver the documents to the University in time. Applications received after the last date will not be considered in any circumstance.

Column 14 of the B.Tech. application form: Choice of Discipline
Indicate three disciplines in order of your preference from the list below (only for B.Tech.)

Code	Programme
CE	Civil Engineering
CSE	Computer Science & Engineering
ECE	Electronics & Communication Engineering
FET	Food Engineering & Technology
ME	Mechanical Engineering

Admit cum Acknowledgement Cards (Programmes other than B.Tech.)

Fill in the Acknowledgement cum Admit Card (in duplicate) attached to this prospectus and send them along with the Application Form.

Entrance Examination Centre (other than for B.Tech. & Ph.D.): To be filled in by the candidate in the Acknowledgement cum Admit card.

Centre	Code	Address
Agartala	01	Tripura University, Agartala, Tripura
Bangalore	02	Indian Institute of Science, Bangalore – 560012
Chennai	03	Presidency College, Chennai-600005, Tamilnadu
Bhubaneswar	04	B.J.B. College (Autonomous), Bhubaneswar, Orissa
Delhi	05	Kirori Mal College, University of Delhi, New Delhi
Dibrugarh	06	Dibrugarh University, Dibrugarh
Diphu	07	Diphu Govt.College, Diphu-782 460
Guwahati	08	Gauhati University, Gopinath Bordoloi Nagar, Guwahati, Assam
Guwahati (second centre)	09	Assam Engineering Institute, Chandmari,Guwahati-781003
Hyderabad	10	Nizam College, Opposite L.B. stadium, Basheer Bag, Hyderabad, Andhra Pradesh
Imphal	11	D.M. College of Science, Imphal, Manipur
Itanagar	12	North Eastern Regional Institute of Science & Technology (NERIST), Nirjuli, Itanagar
Jorhat	13	J.B. College, Jorhat, Assam
Kokrajhar	14	Kokrajhar College, Kokrajhar, Assam
Kolkata	15	Presidency University, Kolkata, West Bengal
Lucknow	16	Babasaheb Bhimrao Ambedkar University, Lucknow, U.P.-226025
Mumbai	17	KPB Hinduja College of Commerce, Mumbai
North Lakhimpur	18	North Lakhimpur College, Khelmati, North Lakhimpur, Assam
Patna	19	Central University of Bihar, BIT Campus, P.O. B.V. College, Patna 800014
Pune	20	University of Pune, Ganeshkhind, Pune
Siliguri	21	North Bengal University, Raja Rammohanpur, Darjeeling, West Bengal
Shillong	22	St. Anthony's College, Shillong, Meghalaya
Silchar	23	G.C. College, College Road, Silchar
Tezpur	24	Tezpur University, Napaam, Tezpur, Assam

Enclosures

Photocopies of following documents are to be submitted along with the application.
   Bank draft (if the form is downloaded)
   Acknowledgement cum admit card (duly filled)
   Self addressed envelope with postage stamp of Rs. 5/-
   A copy of AIEEE admit card (for B.Tech. only)

   The selected candidates shall be required to produce all relevant documents in original at the time of admission. They will also have to submit attested copies of all mark sheets and certificates at the time of admission.

Selection of eligible candidates
(a) B.Tech. programmes
   (i)   Candidates seeking admission to the B.Tech. programmes are required to appear in the AIEEE-2012 to be conducted by CBSE, New Delhi. All Admission shall be based on AIEEE score.
   (ii) 50% seats are reserved for the NE States. For admission to these seats the candidates are also required to submit applications to Tezpur University in the prescribed form provided.
   (iii) Admission to the remaining 50% open seats shall be made through the central counselling of AIEEE.

(b) Integrated M.Sc./Integrated B.Sc.B.Ed.
   Candidates qualifying the entrance examination conducted by TUEE-2012 for Integrated M.Sc./Integrated B.Sc.B.Ed. programmes will be selected for admission according to his/her performance in the examination. There will be combined entrance test for these programmes for each subject.

(c) Integrated M.A. (English)/Integrated B.A.B.Ed. (English major in B.A.): There will be combined entrance examination for these programmes and qualified candidates will be considered for admission according to his/her performance in the examination.

(d) P.G. Programmes (other than MBA)
   Candidates seeking admission shall have to appear in the TUEE-2012 as per the schedule given in **Annexure II**. For M.Tech. programmes in Information Technology, Electronics Design and Technology and

Bioelectronics, however, candidates with valid GATE score with certain cut off score in respective disciplines may seek direct admission.

- For some programmes candidates selected through TUEE-2012 shall be required to appear for Group Discussion and Personal Interview, the dates for which will be intimated in due course. In case of non-receipt of admit card, a candidate may contact the TUEE Official at the examination centre with proof of submission of application on the day of examination. Duplicate admit card may be issued on the spot. **The results of entrance examinations are likely to be declared in the fourth week of June 2012.** Seats are reserved for SC/ST/OBC (NCL) and Persons with Disabilities (PWD) candidates as per central government rules.
- **PWD candidates with at least 40% permanent disabilities will only be considered**. The list of selected candidates for admission, including a waiting list, will be notified in the University Notice Board and the University Website.
- **No separate call letter will be sent to the candidates selected/waitlisted for admission**. No TA/DA will be paid to the candidates for appearing in the entrance examination and/or interview.

Admission

The Schedule of Course Registration and Admission is given in Annexure III. Selected candidates will be admitted to the concerned programme on payment of requisite fees. The candidate's presence at the time of verification of testimonials etc., course registration and hostel admission is essential.

In case of a gap of one year or more between completion of qualifying examination and the year of admission, the candidate must produce a 'Gap certificate' from the District Police Authorities or an affidavit specifying his/ her occupation during the Gap period.

Provisional Admission

Candidates who have appeared/are appearing in the qualifying examination before the date of admission in the year 2012 may be admitted provisionally if otherwise found eligible at the entrance examination and/or interview, provided that

1. **They have passed all the earlier examinations held for the same degree without any carryover of subject satisfying the eligibility criteria;**
2. **All academic works including theory and practical of qualifying examinations should be completed before the admission.**
3. **They must produce the evidence of passing the qualifying examination with requisite qualification on or before 15 November, 2012 failing which they will be debarred from appearing the semester end examination.**
4. **The provisionally admitted students shall have to discontinue their studies if they fail to submit the documents within the specified period.**
5. **Candidates must submit a proof of taking all the examinations at the time of admission duly certified by the Principal/ Head of the Institution last attended.**

Application for Hostel Accommodation

Candidates requiring hostel accommodation need to indicate in column 4 of the application Form.

Commencement of Classes

Classes for all the programmes will commence on 01 August, 2012 as mentioned in Academic Calendar in Section one. Students admitted to any of the programmes shall have to report to the Head of the Department concerned within a week from the date of commencement of classes; otherwise his/her seat may be forfeited.

Refund of Caution Deposit

Refund of caution money shall be made to a student after his/her release from the University. The claim for refund of caution money shall not be entertained beyond a period of one year from the date of release of the student. The caution money shall not be refunded if a student leaves the programme without permission and/or does not join and attend any class after admission. Refund of caution money shall be made against application in prescribed form and production of Release Order.

The fees deposited by the candidate shall not be refunded if the seat is withdrawn after the last day of admission.

Self Supported Scheme (SSS): Eligible candidates under SSS will be admitted on payment of some additional amount (not exceeding 5 times the normal fee). Candidates in the waiting list only will be considered for admission under SSS. Number of seats under SSS will not exceed 7 for 2012-2013. Exact no. of seats in each programme and the amount of fees will be notified on the website. Interested candidates may give their option for the SSS in column 1 of the application form.

CANVASSING IN ANY FORM LEADS TO DISQUALIFICATION
[For detail rules please visit www.tezu.ernet.in]

B.TECH. PROGRAMME

B.TECH. PROGRAMME

Curriculum Structure

Duration: Minimum   : 08 Semesters
                    Maximum   : 12 Semesters

Credit Requirements: Minimum Total : 176

Semester-wise Distribution of Courses for B. Tech Programme

First Year (Common to all disciplines)

Semester I

Course No.	Course Title	Credit Structure				Contact Hours
		L	T	P	Total	
MS 101	Mathematics I	3	1	0	4	4
PH 101	Physics I	2	1	1	4	5
CH 101	Chemistry	2	1	1	4	5
EL 101	Basic Electrical Engineering	2	1	1	4	5
ME 103	Workshop Practice	0	0	2	2	4
ME 101	Engineering Graphics	1	0	2	3	5
Humanities Elective EG101/ SO101/ BM 101	Communicative English/Sociology/ Elementary Economics	3	0	0	3	3
Total -		13	4	7	24	31

Semester II

Course No.	Course Title	Credit Structure				Contact Hours
		L	T	P	Total	
MS 103	Mathematics II	3	1	0	4	4
PH 102	Physics II	2	1	1	4	5
ME 102	Engineering Mechanics	3	1	0	4	4
EL 102	Basic Electronics	3	1	1	5	6
CO 101	Introductory Computing	2	1	0	3	3
CO 102	Computing Laboratory	0	0	2	2	4
Science Elective BT 101/ ES 101/ CH 102	Elements of Modern Biology / Environmental Science / Introductory Material Science	3	0	0	3	3
Total -		16	5	4	25	29

SECOND TO FOURTH YEAR
CIVIL ENGINEERING

Semester III

Course No	Course title	Credit structure				Contact hours
		L	T	P	Total	
MS201	Mathematics-III	2	1	0	3	3
CE201	Fluid Mechanics	2	1	0	3	3
ME201	Solid Mechanics	3	1	0	4	4
CE202	Surveying	3	1	0	4	4
CE203	Building Materials & Technology	3	0	0	3	3
CE204	Engineering Geology	3	0	0	3	3
CE205	Surveying Practical	0	0	2	2	4
	Total	**16**	**4**	**2**	**22**	**24**

Semester IV

Course No	Course title	Credit structure				Contact hours
		L	T	P	Total	
MS203	Numerical Analysis	2	1	0	3	3
CE206	Elementary Civil Engineering Drawing	0	0	1	1	2
CE207	Hydraulics & Hydraulic Structures	3	1	0	4	4
CE208	Structural Analysis-I	3	1	0	4	4
CE209	Geotechnical Engineering-I	3	1	0	4	4
CE210	Transportation Engineering-I	3	0	0	3	3
CE211	Hydraulics Lab	0	0	2	2	4
CE212	Geotechnical Engineering Lab	0	0	2	2	4
	Total	**14**	**4**	**5**	**23**	**28**

Semester V

Course No	Course title	Credit structure				Contact hours
		L	T	P	Total	
BM321	Fundamentals of Management	3	0	0	3	3
CE301	Structural Design-I	3	1	0	4	4
CE302	Water Resources Engineering	3	0	0	3	3
CE303	Structural Analysis-II	3	1	0	4	4
CE304	Geotechnical Engineering-II	3	0	0	3	3
CE305	Environmental Engineering-I	3	0	0	3	3
CE306	Environmental Engineering Lab	0	0	2	2	4
CE311	Transportation Engineering Lab	0	0	1	1	2
	Total	**18**	**2**	**3**	**23**	**26**

Semester VI

Course No	Course title	Credit structure				Contact hours
		L	T	P	Total	
BM322	Social Responsibility & Professional Ethics in Engineering	3	0	0	3	3
CE307	Structural Design-II	3	1	0	4	4
CE308	Environmental Engineering-II	3	1	0	4	4
CE309	Construction Engineering & Management	3	0	0	3	3
	CE Elective-I	3	0	0	3	3
	Open Elective-I	3	0	0	3	3
CE310	Concrete & Structure Lab	0	0	2	2	4
	Total	**18**	**2**	**2**	**22**	**24**

* Open Elective: **Any course of level 400 and above offered in the University and recommended by the department.**

Semester VII

Course No	Course title	Credit structure				Contact hours
		L	T	P	Total	
CE401	Transportation Engineering-II	3	0	0	3	3
	Open Elective-II	3	0	0	3	3
	CE Elective-II	3	0	0	3	3
	CE Elective-III	3	0	0	3	3
CE471	Industrial Summer Training	0	0	2	2	
CE481	Project-I	0	0	6	6	12
	Total	**12**	**0**	**8**	**20**	**24**

Semester VIII

Course No	Course title	Credit structure				Contact hours
		L	T	P	Total	
	Open Elective-III	3	0	0	3	3
	CE Elective-IV	3	0	0	3	3
CE482	Project-II	0	0	12	12	24
	Total	**6**	**0**	**12**	**18**	**30**

CE Electives: (All are 3 credit courses with L:T:P::3:0:0)

CE421	Advanced Reinforced Concrete Design
CE422	Dynamics of Structures
CE423	Pre-stressed Concrete & Industrial Structures
CE424	Bridge Engineering
CE425	Soil Dynamics & Foundation Engineering
CE426	Ground Improvement methods
CE427	Earth Retaining Structures
CE428	Applied Geotechnical Engineering
CE429	Environmental Geo-techniques
CE430	Open Channel Flow
CE431	Hydraulic Structures
CE432	Hydraulic Machines
CE433	Groundwater Hydrology & Management
CE434	Air Pollution & Industrial Waste Management
CE435	Solid Waste Engineering
CE436	Environmental Impact Assessment
CE437	Remote Sensing & GIS
CE438	Pavement Design

Also any other course of level 400 and above offered by the department of Civil Engineering.

[#] Industrial Summer Training: Training shall be of 8 weeks duration carried out during the summer break after the 6th semester. The report will be submitted in the 7th semester.

COMPUTER SCIENCE & ENGINEERING

Semester III			Semester IV		
CODE	**Title**	**Credit**	**CODE**	**Title**	**Credit**
MS 201	Mathematics III	3	CO 205	Formal Language & Automata	3
CO 201	Discrete Structures	4	CO 206	Design and Analysis of Algorithms	4
CO 202	Digital Logic Design	4	CO 207	System Programming	3
CO 203	Data Structures	5	CO 208	Object Oriented Programming	4
CO 212	Computer Architecture and Organization	5	EL 221	Electronic Devices arid Circuits	4
EL 204	Signals and Systems	3	CO213	Data Communication	4
Semester V			**Semester VI**		
CO 301	Operating Systems	4	CO 306	Embedded Systems	4
CO 302	Database Systems	5	CO 307	Software Engineering	4
CO 303	Computer Graphics	4	CO 308	Compiler Design	4
CO 304	Principles of Programming Languages	3	BM 322	Social Responsibility and Professional Ethics in Engineering	3
CO 305	Computer Networks	4		CS Elective I	3
BM 321	Fundamentals of Management	3		Open Elective I	3
Semester VII			**Semester VIII**		
CODE	**Title**	**Credit**	**CODE**	**Title**	**Credit**
CO 401	Artificial Intelligence	3	-	CS Elective IV	3
-	CS Elective II	3	-	Open Elective III	3
-	CS Elective III	3	CO 482	Project II	12
-	Open Elective II	3			
CO 471	Industrial Summer Training	2			
CO 481	Project I	6			
Electives					
CODE	**Title**	**Credit**	**CODE**	**Title**	**Credit**
CO 421	Graph Theory	3	CO 422	Theory of Computation	3
CO 423	Web Technology	5	CO 424	E-Commerce	5
CO 425	VLSI Design	5	CO 426	Advanced Computer Architecture	3
CO 427	Modeling & Simulation	5	CO 428	Computer Peripherals & Interfacing	5
CO 429	Computer Systems Performance Evaluation	3	CO 430	Management Information System	3
CO 431	System Analysis and Design	3	CO 432	Information Theory & Coding	3
CO 433	Digital Signal Processing	3	CO 434	Image Processing	3
CO 435	Mobile Computing	3	CO 436	Wireless Communication	3
CO501	Network Management and Security	3	CO 502	Data Compression	3
CO 503	Fuzzy Logic and Neural Networks	3	CO 504	Natural Language Processing	3
CO 505	Advanced Database Management System	3	CO 506	Advanced Software Engineering	3
CO 507	Advanced Embedded Systems	3	CO 508	Grid Computing	3
CO 509	Computer Vision	3	CO 510	Robotics	3
CO 511	Ubiquitous and Pervasive Computing	3			

ELECTRONICS AND COMMUNICATION ENGINEERING					
Semester III			**Semester IV**		
CODE	Title	Credit	CODE	Title	Credit
MS 201	Mathematics III	3	EL 205	Integrated Circuits	4
EL 201	Switching Circuits & Digital Logic	4	EL 206	Principles of Communication	4
EL 202	Electrical Technology	4	EL 207	Instrumentation	4
EL 203	Analog Electronic Devices and Circuits	4	EL 208	Engineering Electromagnetics	3
EL 204	Signals and Systems	3	CO 221	Data Structures and Object Oriented Programming	4
CO 205	Computer Architecture and Organization	5	CO 222	System Software & Operating systems	4
Semester V			**Semester VI**		
EL 301	Digital Communication	4	EL 306	Communication Networks	4
EL 302	Microprocessors and Interfacing	4	EL 307	Device Modeling & Simulation	4
EL 303	Digital Signal Processing	4	EL 308	VLSI Design	4
EL 304	Control System Engineering	4	BM 302	Social Responsibility and Professional Ethics in Engineering	3
EL 305	Microwave Engineering	4		ECE Elective I	3
BM 301	Fundamentals of Management	3		Open Elective I	3
Semester VII			**Semester VIII**		
EL 401	Digital Systems Design and VHDL	4		ECE Elective IV	3
	ECE Elective II	3		Open Elective III	3
	ECE Elective III	3	EL 482	Project II	12
	Open Elective II	3			
EL 471	Industrial Summer Training	2			
EL 481	Project I	6			
Electives					
CODE	Title	Credit	CODE	Title	Credit
EL 421	Image Processing	3	EL 422	Electronic Design Automation	3
EL 423	Medical Electronics	3	EL 424	Fiber Optic Communication	3
EL 425	Mobile Communication	3	EL 426	Fuzzy Logic and Neural Networks	3
EL 427	Satellite Communication Systems	3	EL 428	Information and Coding Theory	3
EL 429	Graph Theory	3	EL 430	Computer Vision	3
EL 431	MEMS and Microsystems Technology	3	EL 432	Advance Semiconductor Devices	3
EL 433	Biomedical Signal Processing	3	EL 434	Bioneuro Engineering	3
EL 435	Nanoelectronics	3	EL 436	Intelligent Instrumentation	3
EL 437	Wireless Communication	3	EL 438	Digital Signal Processor	3

FOOD ENGINEERING & TECHNOLOGY

Semester III			Semester IV		
CODE	Title	Credit	CODE	Title	Credit
MS 201	Mathematics III	3	FT 205	Food Biochemistry and Nutrition	4
FT 201	Food Chemistry	4	FT 206	Principles of Food Processing and Preservation	3
FT 202	Basic and Food Microbiology	3	FT 207	Transfer Processes in Food Engineering	4
FT 203	Fluid Mechanics	5	FT208	Mechanical Operations in Food Processing	4
FT 204	Computations in Food Processing	4	FT209	Fruits and Vegetables Process Technology	3
ME 205	Thermodynamics	4	EL 321	Instrumentation & Process Control	4
Semester V			Semester VI		
FT 301	Instrumental Methods of Food Analysis	2	FT 307	Food Quality and Safety	3
FT 302	Thermal Operations in Food Processing	4	FT 308	Food Plant Utilities	3
FT 303	Mass Transfer Operations in Food Processing	4	FT 309	Dairy Products Technology	3
FT 304	Cereals, Pulses and Oilseeds Processing Technology	4	FT 310	Food Process Equipment Design	3
FT 305	Biochemical Engineering	3	BM 322	Social Responsibility and Professional Ethics in Engineering	3
FT 306	Recent Advances in Food Research	1	-	FT Elective I	3
BM 321	Fundamentals of Management	3	-	Open Elective I	3
Semester VII			Semester VIII		
FT 401	Food Packaging, Transportation and Storage	3	-	FT Elective IV	3
FT 402	Plant Design and Process Economics	3	-	Open Elective III	3
-	FT Elective II	3	FT 482	Project II	12
-	FT Elective III	3			
-	Open Elective II	3			
FT 471	Industrial Summer Training	2			
FT 481	Project I	6			

List of FT Electives

Course No.	Course Title	Credit
FT 421	Bakery and Confectionary Technology	3
FT 422	Plantation Products and Spices Technology	3
FT 423	Oils and Fats Technology	3
FT 434	Processing Technology of Meat, Poultry and Fish	3
FT 425	Fermented and Non Fermented Beverages	3
FT 426	Food Product Development	3
FT 427	Flavors Technology	3
FT 428	Specialty Foods: Nutraceuticals and Functional Foods	3

FT 429	Traditional Indian Foods	3
FT 430	Industrial Microbiology and Enzyme Technology	3
FT 422	Plantation Products and Spices Technology	3
FT 423	Oils and Fats Technology	3
FT 434	Processing Technology of Meat, Poultry and Fish	3
FT 425	Fermented and Non Fermented Beverages	3
FT 426	Food Product Development	3
FT 427	Flavors Technology	3
FT 428	Specialty Foods: Nutraceuticals and Functional Foods	3
FT 429	Traditional Indian Foods	3
FT 430	Industrial Microbiology and Enzyme Technology	3
FT 431	Food Process Design and Analysis	3
FT 432	Food Process Automation	3
FT 433	Numerical Methods in Food Processing	3
FT 434	Energy Conservation in Food Processing	3
FT 435	Food Plant Hygiene and Sanitation	3
FT 436	Food Industry Waste Management	3
FT 437	Industrial Safety and Hazards	3
FT 438	Optimization Techniques	3
FT 439	Advanced Food Processing Methods	3
FT 440	Engineering Properties of Biological Materials	3

MECHANICAL ENGINEERING

Semester III			Semester IV		
CODE	Title	Credit	CODE	Title	Credit
MS 201	Mathematics III	3	MS 202	Mathematics IV	3
ME 201	Solid Mechanics	4	ME 207	Theory of Mechanisms & Machines	4
ME 202	Fluid Mechanics I	3	ME 208	Manufacturing Technology I	3
ME 203	Material Science	3	ME 209	Fluid Mechanics II	3
EL 202	Electrical Technology	4	ME 210	Mechanical Engineering Laboratory II	3
ME 205	Thermodynamics	4	CO 221	Data Structures & Object Oriented Programming	4
ME 206	Mechanical Engineering Laboratory I	3	ME 204	Machine Drawing	2
Semester V			Semester VI		
ME 301	Dynamics & Vibration of Machinery	3	ME 307	Applied Thermodynamics II	3
ME 302	Mechanical Measurements & Instrumentation	3	ME 308	Heat & Mass Transfer	4
ME 303	Manufacturing Technology II	3	ME 309	Systems & Control	3
ME 304	Applied Thermodynamics I	3	ME 306	Advanced Workshop Practice	3
ME 305	Mechanical Design	4	BM 322	Social Responsibility & Professional Ethics in Engineering	3
ME 310	Mechanical Engineering Lab.	3		ME Elective I	3
BM 321	Fundamentals of Management	3		Open Elective I	3

Semester VII			Semester VIII		
CODE	Title	Credit	CODE	Title	Credit
ME 401	Industrial Systems Engineering	3	-	ME Elective IV	3
-	ME Elective II	3	-	Open Elective III	3
-	ME Elective III	3	ME 482	Project II	12
-	Open Elective II	3			
ME 471	Industrial Summer Training	2			
ME 481	Project I	6			
Electives					
ME 421	Computer Graphics & Solid Modeling	3	ME 422	Optimization Methods in Engineering	3
ME 423	Mechanical Vibration	3	ME 424	Theory of Elasticity	3
ME 425	Machine Tools & Machining	3	ME 426	Reliability Engineering	3
ME 427	Productivity Improvement Techniques	3	ME 428	Finite Element Methods in Engineering	3
ME 429	Gas Turbine & Compressor	3	ME 430	Value Engineering	3
ME 431	Fracture and Fatigue	3	ME 432	Engineering Optimization	3
ME 433	Experimental Stress Analysis	3	ME 434	Composite Materials	3
ME 435	Machine Tool Design	3	ME 436	Combustion Engineering	3
ME 437	Tea Machineries	3	ME 438	Petroleum & Drilling Technology	3
ME 439	Refrigeration and Air Conditioning	3	ME 440	Advanced Solid Mechanics	3
ME 521	Robotics	3	ME 522	Quality Engineering	3
ME 523	Non-Conventional Energy	3	ME 524	Operations Management	3
ME 525	Tribology	3	ME 526	Modern Control System	3
ME 527	Computer Aided Design	3	ME 528	Computer Aided Process Planning	3
ME 529	Artificial Intelligence in Engineering	3	ME 531	Project Management	3
ME 532	Power Plant Engineering	3	ME 533	Energy Management	3
ME 534	Mechatronics	3			

SECTION THREE

DEGREE, DIPLOMA AND CERTIFICATE

Degree, Diploma and Certificate

Department	Programme	Eligibility	Duration (semesters) Min	Duration (semesters) Max	Intake
Business Administration	Master of Business Administration (MBA)	Bachelor's degree in any discipline with a minimum of 50% marks in major/honours subject or in aggregate.	4	8	46
	P.G. Diploma in Tourism Management (PGDTM) (Modular)	Bachelor's degree in any subject with at least 45% marks in major/honours subject or in aggregate.	2	4	23
Chemical Sciences	M.Sc. in Chemistry	Bachelor's degree with major/honours in Chemistry subject with a minimum of 45% marks and having Physics and Mathematics as subsidiary subjects.	4	8	20
	Integrated M.Sc. in Chemistry	Minimum 60% aggregate marks in Physics, Chemistry and Mathematics at 10+2 and pass marks in English.	10	14	15
	M. Tech. in Polymer Science & Technology	B-Tech/B.E in Polymer Science & Technology/Fiber Science & Technology/ Rubber Technology/Plastic Technology/Chemical Engineering; M.Sc. in Chemistry/Polymer Science/Applied Chemistry from a recognized institution with 50% or equivalent grade. Candidate with valid GATE score will get preference.	4	8	10
	Integrated B.Sc.B.Ed.	First division in the Higher Secondary (Plus Two) School Final Examination (Science stream)	8	12	10
Civil Engineering	B.Tech. in Civil Engineering	Minimum 50% aggregate marks in PCM (Phys, Chem and Math) subjects at 10+2 and pass marks in English.	8	12	20
Computer Science & Engineering	B.Tech. in Computer Science & Engineering	Minimum 50% aggregate marks in PCM (Phys, Chem and Math) subjects at 10+2 and pass marks in English.	8	12	52
	Master of Computer Application (MCA)	Bachelor's degree in any discipline with a minimum of 50% marks in major/honours subject or 55% marks in aggregate for those candidates having no major/ honours. Passed in Mathematics at 10+2 level.	6	10	60
	M.Tech. in Information Technology *	B.E./B.Tech. degree in any discipline or MCA or its equivalent or M.Sc. in Computer Science/IT/ Electronics/Mathematics/Statistics/Physics with a minimum of 50% marks in aggregate. GATE qualified candidates will get preference.	4	8	30
Cultural Studies	M.A. in Cultural Studies (Modular)	Bachelor's degree in any discipline with at least second class in Major subject. Candidates having no major/honours, must have a minimum of 45% marks (40% for SC/ST) in aggregate.	4	8	46
Electronics & Communication Engineering	B.Tech. in Electronics & Communication Engineering	Minimum 50% aggregate marks in PCM (Phys, Chem and Math) subjects at 10+2 and pass marks in English.	8	12	52
	M.Tech. in Electronics Design & Technology *	B.E./B.Tech./AMIE/AMIETE in Electronics/Electrical/ Instrumentation Engineering or M.Sc. in Electronics/ Instrumentation/Physics (Electronics as specialization)/ AMIETE with a minimum of 50% marks in aggregate. GATE qualified candidates will get preference.	4	8	37

Department	Programme	Eligibility			
	M.Tech. in Bioelectronics **	B.E./B.Tech. in Electronics & Communication Engineering/ Instrumentation/Chemical Engineering/Computer Science & Engineering/Electrical Engineering/Biomedical Engineering/ Bioengineering/Neuro Engineering/Genetic Engineering/ Biotechnology/MBBS or M.Sc. in Biotechnology/ Biochemistry/Chemistry/Polymer Science/Physics/ Electronics/Nano Science & Technology/ Instrumentation or MBBS with at least 50% marks in aggregate. GATE qualified candidates will get preference.	4	8	15
Energy	M.Tech. in Energy Technology*	B.E./B.Tech./AMIE in Mechanical/Electrical/Electronics/ Instrumentation/Chemical/Agricultural Engineering/Energy Engineering or M.Sc. in Physics/Chemistry with a minimum of 50% marks in aggregate. GATE qualified candidates will get preference.	4	8	35
English and Foreign Languages	M.A. in English	Bachelor's degree with at least 45% marks in major/honours in English. Candidates not having major/honours must have at least 50% marks in aggregate as well as in English.	4	8	50
	M. A. in Linguistics and Language Technology	(1) B. A. with honours in Linguistics/English/any allied subject with a minimum of 45% marks, or (2) B.A. with a minimum of 50% of aggregate marks	4	4	20
	Integrated M.A. in English	First division in the Higher Secondary (Plus Two) School Final examinations.	10	14	10
	Integrated B.A.B.Ed.	First division in the Higher Secondary (Plus Two) School Final examinations.	8	12	10
	One year Certificate in Chinese	10+2 with 45% of marks in aggregate.	2	3	39
Environmental Science	M.Sc. in Environmental Science	B.Sc. (Agri.) with a minimum of 50% marks or Bachelor's degree in Chemistry/Zoology/ Botany/ Physics/ Environmental Science as major/ honours with a minimum of 50% marks. Candidates excluding B.Sc.(Agri.) not having major/honours, must have at least 55% marks in aggregate	4	8	30
Food Engineering & Technology	Post B.Sc. Integrated M.Tech. (B. Tech. + M. Tech.) in Food Engineering & Technology	First Class graduates with qualifications of B. Sc. with Chemistry as one of the subjects/ B. Sc (Agriculture)/ B. Sc (Home Science) with elective in Food & Nutrition/ B. Sc Food Science/B. Sc (Fishery). Candidates must have passed Mathematics at 10+2 level.	8	12	12
	M.Tech. in Food Engineering & Technology (lateral entry)	i) B.E. /B. Tech degree in Food Engg/Food Process Engg/ Food Technology/ Agricultural Engg/ Chemical Engg (with specialization in Food)/Biotechnology or related fields with a minimum of 50% marks in aggregate. (The B.Tech/BE pogramme completed by the candidate should satisfy the AICTE requirements). ii) 02 years M.Sc in Food Technology/Food Processing Technology with a minimum of 50% marks in aggregate	4	8	13
	B.Tech. in Food Engineering & Technology	Minimum 50% aggregate marks in PCM (Physics, Chemistry and Mathematics) at 10+2 and pass marks in English.	8	12	10
Hindi	P.G. Diploma in Translation (Hindi)	B.A. with Hindi major/honours or B.A. with Elective Hindi or B.A./B.Com/B.Sc. with Praveen/Sahityaratna. Candidates not having major/honours must have atleast 50% marks in aggregate.	2	4	23
Mass Communication and Journalism	M.A. in Mass Communication and Journalism	Bachelor's degree in any discipline with at least 45% marks in major/ honours. Candidates not having major/honours must have at least 50% marks in aggregate.	4	8	35
	P.G. Diploma in Mobile and Multimedia Communication	Bachelor's degree in any discipline with at least 45% marks in major/ honours subject or in aggregate. For sponsored candidates, Bachelor's degree in any discipline with a minimum of 2 years of service with sponsoring organizations.	2	4	15

Department	Programme	Eligibility			
Mathematical Sciences	M.A./M.Sc. in Mathematics	Bachelor's degree with a minimum of 45% marks in major/honours, either Mathematics or Statistics. Candidates with Statistics major/honours must have Mathematics as subsidiary course with a minimum of 50% marks. Candidates not having major/honours must have 50% marks in aggregate as well as in Mathematics.	4	8	60
	Integrated M.Sc. in Mathematics	Minimum 60% aggregate marks in Mathematics, Physics, Chemistry/Statistics subjects at 10+2 and pass mark in English.	10	14	15
	Integrated B.Sc.B.Ed.	First division in the Higher Secondary (Plus Two) School Final examinations (Science).	8	12	5
Mechanical Engineering	B.Tech. in Mechanical Engineering	Minimum 50% aggregate marks in PCM (Phys, Chem and Math) subjects at 10+2 and pass mark in English.	8	12	52
Molecular Biology and Biotechnology	M.Sc. in Molecular Biology and Biotechnology ***	Bachelor's degree in Physical, Biological, Agricultural, Veterinary, Fishery Sciences, Pharmacy, Engineering/Technology, four years B.S. programme (Physician Assistant course) or Medicine, MBBS or BDS with a minimum 55% marks in major/honours or aggregate. Those who have passed the qualifying examination before 2 years from the date of announcement of admission are not eligible.	4	8	30
	Integrated M.Sc. in Bioscience and Bioinformatics	Minimum 60% aggregate marks with Biology, Chemistry, Physics and/or Mathematics subjects at 10+2 and pass mark in English.	10	12	15
Physics	M.Sc. in Physics	B.Sc. with minimum of 45% marks in major/honours in Physics having Mathematics as one of the subsidiary subjects. Candidate not having major/honours must have 50% marks in aggregate as well as in Physics.	4	8	35
	M.Sc. in Nanoscience & Technology	(i) Bachelor's degree with 45% marks in Physics as major/honours subjects and Chemistry, Biology/Mathematics as allied subjects Or, (ii) Bachelor's with 45% marks in Chemistry as major/honours subject with Physics, Biology/ Mathematics as allied subjects or, (iii) Bachelor's with 45% marks in Biology as major/honours subject with Physics, Chemistry/ Mathematics as allied subjects. Candidates having no major/honours must have minimum 50% marks in aggregate.	4	8	20
	Integrated M.Sc. in Physics	Minimum 60% aggregate marks in PCM (Phy, Chem. and Math) subjects at 10+2 and pass mark in English.	10	14	15
	Integrated B.Sc.B.Ed.	First division in the Higher Secondary (Plus Two) School Final examinations (Science).	8	12	10
Sociology	M.A. in Sociology	Bachelor's degree with at least 45% marks in Sociology major/honours or in any subject offered as major/honours. Candidates not having major/honours must have 50% marks in aggregate.	4	8	30

Relaxation: 5% relaxation in marks for candidates belonging to SC/ST categories.

* 5 seats are reserved for sponsored candidates (they have to qualify in the TUEE)
** 3 seats are reserved for sponsored candidates (they have to qualify in the TUEE)
*** Only ten seats will be filled up through TUEE. The application form attached with this prospectus is only for these ten seats. For rest of the seats, candidates are selected for admission through "All India Combined Entrance Test" conducted by the Jawaharlal Nehru University, New Delhi under the sponsorship of the Department of Biotechnology, Government of India, New Delhi (eligibility as decided by DBT, Government of India from time to time).

Course outlines for the entrance examinations

(I) B.Tech. Programme: As per AIEEE (visit: www.aieee.nic.in)

(II) P.G. Degree/Diploma/Certificate Programme
Candidates are to sit for Tezpur University Entrance Examinations (TUEE), 2012 to be held during May 25-27, 2012. Entrance Examinations for all programmes will be of two hours duration and will carry 100 marks.

M.Sc. in Chemical Sciences: The questions are on the basis of B.Sc. (Chemistry Major) syllabus along with 10+2 standard Mathematics, Physics, Biology and General Aptitude. The test comprises of both objective as well as descriptive type questions. The distribution of marks is as per the following - General Science (10), Physical Chemistry (30), Organic Chemistry (30) and Inorganic Chemistry (30).

M.Sc. in Molecular Biology and Biotechnology: The entrance examination is held for 10 seats (out of 30 seats) reserved for the domicile of North East India. The Question booklet will have two parts. Subjective answers in Part B will be checked only if the candidate qualifies the objective questions given in Part A. The booklet will have questions on higher secondary level Chemistry, Physics and Mathematics and graduate level Life Science subjects.

M.A./M.Sc. in Mathematics: Questions will be of objective type of Graduate level Mathematics. Each question carries 2 marks and 0.5 marks will be deducted for each wrong answer.

M.Sc. in Physics: Upto B.Sc. Physics (Honours) syllabus. The paper is of objective type.

M.Sc. in Nano Science and Technology: Upto B.Sc. honours in Physics/Chemistry/Biology syllabus. The paper is of objective type.

M.Sc. in Environmental Science: The test paper shall have both objective as well as short descriptive type of questions covering (a) 10+2 level science subjects (Biology, Chemistry and Physics) and (b) Basic concepts of environmental science, environmental pollution, current environmental issues, agro-ecosystems, Agro-ecology, agriculture including hill agriculture, weather and climate systems.

M.A. in Cultural Studies: The written test includes questions (descriptive as well as objective type) covering (a) General Information on North East India, particularly Assam, (b) Elementary Knowledge about the artistic and cultural heritage of India with particular reference to the North East India. The candidates may have to face an interview.

M.A. in English: The entrance examination assesses whether the candidate has the level of knowledge and skills expected of a student who has graduated/is going to graduate with major/honours in English.

M.A. in Linguistics and Language Technology: The entrance examination tests whether the candidate has the basic information and ideas about languages of the world and how language as a phenomenon works.

M.A. in Mass Communication and Journalism: The written test shall comprise of both objective and subjective questions. The objective questions consist of current affairs, general knowledge, English language, general awareness on Northeast India and the basics of mass media. The subjective section is to test the candidate's writing skills, creative and analytical capabilities. The final selection will be based on written test, group discussion and personal interview.

M.A. in Sociology: The written test includes questions (objective as well as subjective type) on (i) general awareness and (ii) understanding of various socio-economic issues.

MCA: The written test consists of three parts: (i) Logical Reasoning and Basic Mathematical Ability, (ii) Mathematics (10+2 level) or fundamentals of Computer Science and (iii) English composition.

M.Tech. in Information Technology: The written test will be based on Programming in C, Computer Organization, Data Structures, Operating Systems, System Software, Computer Network, DBMS and Theory of Computation. The candidates may have to face an interview.

M.Tech. in Electronics Design & Technology: B.E. or equivalent level courses on Electronics and

Communication Engineering, Electrical Engineering, AMIE in Electronics, M.Sc. in Physics with Electronics as special paper, M.Sc. in Electronics Sciences.

M.Tech. in Bioelectronics: B.E/B.Tech. level courses in Electronics Engineering, Electrical Engineering, Instrumentation Engineering, Communication Engineering, Biomedical Engineering, Chemical Engineering, Bioengineering, Computer Science & Engineering, Biotechnology, MBBS level, M.Sc. level courses on Chemistry, Biophysics, Molecular Biology, Cell Biology, Molecular Biology & Biotechnology, Polymer Science and Electronics.

Integrated M.Tech. (B.Tech. + M.Tech.) in Food Engineering &Technology: The test paper shall contain 100 objective type questions from 10+2 Mathematics (40 questions), Physics (30 questions) and Chemistry (30 questions). Selection will be based on Total Marks secured in TUEE and Personal Interview (PI). Weightage on performance in PI is limited to 30%.

M.Tech. in Food Engineering and Technology (lateral entry): The test paper shall contain 100 objective type questions covering the subjects of Mathematics (20 questions), General Engineering (30 questions) and Food Engineering and Technology (50 questions). GATE qualified candidates will get preference, and selection of such candidates will be based on GATE score and Personal Interview (PI). For others, selection will be based on the Total Marks secured in TUEE and Personal Interview. In both cases, weightage on performance in PI is limited to 30%.

M.Tech. in Energy Technology: The test paper will include questions on the basic knowledge of Mathematics, Physics and Chemistry (Graduate level courses in Science and Engineering) and knowledge of different forms of energy. The final selection is based on written test. GATE qualified candidates will get preference.

M.Tech. in Polymer Science and Technology: The test paper shall have questions based on chemical science related subjects (Chemistry/ Polymer Science/Applied Chemistry) at Master's degree level and allied subjects (Polymer Sci. & Tech./Fiber Sci. & Tech./ Rubber Tech. / Plastic Tech./ Chemical Engineering) at professional (B.Tech./B.E.) degree level. Candidates with valid GATE score will get preference.

Certificate in Chinese: The entrance examination will assess the candidate's knowledge of English grammar and usage, ability to write coherent paragraphs in English and general information about China

P.G. Diploma in Mobile and Multimedia Communication: The written test shall comprise of both objective and subjective type questions. The objective questions will consist of tests on English Language, General Knowledge, Computer Knowledge, Current Affairs, Culture and Traditions of North East India. The subjective questions are to test the candidates' sensitivity towards social issues and writing skills. The final selection will be based on the written test and personal interview.

P.G. Diploma in Tourism Management: The written test of objective type will consist of General Knowledge, Test of Reasoning and Test of English. Short listed candidates (based on the written test) may have to appear for a personal interview.

P.G. Diploma in Translation (Hindi): The written test shall have both objective and descriptive type of questions based on degree level syllabus of Hindi major, electives, praveen and sahitya ratna.

(III) Integrated M.Sc. and B.Sc.B.Ed Programmes

Integrated M.Sc. in Bioscience & Bioinformatics: Test comprising of 60 objective type questions in two sections. In the first section 35 are to be answered out of a total 40 questions in Biology. In the second section 15 questions are to be attempted out of 20 questions in Chemistry, Mathematics, Physics & General. Each question carries 2 marks and 0.5 marks will be deducted for each wrong answer.

Integrated M.Sc. and B.Sc.B.Ed in Chemistry: Test comprising of 60 objective type questions in two sections. In the first section 35 are to be answered out of a total 40 questions in Chemistry. In the second section 15 questions are to be attempted out of 20 questions in Biology, Mathematics, Physics & General. Each question carries 2 marks and 0.5 marks will be deducted for each wrong answer.

Integrated M.Sc. and B.Sc.B.Ed in Mathematics: Test comprising of 60 objective type questions in two sections. In the first section 35 are to be answered out of a total 40 questions in Mathematics. In the second

section 15 questions are to be attempted out of 20 questions in Biology, Chemistry, Physics & General. Each question carries 2 marks and 0.5 marks will be deducted for each wrong answer.

Integrated M.Sc. and B.Sc.B.Ed in Physics: Test comprising of 60 objective type questions in two sections. In the first section 35 are to be answered out of a total 40 questions in Physics. In the second section 15 questions are to be attempted out of 20 questions in Biology, Chemistry, Mathematics & General. Each question carries 2 marks and 0.5 marks will be deducted for each wrong answer.

(IV) Integrated M.A. in English and Integrated B.A.B.Ed. in English: The entrance test has two components. The first aims to test the candidate's general knowledge and the second their ability to write grammatically correct and acceptable English

(V) Ph.D. Programme: Candidates are selected based on the performance in the written test followed by personal interview. The syllabus for the examination will be as per respective P.G./U.G. courses.

SECTION FOUR

Ph.D. PROGRAMME

Ph.D. PROGRAMME

Categories of Candidates

The University shall admit Ph. D. students under the following categories:

a) **Full Time**: Students under this category shall work full time for the Ph. D. courses/research. They may apply for fellowship/assistantship available from different funding agencies.

b) **Sponsored**: Candidates may be sponsored by recognised R&D organisations, national institutions, other universities, government organizations or industries. They shall be admitted through the normal process, and they shall not be entitled to any fellowship/assistantship from the University. They shall work full time for the Ph. D. courses/research.

c) **Project Fellows**: Students working on different research projects at Tezpur University may be admitted to the Ph. D. programme provided they satisfy the eligibility criteria, subject to the consent of the Principal Investigator of the project.

d) **Part Time:** Candidates employed in academic institution/University (including Tezpur University)/R&D organizations may be considered for admission into the Ph. D. programme of Tezpur University, following the normal admission procedure. They shall fulfill the stipulated requirements for Ph. D. admission.

Eligibility for Admission

Master's Degree in Humanities and Social Sciences/Management Sciences/Science/Engineering/ Technology or Master's degree in the allied subject with consistently good academic record and minimum of 55% marks or an equivalent CGPA in the Master's Degree/B. E./B. Tech. with an aggregate of 80% marks or equivalent CGPA with valid GATE score.

A fellowship in Chartered Accountancy/ Company Secretary-ship from a recognized Indian or foreign institution with not less than 60% of marks or equivalent CGPA having a minimum of Bachelor's Degree.

Relaxation in requisite qualifications for SC/ST candidates shall be followed as per Central Govt. rules.

Selection Procedure

Selection of candidates will strictly be done on merit based on performance in the Entrance Test followed by personal interview.

Academic Session

Acedemic session of the University shall be from August to July and shall consist of two semesters-Autumn (July to December) and Spring (January to June). For details please refer to the Academic calendar in the website (www.tezu.ernet.in).

Requisite qualification for admission into various disciplines of Ph.D. programmes

School	Department	Qualification
Science & Technology	Chemical Sciences	M.Sc. in all branches of Chemical Sciences/Physics/Nano Science/Material Science/ Biotechnology/Biochemistry/Bioinformatics/Environmental Science; M.E/M. Tech. in allied subjects. (Chemical Engineering/Polymer Technology/Material Sciences/Environmental Engineering etc.); B. Tech. in Chemical Engineering/Polymer Technology/Material Sciences/Environmental Engineering etc., with 80% marks in aggregate or equivalent grade.
	Mathematical Sciences	M.A./M.Sc. degree in Mathematics/Statistics/Physics/Computational Seismology/ Economics with requisite background in Mathematics.
	Molecular Biology & Biotechnology	M. Sc in Biotechnology/Molecular Biology/Molecular Biology and Biotechnology/ Biochemistry/Microbiology/Genetics/Plant Breeding/Agriculture Biotechnology/Life Sciences/Botany/Zoology/Applied Botany/Biophysics/Bioinformatics. M.Tech. in Biotechnology, Bioinformatics, Food Processing Technology, Biochemical Engineering/ M.Pharma/M.V.Sc./M.F.Sc./M.D./M.B.B.S. with 80% or equivalent GPA/M.Sc. in Nanoscience & Technology.
	Physics	M.Sc. in Physics/Electronics/Geophysics/ Material Science/ Applied Mathematics/ Nano Science & Technology/Biotechnology/Environmental Science and Chemical Science. M.Phil., M.Tech in Solid StateMaterials/Materials Science/Electronics/ Energy/Nanoscience and Technology/Biotechnology/Environmental Science and Chemical Sciences. B.Tech. in Engineering Physics with 80% marks in aggregate or equivalent CGPA.
	Environmental Science	M.Sc. in Environmental Science/Botany/Applied Botany/Chemistry/Physics/Zoology/Earth Sciences/Life Sciences/Agro-Forestry M. Sc. (Agri) in Crop Physiology/Biochemistry/Horticulture/Agronomy/Soil Science/Agril. Meteorology M.Sc. in Agricultural Sciences.

Engineering	Civil Engineering	Masters degree in Engineering/Technology/Science. B.E./B.Tech with 80% marks in aggregate or equivalent CGPA with a valid GATE Score.
	Computer Science & Engineering	M.Tech. in Computer Science/ I.T./ Electronics MCA M. Sc. in Computer Science/ I.T. B.E./B.Tech. with 80% marks in aggregate or equivalent CGPA with valid GATE score.
	Electronics & Communication Engineering	M.E./M.Tech./M.Sc.Engg./M.S. in Electronics/ Communication/ Electronics Design/ Electrical/ Instrumentation / Control/ Microwave /Biomedical/ Bioelectronics/ Bio-Technology/ Computer Science/ Information Technology. M. Sc. in Electronics/ Physics/ Applied Mathematics. MCA with Physics, Chemistry and Mathematics in Bachelor degree, MBBS with MD/ MS degree. B.E. / B.Tech. with 80% marks in aggregate or equivalent CGPA with valid GATE score.
	Food Engineering and Technology	M.Sc./M.Tech./M.E. in Food Tech/Food Processing Technology/ Food Science & Technology/ Food and Nutrition / Microbiology / Food Microbiology / Biochemistry / Chemistry / Biotechnology/ Food Engineering/ Applied Microbiology/ Dairy Engineering/ Food Biotechnology Engineering.
	Mechanical Engineering	M.E./M.Tech./M.Sc. (Engg.) in Mechanical Engg. or allied areas. B.E. /B.Tech with 80% marks in aggregate or equivalent CGPA with a valid GATE Score.
	Energy	M.Sc./M.E./M.Tech. degree in Energy Technology/ Energy Management/ Energy related Engineering & Technology/ Physics/ Chemistry/Agriculture/ Allied subjects.
Humanities & Social Science	Cultural Studies	M.A. in any of the disciplines in Humanities or Social Sciences with a uniformly good academic career. Candidates with UGC JRF, UGC NET or NE SET will be given preference
	English & Foreign Languages	M.A. in English (specialization may be in Literature, English Language Teaching or Linguistics) M.A. in Linguistics
	Hindi	M.A. in Hindi
	Mass Communication & Journalism	M.A. in Mass Communication, Mass Communication & Journalism. Master of Mass Communication (MMC). Master of Journalism & Communication (MJMC). M.S. Communication. M.Sc. Communication. Master of Journalism.
	Sociology	Post Graduation in Sociology / Cultural Studies / Anthropology (with specialization in Social Anthropology) / Economics / History / Political Science / Philosophy / Mass Communication / English / Law / Management/ Social Work.
Management Sciences	Business Administration	M.B.A. M.Com. M.A. / M.Sc. in Economics M.A. in Psychology/ Sociology/Social Work./Cultural Studies M.C.A M.T.M./ M.T.A. FCA/ FCS/ FICWA

Seats are reserved for SC/ST/ OBC (NCL), Kashmiri Migrant and Person with Disability (PWD) candidates as per central government rules. PWD candidates with at least 40% permanent disabilities will only be considered.

Recognised supervisors of Tezpur University and their area of specialization

Name and Designation	Area of Specialization

1. Department of Business Administration

Name and Designation	Area of Specialization
Dr. M.K. Sarma, Professor	Services Marketing
Dr. (Mrs) Chandana Goswami, Professor	Financial Management ,General Management
Dr. Subhrangshu S. Sarkar, Professor	Accounting , Taxation, Social Development Issues
Dr. Debabrata Das,Professor	Financial Management, Financial Markets and Development Finance
Dr. Chandan Goswami, Associate Professor	Marketing and Promotional Strategies, Consumer Behaviour
Dr. (Mrs.) Papori Baruah, Associate Professor	Change Management and Human Resource Development
Dr. T.R. Sarma, Associate Professor	Systems Management, Operations, Project Management, Tourism

2. Department of Chemical Sciences

Name and Designation	Area of Specialization
Dr. S.K. Dolui, Professor	Fibre reinforced plastic, self reinforced plastic, water based coating and adhesive, diffusion of small molecule through plastic
Dr. N.S. Islam, Professor	Synthetic Inorganic Chemistry and Biomimetic Chemistry of Transition Metals
Dr. T.K. Maji, Professor	Grafting of fibres, Rubber processing, Reaction engineering, Emulsion polymer, Textile finishing
Dr. R.K. Dutta, Professor	Surfactants and micelles, Water Purification
Dr. N. Karak, Professor	Synthesis of advanced Polymers, Polymer Nanocomposites and Nanomaterials
Dr. R.C. Deka, Professor	Theoretical Chemistry and Computer Modeling
Dr. R. Bora, Associate Professor	Synthesis of bioactive molecule, Development of green methodologies for organic transformation
Dr. A.J. Thakur, Associate Professor	Heterocyclic chemistry, Organic synthesis and Molecular container chemistry
Dr. A.K. Phukan, Associate Professor	Theoretical Inorganic and Organometalic chemistry
Dr. P. Pujari, Assistant Professor	Physical Chemistry

3. Department of Civil Engineering

Name and Designation	Area of Specialization
Dr. A. Dutta, Associate Professor	Soil-structure interaction, earthquake engineering, structural control, system identification

4. Department of Computer Science & Engineering

Name and Designation	Area of Specialization
Dr. M. Dutta, Professor	Optimization, Computational Theory
Dr. D.K. Saikia, Professor	Networks, Mobile Computing
Dr. D.K. Bhattacharyya, Professor	Data Mining, Cryptography
Dr. S.K. Sinha, Professor	Workflow Automation, Web Theory
Dr. S.M. Hazarika, Professor	Spatial Reasoning, Cognitive Robotics
Dr. U. Sharma, Associate Professor	Natural Language Processing
Dr. N. Sarma, Associate Professor	Wireless Network and Mobile Computing
Dr. B. Bora, Associate Professor	Data Mining

5. Department of Cultural Studies

Name and Designation	Area of Specialization
Dr. Sunil Kumar Dutta, Professor	Folklore and culture, Assamese language and culture
Dr. Pradip Jyoti Mahanta, Professor	Cultural History, Comparative religion, Traditional visual and performing arts
Dr. Parag Moni Sarma, Associate Professor	Literary folklore, cultural theory and ethnicity
Dr. Debarshi Prasad Nath, Associate Professor	Gender Studies, Comparative Literature, Translation, and Critical Theory

Name and Designation	Area of Specialization
Dr. Parasmoni Dutta, Assistant Professor	Heritage Studies, New Museology
Dr. J. Gogoi Konwar, Assistant Professor	Medical Anthropology, Anthropology of Food and Costume

6. Dept. of Electronics & Communication Engineering

Dr. M. Bhuyan, Professor	Sensor Design, Image Processing, Machine Vision
Dr. P.P. Sahu, Professor	Optoelectronics
Dr. J. C. Dutta, Associate Professor	Bio-electronics
Dr. S. Bhattacharyya, Professor	Microwave Antennas
Dr. S. Sharma, Associate professor	Devices (Semiconductor and bioelectronic),Electric vehicle

7. Department of Energy

Dr. S.K. Samadarshi, Professor	Solar Energy, Solar Photocatalysis, Energy Materials, Hydrogen Energy, Energy Education
Dr. D.C. Baruah, Professor	Biomass Energy, Energy Management and Mathematical Modeling and Farm Mechanisation
Dr. D. Deka, Professor	Biofuels, Biomass Assessment, Bioenergy & Environment
Dr. R. Kataki, Associate Professor	Energy and Environment, Biomass energy
Dr. D K. Bora, Associate Professor	Alternative fuels, Single cylinder diesel engine, Storage stability of biodiesel, Life-cycle assessment

8. Department of English & Foreign Languages

Dr. M.M. Sarma, Professor	Applied Linguistics, Literature in English, ELT
Dr. B.K. Danta, Professor	American Literature, Critical Theory, Fiction Studies
Dr. Farheena Danta, Professor	American Literature, Cultural Studies, Modernist Poetics
Dr. P.K. Das, Professor	American Literature, Indian Writing in English
Dr. M. Borbora, Professor	Linguistics (Syntax, Psycholinguistics)
Dr. G.K. Borah, Associate Professor	Linguistics, Cognitive Semantics, Philosophy of Language
Dr. Sravani Biswas, Associate Professor	Critical Theory, Indian Writing English

9. Department of Environmental Science

Dr. K.K. Baruah, Professor	Environmental Plant Physiology and Biochemistry
Dr. K.P. Sarma, Professor	Water Pollution & Remediation of Toxic substances
Dr. R.R. Hoque, Associate Professor	Air pollution and Environmental Monitoring and Assessment
Dr. A.K. Das, Associate Professor	Geomorphology, Regional Climate
Dr. (Mrs.) A. Devi, Assistant Professor	Plant Ecology and Biodiversity conservation
Dr. (Mrs.) N. Gogoi, Assistant Professor	Stress Physiology & Biochemistry
Dr. S.S. Bhattacharya, Assistant Professor	Vermiculture, Plant Nutrition & Soil Fertility Management
Dr. M. Kumar, Assistant Professor	Hydro-geochemistry, Groundwater modeling, Contaminant transport, Heavy metal speciation; Isotope fingerprinting, Soil and water pollution

10. Department of Food Engineering & Technology

Dr. C.L. Mahanta, Professor	Rice Science & Technology, Product Development & Food Quality
Dr. S.C. Deka, Professor	Food Biochemistry & Food Quality
Dr. Brijesh Srivastava, Assoc. Professor	Food Engineering, Food Process Engineering, Fruit & Vegetable processing

11. Department of Hindi

Dr. A.K. Nath, Professor	Medieval Poetry, Folkloristics and Comparative Studies
Dr. B.C. Pathak, Associate Professor	Modern Poetry, Fiction and Comparative Studies

12. Department of Mass Communication and Journalism

Name and Designation	Area of Specialization
Dr. Abhijit Bora, Associate Professor	Journalism, Print Media, Development Communication, Radio / Community Radio, Community Media
Dr. C.S.H.N. Murthy, Associate professor	Film and TV Studies, Ad-film Making, Advertising and PR, Media Research, Political Communication and International Communication. Research in Communication and Media Studies (Mediatization), Print, Film & Electronic, Development

13. Department of Mechanical Engineering

Dr. Ashis Mallick, Assoc. Professor	Mechanics of materials, Phase field method, Nanostructured & Nanocomposite materials.

14. Department of Mathematical Sciences

Dr. M. Borah, Professor	Discrete Distribution, Combinational Optimization, Genetic Algorithms, Numerical Analysis.
Dr. N. Deka Baruah, Professor	Number Theory, Ramanujan's Mathematics.
Dr. D. Hazarika, Professor	General Topology, Fuzzy Sets and Applications.
Dr. (Mrs.) M. Hazarika, Associate Professor	Functional Analysis, Operator Theory.
Dr. M. Nath, Associate Professor	Ordinary Graph Spectra, Inverse Eigen Value Problem
Dr. R. Barman, Associate Professor	Algebraic Number Theory, Iwasawa Theory
Dr. B. Deka, Associate Professor	Numerical Analysis, Finite Element Method
Dr. D.K. Basnet, Associate Professor	Algebra; Fuzzy Set Theory
Dr. S. Dutta, Associate Professor	Statistics(Non-parametric)

15. Department of Molecular Biology & Biotechnology

Prof. B.K. Konwar, Professor	Plant biotechnology, Microbial genetics, Petroleum biotechnology
Prof. A.K. Mukherjee, Professor	Biochemistry of venom toxins, Enzyme technology, Microbial biotechnology, Nanobiotechnology
Prof. A.K. Buragohain, Professor	Plant biotechnology, Evolutionary genomics
Dr. (Mrs.) S. Baruah, Associate Professor	Molecular immunology and Immunogenetics
Dr. S.K. Ray, Associate Professor	Virulence functions bacteria, Molecular evolution
Dr. M. Mandal, Associate Professor	Industrial Microbiology
Dr. A. Ramteke, Assistant Professor	Radiation and cancer biology, Computational biophysics
Dr. R. Doley, Assistant Professor	Molecular Toxicology

Name and Designation	Area of Specialization

16. Department of Physics

Name and Designation	Area of Specialization
Dr. A. Choudhury, Professor	Condensed matter physics, Laser physics, Quantum electronics
Dr. A. Kumar, Professor	Condensed matter physics, Solid state ionics
Dr. J.K. Sarma, Professor & HoD	Theoretical high energy physics, Particle physics
Dr. N.S. Bhattacharyya, Associate Professor	Microwaves
Dr. N. Das, Associate Professor	Plasma physics
Dr. P. Deb, Associate Professor	Nano science and Nano technology, Physics of materials
Dr. G.A. Ahmed, Associate Professor	Laser physics, Optoelectronics
Dr. D. Mohanta, Associate Professor	Condensed matter physics and Nanoscience
Dr. P.K. Karmakar, Assistant Professor	Plasma physics, Astrophysics & Nonlinear dynamics
Dr. A. Pathak, Assistant Professor	Molecular Astrophysics of Polycyclic Aromatic Hydrocarbons(PAHs),Interstellar Dust (Cosmic Dust), UV Astronomy

17. Department of Sociology

Name and Designation	Area of Specialization
Dr. C.K. Sarma, Professor	Social Development, Culture & Media Studies, Environmental Sociology, Nationalism.
Prof. Chandreshekar Bhat, Visiting Professor	Industrial Sociology, Social Movements, Diaspora Studies Urban Studies
Dr. K. Kikhi, Associate Professor	Research Methodology, Gender and Society, Sociology of Northeast India

SECTION FIVE

DEPARTMENTS

BUSINESS ADMINISTRATION
(Year of Establishment: 1995)

The Department of Business Administration came into existence in 1995 with the objective of producing quality management professionals and carrying out research in the areas of Finance, Human Resources, Marketing, Production and Systems Management. The Department also offers a Programme on Tourism Management.

Programmes offered

1. PG Diploma in Tourism Management
   (This is a Modular programme. A student can opt for a certificate after successful completion of the first semester; likely to be upgraded to MTM]
2. Master of Business Administration (MBA) (Full Time) (2 Years, 4 Semesters)
3. Master of Business Administration (MB A) (Part time) (3 years , 6 semesters)
4. Ph.D.

Faculty

Professor

Sarma, M. K., Ph.D. (Tezpur University), Dean, School of Management Sciences
Goswami, Chandana, Ph.D. (Gauhati University)
Sarkar, S. S., Ph.D. (Tezpur University), Head of the Department
Das, D., Ph.D. (Rajiv Gandhi University, Itanagar)

Associate Professor

Goswami C., Ph.D. (Tezpur University)
Baruah, P., Ph.D. (Tezpur University)
Sarma, T. R., Ph.D. (Tezpur University)
Bhuyan, A., Ph.D. (Tezpur University)

Assistant Professor

Barpujary, H., M.C.A. (Tezpur University)
Roy, A., M.B.A. (Tezpur University)
Prakash, G., M.M.S. (Allahabad University) (on lien)
Mahanta, K., M.B.A. (Assam University)
Das, R., Ph.D. (Gauhati University)
Dutta, M., M.B.A. (TU)

Facilities

The Department is well equipped with modern educational facilities like state of the art computer laboratory and instructional audio-visual aids including LCD Projector etc. The Department has an air conditioned board room for facilitating case study, group discussion etc.

Research Activity

Nos. of papers published in the year 2011 : 10
Nos. of ongoing research project/consultancy : 7

Selected publications

1. Roy, A. Do cross-border acquisitions create shareholders' value in the short run? *Asia Profile*, **39**, 1-28, 2011.
2. Goswami, S. & Sarma, M. K. Guest delight: It's significance in the hotel industry, *IUP Journal of Marketing Management*, **10**, 64-81, 2011.
3. Baruah, P. Organization development strategies for enhancing SHG effectiveness. *International Journal of Development Studies*, **2,** 113-117, 2010.

Courses offered in P.G. Diploma (Tourism Management)

Core Courses					
CODE	Title	Credit	CODE	Title	Credit
TM 411	Fundamentals of Tourism	4	TM 412	Destination Geography, History andHeritage	4
TM 413	Leisure Delivery System	4	TM 414	Interpersonal Skills	4
TM 415	Information Based Management	4	TM 424	Tourism Practices	4
TM 421	Management Fundamentals	2	TM 422	Finance and Accounting for Tourism	4
TM 423	Tourism Entrepreneurship	4	TM 416	Term Paper	4
TM 425	Resort Management	4	TM 426	Project	6

CHEMICAL SCIENCES
(Year of Establishment: 1997)

The Department was established in the year 1997 with the objectives of providing students with broad based training in various disciplines related to Chemical Sciences and reach out to the society. The Department is offering M.Sc. programme in Chemical Sciences, Integrated M.Sc. in Chemistry, Integrated B.Sc. B.Ed., M.Tech in Polymer Science & Technology and Ph.D. programme. The faculty members are involved in advanced research programmes in the areas of synthesis, characterization and processing of polymers, nanocomposites, bioinorganic chemistry, surfactant systems, synthetic organic chemistry, theoretical chemistry and environmental chemistry.

Programmes offered
1. Integrated M.Sc. in Chemistry
2. Integrated B.Sc. B.Ed.
3. M.Sc. in Chemistry
4. M.Tech in Polymer Science & Technology
5. Ph.D.

Faculty
Professors
- Dolui, S.K, Ph.D. (IIT, Kharagpur)
- Islam, N.S., Ph.D. (NEHU, Shillong)
- Maji, T.K., Ph.D. (Calcutta University)
- Dutta, R.K., Ph.D. (NEHU, Shillong)
- Karak, N., Ph.D. (IIT, Kharagpur)
- Deka, R.C., Ph.D. (NCL, Pune)

Associate Professors
- Borah, R., Ph.D. (Gauhati University)
- Thakur, A.J., Ph.D. (NEIST, Jorhat)
- Phukan, A.K., Ph.D. (University of Hyderabad)

Assistant Professors
- Puzari,P., Ph.D. (IIT, Guwahati)
- Bania, K.K., M.Sc. (Gauhati University)
- Bharali, P.K, Ph.D. (IICT, Hyderabad)
- Gogoi, N., Ph.D. (IIT, Bombay)

Facilities

In addition to the laboratory facilities required for post graduate level studies in Chemical Sciences and Polymer Technology, the Department is equipped with sophisticated instrumentation facilities, like FTIR spectrophotometer, CHN Analyzer, Thermal Analyzer, UV-Visible Spectrophotometer, Universal Testing Machine (UTM), Atomic Absorption Spectrophotometer (AAS), Polarizing Microscope, High performance computational facilities etc. Besides these, the University has central instrumentation facilities of Scanning Electron Microscope (SEM) and 400 MHz Nuclear Magnetic Resonance (NMR) spectrophotometer, GC-MS, ICP-AES, GPC, HPLC, GC etc.

Award

The highest scorer among the students of the department is awarded with the Applied Chemistry Education Award.

Research Activity

Nos. of papers published in the year 2011   : 61
Nos. of ongoing research projects   : 14

Selected publications
1. Konwar. U. & Karak, N. Hyperbranched polyether core containing vegetable oil modified polyester and its clay nanocomposite, *Polymer J.* **43**, 565-576, 2011.
2. Das, S. & Thakur, A.J. A clean, highly efficient and one-pot green synthesis of Aryl/ Alkyl/ Heteroaryl Bis(6-amino-1,3-dimethyluracil-5-yl)methanes in water, *European J. Org. Chem.*, 2301- 2308, 2011.
3. Guha, A. K. & Phukan, A. K. Why Vanadium Complexes Perform Poorly in Comparison to Related Molybdenum Complexes in the Catalytic Reduction of Dinitrogen to Ammonia (Schrock Cycle): A Theoretical Study, *Inorg. Chem.* **50**, 8826-8833, 2011.
4. Venkatakrishnan, T. S., Duhayon, C., Gogoi, N. & Sutter, J.P. Self Assembly of a $Fe^{III}(L)$ complex with octacyano metallates $[M^{IV}(CN)_8]^{4-}$ (L = pentadentate macrocyclic ligand, M = Mo, W): Crystal structure and Magnetic properties. *Inorganica Chimica Acta*, **372**, 403-406, 2011.
5. Bania, K.K., & Deka, R.C. Influence of zeolite framework on structure, properties and reactivity of cobalt phenanthroline complex: A combined experimental and computational study, *J. Phys. Chem. C* **115**, 9601-9607, 2011.

Other relevant information

The Department has received financial assistance under UGC-SAP and DST-FIST special grants for strengthening teaching, research and training.

Courses offered in M.Tech. in Polymer Science and Technology

Semester I

Sl. No.	Course Name	Credit		Class
		L-T-P	Total CR	Hours
PT-501	Introduction to Polymer Science	3-0-0	3	3
PT-502	Industrial Polymers	3-0-0	3	3
PT-503	Polymer Characterization and Analysis	3-0-0	3	3
PT-504	Polymer Reaction Engineering and Reactor Design	3-0-0	3	3
PT-505	Fundamentals of Chemical Engineering	3-0-0	3	3
PT–506/507/508	Elective-I	3-0-0	3	3
PT-509	Polymer Synthesis and Analysis Laboratory	0-0-3	6	3
IDC-I	IDC course	3-0-0	3	3
Total Credit				**24**

Semester II

Sl. No.	Course Name	Credit		Class
		L-T-P	Total CR	Hours
PT-510	Processing & Fabrication of Polymers	3-0-0	3	3
PT-511	Polymer Rheology & Morphology	3-0-0	3	3
PT-512	Rubber Science & Technology	3-0-0	3	3
PT–513/514	Elective-II	3-0-0	3	3
PT–515/516	Elective – III	3-0-0	3	3
PT-517	Polymer Processing and Testing Laboratory	0-0-3	6	3
IDC-II	IDC course	3-0-0	3	3
Total Credit				21

Semester III

Sl. No.	Course Name	Credit		Class
		L-T-P	Total CR	Hours
PT–601/602/603/604	Elective –IV	3-0-0	3	3
PT-605	Project –I	0-0-9	18	9
Total Credit				12

Semester IV

Sl. No.	Course Name	Credit		Class
		L-T-P	Total CR	Hours
PT-606	Project – II	0-0-12	24	12
Total Credit				12

Electives – I : Any one from the following
PT–506   Paints & Surface Coating Technology
PT–507   Fiber Science & Technology
PT–508   Production of Polymer Raw Materials
Electives – II : Any one from the following
PT–513   Polymer Composites & Blends
PT–514   Conducting Polymers
Electives – III : Any one from the following
PT–515   Polymeric Biomaterials
PT–516   Chemical Computation
Electives – IV : Any one from the following
PT–601   Environmental Engineering & Polymer Waste Management
PT–602   High Performance Polymers
PT–603   Computer Aided Design
PT–604   Nanomaterials and Nanocomposites

Courses offered in M. Sc. in Chemistry

Course Code	Course name	L-T-P	CH	Credit
CH-401	Principles of Inorganic Chemistry	3-0-0	3	3
CH-402	Principles of Organic Chemistry	3-0-0	3	3
CH-403	Chemical and Statistical Thermodynamics	3-0-0	3	3
CH-404	Quantum Chemistry and Chemical Bonding	3-0-0	3	3
CH-405	Computers in Chemistry	2-0-2	3	4
CH-406	Laboratory Course in Organic Chemistry	0-0-6	6	12
IDC-I	IDC course	3-0-0	3	3
			31	24

SECOND SEMESTER

Course Code	Course name	L-T-P	CH	Credit
CH-407	Chemistry of Transition Elements	3-0-0	3	3
CH-408	Organic Reactions and Mechanism	3-0-0	3	3
CH-409	Chemical Dynamics and Electrochemistry	3-0-0	3	3
CH-410	Analytical Techniques	3-0-0	3	3
CH-411	Spectroscopic Principles	3-0-0	3	3
CH-412	Seminar	0-0-2	1	2
CH-413	Laboratory Course in Inorganic Chemistry	0-0-6	6	12
IDC-II	IDC course	3-0-0	3	3
			32	25

THIRD SEMESTER

Course Code	Course name	L-T-P	CH	Credit
CH-501	Chemical Applications of Spectroscopy	2-2-0	3	4
CH-502	Special Topics in Organic Chemistry	3-0-0	3	3
CH-503	Physical Chemistry of Surface and Condensed Systems	3-0-0	3	3
CH-504	Special Topics in Inorganic Chemistry	3-0-0	3	3
CH-505/506/507	Elective- I	3-0-0	3	3
CH-508	Laboratory Course in Physical Chemistry	0-0-6	6	12
IDC-III	IDC course	3-0-0	3	3
			24	31

FOURTH SEMESTER

Course Code	Course name	L-T-P	CH	Credit
CH-509	Environmental and Green Chemistry	3-0-0	3	3
CH-510/511/512/513/514	Elective-II	3-0-0	3	3
CH-515/516/517/518	Elective-III	3-0-0	3	3
CH-519	Project Work	0-0-9	9	18
IDC-IV	IDC course	3-0-0	3	3
			21	30

Elective-I: Any one from the following group
CH-505   Catalysis
CH-506   Bio-inorganic Chemistry
CH-507   Newer Methods in Organic Synthesis

Elective-II & III: Any two from the following group
CH-510   Polymer Chemistry
CH-511   Chemistry of Materials
CH-512   Medicinal Chemistry
CH-513   Surfactants and Interfacial Phenomena
CH-514   Organometallic Chemistry
CH-515   Molecular Modeling of Organic and Inorganic Compounds
CH-516   Special topics in Analytical Chemistry
CH-517   Industrial Chemistry
CH-518   Biomolecular Chemistry

Courses offered in Integrated M.Sc. in Chemistry

FIRST SEMESTER

Course Code	Course Name	Credit		Class
		L-T-P	Total CR	Hours
PI 101	Physics-I	2-0-1	3	4
CI 101	Chemistry-I	2-0-2	4	6
BI 101	Biology-I	2-0-1	3	4
MI 101	Mathematics-I	2-1-0	3	3
CS 101	Basics in Computer Applications	2-0-1	3	4
EG 101	Communicative English	2-0-0	2	2

Total credit = 18

SECOND SEMESTER

Course Code	Course Name	Credit		Class
		L-T-P	Total CR	Hours
PI 102	Physics-II	2-0-1	3	4
CI 102	Chemistry-II	2-0-2	4	6
BI 102	Biology-II	2-0-1	3	4
MI 102	Mathematics-II	2-1-0	3	3
ES 102	Elementary Environmental Science	2-0-0	2	2
SC 102	Basic Sociology	2-0-0	2	2
NS 102	NSS	0-0-1	1	1

Total credit = 18

THIRD SEMESTER

Course Code	Course Name	Credit		Class
		L-T-P	Total CR	Hours
CI 201	Chemistry-III (For non - Chemistry Majors)	2-1-0	3	3
CI 203	Physical Chemistry-I	2-1-0	3	3
CI 205	Organic Chemistry-I	2-1-0	3	3
CI 207	Inorganic Chemistry-I	2-1-0	3	3
CI 209	Chemistry Laboratory-I	0-0-3	3	6
CI 211	Chemistry Laboratory-II (For non - Chemistry Majors)	0-0-2	2	4
MI 201	Mathematics-III (Common Paper)	2-1-0	3	3
PI 201	Physics-III	2-1-0	3	3
PI 209	Physics Laboratory-II	0-0-2	2	4

Total credit for Major Students   =   20

FOURTH SEMESTER

Course Code	Course Name	Credit		Class
		L-T-P	Total CR	Hours
CI 202	Chemistry -IV (For non - Chemistry Majors)	2-1-0	3	3
CI 204	Physical Chemistry-II	2-1-0	3	3
CI 206	Organic Chemistry-II	2-1-0	3	3
CI 208	Inorganic Chemistry-II	2-1-0	3	3
CI 210	Chemistry Laboratory-III	0-0-3	3	6
CI 212	Chemistry Laboratory-IV (For non - Chemistry Majors)	0-0-2	2	4
MI 204	Mathematics- IV	2-1-0	3	3
BI 202 Or,	Ecology and Environmental Biology	2-1-0	3	3
PI 202	Physics-IV	2-1-0	3	3
BI 210 Or,	Bio-computing Lab	0-0-2	2	4
PI 210	Physics Laboratory-IV	0-0-2	2	4

Total credit = 20

FIFTH SEMESTER

Course Code	Course Name	Credit		Class
		L-T-P	Total CR	Hours
CI 301	Physical Chemistry – III	3-0-0	3	3
CI 303	Organic Chemistry-III	3-0-0	3	3
CI 305	Inorganic Chemistry-III	3-0-0	3	3
CI 307	Quantum Chemistry	3-0-0	3	3
CI 309	Chemistry Laboratory-III	0-0-4	4	8

Total credit = 16

SIXTH SEMESTER

Course Code	Course Name	Credit		Class
		L-T-P	Total CR	Hours
CI 302	Physical Chemistry-IV	3-0-0	3	3
CI 304	Organic Chemistry-IV	3-0-0	3	3
CI 306	Inorganic Chemistry-IV	3-0-0	3	3
CI 308	Principles and Applications of Spectroscopy	3-0-0	3	3
CI 310	Chemistry Laboratory IV	0-0-4	4	8

Total credit = 16

SEVENTH SEMESTER

Course Code	Course Name	Credit		Class
		L-T-P	Total CR	Hours
CI 401	Principles of Inorganic Chemistry	3-0-0	3	3
CI 403	Principles of Organic Chemistry	3-0-0	3	3
CI 405	Chemical and Statistical Thermodynamics	3-0-0	3	3
CI 407	Quantum Chemistry and Chemical Bonding	3-0-0	3	3
CI 409	Computers in Chemistry	3-0-0	3	3
CI 411	Laboratory Course in Organic Chemistry	0-0-4	4	8

Total credit   =   19

EIGHTH SEMESTER

Course Code	Course Name	Credit		Class
		L-T-P	Total CR	Hours
CI 402	Chemistry of Transition Elements	3-0-0	3	3
CI 404	Organic Reactions and Mechanism	3-0-0	3	3
CI 406	Chemical Dynamics and Electrochemistry	3-0-0	3	3
CI 408	Analytical Techniques	3-0-0	3	3
CI 410	Spectroscopic Principles	3-0-0	3	3
CI 412	Laboratory Course in Inorganic Chemistry	0-0-4	4	8

Total credit = 19

NINTH SEMESTER

Course Code	Course Name	Credit		Class
		L-T-P	Total CR	Hours
CI 501	Chemical Application of Spectroscopy	3-0-0	3	3
CI 503	Special Topics in Organic Chemistry	3-0-0	3	3
CI 505	Physical Chemistry of Surface and Condensed Systems	3-0-0	3	3
CI 507	Special Topics in Inorganic Chemistry	3-0-0	3	3
CI 509/511/513	Elective I	3-0-0	3	3
CI 515	Laboratory Course in Physical Chemistry	0-0-4	4	8

Total credit = 19

TENTH SEMESTER

Course Code	Course Name	Credit		Class
		L-T-P	Total CR	Hours
CI 502	Environmental and Green Chemistry	3-0-0	3	3
CI 504/506/508/510/512	Elective II	3-0-0	3	3
CI 514/516/518/520	Elective III	3-0-0	3	3
CI 522	Project work	0-0-18	9	18

ELECTIVE I: ANY ONE FROM THE FOLLOWING
CI 509:   Catalysis
CI 511:   Bioinorganic Chemistry
CI 513:   Newer Methods in Organic Synthesis

ELECTIVE II: ANY ONE FROM THE FOLLOWING
CI 504:   Polymer Chemistry
CI 506:   Chemistry of Materials
CI 508:   Medicinal Chemistry
CI 510:   Surfactants and Interfacial Phenomena
CI 512:   Organometallic Chemistry

ELECTIVE III: ANY ONE FROM THE FOLLOWING
CI 514:   Molecular Modeling of Organic and Inorganic Compounds
CI 516:   Special Topics in Analytical Chemistry
CI 518:   Industrial Chemistry
CI 520:   Biomolecular Chemistry

Courses offered in B.Sc. B.Ed. in Chemistry

FIRST SEMESTER

Course Code	Course title	L-T-P	CH	CR
PD101	Physics-I	2-0-1	4	3
CD101	Chemistry-I	2-0-2	6	4
BD101	Biology-I	2-0-1	4	3
MD101	Mathematics-I	2-1-0	3	3
CS101	Basics in Computer Applications	2-0-1	4	3
EG110	Communicative English	2-0-0	2	2

Total credit = 18

SECOND SEMESTER

Course Code	Course title	L-T-P	CH	CR
PD102	Physics-II	2-0-1	4	3
CD102	Chemistry-II	2-0-2	6	4
BD102	Biology-II	2-0-1	4	3
MD102	Mathematics-II	2-1-0	3	3
ES102	Elementary Environmental Science	2-0-0	2	2
SC102	Sociology: an Introduction	2-0-0	2	2
NS102	NSS	0-0-2	2	2

Total credit = 19

THIRD SEMESTER

Course Code	Course title	L-T-P	CH	CR
CD201	Chemistry-III (For non-Chemistry Majors)	2-1-0	3	3
CD203	Physical Chemistry-I	2-1-0	3	3
CD205	Organic Chemistry-I	2-1-0	3	3
CD207	Inorganic Chemistry-I	2-1-0	3	3
CD209	Chemistry Laboratory-I	0-0-3	6	3
CD211	Chemistry Laboratory-II (For non - Chemistry Majors)	0-0-2	4	2
MD201	Introductory Statistics (Common Paper)	2-1-0	3	3
PD201	Electronics -I	2-1-0	3	3
PD209	Physics Laboratory-II	0-0-2	4	2

Total credit for Major Students   =   20

FOURTH SEMESTER

Course Code	Course title	L-T-P	CH	CR
CD202	Chemistry -IV (For non - Chemistry Majors)	2-1-0	3	3
CD204	Physical Chemistry-II	2-1-0	3	3
CD206	Organic Chemistry-II	2-1-0	3	3
CD208	Inorganic Chemistry-II	2-1-0	3	3
CD210	Chemistry Laboratory-III	0-0-3	6	3
CD212	Chemistry Laboratory-IV (For non - Chemistry Majors)	0-0-2	4	2
MD204	Mathematical Methods and PDE	2-1-0	3	3
BD202	Ecology and Environmental Biology OR	2-1-0	3	3
PD202	Introductory Quantum Mechanics	2-1-0	3	3
BD210	Bio-Science Lab IIB OR	0-0-2	4	2
PD210	Physics Laboratory-IV	0-0-2	4	2

Total credit for Major Students= 20

FIFTH SEMESTER

Course Code	Course title	L-T-P	CH	CR
CD301	Physical Chemistry – III	3-0-0	3	3
CD303	Organic Chemistry-III	3-0-0	3	3
CD305	Inorganic Chemistry-III	3-0-0	3	3
CD307	Quantum Chemistry	3-0-0	3	3
CD309	Chemistry Laboratory-III	0-0-4	8	4
ED101	Education and Development I (C)	2-0-0	2	2

Total credit for Major Students = 18

SIXTH SEMESTER

Course Code	Course title	L-T-P	CH	CR
CD302	Physical Chemistry-IV	3-0-0	3	3
CD304	Organic Chemistry-IV	3-0-0	3	3
CD306	Inorganic Chemistry-IV	3-0-0	3	3
CD308	Principles and Applications of Spectroscopy	3-0-0	3	3
CD310	Chemistry Laboratory-IV	0-0-4	8	4
CD399	Seminar	0-0-4	4	2
ED102	Education and Development I (C)	2-0-0	2	2

Total credit for Major Students= 20

CIVIL ENGINEERING

(Year of Establishment: 2009)

The department of Civil Engineering has started from 2009. The department is in process of getting well equipped with good laboratory facility, faculty members and staff like other engineering departments.

Programmes offered

    1. B.Tech. in Civil Engineering.

    2. Ph.D.

Faculty

Associate Professor

    Dutta, A.K., Ph.D. (IIT, Guwahati)

    Das, U.K., Ph.D. (Gauhati University)

Assistant Professor

    Saikia, A., M.Tech. (IIT, Kharagpur)

    Ahamad, K.U., Ph.D. (IIT, Guwahati)

    Sil, B.S., Ph.D. (NIT, Silchar)

Selected Publications

1. Ahamad, K. U. & Jawed, M. Breakthrough Studies with Mono- and Binary-Metal Ion Systems Comprising of Fe(II) and As(III) using Community Prepared Wooden Charcoal Packed Columns, Desalination, *Elsevier Publication* (2011) *Article in Press.*

2. Ahamad, K. U. & Jawed, M., Potential of Community Prepared Wooden Charcoal of Assam (India) for As (III) Removal through Batch and Continuous Column Studies, Journal of Water, Sanitation and Hygiene for Development, *International Water Association Publishing* (2011) *Article in Press.*

3. Ahamad, K. U. & Jawed, M., Breakthrough Column Studies for Iron(II) Removal from Water by Wooden Charcoal and Sand: A Low-Cost Approach, *International Journal of Environmental Research*, **5**(11), 127-138, 2011.

4. Saikia, A. Precisely estimating primary consolidation settlement of homogeneous NC clays with an alternate equation, *International Journal of Geotechnical Engineering*, **5**(2), 223-227, 2011.

5. Saikia, A. Vertical stress averaging over a layer depth down the axis of symmetry of uniformly loaded circular regime: An analytical cum graphical solution, *International Journal of Geotechnical Engineering*, Accepted, 2011.

6. Ahamad, K. U. & Jawed, M. Kinetics, equilibrium and breakthrough studies for Fe(II) removal by wooden charcoal: A low-cost adsorbent, Desalination, *Elsevier Publication*, **251**, 137-145, 2011.

7. Choudhury, P. & Sil, B. S. Integrated Water and Sediment Flow Simulation and Forecasting Models for River Reaches, *Journal of Hydrology*, **385**, 313-322.

COMPUTER SCIENCE & ENGINEERING
(Year of Establishment: 1994)

The Department of Computer Science and Engineering is one of the oldest departments of the University. The Department has the support of the UGC under **SAP** (DRS-I) since 2009. During 2005-2009 the Department received support from the Department of Science and Technology (DST), Govt. of India under its **FIST** programme. In addition to the academic programmes at the UG as well as the PG levels, the Department has been carrying out active research in the fields of computational theory, computer networks, network security, mobile computing, soft computing & data mining, natural language processing, workflow management, qualitative spatial reasoning, web services, robotics, and pattern recognition.

Currently, the department has 5 sponsored research projects (including UGC SAP DRS-I) worth nearly Rs. 200 lakhs.

Programmes offered
1. B.Tech. in Computer Science & Engineering
2. Master of Computer Application (MCA)
3. M.Tech. in Information Technology
4. Ph.D.

Faculty
Professor
Dutta, M., Ph.D. (IIT, Kanpur)
Saikia, D.K., Ph.D. (IIT, Kharagpur) (away on lien)
Bhattacharyya, D.K., Ph.D. (Tezpur University)
Sinha, S.K., Ph.D. (Tezpur University)
Hazarika, S.M., Ph.D. (Leeds, England)
Associate Professor
Sharma, U., Ph.D. (Tezpur University) Head of the Department
Saharia, S., Ph.D. (Tezpur University)
Sarma, N., Ph.D. (IIT, Guwahati)
Borah, B., Ph.D. (Tezpur University)
Nath, B., Ph.D. (Tezpur University)
Assistant Professor
Singh, S. I., M.C.A. (Manipur University)
Satapathy, S.S., M.Tech. (Tezpur University)
Singh, B.L., M.Tech (Tezpur University)
Das, R., Ph.D. (Tezpur University)
Deka, S.K., M.Tech. (Tezpur University)
Boro, D., M.Tech. (Tezpur University)
Karmakar, A., Ph.D. (ISI Kolkata)
Nath, S., M.Tech. (Tezpur University)

Facilities
The Department has several state-of-the-art computer laboratories, viz.,
• Two basic programming laboratories,
• A software engineering laboratory,
• Two network security laboratories,
• A hardware laboratory
• A natural language processing laboratory
• Robotics laboratory
• A network laboratory.

These laboratories house a host of servers, workstations and a large number of PC terminals connected to the campus-wide LAN with access to the Internet. The network laboratory is equipped with wireless and wireline network equipment, wireless sensor network accessories, LAN trainers, internet security trainers etc. The hardware laboratory is equipped with various training kits, experimental setup, logic analyzer, embedded system kits, etc. The systems run on wide variety of operating systems including Linux, Windows NT/XP/ vista 2003, Sun Solaris, etc. The laboratories are equipped with up-to-date DBMS packages, graphics

and animation packages, multimedia authoring packages, GIS packages, Web servers & browsers, Matlab, NS2 Qualnet, Mathematica, Matrox, in addition to the various state-of-the art compilers and programming environments, and office automation software.

Departmental Library

The Department has a library with a collection of more than 1400 book volumes in the field of computer science and information technology. The library also receives 8 international and 3 national journals in the field of computer science in addition to those at the central library. The digital libraries of ACM, IEEE, are accessible to the Department.

Scholarship

M. Tech. students with GATE qualification are eligible for scholarship of Rs. 8000/- per month from AICTE. Other M.Tech., B.Tech. and MCA students have also been receiving scholarships from other sources such as NEC.

Research Activity

No. of papers published in last one year (up to September): about 45

Selected publications

1. Sarma, N. & Nandi, S. Route Stability Based QoS Routing in Mobile Ad Hoc Networks, *Wireless Personal Communications*, **54**(1), 203-224, 2010.
2. Gogoi, P., Bhattacharyya, D.K., Kalita, J.K. & Borah, B. A Survey of Outlier Detection Methods in Network Anomaly Identification, *Computer Journal*, **54 (**4), 570-588, 2011.
3. Hazarika, S.M., & Bhowmick, A. Learning Rules of a Card Game from Video, *Artificial Intelligence Review*, May 2011 (Online).

Courses offered in the M.Tech. (Information Technology)

Core Courses					
CODE	**Title**	**Credit**	**CODE**	**Title**	**Credit**
CS 531	Objective Oriented Programming & Design	5	IT 610	Advanced Database System	4
CS 601	Design and Analysis of Algorithms	3	CS 634	Selected Topics in Computer Networks	4
IT 611	Distributed Systems	3	IT 604	Term Project- I	8
			IT 605	Term Project- II	16
Electives					
CS 502	System Software	3	CS 528	Digital Signal Processing	4
CS 505	Software Engineering	4	CS 529	Embedded Systems	4
CS 507	Computer Networks	4	CS 531	Object Oriented Programming & Design	5
CS 508	Database Management	5	CS 532	Compiler Design	4
CS 509	Data Communication	4	CS 602	Image Processing	3
IT 503	Multimedia Systems	4	CS 607	Optimization Technique	3
IT 504	E-Commerce	3	CS 606	Computer Architecture & Parallel Processing	3

Core Courses					
CODE	Title	Credit	CODE	Title	Credit
IT 506	Logic Programming	3	CS 610	Bioinformatics	3
IT 521	Programming and Data Structure	4	IT 509	Data Mining & Data Warehousing	4
IT 522	Computer Architecture	4	IT 510	Advanced Operating Systems	4
IT 523	Discrete Mathematics	3	CS 621	Mobile Computing	4
CS 424	Formal Language and Automata	3			
IT 518	Graph Theory	4	CS 623	Randomized Algorithms	3
CS 522	Computer Graphics	4	CS 624	Web Technology	4
CS 523	Enterprise Resource Planning	3	CS 625	Intelligent Assistive Systems	3
CS 524	Theory of Computation	3	CS 725	Knowledge Representation & Reasoning	4
CS 525	Artificial Intelligence	3	CS 727	Formal Verification	4
IT 507	Computer Security & Cryptography	3	CS 731	Data Mining in Security	4
CS 504	Natural Language Processing	3			

Courses offered in MCA

Core Courses					
CODE	Title	Credit	CODE	Title	Credit
CS 404	Programming & Problem Solving	5	CS 502	System Software	3
CS 405	Discrete Mathematics	3	CS 504	Operating System	4
CS 406	Digital Logic	4	CS 505	Software Engineering	4
CS 407	Information and Communication Technology	4	CS 507	Computer Networks	4
CS 403	File Structures	2	CS 508	Database Management	5
CS 408	Data Structures	5	CS 509	Data Communication	4
CS 409	Comp. Organization & Architecture	5	CS 514	Minor Project	8
			CS 515	Major Project	16
Electives					
CS 421	Graph Theory	3	CS 601	Design & Analysis of Algorithms	3
CS 422	Numerical Methods	4	CS 602	Image Processing	3
CS 423	Graphical User Interface Programming	3	CS 604	Optimization Techniques	3
CS 424	Formal Language & Automata	3	CS 605	Simulation & Modeling	4
CS 522	Computer Graphics	4	CS 606	Computer Architecture & Parallel Processing	3

Core Courses					
CODE	Title	Credit	CODE	Title	Credit
CS 523	Enterprise Resource Planning	3	CS 609	Geographic Information Systems	3
CS 524	Theory of Computation	3	CS 610	Bioinformatics	3
CS 525	Artificial Intelligence	3	IT 611	Distributed Systems	3
CS 526	Management Information Systems	3	CS 621	Mobile Computing	4
CS 528	Digital Signal Processing	3	CS 622	Software Testing Quality Assurance and Maintenance	4
CS 529	Embedded Systems	4	CS 623	Randomized Algorithms	3
CS 530	Social & Professional Issues in Computing	3	CS 624	Web Technology	4
CS 531	Object Oriented Programming & Design	5	CS 625	Intelligent Assistive Systems	3
CS 532	Compiler Design	4	BM 421	Accounting & Financial Management	3
IT 503	Multimedia Systems	4	MS 405	Probability & Statistics	4
IT 504	E-Commerce	3	BM 504	Managerial Economics	4
IT 509	Data Mining & Data Warehousing	4	BM 501	Foundation of Management	3
IT 507	Computer Security & Cryptography	3			

CULTURAL STUDIES
(Year of Establishment: 1996)

The department was started in 1996 as the Department of Traditional Culture and Art forms, and was re -named in 2002 as the Department of Cultural Studies. It is one of the few departments in the country devoted exclusively to the academic pursuit of Cultural Studies. A truly twentieth century discipline, Cultural Studies initially emerged in Great Britain and later on in conjunction with developments in the United States , evolved into a vibrant interdisciplinary approach in the understanding of society, culture and expressive forms associated with human behaviour across a wide range of disciplinary engagements. Asia is fast emerging as an important location where methods evolved in Cultural Studies is used to interrogate disciplinary approaches in an attempt to promote a discursive understanding of various issues like ethnicity, migration, national and nationalistic assertion, gender and society, media generated cultural forms, environment and development, and emerging lifestyle patterns. The Department of Cultural Studies at Tezpur University mediates global concerns and theoretical approaches of the discipline with issues that is of local importance and promotes an understanding of the rich cultural heritage and the ingrained plural nature of the region, the folk and oral inheritance and ethnic and cultural assertions amongst others. PhD scholars in the department are drawn from an array of disciplines and include a number UGC, JRFs and NET qualified candidates. The University awards institutional fellowships to deserving non JRF candidates to pursue their research.

Programmes offered
1. M. A. in Cultural Studies (Modular)
2. Ph.D.

Faculty
Professor
   Dutta, S.K., Ph.D. (Visva Bharati, Santiniketan), Dean School of Humanities & Social Sciences
   Mahanta, P.J., Ph.D. (Gauhati University), Head of the Department
Associate Professor
   Sarma, P.M., Ph.D. (Gauhati University)
   Nath, D.P., Ph.D. (Rajiv Gandhi University, Itanagar)
Assistant Professor
   Goswami, M., M.Phil. (JNU, New Delhi)
   Dutta, P., Ph.D. (Tezpur University)
   Gogoi Konwar, J., Ph.D. (Dibrugarh University)
   Das, J.V., M.A. (Tezpur University)
   Dutta, K., Ph.D. (Gauhati University)
   Baruah, M., M.A. (Tezpur University)

Facilities
The Department has a well equipped seminar cum conference hall with projection facilities and audio-visual teaching aids and an archival centre cum studio. The student support infrastructure also includes the Pratibha Kath Hazarika Memorial Library and a cultural museum.

Selected Publications:
1. Dutta, S. K. Importance of *Burhi air* Sadhu', *Golden Jubilee Souvenir of Assam academy for Cultural Relations,* November 2011: 114-118.

2. Mahanta, P. J. Banikanta Kakati: The Trail Blazer of Sankaradeva Studies', *Dr Banikanta Kakati: His Life and Works* (Ed. Chaliha, B. P.) Assam Academy for Cultural Relations, Guwahati, 2011.

3. Sarma, P.M. Ethnicity, Gender and Nationalism Youngman' Summerkill XVII.1, 2011.

4. Sarma, P.M. Ethnicity, Identity, Cartography' *Studies of Transition States & Societies*, 2011.

5. Nath, D.P. Translation of Yeshe Dorjee Thongchi's Assamese novel *Mouno Ounth Mukhar* Hridoy into English as *Silent Lips Murmuring Hearts,* published by Sahitya Akademi in 2010. ISBN: 978-81-260-2847-4.

6. Nath, D.P. Translated Assamese short Story by Narayan Mahanta as 'Poltu and Golden Langur', published in a book form by Bhabani Publications, Guwahati, November 2009, ISBN: 9789380390123.

7. Nath, D.P. Representation of Mother Figure in Folk Genres of Assam', *Contemporary Discourse,* December -January 2011 (jointly with Mandakini Baruah).

8. Das, J.V. The Impact of FM channels in Rural Assam: A case study on adjoining areas of Guwahati' ISRJ 1.9, 2011.

9. Dutta, K. The role of drum playing in the identity movement of the Thengal Kacharis of Assam, in the web journal of www.indiafolklore.org, September, 2011.

Courses offered in the M.A. in Cultural Studies Programme

CORE COURSES		
Code	Course Name	CR
CT409	Introduction to Cultural Studies	4
CT410	Introduction to North East Studies	4
CT411	Cultural Studies and Allied Disciplines	4
CT412	Methods in Cultural Studies	4
CT413	Introduction to Cultural Theory	4
CT414	Folklore and Culture I	4
CT415	Media and Culture	4
CT416	Performance and Culture	4
CT511	Folklore and Culture II	4
CT512	Ethnicity and Nationalism	4
CT513	Heritage Studies	4
CT514	Gender and Culture	4
CT515	Dissertation	6
ELECTIVE COURSES (One paper each from CT516-CT517, CT518-CT519 and CT520-CT521)		
CT516	Cultural Documentation	4
CT517	Cultural Tourism	4
CT518	Cross-Cultural Studies: North East India and South East Asia	4
CT519	Cross-Cultural Studies: Canada and India	4
CT520	Introduction to Film and Television Studies	4
CT521	Culture and Environment	4
AUDIT COURSE		
CS323	Computer Application (to be offered by the Department of Computer science)	3

ELECTRONICS & COMMUNICATION ENGINEERING
(Year of Establishment: 1997)

The Department started functioning with the first batch of students admitted in 1997 into the M. Tech. in Electronics Design & Technology course. This course has been designed with an aim to .meet the industry requirements in the field of Electronics Design with emphasis on latest technological developments. From August, 2004 the Department has started a new programme "M. Tech. in Bioelectronics" approved by the UGC under its innovative programmes - Teaching and Research in interdisciplinary and emerging areas. The courses, designed with interdisciplinary relevance, aims at producing professionals in the fields of medical, food safety, agriculture, defense, biotech and biosensor industries. Both courses have been recognized by AICTE. The Department has also started B. Tech. programme in Electronics and Communica-tion Engineering from August 2006.

Programmes offered
1. B.Tech. in Electronics & Communication Engineering
2. M.Tech. in Electronics Design & Technology
3. M.Tech. in Bioelectronics
4. Ph.D.

Faculty
Professor
> Bhuyan M., Ph.D. (Gauhati University), Dean, School of Engineering
> Sahu, P. P., Ph.D. (Jadavpur University), Head of the Department
> Dutta, J. C., Ph.D. (Jadavpur University)
> Bhattacharyya, S., Ph.D. (Delhi University)

Associate Professor
> Sharma, S., Ph.D. (Tezpur University)

Assistant Professor
> Ray, S., M.Tech. (Tezpur University)
> Chutia, R., M.Tech. (Tezpur University)
> Deka, B., M.Tech. (Tezpur University)
> Hazarika, D., M. Tech. (IIT, Guwahati)
> Kakoty, N.M., M.Tech. (Tezpur University)
> Nath, V.K., M.Tech. (Tezpur University)
> Barua, R.K., M.Tech. (Tezpur University)
> Mondal, B., M.Tech. (Tezpur University)
> Sonowal, D., M.Tech. (Tezpur University)

Facilities
Digital Laboratory: There are a good number of analog and digital ICs and their application facilities, logic analysers, microprocessors, microcontrollers, data acquisition cards, stepper motor controller cards, relay & opto -coupler interfacing cards etc.

Instrumentation Laboratory: It is equipped with temperature transducers - thermocouple, IC sensors, Multi-channel temperature indicators, Load cell indicator, humidity sensor, sensor interfacing to PC, Indus-trial type of remote transmitter, PC based stepper motor, Servo motor driver etc.

PCB Fabrication Facilities: It is equipped with Art work table, magnifier, photo resist U. V. exposure unit, photo resist coating whirler, sprayer, oven etching machine, guillotine shearing machine, high speed drill, roller tining machine and all necessary chemicals.

Computer Laboratory: Computer hardware consists of Pentium based PCs attached to a LAN server by powerful Pentium Based Novel Netware consisting of about 25 terminals all connected to Internal Server.

Software: There are up-to-date office automation software, ORACLE, Web Server & browser, MATLAB, Circuit Simulator like MICROSIM, PCB layout, CPLD-FPGA Electronic Design Automation (EDA) software, High

Performance Data Acquisition - Control- Manipulation Software – GENIE, Lab View, XILINX, ORCAD.
Mechanical Workshop: It is equipped with the following machines: Lathe, High Speed Drilling, Milling, Turning, Wood Working Grinding, Shearing, Cutting, Bending, Electric Welding Plastic Welding etc.
Bioelectronics' Engineering Laboratory: Robotics, vision development with Lab view, E-nose, Insectronics, Device Simulator.
Biomedical Laboratory: ECG, EEG etc.
Departmental Library:
The Departmental Library has a good number of volumes relevant to the curriculum.

Courses offered in the M.Tech. (Electronics Design & Technology)

CODE	Title	Credit	CODE	Title	Credit
Core Courses					
EL516	Design of Fine Mechanics and Power Devices	4	EL 521	Design & Technology of Electronic devices	4
EL 517	Physical and Industrial Design of Electronic Systems	4	EL 532	Intelligent Instrumentation	4
EL530	VLSI Design	4	EL 523	Advanced Programming Language	5
EL 531	Design of Digital Systems	4	EL528	Seminar-II	1
EL520	Quality and Reliability Engineering	4	EL 601	M. Tech. Project (2 semesters) dissertation	24
Elective Courses					
EL 533	Data Communication & Networks	4	EL 534	Modeling and Simulation	4
EL 535	Information Systems	4	EL 536	Application Software	4

Courses offered in M.Tech. (Bioelectronics)

CODE	Title	Credit	CODE	Title	Credit
Core Courses					
BE 515	Basic Bioelectronics	3	BE 509	Biomathematics	3
BE 516	Advanced Bioelectronic Devices	3	BE 510	Bioelectronic Systems & Controls	3
BE 517	Biomedical Signal Processing	4	BE 511	Basic Bioelectronics lab	4
BE 519	Bioinspired Systems & Engineering	3	BE 512	Advanced Bioelectronics Lab	4
BE 506	Biomedical Image Processing	4	BE 514	Seminar	1
BE 504	Neuroengineering	3	BE 601	M.Tech. Dissertation (2 semesters)	24
Electives					
BE 507	Bioinformatics	4	BE 513	Biomedical Electronics	4
BE 508	BioMEMS & Nanotechnology	4			

ENERGY
(Year of Establishment: 1996)

Department of Energy started in 1996, with an aim to produce manpower pool in the field of energy, develop new and efficient energy technologies, R & D and extension activities in diverse areas of energy. The department offers a two-year (four semesters) AICTE approved M. Tech. programme in Energy Technology and Ph. D. in energy related areas. The thrust areas of research are Biomass energy, Solar energy, Hydro-energy, Energy-Environment interaction and Energy Conservation and Management. At present it is a DST-FIST sponsored department. Apart from the teaching and research, the department also organizes training programmes, workshops and seminars in the relevant areas of energy. Recently Department also initiated international collaborative research programmes with Institutes, like University of Nottingham, UK and Abo Akademi, Finland.

Programmes offered
1. M.Tech. in Energy Technology
2. Ph.D.

Faculty

Professor

Baruah, D.C., Ph.D. (Punjab Agricultural University), Head of the Department

Deka, D., Ph.D. (Tezpur University)

Samdarshi, S.K., Ph.D. (IIT Delhi),

Associate Professor

Bora, D.K., Ph.D. (IIT Delhi)

Kataki, R., Ph.D. (Tezpur University)

Assistant Professor

Choudhury, P.K., M.Tech. (Tezpur University)

Mahapatra, S., M.Tech. (Jadavpur University)

Facilities

Laboratory

The Department is equipped with various equipments such as Gas Chromatograph, Computerized power meter, Bomb Calorimeter, Biomass gasifier system, Solar radiation measuring equipments, Wind speed direction measuring equipments, Wind electric generator, Briquetting Press, Single cylinder 4-stroke petrol engine Test Rig with electrical Dynamometer, Fibertech apparatus, Toxic Gas analyzer, Carbon-Hydrogen analyser, UV-visible spectrophotometer, TOC Analyser, Petrol and Diesel Engine Test set-up, Hydrocarbon type Analyser, Pyrolyser, Adiabatic Bomb Calorimeter, TBP Apparatus, Duel Fuel Engine, Vacuum Distillation Apparatus, Microhydel test set-up, Research Radiometer, Solar thermal collector test set-up, Solar Dryer, Peristaltic Pump, Ultrasonicator, Programmable Muffle Furnace, Biodiesel Plant and various renewable energy systems.

Departmental Library

A good number of books, video cassettes and CDs on Energy are available for the students. A number of national and international journals related to different areas of energy are also being subscribed by Central Library of the University.

Scholarship

Ministry of New and Renewable Energy Sources (MNRE), Government of India offers fellowship for M. Tech. and Ph.D. students under its National Renewable Energy Fellowship Schemes on the basis of GATE score. MHRD fellowships are available for GATE qualified candidates. NEC fellowships are available for the students from North East regions. ONGC has also offered scholarship to M. Tech. student of the Department. UGC offered scholarship to SC/ST students of the M. Tech. programme.

Research Activity

Faculty members of the department are actively involved in research in emerging areas of energy viz., Solar energy, Bio-Fuel and energy management, conservation and planning. At the moment, there are seven ongoing projects in the department and 18 research papers in international referred journal have been published in this year.

Selected Publications

1. Hiloidhari M, Baruah DC. Rice straw residue biomass potential for decentralized electricity generation: a GIS based study in Lakhimpur district of Assam, India. *Energy for Sustainable Development*, **15**(3), 214-222, 2011.

2. Hiloidhari M. Baruah DC. Crop residue biomass for decentralized electrical power generation in rural areas (part 1): Investigation of spatial availability. *Renewable and Sustainable Energy Reviews,* **15** (4), 1885-1892, 2011.

3. Chaturvedi A, Samdarshi SK. Energy, Economy and Development (EED) Triangle: Concerns for India. *Energy Policy*, **39**(8), 4651-4655, 2011.

4. Nair RG. Tripathi AM. Samdarshi SK. Photocatalytic activity of predominantly rutile mixed phase Ag/TiV oxide nanoparticles under visible light irradiation. *Energy,* **36** (5), 3342-3347,2011.

5. Nair RG. Paul S. Samdarshi SK. High UV/Visible light activity of mixed phase titania: A generic mechanism, *Solar Energy Materials and Solar Cells,* **95** (7), 1901-1907, 2011.

6. Boro J. Thakur AJ. Deka D. Solid oxide derived from waste shells of *Turbonilla striatula* as a renewable catalyst for biodiesel production. *Fuel Processing Technology,* **92** (10), 2061-2067, 2011.

7. Boro, J., Deka, D. & Thakur, A.J. A review on solid oxide derived from waste shells as catalyst for biodiesel production, *Renewable and Sustainable Energy Reviews, 16*(1); 904-910, 2012.

8. Singh, M.K., Mahapatra, S. & Atreya, S.K. Solar passive features in vernacular architecture of North-East India. *Solar Energy,* **85**(9), 2011-2022, 2011.

9. Singh, M.K., Mahapatra, S. & Atreya, S.K. Adaptive thermal comfort model for different climatic zones of North-East India. *Applied Energy,* **88**(7), 2420-2428, 2011.

10. Phukan, M.M., Chutia, R.S., Konwar, B.K. & Kataki, R. Microalgae chlorella as a potential bio-energy feedstock. *Applied Energy,* **88**(10), 3307-3312, 2011.

Courses offered in the M.Tech. (Energy Technology)

First Semester:

Code	Course Title	CR
EN566	Fuel Technology	3
EN569	Solar Energy Utilization	3
EN570	Heat Transfer	3
EN576	Energy Lab-I	2
EN593	Basic Sciences & Engineering for Energy Study	3
EN595	Biomass Energy Utilization	3
EN596	New & Renewable Energy Sources	3
	IDC I	3
	Total	23

Second Semester:

EN567	Power Plant Engineering	3
EN572	Energy, Ecology & Environment	3
EN573	Energy Management & Auditing	3
EN574	Energy Economics & Planning	3
EN575	Numerical Methods & Computational Techniques	3
	IDC II	3
EN577	Energy Lab-II	2
EN 594	Fundamentals of Measuring Instruments for Energy Study	3
	Total	23

IDC Courses offered by the Department

EN584	Advanced Bio-energy	3
EN585	Advanced Solar Thermal Energy	3
EN586	Solar Photovoltaic Energy	3
EN587	Petroleum Refining	3
EN588	Petroleum Exploration, Drilling & Production	3
EN589	Wind Energy Utilization	3
EN590	Hydrogen Energy & Fuel Cell	3
EN592	Energy, Climate Change and Carbon Trade	3
EN597	Alternative fuels for IC Engines	3
EN598	Energy and Society	3

Third & Fourth Semesters:

EN578	Major Project (Part-I)	8
EN579	Major Project (Part-II)	16

ENGLISH AND FOREIGN LANGUAGES

(Year of Establishment: 1994)

The Department, which was established in 1994, aims to provide instruction and carry out research in English Literature, New Literatures in English, American Literature, Indian Writing in English, Women's Writing in English, English Language Teaching and Linguistics.

The Department receives assistance under the SAP-DRS project of the UGC (awarded in April 2009) for carrying out research in three identified thrust areas: Travel Writing, Life Writing and Language Neighborhoods.

Programmes offered

1. M.A. in English
2. M.A. in Linguistics and Language Technology
3. Integrated M.A. in English
4. Integrated B.A.B.Ed.
5. Certificate Course in Chinese (One Year Full Time)
6. Basic and Advanced French (Part Time)
7. Ph.D.

Faculty

Professors

Sarma, M. M., Ph.D. (Dibrugarh University)

Danta, B. K., Ph.D. (Utkal University)

Danta, F., Ph.D. (Dibrugarh University), Head of the Department

Das, P.K., Ph.D. (Gauhati University)

Barbora, M., Ph.D. (Tezpur University)

Associate Professors

Borah, G.K., Ph.D. (NTNU, Trondheim, Norway)

Biswas, Sravani, Ph.D. (NEHU)

Assistant Professors

Mohapatra, D., Ph.D. (EFL University, Hyderabad)

Medhi, H., M.Phil. (Delhi University)

Chakraborty, R., M.Phil. (JNU, New Delhi)

Narzari, R., M.A. (NEHU, Shillong)

Jha, Pallabi, M.Phil. (University of Hyderabad)

Sahoo, Sanjib, Ph.D. (Tezpur University)

Mondal, S. (Ad-hoc)

Facilities

Digital Language Laboratory

The department has a digital multimedia, multipurpose language laboratory with fifteen booths. Students can improve their pronunciation of English and foreign languages (Chinese and French) at the moment and develop interactive language skills by utilizing the software and other facilities available in the Laboratory.

Departmental Library

Selected books and photocopied materials relating to literature, linguistics and ELT are available in the Departmental Library. The department also has a collection of audio cassette of English Pronunciation and spoken English and number of Video CDs on literary texts. The department has a small Computer Laboratory for use of students and research scholars.

Research Activity

SAP-DRS project on Travel Writing, Life Writing, and Assamese Language

Number of papers published in the year 2010 (upto September): 05

Number of ongoing research projects: 03

1. Number of papers published in the year 2009-2010 (including published and accepted for 2. publication: Book: 2, book chapter: 3, journal: 5)

3. Number of running Projects: Two (2) individual, one (1) SAP

- Thrust Area-1: Life writing in Assam: History, Theory, Practice

- Thrust Area-2: Narrative of Migration, Travels, Explorations, etc., in Assam: History, Theory, Practice.

- Thrust Area-3: the Shaping of Modern Assamese: Indegenous and Southeast Asian Influences (A synchronic and Diachronic Study)

Courses structure of M.A. (English)

	Core Courses					
CODE	Title	Credit	CODE	Title	Credit
EG 421	Medieval & Renaissance Literature	3	EG 429	Theory of Criticism II	4
EG 422	Literature of Renaissance and restoration	3	EG 430	Literature and Culture: 1780 - 1830	4
EG 423	Renaissance to Enlightenment: Literature and Thought	3	EG 431	Literature and Culture: 1830 - 1900	4
EG 424	Theory of Criticism	3	EG 548	20th Century Literature: Poetry and Drama / Fiction and Drama	4
EG 425	Structure of English and English Phonetics	3	EG 549	20th Century Literature: Prose and Fiction	4
EG 426	Introductory Linguistics I	2	EG 550	Post Colonial Literature in English	4
EG 427	Introductory Linguistics II	3	EG 551	American and Canadian Literature in English	4
EG 428	ELT	3	EG 552	Communication and Media	3
	Elective Courses					
EG 561	Genre Study: Fiction I	3	EG 575	Linguistics I	3
EG 562	Genre Study: Fiction II	3	EG 576	Linguistics II	3
EG 563	Gender and Literature I	3	EG 577	Cognitive Grammar I	3
EG 564	Gender and Literature II	3	EG 578	Cognitive Grammar II	3
EG 565	Indian Writing in English I	3	EG 580	ELT – I	3
EG 566	Indian Writing in English II	3	EG 581	ELT – II	3
EG 567	Literature of the USA I	3	EG 585	Dissertation	6
EG 568	Literature of the USA II	3			

Courses offered in M.A. (Linguistics and Language Technology)

LG-	Philosophical Underpinnings of Modern Societies	4	LG-	Semantics	4
LG-	Phonetics and Phonology I	4	LG-	Advanced Syntax I (*Elective*)	3
LG-	Morphology	4	LG-	Advanced Cognitive Linguistics – I (Mainly on Tibeto-Burman Languages) (*Elective*)	3
LG-	Syntax I	4	LG-	Advanced Field Linguistics I (*Elective*)	3
LG-	History of Linguistics	4	LG-	Advanced Phonology I (*Elective*)	3
LG-	Syntax II	4	LG-	Historical Linguistics	3
LG-	Phonology II	4	LG-	Advanced Syntax II (*Elective*)	3
LG-	Cognitive Linguistics	4	LG-	Advanced Cognitive Linguistics II (*Elective*)	3
LG-	Sociolinguistics	4	LG-	Advanced Field Linguistics II (*Elective*)	3
LG-	Field Linguistics	4	LG-	Advanced Phonology II (*Elective*)	3
LG-	Language Universals and Language Typology	4	LG-		
LG-	Computational Linguistics	3	LG-		

Courses offered in One Year Certificate in Chinese (Full Time) programme

CL 401	Reading Chinese Text -I	3	CL 402	Reading Chinese Text-II	3
CL 403	Comprehension and Translation	3	CL 404	Composition and Translation	3
CL 405	Introduction to China-I	3	CL 406	Introduction -to China -II	3
CL 407	Chinese Oral Skills -I	3	CL 408	Chinese Oral Skills-II	3

ENVIRONMENTAL SCIENCE
(Year of Establishment: 2004)

Initially established as a centre for Environmental Science in 2003, the centre was converted to the Department of Environmental Science in 2004, with the objective of imparting education on regional and global environmental issues. The curriculum for the M.Sc. programme focuses on all important aspects of Environmental Science covering contemporary problems of natural resource conservation and environmental quality. Thrust areas of research include Environmental Pollution, Greenhouse gas emission, Riverine Hazards, Regional and Local Climate, Geomorphology, Pollution remediation and Biodiversity conservation.

Programmes offered
1. M.Sc. in Environmental Science
2. Ph.D.
3. P.G. Diploma in Environmental Management (Distance Mode)

Faculty
Professor

Baruah, K.K., Ph.D. (PAU, Ludhiana)

Sarma, K.P., Ph.D. (NEHU, Shillong)

Associate Professor

Hoque, R.R., Ph.D. (JNU, New Delhi), Head of the Department

Das, A.K., Ph.D (JNU, New Delhi)

Assistant Professor

Devi, A., Ph.D. (NEHU, Shillong)

Gogoi, N., Ph.D (DU, Dibrugarh)

Bhattacharya, S.S., Ph.D. (Visva Bharati University)

Kumar, M., Ph.D. [Environmental Engineering (the University of Tokyo)]

Handique, S., M.Sc. (JNU)

Courses offered in the M. Sc (Environmental Science)

Core Courses					
Code	Title	Credit	Code	Title	Credit
ES 501	Fundamentals of Environmental Science	3	ES 514	Waste Management	3
ES 502	Elements of Ecology	3	ES 516	Global Climate Change and its Impacts	3
ES 503	Environmental Chemistry	3	ES 518	Environmental Laws and Policies	2
ES 505	Natural hazards	2	ES 519	Seminar in Environmental Science	1
ES 506	Basics of Computer Science	3	ES 529	Principles of Instrumental Methods and Analysis	3
ES 507	Environmental Biology	3	ES 530	Environmental Geo-Science	3
ES 508	Environmental Physics	3	ES 531	Climatology and Meteorology	3
ES 510	Energy and Environment	3	ES 532	Agriculture and Environmental Sustainability	3
ES 511	Environmental Pollution	4	ES 533	Fundamentals of Statistics	3
ES 512	Environmental Plant Physiology and Biochemistry	4	ES 500	Project / Dissertation	10
ES 513	Environmental Impact and Assessment	3			

Elective Courses					
Code	Title	Credit	Code	Title	Credit
ES 520	Cell Biology	2	ES 535	Statistical Methods	2
ES 521	Photosynthesis and Respiration	2	ES 536	Environmental Biotechnology	2
ES 523	Human population, Social Issues and Environment	2	ES 537	Agro-forestry and Forest Management	2
ES 526	Pesticides in relation to Environment	2	ES 538	Biodiversity and Biodiversity Conservation	2
ES 534	Soil Science and Soil Ecology	2	ES 539	Remote Sensing and GIS	2

Facilities

The Department has a sophisticated instrumentation laboratory to facilitate research and other academic activities. The laboratory has the following equipments: ICP, Optical Emission Spectrophotometer, Laser Leaf Area Meter with Root Measurement Attachment, Light Meter, Portable Photosynthesis Systems, Gas Chromatographs, High Precision Electronic Balance, UV-Visible Spectrophotometer, Ion meter, Ultra centrifuge, Repairable dust sampler and Flame Photometer. A GIS laboratory, a meteorological observatory and a plant culture house is under construction. The department has an update GIS Laboratory.

Department is in the process of processing an IC, a TOC Analyzer and an Aerosol spectrometer under project funded by Ministry of Earth Science, Govt. of India.

Research Activity:

No. of papers published in the year 2011 : 11
No. of ongoing research projects : 04

Selected Publications:

1. Uprety, D.C., Baruah K.K. & Borah L. Methane in rice agriculture - A review. *J. Sc. & Indstl. Research* **70**, 401 – 411, 2011.
2. Gogoi, B. & Baruah, K.K. Nitrous oxide emission from tea (*Camellia sinensis* (L) O. kuntze) planted soils of North East India and soil parameters associated with the emission .*Current Science* **101**,31-536, 2011.
3. Gogoi, B. & Baruah, K.K. Nitrous oxide emission from fields with differences in wheat and rice varieties. *Pedosphere* (In the press, 2011).
4. Sarma, K.P., Goswami, R., Deb, P., Thakur, R. & Basumallick, A., Removal of As(III) from Aqueous Solution Using Functionalized Ultrafine Iron Oxide Nanoparticles. *Separation Science and Technology*. DOI: 10.1080/01496395. 2010. 537728, 2011
5. Sarma, K.P., Goswami, R., Deb, P., Thakur, R., & Basumallick, A., Arsenic Remediation Using Surface Functionalized Ultrafine Nanoparticles. *International Journal of Nanoscience*. **10**(4), 1-5, 2011.
6. Hoque, R.R., Goswami, K.G., Kurse, B.C., & Sarma, K.P. Distribution and solid-phase speciation of toxic heavy metals of bed sediments of Bharali tributary of Brahmaputra River. *Environ Monit Assess*, **177**, 457-466, 2011.
7. Hoque, R.R., Hazarika, N., Daimarei, R. & Nayaka, S. What do Epiphytic lichens of Guwahati city indicate? *Current Science*, **101**(7), 824, 2011.
8. Kumar, M., Kumar B., Rao, M.S. & Ramanathan, Al. A field validation of isotopic tracer techniques for identification of recharge zones and sources using hydrological features in an urban environment (Delhi), Northern. *Hydrogeology Journal,* **19**, 463-474, 2011.

FOOD ENGINEERING AND TECHNOLOGY
(Year of Establishment: 2006)

The Department of Food Engineering & Technology (FET) at Tezpur University is pioneer in the area of food processing and engineering in North East India. It was established in 2006 in the name of Department of Food Processing Technology. The vision of the department is to create trained and skilled human resources to cater to the needs of the rapidly growing food processing sectors in India.

The department is currently offering B. Tech., M. Tech., Integrated M. Tech. and Ph. D. programmes. The programmes aim at providing the students both with skills and knowledge to succeed as entrepreneurs and professionals. The students visit food industries as part of their course work to get practical demonstration and first-hand knowledge of processing methods at industrial scale.

Various projects have been carried out and some are on the progress. These projects are funded by different Central Govt. Agencies like DBT, UGC, MoFPI, DRDO and DST, etc. Faculties are involved in high level research to develop effective and low cost technologies for the society. Some developed food products have also been patented by the faculties. Workshops are organized regularly in the department for motivating youth of local area to start their own enterprise.

Programmes offered
1. B.Tech. in Food Engineering & Technology
2. M.Tech. (Integrated) in Food Engineering & Technology
3. M.Tech.
4. Ph.D.

Faculty

Professor
> Mahanta, C.L., Ph.D. (CFTRI, Mysore)
> Deka, S.C., Ph.D. (CCS HAU, Hisar), HoD

Associate Professor
> Hazarika, M.K., M.Tech. (IIT, Kharagpur), Ph.D. (IIT, Kharagpur)
> Srivastava, B., M.Tech. (IIT, Kharagpur), Ph.D. (GBPUAT, Pantnagar)

Assistant Professor
> Sit, N., M.Tech. (GBPUAT, Pantnagar)
> Mishra, P., M.Tech. (HBTI, Kanpur)
> Badwaik, L .S., M.Tech. (SLIET, Longowal)
> Seth, D., M.Tech. (IIT, Kharagpur)
> Duary, R.K., Ph.D. (NDRI, Karnal)
> Dash, K.K., M.Tech. (IIT, Kharagpur)

Facilities

The Department is well equipped with processing and analytical equipments and is in the process of procuring many more equipments to make the state of the art facilities. Great emphasis is laid on practical for processing of foods and for analyzing their quality. List of some major equipments available with department are as follows: HPLC, Texture Analyser, Hunter Lab Color Spectrophotometer, Rapid Visco Analyser, UV-Vis Spectrophotometer, Binocular Microscope, Deep Freezer, BOD Incubator, Rotary Vacuum Evaporator, Photoflurometer, Biohazard Safety Cabinet, Lab. Scale Spray Drier, Tray Drier, Drum Drier, Fluidized Bed Drier, Baking Oven, Canning Unit, Food Processing Equipments, Packaging Equipments, Hammer Mill, Ball mill, Laboratory Pasteurizer, Paddy Huller, Paddy Sheller, Laminar Flow, Fruit Crasher, etc.

Scholarship

M.Tech. students with GATE qualification are eligible for receiving GATE scholarship. Other M.Tech. Integrated M.Tech and B.Tech. students may avail scholarships from other sources such as NEC.

Research Activities:

No. of paper published in 2011: 13

No. of ongoing research projects: 11

Selected Publications:

1. D. Purakayastha, M., Kalita, D., Das,V.K., , Mahanta, C.L., Thakur, A.J., and Chaudhuri, M.K. Effect of L-ascorbic acid addition on micro-filtered coconut water: Preliminary quality prediction study using 1H-NMR, FTIR and GC-MS. Innovative Food Science & Emerging Technologies. doi:10.1016/j.ifset.2011.11.004

2. Das, A. J., Deka, S. C. and Miyaji, T. 2012. Methodology of rice beer preparation and various plant materials used in starter culture preparation by some tribal communities of North-East India: A survey. *International Food Research Journal*, **19**(1), 101-107.
3. Duary, R. K., Batish, V. K. and Grover, S. 2011. Relative gene expression of bile salt hydrolase and surface proteins in two putative indigenous *Lactobacillus plantarum* strains under *in vitro* gut conditions. *Mol. Biol. Rep.,* DOI: 10.1007/s11033-011-1006-9.
4. Dutta, H., Paul, S.K., Kalita, D. and Mahanta, C.L. 2011. Effect of acid concentration and treatment time on acid–alcohol modified jackfruit seed starch properties. *Food Chemistry*, **128**, 284–291.

List of courses offered:
A) M.Tech.

Core Courses					
Code	Course Name	Credit	Code	Course Name	Credit
FT 511	Research Methodology	3	FT 517	Food Plant Design and Layout	3
FT 512	Advanced food engineering	4	FT 518	Seminar	1
FT513	Engineering properties of biological materials	3	FT 601	Food Product Development	3
FT514	Food Packaging, Materials Handling & storage	4	FT 602	Simulation & Modeling	4
FT 515	Operations Research	4	FT681	Project Seminar	3
FT 516	Emerging Trends in Food Processing	3	FT682	Project Report	12
Elective Courses					
FT 521	Bakery and Confectionary Technology	3	FT 531	Food Process Automation	3
FT 522	Oils and Fats Technology	3	FT 532	Numerical Methods in Food Processing	3
FT 523	Processing Technology of Meat, Poultry and Fish	3	FT 533	Energy Conservation in Food Processing	3
FT 524	Novel Separation techniques	3	FT 534	Drying and Dehydration	3
FT 525	Bioprocess Engineering	3	FT 535	Specialty Foods: Nutraceuticals and Functional Foods	3
FT 526	Fermentation and Process Control	3	FT 536	Food Plant Hygiene and Sanitation	3
FT 527	Food Biotechnology	2	FT 537	Waste Management and by product utilization in food industries	3
FT 528	Industrial Microbiology and Enzyme Technology	3	FT 538	Industrial Safety and Hazards	3
FT 529	Fermented and Non Fermented Beverages	3	FT 539	Food Rheology	3
FT 530	Food Process Design and Analysis	3			

Besides above Departmental elective course, there are three slots for Interdisciplinary Elective Courses, one each in 1st, 2nd and 3rd semesters.

B) Post B.Sc. Integrated M.Tech. (B.Tech. + M.Tech.) (Food Engineering and Technology)

Code	Course Name	Credit	Code	Course Name	Credit
Core Courses					
MS 400	Applied Mathematics and Statistics	4	FT 471	Industrial Training	2
FT 201	Food Chemistry	4	FT 416	Food quality & safety	3
FT 202	Basic & Food Microbiology	3	FT 417	Plantation Products and Spices Technology	3
FT 203	Fluid mechanics	4	FT 418	Dairy Products Technology	3
ME 101	Engineering Graphics	2	FT 419	Food Process Equipment Design	3
ME 103	Workshop Practice	2	FT 420	Mechanical operations in Food Processing	4
EL 475	Basic Electrical Engineering and Electronics	3	EL 476	Instrumentation and Control in Food Processing	4
FT 205	Food Biochemistry & Nutrition	4	FT 511	Research Methodology	3
FT 206	Principles of Food Processing & Preservation	3	FT 512	Advanced food engineering	4
FT 211	Thermodynamics & Refrigeration	3	FT513	Engineering properties of biological materials	3
FT 212	Heat Transfer operations in Food Engineering	4	FT514	Food Packaging, Materials Handling & storage	4
BM 322	Social responsibility & professional ethics in engineering	3	FT 515	Operations Research	4
CS 451	Computer fundamentals & programming	3	FT 516	Emerging Trends in Food Processing	3
FT 411	Instrumental methods of food analysis	2	FT 517	Food Plant Design and Layout	3
FT 412	Fruits & vegetable process technology	3	FT 518	Seminar	1
FT 413	Mass transfer operations in food processing	4	FT 601	Food Product Development	3
FT 414	Cereals, Pulses & Oilseeds Processing Technology	4	FT 602	Simulation & Modeling	4
FT 415	Biochemical engineering	3	FT681	Project Seminar	3
FP 513	Business management	3	FT682	Project Report	12

Elective Courses are the same as those offered to the M.Tech, Food Engineering and Technology, which are listed earlier.

Besides the Departmental elective course, there are six slots for Interdisciplinary Elective Courses, one each in 1st to 7th semesters.

HINDI
(Year of Establishment: 2010)

The Department of Hindi, established in January 2010, currently offers a Certificate Course in Official Hindi, Level – 1, to the employees of the Tezpur University in order to help them develop their skill and self-confidence in speaking and writing the language. The Department now also offers Ph.D. Programme (in Hindi literature/language), and Post Graduate Diploma in Hindi Translation

Programmes offered
1. P.G. Diploma in Translation (Hindi)
2. Certificate Course in Official Hindi
3. Ph.D.

Faculty
Professor
     Nath, A.K., Ph.D. (Manipur University), Head of the Department.
Associate Professor
     Pathak, B.C., Ph.D. (Gauhati University)
Assistant Professor
     Lata, A., M.Phil. (J.N.U. New Delhi)

Facilities
The Department can use the digital multimedia, multipurpose Language Laboratory of English and foreign languages Department.

Departmental Library
Selected books and photocopies materials relating to literatures, linguistics and functional Hindi are available in the Departmental Libraries.

Research Activities
The Department is set to offer Ph.D. programme from spring semester, 2011.

Courses offered in PG Diploma in Translation (Hindi)

CODE	Title	Credit	CODE	Title	Credit
HN 411	Prayojanmulak Hindi, Bhasha Prayukti Aur Anuvad	4	HN 421	Anuvad Ka Vyavaharik Paksh	4
HN 412	Hindi Bhasha Ki Sanvaidhanik Sthiti Aur Anuvad	4	HN 422	Janasansar Madhyam Aur Anuvad	4
HN 413	Anuvad Vigyan Aur Uska Sidhanta	4	HN 423	Paribhashik Sabdavalee, Kosh Vigyan Aur Anuvad	4
HN414	Karyalayee Hindi Aur Anuvad	4	HN 424	Pariyojana Karya	4

MASS COMMUNICATION AND JOURNALISM
(Year of Establishment: 2001)

The Department was started in 2001 to provide training in Journalism and Mass Communication and undertake research in tune with changing needs of the society. The thrust areas of the Department are Mass Communication and Community Media, laying emphasis on theories and practice of communication and media by imparting skills in Radio, Television, Newspaper, News Media, Advertising and Public Relation productions.

Programme offered

1. M. A. in Mass Communication and Journalism
2. Post Graduate Diploma in Mobile and Multimedia Communication
3. Ph.D.

Faculty

Associate Professor

      Bora, A., Ph.D. (Gauhati University), Head of the Department

      Anbarasan, P., M.Phil. (JNU, New Delhi)

      Murthy, C.S.H.N., Ph.D. (Andhra University)

Assistant Professor

      Chakraborty, J., Ph.D. (University of Hyderabad)

      Pegu, U.K., MMC (Assam University)

      Kabi, Kh., Ph.D. (Assam University)

      Nagaraju, A., M.A. (University of Hyderabad)

      Borah, A., M.A. (Tezpur University)

      Daimari, P.J., M.A. (Tezpur University)

      Malakar, K., M.A. (Jamia Millia University)

      Lakhendra, B., M.A. (BHU)

Facilities

The Department is endowed with specialized high quality equipment for print, TV, Radio and web journalism. These include industry grade digital video cameras, linear and non-linear editing suites, all in broadcast quality. Students get hands-on experience in multi camera production in the well-equipped studio. An exclusive multimedia lab with latest software enables students to gather expertise in the nuances of different media productions. A well-equipped screening room with a 100 seat capacity for the screening and discussion of short films. The department has shifted to a spacious exclusive three-story building from August, 2010 academic session.

Departmental Library

The Central Library has a collection of more than 3000 books related to all core and allied areas of mass communication. The University also subscribes to 20 national and international research journals for the Department.

Productions

Students as part of their academic curriculum produced lab journals, audio programmes, web designs, brochures, TV news bulletin, documentary films and traditional communication programmes like puppet shows and street plays.

Selected Publications:

1. Bora, Abhijit. Journalism in the 21st Century World: Tackling Challenges *Mediterranean Journal of Social Sciences* **3**(1), 393 – 400, 2012.
2. Murthy, C.S.H.N. & Das, R. Social Change through Diffusion of Innovation in Indian Popular Cinema: An Analytical Study of Lage Rao Munnabhai and Stalin, *Asian Cinema Journal*, Asian Cinema Studies Society, U.S.A.., **20**(2). 33- 20, 2011.

Courses offered in M.A. (Mass Communication and Journalism)

CODE	Title	Credit	CODE	Title	Credit
Core Courses					
MC 451	Introduction to Communication	3	MC 458	Media Law and Ethics	3
MC 452	Reporting and Writing	4	MC 459	Communication Research Methods	3
MC 453	Advertising and Public Relations	3	MC 460	Elective G A	4
MC 454	Evolution of Indian Media	3	MC 461	Elective G A	4
MC 455	Understanding New Media	3	MC 462	Broadcast Media Production	3
MC 456	Visual Communication	3	MC 463	Online Journalism I	3
MC 457	Foundations of Journalism I	1	MC 464	Foundations of Journalism II	1
MC 465	Political and Cultural Communication	3	MC 476	International Communication	3
MC 466	Development Communication	3	MC 477	Film Studies	3
MC 467	Elective G A	4	MC 478	Elective G A	4
MC 468	Elective G A	4	MC 479	Elective G A	4
MC 469	Elective G B	3	MC 480	Elective G B	3
MC 470	Elective G B	3	MC 481	Elective G B	3
MC 471	Elective G B	3	MC 482	Elective G B	3
MC 472	Elective G B	3	MC 483	Elective G B	3
MC 473	Foundations of Journalism III	1	MC 484	Foundations of Journalism IV	1
MC 474	Internship I	3	MC 485	Internship II	3
MC 475	Communication Research Project	4			
Electives					
MC 460	Reporting and Editing	4	MC 478	Analytical and Opinion Writing	4
MC 461	Advanced Advertising and Public Relations	4	MC 479	Media Management	4
MC 467	Specialized Reporting	4	MC 480	Post Production – Editing	3
MC 468	Marketing Communication	4	MC 481	Multimedia Journalism	3
MC 469	Multi Camera Production & Documentary	3	MC 482	Advanced Communication Research Methods	3
MC 470	Online Journalism II	3	MC 483	Radio Production II	3
MC 471	Communication Theories	3			
MC 472	Radio Production I	3			

Courses offered in PG Diploma (Mobile and Multimedia Communication)

CODE	Title	Credit
MM 401	Introduction to Communication and Media	3
MM 402	Broadcast Media Production	4
MM 403	Basics of Convergence Technologies	4
MM 404	Communications for Social Change	4
MM 405	Persuasive Communication in Practice	6
MM 406	Perspectives of North East India	3
MM 407	Internship	6

MATHEMATICAL SCIENCES

(Year of Establishment: 1994)

The Department was started in July 1994 with the objective of producing trained manpower for undertaking research and teaching in mathematics and allied branches of basic or applied sciences. The Department carries out research in the areas of Discrete probability distributions, Optimizations, Number theory, Operator theory, Fuzzy topology, Finite element method, Algebraic graph theory, Algebra (Group theory and Ring theory) etc. The department is currently supported by the UGC under its SAP (DRS-I) scheme.

Programmes
1. Integrated M.Sc. in Mathematics
2. Integrated B.Sc./B.Ed. (major in Mathematics)
3. M.A./M.Sc. in Mathematics
4. Ph.D. in Mathematical Sciences
5. M.Sc. in Statistics (to be introduced under XII 5-year plan)

Faculty

Professor
> Borah, M., Ph.D. (Gauhati University)
> Baruah, N.D., Ph.D. (Tezpur University)
> Hazarika, D., Ph.D. (JMI, Delhi), Head of the Department

Associate Professor
> Hazarika, M., Ph.D. (Tezpur University)
> Nath, M., Ph.D. (IIT, Guwahati)
> Barman, R., Ph.D. (IIT, Guwahati)
> Deka, B., Ph.D. (IIT, Guwahati)
> Dutta, S., Ph.D. (Tezpur University)
> Basnet, D.K., Ph.D. (Dibrugarh University)

Assistant Professor
> Sarmah, B.P., Ph.D. (Gauhati University)
> Sen, S., Ph.D. (IIT, Guwahati, *thesis submitted*)
> Haloi, R., M.Sc. (Gauhati University)
> Sarmah, B.K., M. Sc. (Gauhati University)
> Nath, R.K., Ph.D. (NEHU)
> Kalita, D., Ph.D. (IIT, Guwahati, *thesis submitted*)

Facilities

The Department has a computational laboratory established with financial assistance from the DST and UGC, which is equipped with 2 high performance servers, 2 workstations and a good number of PCs. Mathematical softwares Mathematica, Matlab, Systat, TechPlot, SEISAN, SPSS, etc. are also available in the laboratory. The laboratory is fully networked and it is linked with the Central Computer Center via LAN with access to the INTERNET.

Research Activity

Nos. of papers published in referred journals in 2011: 30
Nos. of ongoing research projects: 06

Selected Publications

1. Baruah, N.D. & Sarmah, B.K. Congruences for generalized Frobenius partitions with 4 colors, *Discrete Mathematics*, **311**, 1892-1902, 2011.
2. Baruah, N.D. & Ojah, K.K. Some congruences deducible from Ramanujan's cubic continued fraction, *International Journal of Number Theory*, **7**, 1331–1343, 2011.
3. Boruah, B., Gohain, B., Saikia, P.M., Borah, M. & Dutta, R.K. Acid–base equilibrium of neutral red in aqueous nonionic surfactant–polymer systems, *Journal of Molecular Liquids* **160**, 50–56, 2011.
4. Nath, R.K. & Das, A.K. On generalized commutativity degree of a finite group, *Rocky Mountain J. Math.* **41** (6), 1987-2000, 2011.
5. Nath, R.K. & Das, A.K. A characterisation of certain finite groups of odd order, *Mathematical Proceedings of the Royal Irish Academy*, **111A**, 69–78, 2011.
6. Haloi, R., Pandey, D.N. & Bahuguna, D. Existence of solutions to a non-autonomous abstract neutral differential equation with deviated argument, *J. Nonl. Evol. Equ. Appl.* **5**, 75-90, 2011.
7. Nath, M., Bose, S. & Paul, S. Distance spectral radius of graphs with r pendent vertices, *Linear Algebra and its Applications* **435**, 2828-2836, 2011.
9. Doloi, C. & Borah. M. Time Dependent Cascade Model with Number of Stresses a Poisson Process, *Journal of Statistics and Applications* (to appear in 2012).
10. Deka, B. & Ahmed, T. Semi-discrete finite element methods for linear and semilinear parabolic problems

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with smooth interfaces: some new optimal error estimates,*Numer. Funct. Anal. Optim.*, (to appear in 2012).

11. Barman, R. & Kalita, G. Hypergeometric functions and a family of algebraic curves, *The Ramanujan Journal* (to appear in 2012).

12. Sen, S. & Kalita, J.C. The biharmonic approach for unsteady flow past an impulsively started circular cylinder, *Communications in Computational Physics*, (to appear in 2012).

Courses offered in the M.A. / M.Sc. (Mathematics)

CODE	Title	Credit	CODE	Title	Credit
Core Courses					
MS 401	Abstract Algebra	4	MS 406	Complex Analysis	4
MS 403	Linear Algebra	4	MS 424	Computer Laboratory II	1
MS 405	Real Analysis	4	MS 501	Classical Mechanics	4
MS 408	Topology	4	MS 503	Mathematical Programming	4
MS 410	Functional Analysis	4	MS 507	Partial Differential Equations	4
MS 411	Computer Programming+	4	MS 508	Mathematical Methods	4
MS 414	Ordinary Differential Equations	4	MS 509	Probability & Statistics	3
MS 416	Numerical Analysis+	3	MS 515	Project	3
MS 421	Computer Laboratory I	2		IDC (by other departments)	3
+ Course for which there is a separate practical unit assigned as Computer Laboratory I/II					
Electives					
MS 541	Fluid Mechanics	4	MS 572	Operations Theory–II	4
MS 542	Electrodynamics	4	MS 573	Number Theory–II	4
MS 543	Relativity	4	MS 574	Advanced Algebra–II	4
MS 544	Operation Research	4	MS 576	Quantum Mechanics–II	4
MS 545	Elliptic Curves	4	MS 576	Mathematical Modelling-I	4
MS 546	Algebraic Number Theory	4	MS 578	High Energy Astrophysics	4
MS 547	Numerical Linear Algebra	4	MS 579	Mag. Hydr. & Plasma Phy.–II	4
MS 548	Mathematical Logic	4	MS 580	Sampling Techniques–II	4
MS 549	Graph Theory	4	MS 581	Stochastic Processes– II	4
MS 550	Discrete Mathematics	4	MS 582	Reliability Theory	4
MS 552	Operator Theory	4	MS 583	Advance Analysis–II	4
MS 553	Number Theory-I	4	MS 584	Multivariate Analysis-I	4
MS 554	Advanced Algebra-I	4	MS 585	Fuzzy Sets & Applications-II	4
MS 556	Quantum Mechanics-I	4	MS 586	Parallel Numerical Algorithms	4
MS 557	Mathematical Modelling-I	4	MS 587	Finite Element Method	4
MS 558	General Theory of Relativity	4	MS 568	Theory of Distribution and Sobolev Spaces	4
MS 559	Mag. Hydr. & Plasma Physics-I	4	MS 588	Applied Matrix Theory	4
MS 560	Sampling Techniques-I	4	MS 591	Computational Fluid Dynamics	4
MS 561	Stochastic Processes-I	4	MS 593	Wavelets and Applications	4
MS 562	Statistical Quality Control	4	MS 594	Advanced Topology-I	4
MS 563	Advance Analysis–I	4	MS 595	Numerical Solutions of ODE	4
MS 564	Multivariate Analysis-I	4	MS 596	Advanced Topology-II	4
MS 565	Fuzzy Sets & Applns-I	4	MS 597	Numerical Solutions of PDE	4
MS 566	Fourier Analysis	4	MS 598	Algebraic Geometry	4
MS 567	Continuum Mechanics	4	MS 599	Probability Theory	4

Courses offered in the Integrated M.Sc. in Mathematics

CODE	Title	Credit	CODE	Title	Credit
Core Courses					
PI 101	Physics-I	3	PI 102	Physics-II	3
CI 101	Chemistry- I	4	CI 102	Chemistry-II	4
BI 101	Biology-I	3	BI 102	Biology-II	3
MI 101	Mathematics-I	3	MI 102	Mathematics II	3

Core Courses					
CODE	Title	Credit	CODE	Title	Credit
CS 101	Basics in Computer Applications	3	ES 102	Elementary Environmental Science	2
EG 101	Communicative English	2	SC 102	Basic Sociology	2
MI 201	Introductory Statistics	3	NS 102	NSS	1
MI 203	Linear Spaces and Complex Numbers	3	MI 202	Probability and Mathematical Statistics	4
MI 205	Algebra	3	MI 204	Mathematical Methods and PDE	3
MI 207	Co-ordinate Geometry	3	MI 206	Integral Equations and Transforms	4
MI 209	Statistics and Dynamics	3	MI 208	Linear Algebra	4
PI 201	Electronics-I	3	BI 202	Ecology and Environmental Biology	3
PI 209	Physics Laboratory-II	2	P I202	Introductory Quantum Mechanics	3
MI 301	Computer Programming+	4	BI 210	Bio-computing Lab	2
MI 303	Real Analysis	4	PI 210	Physics Laboratory- IV	2
MI 305	Abstract Algebra	4	MI 302	Numerical Analysis+	4
MI 307	Elementary Number Theory	4	MI 304	Topology	4
MI 309	Computer Laboratory	2	MI 306	Functional Analysis	4
MI 401	Classical Mechanics	4	MI 308	Theory of Ordinary Differential Equations	4
MI 403	Measure Theory	4	MI 310	Computer Laboratory	2
MI 405	Graph Theory	4	MI 402	Advance Analysis	3
MI 407	Mathematical Software	2	MI 404	Partial Differential Equations	3
	Open Elective I	4	MI 406	Probability Theory	4
MI 501	Stochastic Process-I	4	MI 408	Complex Analysis	4
MI 503	Advanced Numerical Analysis	4		Open Elective II	4
	Open Elective III	4	MI 502	Mathematical Programming	4
	Open Elective IV	4		Open Elective-V	4
MI 515	Project(to be continued to 10th semester)	0		Open Elective-VI	4
			MI 515	Project	8

Courses offered in the Integrated B. Sc. B.Ed. (Major in Mathematics)

EG 110	Communicative English	2	PD 102	Physics-II	3
CS 101	Basics in Computer Applications	3	CD 102	Chemistry-II	4
PD 101	Physics–I	3	MD 102	Mathematics-II	3
CD 101	Chemistry-I	4	BD 102	Biology-II	3
MD 101	Mathematics-I	3	ES 101	Elementary Environmental Science	2
BD 101	Biology-I	3	NS 102	NSS/NCC	2
MD 201	Introductory Statistics	3	SC 101	Sociology: an Introduction	2
MD 203	Linear Spaces and Complex Numbers	3	MD 202	Probability and Mathematical Statistics	4
MD 205	Algebra	3	MD 204	Mathematical Methods and PDE	3
MD 207	Co-ordinate Geometry	3	MD 206	Integral Equations and Transforms	4
MD 209	Statistics and Dynamics	3	MD 208	Linear Algebra	4
PD 201	Electronics-I	3	BD 202	Ecology and Environmental Biology	3
PD 209	Physics Laboratory-II	2	PD 202	Introductory Quantum Mechanics	3
ED 101	Education and Development-I (C)	2	BD 210	Bioscience Laboratory- IIB	2
MD 301	Computer Programming+	4	PD 210	Physics Laboratory-IV	2
MD 303	Real Analysis	4	ED 102	Education and Development-II (C)	2
MD 305	Abstract Algebra	4	MD 302	Numerical Analysis	4
MD 307	Elementary Number Theory	4	MD 304	Topology	4
MD 309	Computer Laboratory	1	MD 306	Functional Analysis	4
MD 308	Theory of Ordinary Differential Equations	4	MD 310	Computer Laboratory	1

(Course structures are subject to modification)

MECHANICAL ENGINEERING
(Year of Establishment: 2006)

The department of Mechanical Engineering was started in July, 2006 under School of Engineering initially for offering B.Tech. degree in Mechanical Engineering. The aim of the Department is to produce well trained and motivated manpower in the field of Mechanical Engineering as per present industrial requirements. The department has the vision of starting research activities with introduction Ph.D. programme from January, 2011 and M.Tech. in the near future.

Programme offered

B.Tech in Mechanical Engineering

Ph.D. in Mechanical Engineering

Faculty

Professor

Hazarika, S.M., Ph.D. (Leeds, England), Head of the Department

Associate Professor

Gogoi, T.K., M.Tech. (IIT Kharagpur), Ph.D. (Tezpur University)

Mallick, A., Ph. D. (NUS, Singapore)

Datta, D., M.Tech. (IITD), Ph.D. (IIITK)

Assistant Professor

Dutta, P. P., M. Tech. (Tezpur University)

Kalita, P., M. Tech. (Institute of Technology, BHU)

Dutta, P. P., M. E. (BIT, Mesra)

Kirtania, S., M. Tech. (IIT, Guwahati)

Haloi, P., M. E. (Gauhati University)

Singh, S., M. Tech. (IIT, Guwahati)

Banarjee, S., Ph. D. (IIT, Guwahati)

Facilities:

CAD Laboratory:

This laboratory is equipped with computers having server based installed software such as ANSYS 12.0 version, FLUENT 6.3 teaching version and Pro-E Wildfire 3.0 version.

Fluid Mechanics Laboratory:

This Laboratory is equipped with Hydraulic Bench, Discharge through Orifice Apparatus, Bernoulli's Apparatus, Flow meter demonstration Apparatus, Impact of jet Apparatus, Discharge over weir and notches attachments, Reynolds Apparatus and Apparatus to find the major and minor Energy Losses in fluid flow.

Theory of Machine Laboratory:

This laboratory is equipped with Universal Governor Apparatus, Static and Dynamic Balancing Equipment, Whirling of Shaft Apparatus, Influence of Inertia upon velocity and acceleration Apparatus, Gyroscope Apparatus.

Strength of Materials Laboratory:

This laboratory is equipped with Rockwell Hardness Testing Machine, Brinell Hardness Tester, Vickers Hardness Tester, Impact Testing Machine and Universal Testing Machine of 1000 kN capacity with computer interface.

Automobile Laboratory:

This laboratory is equipped with internal combustion engine cut section model, Gear box cut section model, Differential gear cut section model, various types of steam engine models, One Esteem car and

pneumatic cylinder model. One computerized variable compression ratio single cylinder 4 stroke diesel engine set up and a diesel smoke meter have also been installed in this laboratory.

Kinematics laboratory:

In this laboratory, there are various types of models for demonstration to the students such as models of different mechanisms, shaper model, clutch model, Oldham coupling model, gear drive, belt drive, chain drive etc.

Turbo machinery laboratory:

In this laboratory the following equipments are available.

One computerized centrifugal pump unit.

One computerized plunger pump unit

One computerized Pelton wheel with Turbine service unit.

One computerized propeller turbine

Vibration laboratory:

One Universal Vibration Apparatus which can perform thirteen numbers of experiments has been installed in this laboratory.

Metrology laboratory:

Sophisticated Measuring Instruments such as Plunger type dial indicator, lever type dial indicator, Magnetic Stand, Digital External micrometer, Universal bevel protractor, Dial Vernier Caliper, Sine Bar, Slip Gauges, Depth Micrometer, Digital Depth Gauge, Tubular Inside Micrometer, Straight Edge, Indicating Micrometer, Portable Surface Roughness Tester etc. are presently available in the Laboratory.

Central Workshop:

This is a central facility under Mechanical Engineering department. The Central Workshop is well equipped with CNC Lathe Machine (Make: MTAB), CNC Milling Machine(Make: MTAB), High Speed Precision Lathe Machine (Make: HMT), Conventional Lathe Machines, Shaping Machine, Vertical Milling Machine(Make: BFW), Horizontal Milling Machine(Make: BFW), Universal Milling Machine(Make: HMT), High Precision Surface Grinding Machine (Make: Praga Tools), Universal Tool and Cutter Grinder(Make: HMT), Radial Drilling Machine, Pillar Drilling Machine, Double ended Pedestal Grinding Machine, Slotting Machine, Arc welding Machine, Oxy Acetylene Gas Welding Setup, TIG Welding and MIG Welding Machine. Up-gradation of sheet metal shop and fitting shops are under the process and good many numbers of machines are arriving very soon.

Selected publications

1. Gogoi, T.K. & Baruah, D.C. The use of Koroch seed Oil Methyl Ester blends as Fuel Diesel Engine, *Applied Energy*, **88**, 2713-2725, 2011.
2. Mallick, A. Tensile properties of ultrafine grained Mg-3%Al alloy studied at elevated temperature, *Int. J. Mat. Res.* **102**, 48-53, 2011.
3. Singh, S.K. & Tiwari, R. Identification of multiple cracks in a shaft system using transverse frequency response function, *Mechanism and machine theory*, **45**, 1813-1827, 2010.
4. Singh, S.K., Tiwari, R. & Talukdar, S. A multi crack identification algorithm based on forced vibrations from a shaft system, IUTAM Symposium on Emerging Trends in Rotor Dynamics, IUTAM Book series, **1011**, 505 – 513, 2011. DOI: 10 – 1007/978-94-007 – 0020 – 8.42 (Book Chapter)
5. Sushen, K. & Chakraborty, D. Multi- Scale modeling of carbon nanotube reinforced composites with a fiber break, *Materials and Design*, **35**, 498-504, 2012.

MOLECULAR BIOLOGY AND BIOTECHNOLOGY
(Year of Establishment: 1997)

The Department of Molecular Biology and Biotechnology was established in July 1997 with the objectives to train and create quality human resources and to pursue quality research work in the challenging and frontier areas of modern biotechnology. The Department has a close linkage with academic institutes of the country. In addition, the Department had taken issues relating to petroleum biotechnology in collaboration with ONGCL, India.

The current research activities in the Department includes microbial biotechnology, petroleum biotechnology, plant biotechnology, snake venom biochemistry, enzymology and enzyme technology, medicinal plants, immunology and immunogenetics, human molecular genetics, molecular plant microbe interactions, cancer biology and computational biology. The M.Sc. course in Molecular Biology and Biotechnology of the Department is supported by Department of Biotechnology (DBT), Govt. of India, New Delhi and the revised curriculum for M.Sc Biotechnology as recommended by DBT, has been introduced with effect from August 2011.

Apart from DBT, the Department is funded by DST-FIST, UGC-SAP and ONGCL.

Programmes offered

1. M.Sc. in Bioscience and Bioinformatics (Integrated)
2. M.Sc. in Molecular Biology and Biotechnology
3. Ph.D.

Syllabus for both the MSc programmes is available in the Department website of the University.

Admission in to the M.Sc. programme will be based on the student's performance in the entrance exam organized by Tezpur University (TUEE), which consists of objective and subjective questions. First part (only objective questions) will be a screening test and check the model question paper for details. (Please note: there will be no personal interview for M.Sc. admission)

Faculty

Professor

Konwar, B.K., Ph.D. (Imperial College, London),
(On lien, as Vice-Chancellor of Nagaland University)
Buragohain, A.K., Ph.D. (Imperial College, London) (On lien, as Registrar, TU)
Mukherjee, A.K., Ph.D. (Burdwan University)

Associate Professor

Baruah, S., Ph.D. (PGIMER, Chandigarh); Head of the Department
Ray, S. K., Ph.D. (CCMB, Hyderabad; degree given by JNU, New Delhi)
Mandal, M., M.Phil., Ph.D. (IGIB, Delhi; degree given by Delhi University)
Ramteke, A., Ph.D. (Jawaharlal Nehru University, New Delhi)

Assistant Professor

Medhi, T., Ph.D. (IIT, Kharagpur)
Kalita, E., Ph.D. (NIPGR, New Delhi; degree awarded by Gauhati University)
Doley, R., Ph.D. (Tezpur University)
Ponnam, S.P.G., Ph.D. (LVPEI, Hyderabad; degree awarded by University of Hyderabad)
Bora, L., Ph.D. (Gauhati University)
Jha, A.N., Ph.D. (IISc, Bangalore)
Saha, S., Ph.D. (IISc, Bangalore)
Mukhopadhayay, R., Ph.D. (IACS, Kolkata)

Facilities

The Department houses a range of sophisticated equipments such as High Pressure Liquid Chromatography (HPLC), Gas Chromatography-Mass Spectrometry (GC-MS), Pulse field Gel Electrophoresis Apparatus, High Speed Centrifuge, ELISA reader, FT-IR spectrophotometer and DNA sequencer to fulfill the requirement of Masters and Ph.D. students.

The other equipments/facilities are Protein Purification System, Millipore Water Purification System, Fermentor, Inverted Microscope, Tissue Culture Facility, UV-VIS Spectrophotometer, Deep freezer, Cold room etc.

Library

Apart from having the basic and advanced text books, University Central library contains collection of latest reference books, number of foreign and national journals as well as electronic journals. Some of the basic books are also available in the Departmental library.

Fellowship

The students admitted to the M.Sc. programme are eligible for a DBT sponsored monthly studentship of rupees three thousand (Rs. 3,000/-) only.

Research Activity

Nos. of papers published in referred journals in 2011: 23

Nos. of ongoing research projects in department: 17

Other relevant information

The Department has received financial assistance under UGC-SAP, DST-FIST and DBT special grant for strengthening teaching, research and training. The Department houses Bioinformatics infrastructure facility, which facilitates computational biology research activities for the students. The Department also houses the DBT Nodal Centre, Ministry of Science and Technology for the upgradation and improvement of the infrastructure facilities of the Medical Colleges of the North East India.

Selected publications

1. Lourembam, S.D. & Baruah. S. Antibody response to allelic variants of 19kDa fragment of MSP‐1: recognition of a variant and protection associated with ethnicity in Assam, India. *Vaccine* Nov 28, 2011.

2. Mukherjee, A.K., Saikia, D. & Thakur, R., Medical and diagnostic application of snake venom proteomes. *J. Proteins and Proteomics* **2**(1), 31-40, 2011.

Courses offered in M.Sc. (Molecular Biology and Biotechnology)

CODE	Title	Credit	CODE	Title	Credit
**Core Courses**					
BT 401	Genetics & Cytogenetics	3	BT 402	Cell Biology	3
BT 403	Biochemistry	4	BT 404	Microbiology	4
BT 405	Remedial Mathematics		BT 406	Biophysics	2
BT 407	Techniques and instrumentation	3	BT 408	Enzymes and Enzyme Technology	3
BT 409	Immunology	4	BT 410	Molecular Biology	4
BT 411	Cell and Tissue Culture	4	BT 412	Fermentation and Process Control	4
BT 413	Genetic Engineering I	4	BT 414	Application of Computer in Biotechnology	3
BT 418	Credit Seminar	2	BT 419	Genetic Engineering II	4
BT 421	Project	14	BT 420	Management & Legal Issues in Biotechnology	2
**Elective Courses**					
BT 415	Animal Biotechnology	4	BT 416	Plant Biotechnology	4
BT 417	Food Biotechnology	4			

Courses Offered in Integrated M.Sc. in Bioscience and Bioinformatics

Core Courses					
CODE	**Title**	**Credit**	**CODE**	**Title**	**Credit**
BI 101	Biology-I	3	BI 102	Biology-II	3
PI 101	Physics-I	3	PI 102	Physics-II	4
CI 101	Chemistry-I	4	CI 102	Chemistry-II	3
MI 101	Mathematics-I	3	MI 102	Mathematics-II	3
CS 101	Basics in Computer Applications	3	ES 102	Elementary Environmental Science	2
EG 101	Communicative English	2	SC 102	Basic Sociology	2
BI 201	Cell Biology	3	NS 102	NSS	1
BI 203	Molecular Genetics	3	BI 202	Ecology and Environmental Biology	3
BI 205	Animal and Plant Physiology	3	BI 204	Microbiology	3
BI 207	Bioscience Laboratory-I	3	BI 206	Basics in Bio-computing & IT	3
MI 201	Introductory Statistics (Common Paper)	3	BI 208	Bioscience Laboratory IIA (Biology students)	3
CI 201	Chemistry-III	3	BI 210	Bioscience Lab IIB (For non-Bioscience Majors)	2
CI 209	Chemistry Laboratory-II	2	MI 204	Mathematical Methods & PDE	3
BI-301	Biochemistry	3	CI 202	Chemistry-IV	3
BI-303	Molecular Biology	3	CI 210	Chemistry Laboratory-IV	2
BI-305	Cell and Tissue Culture	3	BI-302	Applied Bioscience	3
BI-307	Bioprogramming	3	BI-304	Biophysics	3
BI-309	Developmental Biology	3	BI-306	Computational Biology	3
BI-311	Laboratory – V	4	BI-308	Biological Database Management System	3
BI-401	Genomics and Proteomics	3	BI-310	Applied Microbiology & Bioprocess Engineering	3
BI-403	Genetic Engineering	3	BI-312	Laboratory – VI	4
BI-405	Immunology	3	BI-402	Animal Biotechnology	3
BI-407	Credit Seminar	3	BI-404	Plant Biotechnology	3
BI-409	Laboratory - VII	4	BI-406	Nano Biotechnology	3
BI-501	Project	16	BI-408	Environmental Biotechnology	3
BI-502	Project	16	BI-410	Bioinformatics software and Algorithms	3
BI-414	Structural Bioinformatics	3	BI-412	Bioethics, Biosafety & Intellectual Property Rights	3
BI-416	Laboratory - VIII	4			

PHYSICS
(Year of Establishment: 1998)

Department of Physics is offering post-graduate teaching and research programmes since its commencement January 21, 1998. Adapting to new developments, the areas of specialization presently offered are Condensed Matter Physics, Photonics & Electronics, High Energy Physics, Plasma Physics and Astrophysics & Cosmology and specialized post-graduate in Nanoscience and Technology, started in 2005. To harness the young talents and train them, the department started Integrated M.Sc. in Physics, from August, 2009 and subsequently integrated B.Sc. B.Ed. (major Physics) from August, 2011.

1. Programmes Offered:
M.Sc. in Physics
M.Sc. in Nanoscience and Technology
Integrated M.Sc. in Physics
Integrated B.Sc. B.Ed.
Ph.D.

2. Major Equipments:
Scanning Electron Microscope (SEM), UV-Visible Spectrophotometer, Photo-luminescence Setup, Hind High Vacuum Thin Film Coating Unit, Microwave set-up, Electrochemical Workstation, LCR High Tester Bridge, Miniflex Table Top XRD, Semi Conductor Setup, Polarization Microscope, Hot Air Oven, Semiconductor Characterization set-up, DSP Kit and UV-VIS Spectrophotometer, Millipore Water Purification System, LBM film deposition unit, FT-IR spectrometer as major research equipments.

3. Specializations:
Condensed Matter Physics, Electronics and Photonics, High Energy Physics, Astrophysics & Cosmology and Nanoscience & Technology

4. Thrust Area: Material Science and Nanoscience

5. Research Areas:
Nanomaterials, Solid State Ionics, Microwaves, High Energy Physics, Plasma Physics, Optoelectronics and Astrophysics

6. Faculty
Professor
Choudhury, A. J., Ph.D. (Oxford University)
Kumar, A., Ph.D. (IIT Kanpur)
Sarma, J. K., Ph.D. (Gauhati University),
Associate Professor
Bhattacharyya, N. S., Ph.D. (Delhi), Head of the Department
Das, N., Ph.D. (Gauhati University)
Deb, P., Ph.D. (Jadavpur University)
Ahmed, G. A., Ph.D. (Gauhati University)
Mohanta, D., Ph.D. (Tezpur University)
Assistant Professor
Francis, N.K., M.Sc. (Delhi University)
Karmakar, P. K., Ph.D. (Gauhati University)
Das, M.K., Ph.D. (Gauhati University)
Biswas, R., M.Sc. (Dibrugarh University)
Nath, P., Ph.D. (Gauhati University)
Pathak, A., Ph.D. (Gorakhpur University)
Gogoi, R., Ph.D. (Gauhati University)

7. Research Activity
Total nos. of papers published in the year 2011 : 40
Total nos. of ongoing research projects   : 13

8. Selected publications
1. Deka, M., & Kumar, A. Electrical and electrochemical studies of PVdF-Clay nanocomposite gel polymer electrolytes for Li-ion batteries, *J. Power Sources* **196**, 1358–1364, 2011.
2. Kumar, A. & Banerjee, S. Swift heavy ion irradiation: a novel technique for tailoring the size of polyaniline nanofibers, *Intl. J. Nanoscience,* **10**(1), 1-5. 2011. DOI: 10.1142/S0219581X 11007442.
3. Kumar, A. & Deka, M. PEO/P(VdF-HFP) blend based composite polymer electrolytes dispersed with dedoped (insulating) polyaniline nanofibers, *J. Solid State Electrochem* (2011). DOI: 10.1007/s10008-010-1271-x.
4. Banerjee, S. & Kumar, A. Swift heavy ion irradiation induced structural and conformational changes in polypyrrole nanofibers, *Radiation Effects and Defects in Solids*, *iFirst* 1-8, 2011. DOI: 10.1080/10420150.2010.542560.

5. Borah, S. & Bhattacharyya, N.S. EM transmission response of microstrip notch filter on obliquely magnetized magneto-dielectric substrate in X-band under influence of low magnitude of external dc magnetic field, *Progress in Electromagnetics Research (PIER)-M*, **21**, 47-59, 2011.
6. Borah, K. & Bhattacharyya, N.S. Magneto-dielectric composite with ferrite inclusions as substrates for microstrip patch antennas at microwave frequencies, *Composites Part B: Engineering,* 2011. DOI:10.1016/j.compositesb.2011.067
7. Goswami, R., Deb, P., Thakur, R., Sarma. K.P. & Basumallick, A. Removal of As(III) from aqueous solution using functionalized ultrafine iron oxide nanoparticles, *Seperation Sci. Tech.*, **46**, 1017, 2011.
8. Chakraborty, S., Gogoi, M., Kalita, E., & Deb, P. Multifunctional, High Luminescent, Biocompatible CdTe quantum dot fluorophores for bioimaging applications, *Int. J. Nanosci*, **10**,1191, 2011.
9. Das, U. & Mohanta, D. Evolution of nanoparticles and nanorods: Aspect ratio dependent optoelectronic characteristics, *Euro. Phys. J: Appl. Phys.,* **53**(1), 10602-1-5, 2011.
10. Bayan, S. & Mohanta, D. Effect of 80-MeV Nitrogen ion irradiation on ZnO nanoparticles: Mechanism of selective defect related radiative emission features, *Nuclr. Instrum. Meth. B.* **269**(3), 374-379, 2011.
11. Bayan, S., Das, U. & Mohanta, D. Peacock feather supported self assembled ZnO nanostructures for tuning photonic properties, *Euro. Phys. J. D*, **61**(2), 463-468, 2011.
12. Paul, H. & Mohanta, D. Hydrazine reduced exfoliated graphene/graphene oxide layers and magneto-conductance measurements of Ge-supported graphene layers, *Appl. Phys. A* **103**(2), 395-402, 2011.
13. Karmakar, P. K. Nonlinear stability of pulsational mode of gravitational collapse in self-gravitating hydrostatically bounded dust molecular cloud, *Pramana- J. Phys.,* **76**(4), 1-12, 2011.
14. Pathak, A., Pradhan, A.C., Sujatha, N.V. & Murthy, J. Survey of OVI absorption in the Large Magellanic Cloud, *MNRAS*, **412**, 1105, 2011.

Courses offered in M.Sc. (Physics)

CODE	Title	Credit	CODE	Title	Credit
	Core Courses				
PH 400	Physics Lab - I	5	PH 411	Statistical Physics	3
PH 402	Quantum Mechanics - I	3	PH 413	Computational Techniques	3
PH 403	Mathematical Methods of Physics – I	3	PH 415	Nuclear Theory & Particle Physics	3
PH 404	Electromagnetic Theory - I	3	PH 499	Physics Lab - II	5
PH 405	Semiconductor Devices	3	PH 500	Project Work - I	5
PH 407	Quantum Mechanics - II	3	PH 501	Condensed Matter Physics & Material Science - I	3
PH 409	Mathematical Methods of Physics-II	3	PH 503	Atomic & Molecular Physics	3
PH 410	Analog & Digital Electronics	4	PH 599	Project Work - II	5
	Electives				
PH 401	Classical Mechanics	3	PH 521	Introduction to Parton Models	3
PH 504	Laser Physics	3	PH 522	Communication Systems	3
PH 505	Coherent Optical System	3	PH 523	Microwaves	3
PH 506	Physics of thin Film	3	PH 524	Digital Signal Processing	3
PH 507	Physics of Low Temperature	3	PH 525	Microprocessor & Digital Signal Processing Based System	3
PH 509	Condensed Matter Physics & Material Science - II	3	PH 526	Plasma Physics-I	3
PH 510	Fibre Optics & Optoelectronics	3	PH 527	Plasma Physic - II	3
PH 511	Image Processing	3	PH 528	Solid State Ionics	3
PH 512	Physics of Remote Sensing	3	PH 529	Advanced Material Science	3
PH 513	Photonics Devices	3	PH 530	Nano Structures - I	3
PH 514	Super Conductivity & Critical Phenomena	3	PH 531	Nano Structures- II	3
PH 515	Physics of Integrated Circuits	3	PH 532	Quantum Electrodynamics	3
PH 516	Probes of Solid State Physics	3	PH 533	General Theory of Relativity	3
PH 517	Physics of Solid State Devices	3	PH 534	Astrophysics and Cosmology	3
PH 519	Quantum Field Theory	3	PH 535	Electromagnetic Theory - II	3
PH 520	Modern Particle Physics	3			

Courses offered in M.Sc. (Nano Science and Technology)

NS 401	Quantum Mechanics	3	NS 413	Measurement & Analysis Lab - I	5
NS 402	Electronics	3	NS 414	Instrumental Methods of Analysis	4
NS 403	Computational Techniques	3	NS 415	Measurement & Analysis Lab -II	5
NS 404	Basic Polymer Science	3	NS 501	Surface Science	3
NS 405	Cell & Molecular Architecture of Cells	3	NS 502	Optical Properties of Nanostructures	3
NS 407	Statistical Physics	3	NS 503	Electrical & Magnetic Properties of Nanostructures	3
NS 408	Condensed Matter Physics	3	NS 504	Biosynthesis of Nanoparticles & Applications	3
NS 410	Nanostructures	3	NS 505	Minor Project	5
NS 411	Fundamentals of Molecular Biology & Elements of Immunology	3	NS 506	Major Project	12

Courses offered in Integrated M.Sc. in Physics

Core Courses					
CODE	Title	Credit	CODE	Title	Credit
BI-101	Biology-I	3	BI-102	Biology-II	3
PI-101	Physics-I	3	PI-102	Physics-II	3
CI-101	Chemistry-I	3	CI-102	Chemistry-II	3
MI-101	Mathematics-I	3	MI-102	Mathematics-II	3
EG-101	Communicative English	2	SC-102	Sociology / NSS	1
CS-101	Basics in Computer Applications	3	ES-102	Elementary Environmental Science	2
PI 201	Electronics-I (Common Paper)	3	PI 202	Introductory Quantum Mechanics (Common Paper)	3
PI-203	Classical Mechanics-I	3	PI-204	Atomic and Molecular Spectroscopy	3
PI 205	Electromagnetism-I	3	PI 206	Electronics-II	3
PI 207	Physics Laboratory-I	3	PI 208	Physics Laboratory-III	3
PI 209	Physics Laboratory-II	2	PI 210	Physics Laboratory-IV	2

Apart from the faculty members of the Department of Physics, classes are also taken by faculty members of the department of Chemical Sciences and Molecular Biology and Biotechnology for M.Sc. in Nano Science and Technology course. Department also offers two interdisciplinary courses for students of other branches, Introduction to Cosmology and Techniques of Simulations.

Course structure of the Integrated B.Sc. (major) B.Ed. Programme
Major in Physics

FIRST SEMESTER

Course Code	Course title	L-T-P	CH	CR
EG110	Communicative English	2-0-0	2	2
CS101	Basics in Computer Applications	2-0-1	4	3
PD101	Physics I	2-0-1	4	3
CD101	Chemistry I	2-0-2	6	4
MD101	Mathematics I	2-1-0	3	3
BD101	Biology I	2-0-1	4	3
		Total credit = 18		

SECOND SEMESTER

Course Code	Course title	L-T-P	CH	CR
PD102	Physics II	2-0-1	4	3
CD102	Chemistry II	2-0-2	6	4
MD102	Mathematics II	2-1-0	3	3
BD102	Biology II	2-0-1	4	3
ES102	Elementary Environmental Science	2-0-0	2	2
SC102	Sociology: an Introduction	2-0-0	2	2
NS102	NSS/NCC	0-0-2	2	2
			Total credit = 19	

THIRD SEMESTER

Course Code	Course title	L-T-P	CH	CR
PD201	Electronics-I (Common Paper)	2-1-0	3	3
PD203	Classical Mechanics-I	2-1-0	3	3
PD205	Electromagnetism-I	2-1-0	3	3
CD201	Chemistry-III	2-1-0	3	3
MD201	Introductory Statistics (Common Paper)	2-1-0	4	3
PD207	Physics Lab-I	0-0-3	6	3
PD209	Physics Lab-II (for Non-Physics major)*	0-0-2	4	2
CD211	Chemistry Lab-II	0-0-2	4	2
			Total credit = 20	

FOURTH SEMESTER

Course Code	Course title	L-T-P	CH	CR
PD202	Introductory Quantum Mechanics (Common Paper)	2-1-0	3	3
PD204	Atomic & Nuclear physics	2-1-0	3	3
PD206	Electronics II	2-1-0	3	3
CD202	Chemistry-IV	2-1-0	3	3
MD204	Mathematical Methods & PDE	2-1-0	3	3
PD208	Physics Lab-III	0-0-3	6	3
PD210	Physics Lab-IV (for Non-Physics major)*	0-0-2	4	2
CD212	Chemistry Lab-IV	0-0-2	4	2
			Total credit = 20	

FIFTH SEMESTER

Course Code	Course title	L-T-P	CH	CR
ED101	Education and Development I (C)	2-0-0	2	2
PD301	Mathematical Physics	2-1-0	3	3
PD303	Physical and Geometrical Optics	2-1-0	3	3
PD305	Thermodynamics & Statistical Physics	2-1-0	3	3
PD307	Basic Material Science	2-1-0	3	3

| PD399 | Physics Lab-V | 0-0-5 | 10 | 5 |

Total credit = 19

SIXTH SEMESTER

Course Code	Course title	L-T-P	CH	CR
ED102	Education and Development II (C)	2-0-0	2	2
PD302	Digital Electronics & Microprocessors	2-1-0	3	3
PD304	Computational Techniques & Simulation	2-1-0	3	3
PD306	Measurement Systems	2-1-0	3	3
PD308	Laser Physics	2-1-0	3	3
PD300	Minor Project	0-0-3	6	3
PD350	Seminar	0-0-2	4	2

Total credit = 19

SOCIOLOGY
(Year of Establishment: 2006)

The department was established in 2006. It introduced the two-year M.A. programme in August that year with an intake capacity of 15. It has also introduced Doctoral programme from January, 2008. The course work for Ph.D. includes courses, among others, a course on the Sociology of South-East Asia which is rather unique in the region. The M.A. students are imparted training in the advance areas of Sociology which include courses among others, on advanced Sociological Theories, Social Demography, Industrial Sociology and Sociology of North-East India. The students are required to undertake altogether 16 courses of which 4 are optional courses. The latter include courses on Sociology of Medicine, Quantitative Sociology, Sociology of Culture and Mass Media, Criminology, Environmental Sociology, Sociology of Development and Gender and Society. Society and Culture of North-East India (Inter Departmental Course).

The major objective of the programme is to disseminate knowledge in sociological theory and method with a view to creating a pool of trained manpower that is sensitive to the regional specificities with a national and global perspective.

Programmes offered
   M.A. in Sociology
   Ph.D.
Faculty
Professor
     Bhatt, C., Ph.D. (Delhi)
     Sharma, C.K., Ph.D. (Delhi)
Associate Professor
     Deka, R., Ph.D. (Dibrugarh University), Head of the Department
     Kikhi. K., Ph.D (NEHU)
Assistant Professor
     Das, A.K., M.Phil. (Delhi)
     Sumesh, S.S., Ph.D. (University of Kerala)
     Goswami, N., M.A. (BHU)
     Das, Sarmistha, M.A. (JNU)
     Salah. P. M.Phil. (JNU)

Courses offered: M. A. (Sociology)

CODE	Title	Credit	CODE	Title	Credit
Core Courses					
SC 401	Sociological Theories - I	5	SC 407	Political Sociology	5
SC 402	Sociological Theories - II	5	SC 408	Research Methodology	5
SC 403	Sociology of Kinship	3	SC 501	Industrial Sociology	4
SC 404	Social Stratification	5	SC 502	Social Demography	4
SC 405	Sociology of India	5	SC 503	Social Movements in India	4
SC 406	Economic Sociology	4	SC 504	Sociology of Northeast India	4
			SC 505	Project	6
Electives					
Students will choose *any four* from the- following:					
SC 521	Sociology of Medicine	4	SC 525	Environmental Sociology	4
SC 522	Quantitative Sociology	4	SC 526	Sociology of Development	4
SC 523	Sociology of Culture and Mass Media	4	SC 527	Gender and Society	4
SC 524	Criminology	4			

SECTION SIX

MODEL QUESTIONS

The Written Test consists of the following : No negative marks for wrong answers
1.Test of GK : 40 marks; 2. Test of reasoning : 30 marks; 3. Test of English : 30 marks.

Total marks : 100   Time : 2 hours

General Knowledge :
1. Which is the largest sugercane producing state in India ?
    (a) Bihar   (b) Andhra Pradesh   (c) Uttar Pradesh   (d) Assam
2. Which particular city is known as the "Garden City" of India?
    (a) Mysore   (b) Bangalore   (c) Agra   (d) Varanasi
3. Mother Teresa arrived in India from Europe in the year
    (a) 1910   (b) 1921   (c) 1929   (d) 1939
4. What is the name of the currency of Russia ?
    (a) Mark   (b) Yen   (c) Ruble   (d) Peso

English : Which of the Phases marked (1), (2) and (3) given below should replace the phrase given in bold in the following sentences.
1. She cooks, washes dishes, does her homework and take relaxing.
    i) relaxing then   ii) then relaxes   iii) then relaxing   iv) take relaxes
    v) no correction required
2. Fill in the blanks with the help of the alternatives given below
    Charles Darwin was .... (6) .... to his studies to a point of madness. However, his findings .... (7) .... fruits when he got sucess in propagating the evoltionary principles. According to this theory, there is always .... (8) .... for existence or the .... (9) .... of the fittest. this theory taught man to .... (10) .... Himself to his prevailing environment.
    Q. 6. (a) Addicted (b) Devoted (c) Given (d) Recommended
    Q. 7. (a) Bore (b) Gave (c) Carried (d) Indicated
    Q. 8. (a) Efforts (b) Striving (c) Struggle (d) Fight
    Q. 9. (a) Life (b) Survival (c) Dominance (d) Destruction
    Q. 10. (a) Adapt (b) Adopt (c) Adept (d) Adhere

Reasoning :
1. the age of a man is three times the sum of the ages of his two sons. Five years after, his age will be double the sum of the ages of his sons. The father's present age is
    (a) 40 years   (b) 45 years   (c) 50 years   (d) 55 years

2. A town 'P' is located in a particular district. The town 'A' is West of P. Town 'T' is East of 'P'. Town 'K' is East of 'B' but West of 'T' and 'A'. They are all in the same district. Which town is the farther West ?
    (a) P   (b) K   (c) B   (d) A

Non-Verbal Reasoning :
1. 1 2 3 4
2. I II III IV V
    In above set of figures (I) to (IV), some parts are shown to change their positions in a regular direction. Following the same sequence, which one of the following will appear at the fifth stage ?
    (a)   (b)   (c)   (d)

Answers :
General Knowledge : 1(b), 2(c), 3(a), 4(c), 5(c)
English : 1(2), 6(b), 7 (a), 8(c), 9(b), 10(a)
Reasoning : 1(b), 2(c)
Non-Verbal Reasoning : 1(1), 2(c)

Department of Chemical Sciences
M. Tech. in Polymer Science & Technology

Full Marks-100   Time- : 2 hours

Section A: Objective type questions
Section B : Subjective type questions

Section A (objective)
1. What is the chemical structure of repealing unit of natural rubber?
2. Which method would you use to determine the weight average molecular weight of a polymer?
3. Which polymer is used in non-sticky utensils?
4. Why is it necessary to control the heat during polymerization?
5. What is the role of boiling point diagram during designing of distillation column?

Section B (subjective)
1. Outline the chemical transformation of phenol to biophenol-A?
2. How do you control the molecular weight of a polymer?
3. How does the purity of Monomer influence the molecular weight of the polymer?
4. Comment on 'Recycling is preferred technique than biodegradable polymers related to environmental issues.
5. Show the mechanisms for the transformation of caprolactum from cyclohexanone.
6. Determine the co-monomer ratio of styrene-butadiene copolymer, when the percentage of carbon is 85%.
7. What are the losses occur in centrifugal pump during transportation of fluid?
8. Water is flowing through at the rate of 0.001 m/s through a pipe of 3 cm diameter. What is the specific kinetic energy of water?
9. Derive the relation between kinetic energy and he
10. at capacity at constant volume?

M. Sc. In Chemistry

General Science: 10 marks ; Physical Chemistry 30 marks; Organic Chemistry 30 marks; Inorganic Chemistry 30 marks

General Science:
Write the correct answer in the box. Each question carries 1 mark. There is no genitive mark for incorrect answer

1. One closed bottle with water at 300C is taken to moon. If on the surface of moon cork of the bottle is opened, then
   a. Water will freeze   b. Water will boil
   c. Water will be dissociated into H2 and O2   d. There will not be any effect
2. The temperature at the bottom of waterfall will be more than that at the top because.
   a. Large area of falling water heat up due to sun rays
   b. Falling water takes heat from the sun
   c. At the bottom potential energy of water is large
   d. The potential energy of falling water is converted into heat.
3. The upper and lower fixed points of a faulty thermometer are 50C and 1050C. If the thermometer reads 250C, what is the actual temperature?
   a. 15° C   b. 20° C   c. 30° C   d. 35° C

Physical Chemistry (each question carries two marks)
4. Write the Hamiltonian operator of a free particle moving in one direction under the influence of zero potential energy.
5. Write the electronic configuration for N2, N2- and N2.
6. Derive the relation:
7. Show that entropy change in a binary mixture for isothermal process is maximum when x1=x2=

Organic Chemistry (each question carries two marks)
8. How many stereoisomers are possible for bromochloroiodomethane? Draw their three dimensional structures andlabel as S and R?
9. Predict the product of the following Michael addition reaction: Methyl vinyl ketone + malonic ester
10. What is Hammett constant σ?
11. On hydrolysis of DNA, it is found that although the ratio of bases vary from one DNA to another, the ratios of C:G and A:T are always 1:1.
    (a) How are these ratios consistent with the double helix concept?
    (b) How do the complementary bases interact with one another?

Inorganic Chemistry (each question carries two marks)

12. Dipole moment of NH3 molecule is larger than that of NF3. Explain.
13. Write the d-orbital splitting diagram for a square pyramidal and a trigonal bipyramidal complex.
14. The electronic spectrum of KMnO4 shows a broad band at 18000 cm-1, while in K2CrO4 the band is observed at a higher frequency 26000 cm-1. Assign the bands and explain the trend.
15. Which among the following electronic transitions will have the lowest energy?
    (a) $n \rightarrow \sigma^*$ (b) $n \rightarrow \pi^*$ (c) $\sigma \rightarrow \sigma^*$ (d) $\pi \rightarrow \pi^*$

Model Questions for Integrated M.Sc. and B.Sc.-B.Ed. in Chemistry

Full Marks : 100   Time : 2 hr

The entrance examination question paper will contain two sections. Each question carries 2 marks. For every incorrect answer 0.5 marks will be deducted.

Section A: Chemistry. In this Section there will be 40 questions out of which you will have to answer 35 questions

Section B: Biology , Mathematics, Physics & General. In this Section there will be 20 questions out of which you will have to answer 15 questions (5 each)

Section A (Chemistry)

1. The first ionization energy of nitrogen is greater than oxygen. Why?
2. Which of the following compounds will exhibit cis-trans (geometrical) isomerism?
   (i) 2-butene   (ii) 2-butyne   (iii) 2-butanol   (iv) butanol
3. Between H_2O and H_2S, which will have a smaller bond angle and why?

Section B (General)

1. The boiling point of water inside a pressure cooker is
        i) below 100^oC ii) 100^oC iii) 100^oC and 115^oC iv) above 130^oC
2. The longest mountain chains on the earth are
        i) The Alpine-Hamalayan belt   ii) The Rocky Mountains
        Iii) Mid Oceanic Ridges   iv) the Urals
3. Flow chart is-
        i) Computer program   ii) Pictorial representation of computer
        iii) Pictorial representation of algorithm   iv) Picture of computer units
4. In which of the following, the speed of sound will be maximum?
        i) Water   ii) Steel   iii) Air   iv) Vacuum
5. The medicine which reduces the fever is called-
        i) Analgesic   ii) Antipyretic   iii) Anesthetic   iv) Explosive

Master of Computer Application (MCA)

Full Marks: 100   Time: 2 hours

Candidates needs to score minimum qualifying marks in each section.

The entrance examination question paper will contain three sections:
1. Section I (Logical Reasoning)   : 40 marks
2. Section II (Mathematics or Computer Basics)   : 30 marks
3. Section III (English Composition & Comprehension) : 30 marks

To qualify for selection a candidate must secure at least 20% marks in each of the sections

Section I

In this section every correct answer will fetch 2 (two) marks and for every wrong answer 1 (one) mark
will be deducted.

1. What is the next number in the series - 121, 169, 289, 361, 526, _ ?
   (A) 841   (B) 625   (C) 784   (D) 729   (E) none of these
2. A cube with all sides painted is divided into small cubes of equal sizes. The edge of a small cube is exactly one-fourth as
   that of the original cube. Therefore, the number of small cubes with only one side painted is -
   (A) 4   (B) 6   (C) 12   (D) 24   (E) 36

Section II

In this Section answer questions in either Group A or Group B

Group A

Each correct answer will fetch 2½ (two and half) marks and for every wrong answer 1 (one) mark will be deducted.

1. The number of two digit numbers that can be written by using the digits 2 and 3 is
   (A) $^{10}C_2 + ^9C_2$ (B) 2^{10} (C) 2^{10} - 2   (D) 10!   (E) None of these
2. The term independent of x in the expansion of $(x^2 - 1/x)^4$ is
   (A) 1   (B) -1   (C) 48   (D) 0   (E) None

Group B

Each correct answer will fetch 2 (two) marks and for every wrong answer 1 (one) mark will be deducted.

1. The 8bit 's complement binary representation of -35 is
   (A) - 00100011   (B)   11100011
   (C) 110111101   (D)   10110001
2. An EPROM with 16-bit address bus and 4-bit data bus contains -
   (A) 32 KB   (B)   64 KB (C) 256 KB   (D) 128 KB

Section III

1. Write a precise in about 50 words for a given passage.   10 marks
2. Comprehension: Read the given passage and answer the set of questions based on it.   10 marks
3. Vocabulary test.   10 marks

M. Tech. in Information Technology

The question paper consists of three Sections A, B and C.
- Section A consists of 40 multiple choice questions of 1 mark each, Section B consists of 15 short questions of 2 marks
  each and Section C consists of conventional questions on Programming in C of total 30 marks.
- There will be no negative marks but no partial credit will be given for questions in Section A.

SECTION - A

Q1. In which one of the following page replacement policies, Belady's anomaly may occur?
   A. FIFO   B. Optimal   C. LRU   D. MRU
   E. None of them   Ans _____
Q2. The Address Resolution Protocol (ARP) is used for -
   A. finding the IP address from the DNS
   B. finding the IP address of the default gateway
   C. finding the IP address that corresponds to a MAC address
   D. finding the MAC address that corresponds to an IP address   Ans _____

SECTION - B

Q1. Consider a relation scheme R= (A, B, C, D) on which the following functional dependencies hold: {AB → D, CB → D,
   A → C, C → A}. What is the highest normal form satisfied in this relation scheme R?
Q2. Routing table of a router is shown below:

Destination	Subnet Mask	Interface
128.75.43.0	255.255.255.0	Eth0
128.75.43.0	255.255.255.192	Eth1
192.12.17.5	255.255.255.255	Eth2
default		Eth3

On which interface will the router forward packets addressed to destinations 128.75.43.16 and 192.12.17.6 respectively?

Q3. If one uses quick sort algorithm to sort the following numbers in ascending order

        20, 47, 15, 8, 9, 18, 4, 40, 30, 12

what would be the order of these numbers after 2nd pass of the algorithm? (Assume that the 1st element is taken as the pivot element)

SECTION - C

Q1. Write a program in C which takes an integer as input and prints the 2's complement representation of the integer using 32 bits.

Q2. Suppose an integer list is represented by the structure

    struct inode { int val ;
        struct inode *next ;};
    typedef struct inode *intlist;

Write a function intlist reverse (intlist p) which returns the reversed list of the supplied list p.

Department of Cultural Studies
MA in Cultural Studies

Type 1:
Show your acquaintance with the following in 50 words   5x4=20
Satras of Assam; Loktak lake; Nongkrem dance; Baul Songs; Kathakali;

Type 2:
Tick the correct option in the following: 1x10=10
i. Ali-aye-ligang is a festival of the Bodos/Misings/Karbis/none of the above.
ii. *Dhokla* is a Gujrati/ Marathi/ Assamese/Bengali food item.
iii. *Kimono* is worn by a Kenyan/ Sudanese/ Japanese/ Mexican woman.
iv. *The Golden Bough* is a famousgarden/movie/book/painting.

Type 3:
Give the full forms of the following: 2x5=10
ISRO, ABILAC, NEZCC, IGNCA

Type 4:
Mark the odd item out with reason: 2x5=10
i. Mughlai Chicken/Biryani/Kebab/Chowmein
ii. Prakash Padukone/Syde Modi/ Dipankar Bhattacharjee/ Leander Paes
iii. Baghdad/Bangkok/Bangalore/Bejing.

Type 5:
Match the followings   1X5=5
i. Dokhna Mising
ii. Ribigaseng Literature
iii. Jhumpa Lahiri Bodo

Type 6:
Write notes on any two of the following: 10X2=20
i. Brahmaputra
ii. Women in TV Serials
iii. Shopping Mall
iv. Multiplex and Cinema

Type 7:
Comprehension Test.

Department of Electronics & Communication Engineering
M. Tech in Electronics Design & Technology

There will be negative marking. For every wrong answer 1/4 th of the marks will be deducted.

1. Which of the following meters has the highest accuracy?
   (a) moving iron meter
   (b) moving coil meter
   (c) rectifier type meter
   (d) thermocouple meter

2. The internal resistance of an ammeter should be very low in order to have
   (a) high accuracy
   (b) high sensitivity
   (c) maximum voltage drop
   (d) minimum effect on the across the meter current in the circuit

3. The characteristic equation of a closed loop control system is given as
   The resonant frequency in radians/sec of the system is
   (a) 2
   (b)
   (c) 4
   (d)

4. For the root locus plot of the system having the loop transfer function given by
   (a) no breakaway point
   (b) three real breakaway point
   (c) only one breakaway point
   (d) one real and two complex breakaway points

5. A Class-A transformer coupled, transistor power amplifier is required to deliver a power output of 10 W. The maximum power rating of the transistor should not be less than
   (a) 5 W
   (b) 10 W
   (c) 20 W
   (d) 40 W

6. The early effect in a bipolar junction transistor is caused by
   (a) fast turn on
   (b) fast turn off
   (c) large collector base reverse bias
   (d) large emitter base forward bias

7. In an 8085 microprocessor system with memory mapped I/O
   (a) I/O devices have 16 – bit address
   (b) I/O devices are accessed using IN and OUT instruction
   (c) there can be a maximum of 256 input
   (d) arithmetic and logic and 256 output devices operations can be directly performed with the I/O data.

8. The minimum number of NAND gates required to implement the Boolean function is equal to
   (a) 3
   (b) 1
   (c) 4
   (d) 7

9. An amplitude modulated voltage has modulation index of 100%. If the carrier is suppressed, the percentage power saving is
   (a) 50 %
   (b) 66.6%
   (c) 75 %
   (d) 25 %

10. The drawback of FM relative to AM is that
   (a) noise is very high for high
   (b) larger bandwidth is required modulation frequencies
   (c) higher modulating power is required
   (d) higher output power is required.

M.Tech. in Bioelectronics

Full Marks 100   Time 2 Hours
Answer either Part A or Part B (Write the answer in the block provided in CAPITAL letter)
Instructions There will be total 50 questions in each part. Each Question will carry equal marks. There will be negative marking. For every wrong answer 1/4th of the marks will be deducted.

PART A

1) Electro- Encephelograph is
   A) Diagnostic tool for heart ailment
   B) Diagnostic tool for Brain ailment
   C) Instrument used for measuring blood pressure
   D) Instrument used to hear pulse/heart beat

2) In modern electronic multimeters a FET or MOSFET is preferred over BJT because
   A) Its input resistance is high
   B) Its input resistance is high and does not vary with change of range
   C) Its input resistance is low

3) A dc electronic voltmeter using chopper stabilization is free from errors due to
   A) Low CMRR
   B) Amplifier drift
   C) Source output impedence
   D) Interference

4) Feedback is an amplifier
   (A) Reduces sensitivity and increase gain
   (B) Reduces sensitivity as well as gain
   (C) Increases sensitivity as well as gain
   (D) Increases sensitivity and reduces gain

5) The ECG is used to detect
   (A) Heart attack
   (B) Heart block
   (C) Coronary of thrombosis
   (D) All the above

1) The best definition for resolution is:
   A. The minimum distance between two objects that can be distinguished
   B. The magnification of a microscope
   C. The observed size divided by the actual size
   D. None of the above

2) In ionic bonds,
   A) electrons are shared unequally between atoms
   B) neutrons are transferred between atoms
   C) protons are shared equally between atoms
   D) electrons are transferred between atoms

3) The chemical properties of an atom are primarily determined by the number of
   A) neutrons it has in its nucleus
   B) isotopes it forms
   C) protons it has in its nucleus
   D) electrons it has in its outermost energy level

4) Ions involved in the conduction of nerve impulse is
   (A) Na+, K+   (B) Na+, Ca2+
   (C) Ca2+, Mg2+   (D) K+, Mg2+

5) Which is mismatched?
   (A) Cerebrum – memory   (B) Medulla oblongata – temperature regulation
   (C) Cerebellum – equilibrium   (D) Olfactory lobes – smell

Maximum Marks 100   Time 2 hours

The written test consists of the following four sections
A. General Aptitude in Energy: 50 marks   B. Mathematics: 20 marks
C. Physics: 15 marks   D. Chemistry: 15 marks

SECTION-A: (General Aptitude in Energy)
This section contains 50 (fifty) multiple-choice questions carrying one mark each.
Choose the correct answer and write the alphabet of appropriate choice in the box provided in the right margin.
(Sample questions)

1. Which of the following is not associated with heat engine?
   a) Carnot cycle   b) Rankine cycle
   c) Otto cycle   d) Calvin cycle
2. Global warming is related t energy use because
   a) fossil fuel burning releases CO_2 b) renewable energy sources causes harmful emission
   c) fossil fuel sources are costly   d) renewable sources of energy are not available

SECTION-B (Mathematics)
This section contains 5 (five) questions carrying equal marks. Use space provided along with the question to answer.
(Sample questions)

1. IF

$$\tan^{-1} \frac{\sqrt{1+x^2} - \sqrt{1-x^2}}{\sqrt{1+x^2} + \sqrt{1-x^2}} = \theta$$

   Prove that x2 = Sin 2θ
2. Find the inverse of the matrix A, if

$$A = \begin{pmatrix} 3 & -2 & 3 \\ 2 & 1 & -1 \\ 4 & -3 & 2 \end{pmatrix}$$

SECTION-C (Physics)
This section contains 5 (five) questions carrying equal marks. Use space provided along with the question to answer.
(Sample questions)
1. Water is escaping from a cistern (an artificial water reservoir) by way of a horizontal capillary tube, 10cm long and 0.4 cm in diameter, at a distance of 50cm below the free surface of water in the cistern. Calculate the rate at which the water is escaping.
2. A copper slug whose mass mc is 75 g is heated in a laboratory oven to a temperature T of 3120C. The slug is then dropped into a glass beaker containing a mass mw = 220 g of water. The heat capacity Cb of the beaker is 45 cal/g. K. The initial temperature Ti of the water and the beaker is 120C. Assuming that the slug, beaker and water are an isolated system and the water does not vaporize, find the final temperature Tf of the system at thermal equilibrium (Specific heat of copper and water at room temperature are 0.0923 cal/g. K and 1.00 cal/g. K respectively).
SECTION-D (Chemistry)
This section contains 5 (five) questions containing equal marks. Use space provided along with the question to answer.
(Sample questions)
1. The specific conductance of an N/50 solution of KCl at 25^0C is 0.002765 mho. If the resistance of a cell containing this solution is 400 ohms, what is the cell constant?
2. Define heat of formation and heat of combustion with examples. What is their importance?

Department of English & Foreign Languages
MA in English
[Important: The questions given here are indicative, not exhaustive.]

SECTION A

1. Explain the following terms in not more than 150 words each. Give examples wherever necessary: 5x5=25
   a) metaphor; b) iambic pentameter; c) ode; d) irony; e) ballad
2. Write a paragraph in not more than 200 words on any one of the following: 12
   a) a memorable journey; b) a funny incident; c) an autumn morning
3. Write an essay in not more than 300 words on any one of the following: 15
   a) Nature and literature; b) A modern novel; c) Fiction and life
4. Read the following poem and answer the questions that follow: 18
   I know why the caged bird sings

      A free bird leaps on the back
      Of the wind and floats downstream
      Till the current ends and dips his wing
      In the orange suns rays
      And dares to claim the sky.
               But a BIRD that stalks down his narrow cage
               Can seldom see through his bars of rage
               His wings are clipped and his feet are tied
               So he opens his throat to sing.
   The caged bird sings with a fearful trill
   Of things unknown but longed for still
   And his tune is heard on the distant hill for
   The caged bird sings of freedom.
               The free bird thinks of another breeze
               And the trade winds soft through
               The sighing trees
               And the fat worms waiting on a dawn-bright
               Lawn and he names the sky his own.
   But a caged BIRD stands on the grave of dreams
   His shadow shouts on a nightmare scream
   His wings are clipped and his feet are tied
   So he opens his throat to sing.
               The caged bird sings with
               A fearful trill of things unknown
               But longed for still and his
               Tune is heard on the distant hill
               For the caged bird sings of freedom.

   1. What is the theme of the poem? 2
   2. How does the poet bring out the contrast between a free bird and a caged bird? 4
   3. What does the sentence "And dares to claim the sky" mean in the poem? 2
   4. Explain the meanings of the following expressions: 2x4=8
      Bar of rage; fearful trill; sighing trees; grave of dreams
5. Why, in your opinion, has the poet repeated the third stanza? 2

SECTION B

6. Correct the following sentences: 1x5=5
   a. One of the worker has broken the windowpane.
   b. This is a comfortable house to live.
   c. You should not spend money for luxuries.
   d. Though he is fat yet he runs fast.
   e. He wanted to know as to why he had been detained.
7. Give the meanings of the italicized words: 10
   As Gregor Samsa awoke one morning from uneasy dreams he found himself transformed in his bed into a gigantic insect. He was lying on his hard, as it were armor-plated, back and when he lifted his head a little he could see his dome-like brown belly divided into stiff arched segments on top of which the bed quilt could hardly keep in position and was about to slide off completely.
8. Construct sentences to illustrate the meanings of the following pairs of words: 10
   a) current; currant; b) weak; wick; c) alter; altar; d) difference; deference; e) illusive; elusive
9. Supply the antonyms of the following words: 5
   persuade; reveal, wild, ancient, empty

M.A. in Linguistics and Language Technology

Marks = 100   Time: 3 Hours

1. Give a brief account (of not more than 600 words) of the language families of the world. Which language families do the Indian languages belong to?   10+ 5 = 15
2. Write a short account (in not more than 350 words) on any one of the following linguistic topics.   10
   a. The Sapir-Whorf Hypothesis   b. The Chomskyan Revolution in Linguistics
   c. Language Change   d. Grammar and Meaning
   e. Language Typology and Universals   f. Schools of Linguistics
   g. Chomsky's Universal Grammar   h. Linguistic Imperialism
3. Pick up any *one* topic from each of the following groups and write short notes on them (you will pick up a total of 5 topics).
                                                                                                          5 x 8 = 40

Group 1: a. synchronic and diachronic study of language; b. language and parole; c. performance and competence; d. communicative competence; e. knowledge of the world and grammatical knowledge; f. deep structure and surface structure; g. language and cognition; h. structuralism

Group 2: a. phoneme; b. consonant and vowel; c. diphthong; d. intonation; e. voiced/voiceless sound; f. allophone; g. assimilation; h. pitch

Group 3: a. morpheme; b. affix; c. inflectional and derivational morphology; d. allomorph; e. agglutinating, isolating and fusional languages; f. nominative case; g. word order; h. prefixes and suffixes

Group 4: a. denotation and connotation; b. polysemy; c. homophones; d. prototype; e. thematic roles; f. sense and reference; g. the cooperative principle; h. speech acts

Group 5: a. language and dialect; b. code switching and code mixing; c. multilingualism; d. pidgin; e. creoles; f. sexist language; g. euphemism; h. language and politics

4. Consider the following data from the Malay language and note two important grammatical differences between Malay and English (write your answer in not more than 4 sentences).   5 x 2 = 10

   a.   kawan   saya   doktor
         friend   I   doctor
         'My friend is a doctor.'
   b.   buku   ini   mahal
         book   this   expensive
         'This book is expensive.'
   c.   buku-buku   itu   murah
         books   those   cheap
         'Those books are cheap.'

5. Consider the following data from German and note one important grammatical difference between German and English (write your answer in not more than two sentences).   5

   a.   er   ist   schön
         he   is   nice
         'He is nice.'
   b.   er   singst   schön
         he   sings   nicely
         'He sings nicely.'

6 a. Consider the following data from Assamese and give one important grammatical difference between Assamese and English (write your answer in not more than four sentences).   5

   a.   sarai   ure
         bird   fly
         'The bird flies.'

                                                        Or

   b. Consider the following data from Galo and identify the basic word root from the affix.

Galo	English
abó	father
ane	mother
taci	crab
tain	mushroom
japuu	white (one)
jakaa	black (one)

7. The typical subject in English is a doer (e.g. the subject *Jill* in *Jill broke the chocolate*). On the other hand, a typical object is a patient, i.e. the one that is affected by the action of the doer (e.g. *the chocolate* in the above example). But the English subject is not always a doer (e.g. the subject *The key* in *The key opened the door* is not a doer). Give two English sentences where the subject is rather a patient.   2.5 x 2 = 5

8 a. An action, which is denoted by a verb, is temporal: it is grounded either in the past, the present, or the future time. But sometimes we may think of an action outside time. Consider the following data and underline the verbs which are not grammatically grounded in any of the three times.   4

a. Suzie likes to play badminton.

b. Once Suzie liked to swim in the river.

<p align="center">Or</p>

b. Say how many phonemes each of the following words have.   4

a. comb; b. university; c. international; d. plumber; e. cable; f. annihilation; g. faithful; h. literature

9 a. Consider the English suffixes below and for each suffix list three typical words it can be attached to.   0.5 x 2 = 6

a. *–ness*;   b. *-able*;   c. *–wise*;   d. *-most*

<p align="center">Or</p>

b. Read the following passage and identify the Noun Phrases (NPs); Adjective Phrases (APs); and Preposition Phrases (PPs).   6

Children are playing in the garden. And the tall trees in the garden are quietly meditating. Gardens, where innocent children play and the old rest and reflect on life, are the antithesis of cities, which mean noise that signifies nothing.

<p align="center">**Integrated M.A./Integrated B.A.B.Ed.**
Model Structure for Question paper for Integrated MA and B.A.B.Ed. Entrance Examination 2011
(Note: The questions are only indicative not exhaustive)</p>

1. Answer the following questions: 1x10= 10

Who is the longest serving monarch in the world?

Which country is known as the emerald isle?

In which country is the Angkor Vat located?

Who was the chairman of the drafting committee for the Indian Constitution?

Name two European nations which have not adopted the Euro.

Between whom was the first battle of Panipat fought?

2. What do the following abbreviations stand for?   1x 5=5

CAG

TRAI

NAFTA

PAC

MARCOS

3. What do the following terms mean?   1x10=10

Oncology

Carcinoma

Entomology

Ophthalmology

Claustrophobia

Tachophobia

Toxicology

Antivenin

4. Construct a paragraph from the following leads: 6

Football match in town---people turn up to enjoy game--- eminent guest arrives--- crowds settle with snacks---game begins ---fierce competition on field--- sky looks gloomy----rains heavily---- not enough shelter---people run helter skelter---match abandoned

5. Precis writing   8

6. Make sentences from any seven of the given idioms: 2x7=14

To bell the cat; at a loss; on the brain; to eat humble pie; at sixes and sevens; like a bad penny, etc.,

7. Give the synonyms of the following words: 1x8=8

Beautiful, hateful, demented, incarcerated , estranged

8. Give the antonyms of the following words: 1x8=8

Enmity, undulating, reckless, fanciful, establish

9. Fill up the gaps with appropriate prepositions :   1x 8 =8

a) It is nine o'clock ___ my watch.

b) We went for a boat trip ___ the river.

10. Fill the blank spaces with either the indefinite or the continuous form of the verbs given at the end of each sentence:

a) The man ___down as he___ the street. (cross, knock)   1x6 =6

b) I___ to him as he ___the room (speak, leave)

11. Change the sentences as given in the brackets: 1.5x6=9

a) My pocket has been picked (change to active)

b) He can be irritating at times (change to interrogative)

c) The fishing nets are all the wealth I own (change to interrogative)

12. Write a letter of complaint to the town Authorities about the garbage in the market areas.   8

One-Year Certificate Course in Chinese (Full Time)

Full Marks: 100   Time: 2 hrs

Part I - English Grammar

A. Change the Parts of Speech of the following words as directed in the parentheses: (5X1=5)

   1. Strong (into Noun)   2. Suffice (into Adjective)

   3. Practical (into Verb)   4. Extend (into Adverb)

   5. Destroy (into Noun)

B. Write a letter (in <u>not</u> more than 200 words) -   (15)
   1. To your friend abroad describing an Indian festival you are fond of.

C. Write an essay (in <u>not</u> more than 300 words) on any <u>one </u>of the following: (20)
   1. Environmental pollution

   2. Globalization and India

D. Read the following text carefully and answer the questions given below: (10)

It is a matter of common knowledge that in underdeveloped countries such as India with a growing population, there is an unusual pressure on land cultivation. Here, more people are engaged in agriculture partly or wholly than are necessary.

What is the result? When more people are engaged in agriculture than are really needed for the purpose, they are really surplus. If they are withdrawn from the rural areas and put in other occupations and professions it will not mean any decrease in agricultural output. On the other hand, it might increase, as it is said, "Too many cooks spoil the broth". In absolute terms the total volume of rural unemployment is much larger than that of any other country. No wonder, it poses the most challenging problem for the planners to tackle.

   1. Suggest a suitable title for the text.   2
   2. In which literary category would you classify the text-   2
     i) A report
     ii) A story
     iii) An advertisement
     iv) An essay

Part II - General knowledge on China

E. Answer the questions (any <u>ten</u>):   (10X2=20)

 1. What is the staple food of the Chinese people?

 2. When was the People's Republic of China founded?

 3. Name a famous Chinese poet.

Department of Environmental Science
M.Sc. in Environmental Science

The question paper consists of three sections viz., section-A and section-B and section C. Section-A will cover the basic concepts of environmental science, Section-B will cover the syllabus of Physics and Chemistry and Section-C will cover the syllabus of Biological Sciences.

Section-A: 20 marks: section-B : 40 marks, section C : 40 marks

The test paper shall have both objectives as well as of short descriptive type questions covering 10 + 2 level science subjects (Biology, Chemistry, and Physics) and Basic concepts of environmental science, environmental pollution, current environmental issues, agro-ecosystems, agro-ecology, agriculture including hill agriculture, weather and climate system.

(No negative marking for wrong answer)

Marks: 100   Time: 2 hours

1. Fill up the gaps –
   (a) Bowman's capsule is the organ found in human _____
   (b) Shade tolerant plants are known as _____
   (c) Bacteria and fungi which live on dead organic matter are called_____
   (d) The causal organism of sheath blight of rice is _____
   (e) The enzyme for converting glucose to glucose 6-phosphate in glycolysis is _____

2. Write short notes on—
   (a) Centromere (b) nucleoid (c) hydrogen bonding (d) n-type and p-type semiconductor(e) greenhouse gas

3. Choose the correct answer:
   (a) Root cap is absent in—
       (i) hydrophytes (ii) lithophytes (iii) xerphytes (iv) mesophytes
   (b) Bacteria differ from viruses in –
       (i) Pathogenic nature (ii) genetic material
       (iii) having well defined cytoplasm (iv) lacking proper nucleus
   (c) Which of the following has net dipole moment –
       (i) CCl_2 (ii) C_2H_2 (iii) H_2O (iv) CO_2
   (d) *Itai itai* disease is caused due to –
       (i) As poisoning (ii) As deficiency (iii) Cd deficiency (iv) Cd poisoning
   (e) Identify the vector quantity
       (i) time (ii) work (iii) heat (iv) electric field
   (f) The standard value of atmospheric pressure
       (i) 1013.25 mb (ii) 1013.30 mb (iii) 1013.40 mb (iv) 1013.45 mb
   (g) Loess is an outcome of –
       (i) Aeolian erosion landform
       (ii) Aeolian deposition landform
       (iii) fluvial deposition landform
       (iv) fluvial erosion landform
   (h) Which of the following is the correct sequence in terms of abundance in the atmosphere
       (i) N_2, O_2, H_2, Ar (ii) N_2, H_2, O_2, Ar (iii) O_2, N_2, H_2, Ar (iv) H_2, O_2, N_2, Ar
   (i) which of the following is an example of sedimentary rock:
       (i) granite (ii) Basalt (iii) Limestone (iv) Slate
   (j) Transition of inner electron in heavy metals results in emission of
       (i) X-ray Photons (ii) Visible light (iii) Infra red (iv) Microwave photons

4. Short answer type:
   (a) What is integrated pest management?
   (b) How will you distinguish between N and Mg deficiency symptoms of plants in field?
   (c) Explain the heating process of earth's atmosphere.
   (d) H_2O molecule is V-shaped. Why?

<div align="center">

Department of Food Engineering and Technology
Post B. Sc. Integrated M. Tech. (B. Tech. + M. Tech.) in Food Engineering and Technology

</div>

Full Marks: 100   Time: 2 hours
The question Paper shall contain 100 objective type questions from 10+2 Mathematics (40 questions), Physics (30 questions) and Chemistry (30 questions). There will be no negative marking for wrong answers.

<div align="center">Section A</div>

Choose the correct answer:
1. The term independent of x in the expansion of $(x^2+1/x)^{12}$ is
   (i) 120   (ii) 285   (iii) 495   (iv) 595
2. General form of equation of a line is
   (i) ax+by+c=0   (ii) ax+by-c=0   (iii) ax-by+c=0   (iv) ax+by-c=0
3. A variable whose values depend on the outcomes of random experiment is called
   (i) Constant   (ii) parameter   (iii) statistic   (iv) random variable

<div align="center">Section B</div>

1. One kilowatt hour is equal to
   (i) 36×10^{-5} J   (ii) 36×10^{-3} J   (iii) 36×10^3 J   (iv) 36×10^5 J
2. The amount of heat required to melt one kg of ice at $0^0 C$ is called
   (i) Heat of vaporization   (ii) heat capacity   (iii) Latent heat of fusion   (iv) none of these
3. Moment of inertia is measured in
   (i)Kgm^{-3} (ii) Kgm^{-2} (iii) N.S   (iv) red/sec

<div align="center">Section C</div>

1. Which salt dissolved in water forms a solution with a pH greater than 7
   (i)NaCl   (ii) $CuSo_3$ (iii) Na_2CO_3 (iv) NH_4Cl
2. The reaction between fat and NaOH is called
   (i) esterification (ii) saponification (iii) hydrogenolysis   (iv) fermentation
3. Changing the number of neutrons of an atom changes its:
   (i) isotope   (ii) element   (iii) ion   (iv) charge

<div align="center">

M. Tech. in Food Engineering and Technology
(Lateral Entry in the Pre-final Year of M. Tech. in Food Engineering and Technology)

</div>

Full Marks: 100   Time: 2 Hours
a) The question paper shall contain 100 objective type questions covering the subjects Mathematics (20 questions), General Engineering (30 questions) and Food Engineering and Technology (50 questions).
   (N.B. For detailed Syllabus, candidate should refer to the Department's website)
b) There will be no negative marking for wrong answer.

<div align="center">Section A</div>

1. Choose the correct answer:

 The function *f* satisfies the equation $\int_0^{2x} f(t)\ dt = 2\sin(x) + x$ Evaluate$f(\pi/3)$

a) 1   b) 1.366   c) 2.732   d) 2   e) 1.411
2. Give the minimum value of the function   for $x \geq 0$. $f(x) = 2x^3 - 9x + 5$

a) -2.258   b) -2.368   c)-2.349   d) -2.213   e) -2.175
3. A fair coin is thrown in the air four times. If the coin lands with the head up on the first three tosses, what is the probability that the coin will land with the head up on the fourth toss?
a) 0   b) 1/16   c) 1/8   d) 1/2

<div align="center">Section B</div>

1. The velocity head in a pipe system is

   a) z b) V c) $\dfrac{V^2}{2g}$ d) $\sqrt{2g\dfrac{P}{\gamma}}$

2. Which of the following statements is always true for a reaction in which there is no non-expansion work?
   $\Delta U = q_p$ b) $\Delta H = q_p$ c) $\Delta U = 0$ d) $\Delta H = 0$
3. Time dependent permanent deformation is called
   a) Plastic deformation   b) Elastic deformation   c) Creep   d) Inelastic deformation

<div align="center">Section C</div>

1. Complex carbohydrates are polymers of
   a) amino acids   b) nucleic acids   c) fatty acids   d) glucose
2. How much heat is required to melt the ice?
   a) 16J   b) 1.6×10^5 J   c) $4.5 \times 10^6 J$ d) 1080J
3. What is the **S** value of a heat treatment process if the microbial concentration gets reduced from 10^9 cfu/ml to 1 cfu/ml ?
   a) 10^9 b) 10   c) 9   (d) 1

हिंदी विभाग
अनुवाद का स्नातकोत्तर डिप्लोमा पाठ्यक्रम

प्रश्न-पत्र के नमूने:

नमूना-1.   1 x 10=10

पूर्ण वाक्य में उत्तर दीजिए:

1. रस के अवयव या तत्व कितने हैं ?
2. हिंदी के उपन्यास सम्राट कौन हैं ?
3. क्या भाषा का परिवर्तन ही भाषा का विकास है ?
4. 'मैथिल कोकिल' के नाम से कौन प्रख्यात हैं ?

नमूना-2.   5 x 4= 20

संक्षेप में उत्तर दीजिए :

1. पूर्वी हिंदी की बोलियों का नामोल्लेख कीजिए ।
2. अनुवाद की परिभाषा दीजिए ।
3. राजभाषा से आप क्या समझते हैं ?
4. लक्षणा शब्द-शक्ति के बारे में लिखिए ।

नमूना-3.

1. हिंदी भाषा के उदभव-विकास के बारे में लिखिए ।   10

   अथवा,

   हिंदी भाषा की संवैधानिक स्थिति के बारे में लिखिए ।

2. अनुवाद के विविध प्रकारों पर प्रकाश डालिए ।   10

   अथवा,

   काव्य विषयक भारतीय एवं पाश्चात्य विद्वानों के मतों की
   समीक्षा कीजिए ।

नमूना-4.

अंग्रेजी से हिंदी में अनुवाद कीजिए ।   25

हिंदी से अंग्रेजी में अनुवाद कीजिए ।   25

MA in Mass Communication & Journalism

Total Marks : 100   Time : 2 hours
- The Admission Test Booklet has been designed to test your knowledge in the English language, general knowledge, current affairs, media, culture and tradition of North East India, etc.
- There will be passages and questions following them. You will have to read the passages thoroughly and then answer the questions.
- There will be some questions on synonyms and antonyms.
- There will be some questions with jumbled sentences. You will have to rearrange the jumbled parts into a meaningful sentence.

Example:

        Women
        (P) are more likely to give birth prematurely
        (Q) and their babies are at increased risk
        (R) who are poorly nourished or sick
        (S) of death and disability

        (A) RQSP (B) RPQS (C) QSPR (D) QSRP
        Ans: (B)

- Some idioms or phrases might also be given and you will have to choose the right option for the correct meaning of the phrase.
- Questions on general knowledge, current affairs and media might be on the following lines :
1. 'Folio' is the supplement of which newspaper:
   (A) The Hindu (B) The Statesman (C) Assam Tribune (D) The Telegraph
2. Which news channel of North-East recently launched the entertainment channel 'Rang'?
   (A) DY365 (B) Newslive (C) NETV D) Doordarshan
3. Who is the Chief Minister of Sikkim?
   (A) Pawan Chamling (B) Mukut Mithi (C) Tarun Gogoi (D) None of these
4. In which year did AR Rahman win the Oscar for best music direction?
   (A) 2009 (B) 2008 (C) 2007 (D) 2006
5. Life ho to Aisi is the advertising slogan of which of the following
   (A) Coca-Cola (B) Pepsi (C) Thums Up (C) LIMCA
6. For many years, Neighbour's Envy, Owner's Pride was the advertising catchline of which of the following?
   (A) PHILIPS TV (B) ONIDA TV (C) BPL TV (D) LG TV
- There will also be short answer type questions
7. 'Young India' was edited by _____
8. Nogkrem is a folk dance form in the state of _____
Besides the above, you will be asked to write Essays / Features on a contemporary issue or a theme OR a feature by taking clues from a photograph. This is to test your perception, vocabulary, expression, style of writing, presentation, creativity and analytical skills etc.
9. Violence in the society is becoming more and more crude and gory. Are media acting as 'fueler' or spoiler of violence ? Discuss.

PG Diploma in Mobile and Multimedia Communication

Total Marks: 70   Time 2 Hours
- The Admission Test Booklet has been designed to test your knowledge on English language, general knowledge, computer knowledge, current affairs, media, culture and tradition of North East India etc.
- There will be passages, and questions following them. You will have to read the passages thoroughly and then answer the questions.
- There will be some questions on synonyms and antonyms.
- Some idioms or phrases might also be given and you will have to choose the right option for the correct meaning of the phrase.
- Questions on general knowledge, computer, current affairs and media might be on the following lines:
A. Find the suitable answer from among the choices
   1. IPCC means
      a. Indian Penal for Climate Change   b. Intergovernmental Panel on Climate change
      c. International public and Climate change on any two   d. Indian People and Climate change
   2. Name of the union minister for Information and Broadcasting
      a. Mr. Jay Ram Ramesh   b. Ms. Renuka Chaudhery   c. Ms. Ambika Soni   d. Mr. N.D.Tiwari
- There will be short answer type questions
A. "Rangmilir Hanhi' was written by………………………………………..
B. Oja Pali is a folk dance form in the state of ………………………………..
- Besides the above, you will be asked to write essays. This is to test your perceptions, vocabulary, expression, style of writing, presentation, creativity and analytical skills etc.
Write an essay not exceeding 500 words on any one of the following topics.
a. National Rural Employment Guarantee Scheme.
b. Role of Media in Youth Empowerment
c. Effects of Global Warming.

Total Marks: 100   Time 2 Hours
The question paper comprise of 50 questions. All questions are compulsory.
Each question carries 2 marks. For every incorrect answer 0.5 marks will be deducted.
Choose the correct alternative

1. Let X be a subset of R, the set of all real numbers. What does it mean for x to be a limit point of X ?

A) Every sequence $x_1, x_2, x_3, \ldots$ which converges to x, must lie in X.

B) There exists a $x_1, x_2, x_3, \ldots$ sequence in $X - \{x\}$ which converges to x.

C) There exists a sequence $x_1, x_2, x_3, \ldots$ in X which converges to x.

D) Every sequence $x_1, x_2, x_3, \ldots$ which converges to x, must lie in $X - \{x\}$.

2. If f is bounded and integrable on $[a,b]$, then which of the following is most appropriate

(A) $|f|$ is bounded and integrable.

(B) $|f|$ is bounded but may not be integrable.

(C) $\left| \int_a^b f dx \right| \leq \int_a^b |f| dx$.

(D) $\int_a^b |f| dx \leq \left| \int_a^b f dx \right|$

3. Given the harmonic function $u = x^3 - 3xy^2$, the corresponding analytic function is

(A) $3z^2$ (B) z^2 (C) $3z^3$ (D) z^3

4. Consider the system of linear equations
$$x + y + z = 1$$
$$x + 2y - z = 2$$
$$3x + 4y + kz = 4$$
. Then,

(A) if $k = 1$ the system has no solution.   (B) if $k = 1$ the system has unique solution.

(C) if $k = 1$ the system has infinite solution.   (D) if $k \neq 1$ the system has infinite solution.

5. Under the influence of a force field $\vec{F}$, a particle of mass 'm' moves along the ellipse $\vec{r} = a\cos\omega t \hat{i} + b\sin\omega t \hat{j}$. Then $\vec{r} \times \vec{F}$ is

(A) 0   (B) $m\omega^2(a^2\cos^2\omega t + b^2\sin^2\omega t)\hat{k}$ (C) $m\omega^2(a^2 + b^2)\cos\omega\sin\omega t\hat{k}$ (D) $ma^2\omega^2\hat{k}$

6. The solution of the differential equation $y' - y = e^{2x}$ is

(A) $e^{x} + ce^{2x}$ (B) $e^{-x} + ce^{2x}$ (C) $e^{-2x} + ce^{x}$ (D) $e^{2x} + ce^{x}$

7. Factory A supplied 5 bulbs, 1 of which was defective. Factory B supplied 4 bulbs, 2 of which were defective. 1 bulb is to be chosen uniformly at random from the 9 bulbs supplied by the factories. If the chosen bulb is found to be defective, what is the probability that the bulb was supplied by factory B?

(A) $\dfrac{4}{9}$ (B) $\dfrac{5}{9}$ (C) $\dfrac{2}{3}$ (D) $\dfrac{5}{7}$

8. Consider the permutations $f = (1\,2\,3)(1\,2)$, $g = (1\,2\,3\,4\,5)(1\,2\,3)(4\,5)$ then

(A) Both f and g are even   (B) Both f and g are odd

(C) f is odd and g is even   (D) f is even and g is odd

9. Which of the following properties is not satisfied by a pseudometric $d : X \times X \to IR$?

(A) $d(x, y) = d(y, x)$ (B) $d(x, z) \le d(x, y) + d(y, z)$

(C) $d(x, y) = 0 \Leftrightarrow x = y$ (D) $d(x, x) = 0$

10. The roots of the equation $x^2 - kx + k = 0$ are a and b. The real value of k for which $a^2 + b^2$ is minimum is:

(A) 1   (B) 2   (C) 0   (D) 3

Integrated M.Sc. and B.Sc. B. Ed. in Mathematics

Total Marks: 100   Time 2 Hours

Test comprises of two sections. **50 questions** to be answered out of a total **60** (**2 marks** for a **correct answer**, deduction of **0.5 marks** for an **incorrect answer**).

Section A: Mathematics: 35 to be attempted out of 40.

Section B: Biology, Chemistry, Physics & General: 15 to be attempted out of 20 (5 each)

Section A: Mathematics (*Only first 35 answered questions will be evaluated*)

Choose the correct alternative

1. The inequality $\left| \dfrac{1}{x^2} - 2 \right| < 2$ holds for all values of

(A) $x > -\dfrac{1}{2}$ (B) $x < \dfrac{1}{2}$ (C) $-\dfrac{1}{2} < x < \dfrac{1}{2}$ (D) $x > \dfrac{1}{2}$ or $x < -\dfrac{1}{2}$

2. If the domain of a function f is the interval $[2, 5]$, then the domain of the function g defined by $g(x) = f(3x + 2)$ is

(A) $[0, 1]$ (B) $[4, 7]$ (C) $[8, 17]$ (D) $[2, 5]$.

3. If $f(x) = \int_{-1}^{1} |t|\, dt$, then $f'(x)$ is

(A) 0 (B) 2 (C) $|x|$ (D) $2|x|$.

4. The area lying in the first quadrant and bounded by $x^2 + y^2 = 4$ and the lines $x = 0$

and $x = 2$ is

(A) π (B) $\pi/2$ (C) $\pi/3$ (D) $\pi/4$.

5. If the vectors $3\hat{i} + a\hat{j} + 5\hat{k}$, $\hat{i} + 2\hat{j} - 3\hat{k}$, and $2\hat{i} - \hat{j} + 4\hat{k}$ are coplanar, then the value of a is

(A) 4 (B) -4 (C) 2 (D) -2.

6. The number of possible ways in selecting a committee of two members out of 3 men and 2 women is
     (A) 10   (B) 25   (C) 100   (D) 120.

7. Let $p(x) = x^2 + bx + c$ with b and c both integers. If the two roots of $p(x) = 0$ are identical which of the following statements need not be true?

(A) c is a perfect square   (B) $1 + b + c$ is a perfect square

(C) $1 - b + c$ is a perfect square   (D) $1 + b - c$ is a perfect square.

8. A car travels up a mountain at an average speed of 30 km/hr and it makes the return journey at 60km/hr. the average speed for the round trip is

(A) 50   (B) 45   (C) 42.5 (D) 40.5.

9. Consider the graph of the curve $y = \sin(x - 5) + 5$. At how many points will this curve intersect the x –axis?

       (A) 0   (B) 1   (C) 5   (D) ∞.

10. One of the values of m for which the line $y = m x + 3$ is a tangent to the hyperbola $7x^2 - 3y^2 = 28$ is

(A) 0 (B) 1 (C) 2 (D) -4.

Section B: Physics/Chemistry/Biology/General
This section shall contain 20 multiple choice questions from
Physics, Chemistry, Biology and General.
(*Only first 15 answered questions will be evaluated*)

Department of Molecular Biology and Biotechnology
M.Sc. Molecular Biology and Biotechnology

Note: The booklet will have two parts: part A will have 60 multiple choice questions of one mark each. 0.25 mark will be deducted for each wrong answer in this part; part B will have total twelve questions out of which eight questions to be answered. Each question carries 5 mark and no negative mark for wrong answer in this part.

Part A will be used for screening and part B will be checked for those candidates who qualifies the part A.

Time : 2 hr **Maximum mark: 100**

Part A

(1). Insulin is secreted by
    A. β-cells of pancreas   B. α-cells of pancreas   C. g-cells of pancreas   D. liver cells

(2) Which of the following cell organelle envelope is not made up of two membranes
    A. mitochondria   B. chloroplast   C. nucleus   D. lysosome

(3) The purine bases are
    A. adenine and guanine   B.denine and cytosine
    C. thymine and cytosine   D. uracil, thymine, and cytosine

(4) Plant cells differ from animal cells in that only plant cells possess:
    A. a nucleus   B. mitochondria   C. a cell wall   D. lysosomes

(5) A man walks along a rectangle whose perimeter is six km. If the area of the rectangle is two sq. Km, what is the difference between the length and breadth of the rectangle?
    A. 1 km   B. 2 km   C. 3 km   D. 4 km

(6) What will be the pH of 0.001N HCl, if it is diluted 10^8 times
    A. 0.001   B. 8   C. 7   D. 3

(7) The effective wavelength of light for photosynthesis in higher plants is
    A. 200 – 300 nm   B. 300 – 400 nm   C. 350 – 450 nm   D. 600 – 700 nm

(8) A solution of CuSO4, which is blue in color will have absorbance optima falling within which wave length
    A. 300 – 380 nm   B. 400 – 450 nm   C. 500 – 550 nm   D. 600 – 700 nm

(9) CUG codon codes for which amino acid
    A. Phenylalanine   B. Leucine   C. Isoleucine   D. Methionine

Part B

(1) Draw the structure of adenine and thymine base showing hydrogen bond between the bases

(2) Write the names of enzymes sequentially used in the citric acid cycle

(3) Write in a tabular form: in column 1 different enzymes present in pancreatic juice, in the column 2 write the substrates they act upon, and in the column 3 the products

(4) What is cyclic phosphorylation in photosynthesis?

Integrated M.Sc. in Bioscience and Bioinformatics

Total Marks: 100 **Time 2 Hours**

Test comprises of two sections. 50 questions to be answered out of a total 60 (2 marks for a correct answer, deduction of 0.5 marks for an incorrect answer).

Section A: Biology: 35 to be attempted out of 40.

Section B:, Chemistry, Mathematics, Physics & General: 15 to be attempted out of 20

Typical questions are given below:

1. Sarcoplasm is the cytoplasm of
    a. Nerve fibres   b. Muscle fibres   c. Both a and b   d. None of these

2. The cruciform loops of DNA contains
    a. Satellite DNA   b. Palindromic DNA   c. Single stranded DNA   d. Z-DNA

Department of Physics
M.Sc. in Physics

Full Marks 100   Time 2 Hours

Entrance test has 50 objective type questions. Each question carries 2 marks. For every incorrect answer 0.5 marks will be deducted.

Typical questions are given below:

1. If the other parameters are same, the range of a projectile is maximum when its angle of projection is
   a) 900   b) 600   c) 450 and   d) 300

2. Hamiltonian formalism is easier to handle than Lagrangian formalism because Hamiltonian formalism involves
   a) first order differential equations   b) generalized momentum instead of generalized co-ordinates
   c) only cartesian co-ordinates   d) no time derivatives

3. An electric potential filed is produced by joint charges 1 mC and 4 mC located at (-2, 1, 5) and (1, 3, -1) respectively. The energy stored in the field is
   a) 2.57 mJ,   b) 5.14 mJ,   c) 0.28 mJ and   d)20.56 mJ

4. Which of the following potentials does not satisfy the Laplace's equation ?
   a) V = 2x + 5   b) V = 10 xy   c) V = 2x2y + 5x + 2   d) V = 3y + 10

5. The expression which explains the nonexistence of magnetic monopoles is
   a) Þ x E = - ÝB/ Ýt   b) Þ.B = 0   c) Þ x B = ƒÊ0J   d) Þ.J + ÝƒÏ/ Ýt = 0

M.Sc. in Nanoscience and Technology

Total Marks 100   2 Hours

Entrance test has 50 objective type questions. Each question carries 2 marks. For every incorrect answer 0.5 marks will be deducted. The question ratio will be as follows:- Physics:Chemistry:Biology :: 4:3:3

Typical questions are given below:

1. A field is irrotational if it is
   a) gradian   b) div
   c) Curl   d) None of the above

2. The relation between two current amplification factors of a transistor is
   a) fÀ = f¿/(1+f¿)   b) fÀ = (1-f¿)/f¿
   c) fÀ = f¿/(1-f¿)   d) fÀ = (1+f¿)/f¿

3. Insulin is secreted by the _____ cells of pancreas
   a) a   b) b   c) d   d) ab

4. What is the total number of moles of hydrogen gas contained in 9.03 x 10^{23}
   a) 1.5 moles   b) 2.00 moles   c) 0.02 moles   d) 0.03 moles

Integrated M.Sc. and B.Sc. B. Ed. in Physics

Total Marks: 100   Time 2 Hours

Test comprises of two sections. 50 questions to be answered out of a total 60 (2 marks for a correct answer, deduction of 0.5 marks for an incorrect answer).
Section A: Physics: 35 to be attempted out of 40.
Section B: Biology, Chemistry, Mathematics & General: 15 to be attempted out of 20

Section A: Physics
(Only first 35 attempted questions will be evaluated)

Q1. The S.I. unit of Electric charge is
        (a) Coulomb (b) Ampere   (c) Weber   (d) Volt

Q2. The image formed by concave lens is
        (a) Real   (b) Virtual   (c) Real as well as virtual   (d) no image forms

Q3. The Lenz's law is in direct consequence of
        (a) Conservation of momentum   (b) Conservation of charge
        (c) Conservation of energy   (d) Conservation of angular momentum

Q4. The torque experienced by magnetic dipole having dipole moment " M " placed in uniform magnetic field (B) is :
        (a) B   ~ M   (b) M   ~ B   (c) Zero   (d) M.B

Q5. Optical fibre works on the principle of
        (a) Refraction of light   (b) Diffraction of light   (c) Polarization of light   (d) Total Internal Reflection

Section B: Maths/Chemistry/Biology/General

This section shall contain 20 multiple choice questions from Maths, Chemistry & Biology (upto 10+2 standard) and General (Only first 15 attempted questions will be evaluated)

Department of Sociology
MA in Sociology

Full Marks : 100   Time : 2 hours

The written test consists of the following:

1. 30 Objective type questions on general knowledge

2. Two short essay type questions on issues of socio-economic relevance carrying 10 marks each.

3. Two-essay type questions on sociological themes carrying 25 marks each.

1. Deabbreviate the following:
        VAT, AIDS, BTAD

2. Match the following:
        i. The Incas   i. Venezuela
        ii. Hugo Chavez   ii. Peru

3. Answer the following:
        i. What is the Capital City of Mongolia?
        ii. What is the boundary line between India and Pakistan called?

4. Write shot notes (within 150 words) :
        i. Dowry system   ii. Sustainable Development

5. Write essays on the following (within 500 words):
        i. Caste System in India
        ii. Criminalization of Indian Politics

IMPORTANT DATES

DATE OF ISSUE OF PROSPECTUS & APPLICATION FORM AND SUBMISSION
Issue of Prospectus

(a) For PG Degree/ Diploma/ Certificate/ Integrated M. Sc.	1st February – 26th March, 2012
(b) For Ph.D. Programme (i) Autumn semester, 2012 (ii) Spring semester, 2013	 1st February – 26th March, 2012 19th October – 30th November, 2012 (tentative)
(c) B.Tech. programmes	1st February – 26th April, 2012

Last date of receiving filled in Applications

(a) For P.G. Degree/ Diploma/ Certificate/ Integrated M.Tech./M.Sc.	9th April, 2012
(b) For Ph.D. Programme (i) Autumn semester, 2012 (ii) Spring semester, 2012	 9th April, 2012 7th December, 2012 (tentative)
(c) B.Tech. programmes	7th May, 2012

Date of display of the list of eligible candidates for appearing TUEE
on www.tezu.ernet.in

(a) Draft list	23rd April, 2012
(b) Receiving complaints from non-listed applicants *	30th April, 2012
(c) Final list	10th May, 2012

* No complaint shall be entertained after the specified date

ANNEXURE –II

SCHEDULE OF ENTRANCE EXAMINATIONS

(A) All P.G. Degree / Diploma/Certificate Programmes/ Integrated M.Sc./M.A./B.Sc.B.Ed./B.A.B.Ed.

Tezpur University Entrance Examination

May 25, 2012 (10 AM to 12 Noon)	May 25, 2012 (2 PM to 4 PM)
M.A. in Cultural Studies M.Sc. in Chemistry M.A./M.Sc. in Mathematics Integrated M.A. in English/Integrated B.A.B.Ed. Integrated M.Sc./Integrated B.Sc.B.Ed. in Mathematics	M.Tech. in Bioelectronics M.Sc. in Nanoscience & Technology P.G. Diploma in Tourism Management Integrated M.Sc./Integrated B.Sc.B.Ed. in Physics
May 26, 2012 (10 AM to 12 Noon)	**May 26, 2012 (2 PM to 4 PM)**
Integrated M.Sc./Integrated B.Sc.B.Ed. in Chemistry Master of Computer Application (MCA) M.Tech. in Energy Technology M.A. in Sociology M.Sc. in Environmental Science	M.Tech. in Electronics Design & Technology Integrated M.Tech. in Food Engineering & Technology M.A. in Mass Communication & Journalism M. Tech. in Polymer Science & Technology Integrated M.Sc. in Bioscience & Bioinformatics
May 27, 2012 (10 AM to 12 Noon)	**May 27, 2012 (2 PM to 4 PM)**
Certificate in Chinese M.Tech. in Food Engineering & Technology (Lateral entry) P.G. Diploma in Mobile & Multimedia Communication MA in Linguistics and Language Technology	M.Tech. in Information Technology M.Sc. in Physics M.A. in English M.Sc. in Molecular Biology & Biotechnology (for NE domicile) P.G. Diploma in Translation (Hindi)

(B) B.Tech. Programme: AIEEE, conducted by CBSE, will be held on 29th April, 2012 (off-line) and 7th May, 2012 (on-line).

(C) Ph.D. Programme: Written test will be held in the respective departments on 18th June, 2012 at 11.00 AM followed by personal interview (may be continued up to 19th June, 2012).

Note: Personal interview will be held for short listed candidates for the programmes of M.A. in Mass Communication and Journalism, M.A. in English, Integrated M.Tech. and M.Tech. (lateral entry) in Food Engineering and Technology, and P.G. Diploma in Tourism Management.

Schedule of Group Discussion / Personal Interview for P.G. Programmes

For programmes other than MBA full time (wherever applicable given above)	Starts on 14th June and may continue to 15th June, 2012

Declaration of TUEE Results: Fourth Week of June, 2012 on Tezpur University website www.tezu.ernet.in

No separate call letter will be sent to the selected/waitlisted candidates for admission.

Schedule of Admission – 2012

B.Tech. Programme	16 July 2012 (09:30 AM to 12 Noon)	16 July, 2012 (1 PM to 3 PM) Waiting List I 17 July 2012 (09:30 AM to 12 Noon) Waiting List II
Integrated M. Sc. in Bioscience & Bioinformatics Integrated M.Sc. in Mathematics Integrated B.Sc.B.Ed. Mathematics Integrated M.A. in English Integrated B.A.B.Ed. M.A./M.Sc. in Mathematics Integrated M.Sc. in Chemistry Integrated B.Sc.B.Ed. in Chemistry Integrated M.Sc. in Physics Integrated B.Sc.B.Ed. in Physics	19 July 2012 (09:30 AM to 1 PM)	19 July 2012 (2 PM to 4 PM)
Master of Business Administration M.Sc. in Molecular Biology & Biotechnology M.A. in Mass Communication & Journalism M.A. in Cultural Studies M.A. in English M.A. in Sociology M.Tech. in Information Technology M.Tech. in Polymer Science & Technology M.Sc. in Chemistry	20 July 2012 (09:30 AM to 1 PM)	20 July 2012 (2 PM to 4 PM)
M.Tech. in Electronics Design & Technology M.Sc. in Environmental Science M.Sc. in Nanoscience and Technology P.G. Diploma in Tourism Management P.G. Diploma Mobile & Multimedia Communication P.G. Diploma in Translation (Hindi) MA in Linguistics and Language Technology Certificate in Chinese	23 July 2012 (09:30 AM to 1 PM)	23 July 2012 (2 PM to 4 PM)
M.Tech. in Energy Technology M.Tech. in Bioelectronics Integrated M.Tech. and M.Tech. (lateral entry) in Food Engineering & Technology Master of Computer Applications M.Sc. in Physics	24 July 2012 (09:30 AM to 1 PM)	24 July 2012 (2 PM to 4 PM)
Ph.D. (a) Autumn Semester, 2012	30 July 2012 (10 AM to 2 PM)	
(b) Spring Semester, 2013	17-18 January 2013 (10 AM to 3 PM) (tentative)	

* Reporting time for admission from main list is 09:00 AM and waiting list is 01:30PM (in case of B.Tech. programme the reporting time for chance admission from the waiting list I is 12.30 PM and waiting list II is 9.00AM).

ANNEXURE- IV

FEE STRUCTURE FOR P.G. DEGREE /B.Tech/ DIPLOMA / CERTIFICATE PROGRAMME

Particulars	Mode	M.A.	MCA / M.Tech.	M.Sc.	M.A. in MCJ	PGDTM	B.Tech.	Certificate in Chinese
Admission	Once on admission	200/-	200/-	200/-	200/-	200/-	200/-	200/-
Registration	Once on admission	150/-	150/-	150/-	150/-	150/-	150/-	150/-
Enrolment (from 2nd semester onward)	Per semester	200/-	200/-	200/-	200/-	200/-	200/-	200/-
Tuition	Per semester	1000/-	2000/-	1200/-	5000/-	2000/-	7000/-	500/-
Library	Per semester	350/-	350/-	350/-	350/-	350/-	350/-	350/-
Students' activity	Per semester	300/-	300/-	300/-	300/-	300/-	300/-	300/-
Medical	Per semester	250/-	250/-	250/-	250/-	250/-	250/-	250/-
Convocation	Once on admission	500/-	500/-	500/-	500/-	500/-	500/-	--
Transport	Per semester	500/-	500/-	500/-	500/-	500/-	500/-	500/-
Training and Placement	Once on admission	500/-	500/-	500/-	500/-	500/-	500/-	500/-
Placement Brochure	Once on admission	--	--	--	1000/-	--	--	--
Identity card	Once on admission	50/-	50/-	50/-	50/-	50/-	50/-	50/-
Laboratory (including Computer usage)	Per semester	200/-	500/-	500/-	500/-	200/-	400/-	--
Caution deposit (Library & Laboratory)	Once on admission	1,000/-	1,000/-	1000/-	1,000/-	1,000/-	2,000/-	1,000/-
Hostel Caution deposit	Once on admission	1,000/-	1,000/-	1,000/-	1,000/-	1,000/-	1000/-	--
Provisional Certificate	Once on admission	100/-	100/-	100/-	100/-	100/-	100/-	100/-
Examination (Theoretical)	Per semester	300/-	300/-	300/-	300/-	300/-	300/-	300/-
Examination Practical / Dissertation	Per semester	200/-	200/-	200/-	200/-	200/-	200/-	--
Grade Card	Per semester	50/-	50/-	50/-	50/-	50/-	50/-	50/-
Outdoor activities	Per semester	-	-	-	-	3500/-	-	--
Tezpur University Alumni Association	Once on admission	500/-	500/-	500/-	500/-	500/-	500/-	500/-
Hostel Admission* / re-admission	Per semester (Hostel boarder)	1,800/-	1,800/-	1,800/-	1,800/-	1,800/-	1,800/-	--
Hostel Mess Advance (in case of Hostel boarder)	Once on admission	1,500/-	1,500/-	1500/--	1,500/-	1,500/-	1,500/-	--
Infrastructure & amenity	Per semester	600/-	600/-	600/-	600/-	600/-	600/-	600/-
Fan, Electricity & Water Charges	Per semester	300/-	300/-	300/-	300/-	300/-	300/-	300/-
Students' Welfare Fund	Per semester	150/-	150/-	150/-	150/-	150/-	150/-	150/-
Medical Insurance	Per semester	169/-	169/-	169/-	169/-	169/-	169/-	169/-
Development fund fee	Per Semester	750/-	750/-	750/-	1500/-	750/-	1500/-	750/-
Charges for Consumables	Per Semester	-	-	-	5000/-	-	-	-
Total	**(on admission)**	12,419/-	13,719/-	12,919/-	23,469/-	16,919/-	20,369/-	6,719/-

* SC/ST students are exempted from paying hostel seat rent of Rs.675/-

Note: Candidates of the following programmes will be required to pay an additional fee of Rs. 1200/- per semester on account of consumables:
- M.Sc. in Chemical Sciences, MBBT, Nanoscience and Technology, Environmental Science.
- M.Tech. in Food Engineering & Technology, Energy Technology, Polymer Science & Technology.
- B.Tech. in Food Engineering & Technology.

ANNEXURE –V

FEE STRUCTURE FOR Ph.D. PROGRAMME

Particulars	Mode	Ph. D. Full Time	Ph. D. (Part time Sponsored)
Admission	Once on admission	200/-	200/-
Registration	Once on admission	150/-	150/-
Enrolment	Per semester form second semester	200/-	200/-
Tuition	Per semester	1500/-	2000/-
Library	Per semester	350/-	350/-
Students' activity	Per semester	300/-	300/-
Medical	Per semester	250/-	250/-
Convocation	Once on admission	500/-	500/-
Transport	Per semester	500/-	500/-
Identity card	Once on admission	50/-	50/-
Laboratory(including Computer usage)	Per semester	500/-	500/-
Caution deposit (Library & Laboratory)	Once on admission	2,000/-	2000/-
Hostel Caution deposit	Once on admission	1,000/-	1,000/-
Provisional certificate	Once on admission	100/-	100/-
Examination Fee (Theoretical)	Per semester	3000/-	4000/-
Alumni Association	Once on admission	500/-	500/-
Hostel Admission/re-admission*	Per semester in case of Hostel boarder	1,800/-	1,800/-
Hostel Mess Advance	Once on admission (in case of Hostel boarder)	1,500/-	1,500/-
Infrastructure & amenity	Per semester	600/-	600/-
Fan, Electricity & water Charges	Per semester	300/-	300/-
Students' Welfare Fund	Per semester	150/-	150/-
Development Fund Fee	Per semester	1,500/-	1,500/-
Consumable Charge**	Per semester	2,000/-	2,000/-
TOTAL		18,950/-	20,450/-

* SC/ST students are exempted from paying hostel seat rent of Rs. 675/-

** Candidates admitted to the Ph. D. programme in the Departments of Chemical Sciences, MBBT, Physics, Environmental Science and Food Engg. & Tech. will be required to pay an additional fee of Rs. 2000/- per semester on account of consumables.

ANNEXURE –VI

FEE STRUCTURE FOR INTEGRATED M.Sc./INTEGRATED B.Sc.B.Ed. PROGRAMMES

Particulars	Mode	Integrated M.Sc./ B.Sc.B.Ed.
Admission	Once on admission	200/-
Enrolment	From Second Semester onwards	200/-
Tuition	Per semester	3500/-
Library	Per semester	350/-
Students' activity	Per semester	300/-
Medical	Per semester	250/-
Convocation	Once on admission	500/-
Transport	Per semester	500/-
Identity card	Once on admission	50/-
Registration	Once on admission	150/-
Training and placement	Once on admission	500/-
Laboratory (including computer usage)	Per semester	400/-
Caution deposit (Library & Laboratory)	Once on admission	2500/-
Hostel Caution deposit	Once on admission	1000/-
Provisional Certificate	Once on a admission	100/-
Examination (Theoretical)	Per semester	300/-
Examination (Practical/ dissertation)	Per semester	200/-
Grade Card	Per semester	50/-
Alumni Association	Once on admission	500/-
Hostel Admission/re-admission *	Per semester in case of Hostel boarder	1800/-
Hostel Mess Advance	Once on admission (in case of Hostel boarder)	1500/-
Infrastructure & amenity	Per Semester	600/-
Fan, Electricity, Water Charges	Per Semester	300/-
Student Welfare Fund	Per Semester	150/-
Medical Insurance	Per Semester	169/-
Development Fund Fee	Per Semester	750/-
Total	(on admission)	16,619/-

*SC/ST students are exempted from paying hostel seat rent of Rs.675/-

Note: Candidates of the following programmes will be required to pay an additional fee of Rs. 1200/- per semester on account of consumables:
1. Int.M.Sc./ Int B.Sc.B.Ed. in Chemistry and Bioscience & Bioinformatics programmes.

FEE STRUCTURE FOR INTEGRATED M.A./B.A.B.Ed. PROGRAMMES

Particulars	Mode	Int. M.A./ Int. B.A.B.Ed.
Admission	Once on admission	200/-
Registration	Once on admission	150/-
Enrolment (from 2nd semester onward)	Per semester	200/-
Tuition	Per semester	1000/-
Library	Per semester	350/-
Students' activity	Per semester	300/-
Medical	Per semester	250/-
Convocation	Once on admission	500/-
Transport	Per semester	500/-
Training and Placement	Once on admission	500/-
Placement Brochure	Once on admission	--
Identity card	Once on admission	50/-
Laboratory (including Computer usage)	Per semester	200/-
Caution deposit (Library & Laboratory)	Once on admission	1,000/-
Hostel Caution deposit	Once on admission	1,000/-
Provisional Certificate	Once on admission	100/-
Examination (Theoretical)	Per semester	300/-
Examination Practical/Dissertation	Per semester	200/-
Grade Card	Per semester	50/-
Outdoor activities	Per semester	-
Tezpur University Alumni Association	Once on admission	500/-
Hostel Admission /re-admission *	Per semester (Hostel boarder)	1,800/-
Hostel Mess Advance (in case of Hostel boarder)	Once on admission	1,500/-
Infrastructure & amenity	Per semester	600/-
Fan, Electricity & Water Charges	Per semester	300/-
Students' Welfare Fund	Per semester	150/-
Medical Insurance	Per semester	169/-
Development fund fee	Per Semester	750/-
Charges for Consumables	Per Semester	-
Total	**(on admission)**	12,419/-

* SC/ST students are exempted from paying hostel seat rent of Rs.675/-

FEE STRUCTURE FOR P.G. DIPLOMA IN MOBILE AND MULTI MEDIA COMMUNICATION

Particulars	Mode	PGDMMC
Admission	Once on admission	200/-
Enrollment (from second semester onward)	Per semester	200/-
Tuition	Per semester	2000/-
Library	Per semester	350/-
Students' activity	Per semester	300/-
Medical	Per semester	250/-
Convocation	Once on admission	500/-
Transport	Per semester	500/-
Training and placement	Once on admission	500/-
Placement brochure	Once on admission	500/-
Registration	Once on admission	150/-
Identity card	Once on admission	50/-
Laboratory (including computer usage)	Per semester	500/-
Caution Deposit (Library & Laboratory)	Once on admission	1000/-
Hostel Caution Deposit	Once on admission	1000/-
Provisional certificate	Once on admission	100/-
Examination (Theoretical)	Per semester	300/-
Examination Practical/Dissertation	Per semester	200/-
Grade card	Per semester	50/-
Charges for consumables	Per semester	2000/-
Outdoor activities	Per semester	500/-
Tezpur University Alumni Association	Once on admission	500/-
Hostel admission/re-admission*	Once on admission	1800/-
Hostel mess advance (in case of hostel boarder)	Once on admission	1500/-
Infrastructure and amenity	Per semester	600/-
Fan, electricity and water charges	Per semester	300/-
Students' welfare fund	Per semester	150/-
Medical insurance	Per semester	169/-
Development Fund Fee	Per Semester	750/-
Total	**(on admission)**	**16,719/-**

*SC/ST students are exempted from paying hostel seat rent of Rs.675/-

Prescribed Format of OBC NCL Certificate

FORM OF CERTIFICATE TO BE PRODUCED BY OTHER BACKWARD CLASSES APPLYING FOR APPOINTMENT TO POSTS/ ADMISSION TO CENTRAL EDUCATIONAL INSTITUTIONS (CEIs), UNDER THE GOVERNMENT OF INDIA

This is to certify that Shri/ Smt. / Kum. ………………………………………………………………………….

Son/ Daughter of Shri/ Smt. …………………………………………………………………………………...

of Village/ Town …………………………………………...…District/Division ………………………………..

in the ……………………………………………………… Community which is recognized as a backward class under:

i)   Resolution No.12012/68/93-BCC (C) dated 10/09/93 published in the Gazette of India Extraordinary Part I Section I No.186 dated 13/09/93.

(ii)   Resolution No.12012/9/94-BCC dated 19/10/94 published in the Gazette of India Extraordinary Part I Section I No.163 dated 20/10/94.

(iii)   Resolution No.12012/7/95-BCC dated 24/05/95 published in the Gazette of India Extraordinary Part I Section I No.88 dated 25/05/95.

(iv)   Resolution No.12012/96/94-BCC dated 9/03/96.

(v)   Resolution No.12012/44/96-BCC dated 6/12/96 published in the Gazette of India Extraordinary Part I Section I No.210 dated 11/12/96.

(vi)   Resolution No.12012/13/97-BCC dated 03/12/97.

(vii) Resolution No.12012/99/94-BCC dated 11/12/97.

(viii) Resolution No.12012/68/98-BCC dated 27/10/99.

(ix)   Resolution No.12012/88/98-BCC dated 06/12/99 published in the Gazette of India Extraordinary Part I Section I No.270 dated 06/12/99.

(x)   Resolution No.12012/36/99-BCC dated 04/04/2000 published in the Gazette of India Extraordinary Part I Section I No.71 dated 04/04/2000.

(xi)   Resolution No.12012/44/99-BCC dated 21/09/2000 published in the Gazette of India Extraordinary Part I Section I No.210 dated 21/09/2000.

(xii) Resolution No.12015/9/2000-BCC dated 06/09/2001.

(xiii) Resolution No.12012/1/2001-BCC dated 19/06/2003.

(xiv) Resolution No.12012/4/2002-BCC dated 13/01/2004.

(xv)   Resolution No.12012/9/2004-BCC dated 16/01/2006 published in the Gazette of India Extraordinary Part I Section I No.210 dated 16/01/2006.

Shri/Smt./Kum. ……...……………………….......................................…………………...………………..….. and/or his family ordinarily reside(s) in the ……………….….……… District/Division of …………………....…... state. This is also to certify that he/she does not belong to the persons/section (Creamy Layer) mentioned in Column 3 of the Schedules of the Government of India. Department of Personnel & Training O.M. No. 36012/22/93- Estt. (SCT) dated 08/09/93 which is modified vide OM No.36033/3/2004 Estt.(Res.) dated 09/03/2004

Dated: ………………………………   District Magistrate/ Deputy Commissioner/ Competent Authority

Seal

NOTE :

 a) The term ordinarily used here will have the same meaning as in Section 20 of the Representation of the People Act. 1950.

(b) The authorities compete to issue Caste Certificates are indicated below:

  (i)   District Magistrate/Additional Magistrate/Collector/Deputy Commissioner/Additional Deputy Commissioner/ Deputy Collector/ 1st Class Stipendiary Magistrate/ Sub- Divisional Magistrate/ Taluka Magistrate/ Executive Magistrate/Extra Assistant Commissioner (not below the rank of 1st Class Stipendiary Magistrate)

  (ii) Chief Presidency Magistrate/ Additional Chief Presidency Magistrate/ Presidency Magistrate.

  (iii) Revenue Officer not below the rank of Tehsildar and

  (iv) Sub- Divisional Officer of the area where the candidate and/ or his family resides.

Prescribed format for PRC

Photo

Seal of the issuing
office

GOVT. OF ASSAM
OFFICE OF THE DEPUTY COMMISSIONER

Ref Petition No. …………….. Date:……………

PERMANENT RESIDENCE CERTIFICATE

Certified ....… son/daughter
                                        (Name of the Candidate)
of .... and ....
                   (Father's name)   *(Mother's name)*
of Village/Path/Street... under Mauza/Circle...............................,

under ....Police station is the permanent resident of

………..……. district in the state of Assam (India).

Seal **Deputy Commissioner**

AFFIDAVIT BY PARENT/GUARDIAN

1. I, Mr./Mrs./Ms. ....
   (*full name of parent/guardian*) father/mother/guardian of ....
   ....
   (*full name of student with admission/registration/enrolment number*), having been admitted
   to .... (*name of the institution*),
   have received a copy of the UGC Regulations on Curbing the Menace of Ragging in Higher Educational
   Institutions, 2009, (*hereinafter called the "Regulations"*), carefully read and fully understood the provisions
   contained in the said Regulations.

2. I have, in particular, perused clause 3 of the Regulations and am aware as to what constitutes ragging.

3. I have also, in particular, perused clause 7 and clause 9.1 of the Regulations and am fully aware of the
   penal and administrative action that is liable to be taken against my ward in case he/she is found guilty of
   or abetting ragging, actively or passively, or being part of a conspiracy to promote ragging.

4. I hereby solemnly aver and undertake that
   a) My ward will not indulge in any behaviour or act that may be constituted as ragging under clause 3 of
      the Regulations.
   b) My ward will not participate in or abet or propagate through any act of commission or omission that may
      be constituted as ragging under clause 3 of the Regulations.

5. I hereby affirm that, if found guilty of ragging, my ward is liable for punishment according to clause 9.1 of
   the Regulations, without prejudice to any other criminal action that may be taken against my ward under
   any penal law or any law for the time being in force.

6. I hereby declare that my ward has not been expelled or debarred from admission in any institution in the
   country on account of being found guilty of, abetting or being part of a conspiracy to promote, ragging; and
   further affirm that, in case the declaration is found to be untrue, the admission of my ward is liable to be
   cancelled.

Declared this _____day of _____ month of _____year.

_____
Signature of deponent

Name:
Address:
Telephone/Mobile No.:

VERIFICATION

Verified that the contents of this affidavit are true to the best of my knowledge and no part of the affidavit is
false and nothing has been concealed or misstated therein.
Verified at ……………………………………………… (place) on this the ………… (day)
of ……………………………… (month) , ……………… (year) .

_____
Signature of deponent

Solemnly affirmed and signed in my presence on this the (day) of (month), (year) after reading the contents
of this affidavit.

OATH COMMISSIONER

AFFIDAVIT BY THE STUDENT

1. I, …………………..……………
    .... (*full name of student with admission/registration/enrolment number*) s/o d/o Mr./Mrs./Ms. ....,
    having been admitted to …………………………….. (*name of the institution)*, have received a copy of the UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009, (*hereinafter called the "Regulations"*) carefully read and fully understood the provisions contained in the said Regulations.

2. I have, in particular, perused clause 3 of the Regulations and am aware as to what constitutes ragging.

3. I have also, in particular, perused clause 7 and clause 9.1 of the Regulations and am fully aware of the penal and administrative action that is liable to be taken against me in case I am found guilty of or abetting ragging, actively or passively, or being part of a conspiracy to promote ragging.

4. I hereby solemnly aver and undertake that
    a) I will not indulge in any behaviour or act that may be constituted as ragging under clause 3 of the Regulations.
    b) I will not participate in or abet or propagate through any act of commission or omission that may be constituted as ragging under clause 3 of the Regulations.

5. I hereby affirm that, if found guilty of ragging, I am liable for punishment according to clause 9.1 of the Regulations, without prejudice to any other criminal action that may be taken against me under any penal law or any law for the time being in force.

6. I hereby declare that I have not been expelled or debarred from admission in any institution in the country on account of being found guilty of, abetting or being part of a conspiracy to promote, ragging; and further affirm that, in case the declaration is found to be untrue, I am aware that my admission is liable to be cancelled.

Declared this ___day of _____ month of _____year.

_____
Signature of deponent

Name:

VERIFICATION

Verified that the contents of this affidavit are true to the best of my knowledge and no part of the affidavit is false and nothing has been concealed or misstated therein.

Verified at ……………(place) on this the …….(day) of ……..(month),……………. (year) .

_____
Signature of deponent

Solemnly affirmed and signed in my presence on this the (day) of (month), (year) after reading the contents of this affidavit.

OATH COMMISIONER

CONTACT ADDRESSES

All enquiries about academic programmes and entrance examination qualifications should be directed to concerned Department offices. Enquiries relating to receipt of applications, entrance examination centre and other matters relating to the entrance examinations should be directed to the Controller of Examinations at 03712-267114.
The EPBAX extension numbers of all the Departments and of the Controller of Examinations are given below. Please dial (03712) 267007,267008,267009 and then the respective extension number.

Department/Office	Extension number	Mobile number (Head)	e-mail
Business Administration	5000	9435081446	tumba@tezu.ernet.in
Chemical Sciences	5050	9957184354	chem@tezu.ernet.in
Civil Engineering	5952	9957189386	atanu@tezu.ernet.in
Computer Science & Engineering	5100	9435182047	cs@tezu.ernet.in
Controller of Examinations	3140	(03712) 267114	bhuban@tezu.ernet.in
Cultural Studies	5150	9954449460	culture@tezu.ernet.in
Electronics & Communication Engineering	5250	9954449462	electronics@tezu.ernet.in
Energy	5300	9435508563	energy@tezu.ernet.in
English and Foreign Languages	5200	9954449464	efl@tezu.ernet.in
Environmental Science	5600	9854035935	environment@tezu.ernet.in
Food Engineering & Technology	5700	9435408396	fpt@tezu.ernet.in
Hindi	5751	9435185346	ananta@tezu.ernet.in
Mass communication and Journalism	5450	9864072390	masscom@tezu.ernet.in
Mathematical Sciences	5500	9957191528	maths@tezu.ernet.in
Mechanical Engineering	5850	9435084468	mech@tezu.ernet.in
Molecular Biology and Biotechnology	5400	9957184351	mbbt@tezu.ernet.in
Physics	5550	9954449470	physics@tezu.ernet.in
Sociology	5800	9954449471	soc@tezu.ernet.in

No separate call letter will be sent to the candidates selected/ waitlisted for admission.
Results of the entrance examinations along with instructions will be available in TU website:
www.tezu.ernet.in