



हैदराबाद विश्वविद्यालय

University of Hyderabad

विवरण-पत्रिका सहित आवेदन पत्र

Prospectus-cum-Application Form

2012-13

**UNIVERSITY OF HYDERABAD**  
(A Central University established by an Act of Parliament)

**Visitor**

The President of India

**Chief Rector**

The Governor of Andhra Pradesh

**Chancellor**

Prof. C.H. Hanumantha Rao

**Vice-Chancellor**

Prof. Ramakrishna Ramaswamy

**Pro Vice-Chancellor**

Prof. E. Haribabu

**University's Official Address:**

The University of Hyderabad  
P.O. Central University  
Hyderabad 500 046,  
Andhra Pradesh, (India)

University's EPABX: 040-2313 0000

**University's Website:** <http://www.uohyd.ac.in>

## Our Motto

सा विद्या या विमुक्तये

*forms part of a verse appearing in  
Vishnu-Purana (1.19.41)  
The whole verse reads as follows:*

तत्कर्म यन्न बन्धाय (सा) विद्या या विमुक्तये ।  
आयासायापरं कर्म विद्यान्या शिल्पनेपुणम् ॥

*The verse also occurs in the anthology of subhasitas entitled  
"Sarangadharapaddhati" (No. 4396). In this latter work, the source of the  
verse is given as Vasistha. The verse obviously possesses an ethical-  
spiritual import and may be translated as follows:*

*"That is (right) action which does not conduce to bondage; that is (true)  
knowledge which conduces to final liberation or spiritual emancipation;  
(any) other action would cause (mere) exertion; (any) other knowledge  
implies mere skill in craft."*

“बन्धन का कारण न हो, वही कर्म है और मोक्ष को  
सिद्ध करने वाली हो, वही विद्या है । इससे भिन्न  
कर्म व्यर्थ परिक्षम रूप और भिन्न विद्याएँ केवल  
कला-कौशल रूप ही हैं ।”



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**Prospectus-cum-Application Form**  
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**P.O. Central University**  
**Hyderabad – 500 046**  
**Andhra Pradesh**

**Admission Enquiries:**  
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### **University with Potential for Excellence**

To introduce the element of excellence in the University system, the University Grants Commission has identified a few Universities and granted them the status of 'Universities with Potential for Excellence'. Based on the evaluation and recommendations of a committee, the University Grants Commission declared the University of Hyderabad a 'University with Potential for Excellence'. The University was sanctioned a grant of Rs.30 crore under UPE Phase – 1 under this scheme for Interfacial Studies & Research and Holistic Development for a period of 5 years (2002-2007) and Rs.25 crore under the Phase - 2 (2011-2015).

### **Awarded top grade by NAAC**

The University opted for a rigorous evaluation by the National Assessment and Accreditation Council (NAAC) of the University Grants Commission. The apex Council of NAAC awarded the top grade to the University.

The University has gone through the re-accreditation process of the NAAC and the NAAC has awarded a Cumulative Grade Point Average (CGPA) of 3.89 on 4.0 scale at 'A' grade.

### **Rated a High Output-High Impact by NISSAT**

The University has also been rated by the NISSAT (National Information System for Science and Technology) of the Department of Scientific and Industrial Research (DSIR), Government of India, as the only University under the 'High Output-High Impact' category among the top 50 institutions in India with publications in citation-index journals.

### **DST support for augmenting research facilities**

The Department of Science and Technology (DST) of the Government of India sanctioned over Rs. 4.00 crore under the FIST (Fund for Improvement of Science and Technology) to four Science Schools of the University to augment research facilities.

In addition to this, the Department of Science and Technology (DST) has established High Performance Computing facility, Centre for Nanotechnology, Centre for Modeling Simulation and Design at University of Hyderabad under the FIST Programme with a total financial support of Rs.24 crore.

### **A member of AIU and ACU**

The University is a member of the Association of Indian Universities (AIU) and the Association of Commonwealth Universities (ACU)

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## THE UNIVERSITY

The University of Hyderabad, a premier institution of postgraduate teaching and research in the country, was established by an Act of Parliament (Act No. 39 of 1974) on 2<sup>nd</sup> October, 1974 as a Central University, wholly funded by the University Grants Commission.

The “*objects of the University*” as envisaged in the Act are:

*“to disseminate and advance knowledge by providing instructional and research facilities in such branches of learning as it may deem fit and by the example of its corporate life, and, in particular, to make special provisions for integrated courses in humanities and science in the educational programmes of the University and to take appropriate measures for promoting inter-disciplinary studies and research in the University.”*

The University’s scenic, and serene campus is spread over a vast stretch of land measuring about 2,000 acres, 20 kms from the city of Hyderabad on the old Hyderabad - Bombay road. Amidst the picturesque environment of the campus, several buildings catering to the academic needs, support facilities and residential requirements of the campus community have been constructed over the years. The University also has a city campus ‘The Golden Threshold’ the residence of the late Sarojini Naidu which was bequeathed to the University by her daughter, the late Padmaja Naidu.

### Schools of Study

1. School of Mathematics and Computer / Information Sciences
2. School of Physics
3. School of Chemistry
4. School of Life Sciences
5. School of Humanities
6. School of Social Sciences
7. Sarojini Naidu School of Arts and Communication
8. School of Management Studies

9. School of Medical Sciences
10. School of Engineering Sciences and Technology

The Schools of Physics, Chemistry, Management Studies, and Engineering Sciences & Technology are single discipline schools and the others are multi-department schools.

### Departments / Centres of Study

The **School of Mathematics and Computer / Information Sciences** has the following Departments:

1. Department of Mathematics & Statistics
2. Department of Computer and Information Sciences

The **School of Life Sciences** has the following Departments and a Centre:

1. Department of Biochemistry
2. Department of Plant Sciences
3. Department of Animal Sciences
4. Department of Biotechnology
5. UoH DBT Centre for Research and Education in Biology and Biotechnology (CREBB)

The **School of Humanities** has the following Departments and Centres:

1. Department of English
2. Department of Philosophy
3. Department of Hindi
4. Department of Telugu
5. Department of Urdu
6. Centre for Applied Linguistics & Translation Studies
7. Centre for Comparative Literature
8. Department of Sanskrit Studies
9. Centre for the Study of Foreign Languages
10. Centre for English Language Studies
11. Centre for Dalit and Adivasi Studies and Translation
12. Centre for Classical Language – Telugu
13. Centre for Endangered Languages and Mother Tongue Studies

The **School of Social Sciences** has the following Departments and Centres:

1. Department of Economics
2. Department of History
3. Department of Political Science
4. Department of Sociology
5. Department of Anthropology
6. Centre for Regional Studies
7. Centre for Folk Culture Studies
8. Centre for Social Exclusion and Inclusive Policy
9. Centre for the Study of Indian Diaspora
10. Centre for Knowledge, Culture & Innovation Studies
11. Centre for Gandhian Economic Thought
12. Centre for Human Rights

The **S.N. School of Arts and Communication** has the following Departments:

1. Department of Dance
2. Department of Theatre Arts
3. Department of Fine Arts
4. Department of Communication

The **School of Medical Sciences** has the following Centre:  
Centre for Physical Fitness and Sports Sciences

#### **Standalone Centres offering Academic Programmes**

1. Centre for Integrated Studies (CIS)
2. University Centre for Earth and Space Sciences (UCESS)
3. Advanced Centre of Research in High Energy Materials (ACRHEM)
4. Centre for Health Psychology

5. Centre for Neural and Cognitive Sciences
6. Centre for Women's Studies
7. Centre for Buddhist Studies
8. Centre for Modelling Simulation and Design (CMSD)

All Schools of the University, Departments and Centres are located on the main campus in Gachibowli. Several of the Schools and Departments of the University have obtained financial support from the University Grants Commission under the Special Assistance Programme and COSIST for excellence in teaching and research.

Over the years, the teaching and research programmes of the University have been firmly established. The students are selected through a nationwide entrance test. About 30% of the students are Ph.D. scholars and more than 34% of the students are women. Till 31.3.2012, over 19,947 students of the University had been awarded various degrees through formal education, which consists of 1,756 Ph.Ds., 3,588 M.Phils. 1,556 M.Techs. and 13,047 Postgraduate Degrees and Diplomas. The Faculty of the University include 153 Professors, 71 Associate Professors, 48 Readers and 125 Assistant Professors.

The Faculty of the University have published widely and have obtained research support from several funding agencies. Several Faculty members have won national and international awards and honours in recognition of their out-standing work in their respective fields.

#### **ABOUT HYDERABAD**

*Founded by Quli Qutub Shah in 1591, this large metropolis is unique in its rich architectural glory and blend of diverse linguistic, religious and ethnic groups and is an ideal place indeed to locate a Central University. The weather for most part of the year is pleasant except for the months of April and May when the temperature is likely to go up to 40°C. The intellectual climate is vibrant. Hyderabad is home to nine major Universities and several research institutions, laboratories and libraries.*



## MEDIUM OF INSTRUCTION, COURSES, CRITERIA FOR ADMISSION AND ENTRANCE EXAMINATIONS

### Medium of Instruction

The medium of instruction for all the courses is English except the language courses for which the medium of instruction is the language concerned.

### Courses of Study

Admissions during 2012-13 are open for the following courses:

#### M.A. / M.Sc. (5-year Integrated) Courses

**M.Sc. Courses in Sciences (5-year Integrated) –  
(10 Semesters)**

Mathematical Sciences  
Physics  
Chemical Sciences  
Systems Biology  
Optometry & Vision Sciences  
Health Psychology

**M.A. (5-year Integrated) Courses in Humanities –  
(10 Semesters)**

Languages: Hindi, Telugu and Urdu  
Language Science

**M.A. (5-year Integrated) Courses in Social Sciences –  
(10 Semesters)**

Economics, History, Political Science, Sociology and  
Anthropology

### Postgraduate Courses

**M.Sc. courses (4 Semesters)**

Mathematics  
Applied Mathematics  
Statistics-OR  
Physics  
Chemistry

Biochemistry  
Plant Biology & Biotechnology  
Molecular Microbiology  
Animal Biotechnology  
Biotechnology\*  
Ocean and Atmospheric Sciences  
Health Psychology

\* The admissions for M.Sc. Biotechnology course during the year 2012-13 will be based on the allotment made by the Jawaharlal Nehru University (JNU), New Delhi which will conduct a common entrance test on 25.5.2012.

**M.C.A. (6 Semesters)**

**M.B.A. Health Care and  
Hospital Management (4 Semesters)**

**M.B.A. (4 semesters)\***

*\*The admissions to MBA course for the academic year 2012-13 have been completed based on the percentile scores obtained in CAT 2011 followed by an Interview / Group Discussion.*

**M.A. courses (4 Semesters)**

English  
Philosophy  
Hindi  
Telugu  
Urdu  
Applied Linguistics  
Comparative Literature  
Economics  
History  
Political Science  
Sociology  
Anthropology  
Communication (Communication & Media Studies, Print Journalism & New Media, and Television & Radio)

**M.P.A. Dance** (4 Semesters)  
(Kuchipudi and Bharatanatyam)

**M.P.A. Theatre Arts** (6 Semesters)

**M.F.A. Courses** (4 Semesters)  
Painting, Print Making and Sculpture  
Art History

**Adv. P.G. Diploma Courses** (2 Semesters)  
Mineral Exploration

(This course is offered in collaboration and cooperation with National Geophysical Research Institute (NGRI), Atomic Minerals Directorate (AMD), National Remote Sensing Agency (NRSA), and National Mineral Development Corporation (NMDC).

Folk Culture studies

**P.G. Diploma Courses** (2 Semesters)

Health Fitness and Life Style Management  
Health Communication

**M.Tech. Courses** (4 Semesters)

Computer Science

Artificial Intelligence

Information Technology - (The course is offered in collaboration with IDRBT, an Institute established by the Reserve Bank of India)

Computational Techniques (CT) - (a post M.Sc (Physics) course offered by the School of Physics and the Department of Computer and Information Sciences).

Integrated Circuit Technology (I.C.T.)

Bioinformatics - (The course is offered in collaboration with the Centre for DNA Fingerprinting and Diagnostics [CDFD], Hyderabad)

Mineral Exploration - (The course is offered in collaboration and cooperation with National Geophysical Research Institute (NGRI), Atomic Minerals Directorate (AMD), National Remote Sensing Agency (NRSA), and National Mineral Development Corporation (NMDC).

**M.Phil. Courses** (2 Semesters)

English

Philosophy

Hindi

Telugu

Urdu

Applied Linguistics

Translation Studies

Comparative Literature

English Language Studies

Dalit and Adivasi Studies and Translation

Economics

History

Political Science

Sociology

Anthropology

Regional Studies

Social Exclusion & Inclusive Policy

Indian Diaspora

Cognitive Science

Gender Studies

**Ph.D. Programmes** (2 to 5 years)

Mathematics

Applied Mathematics

Statistics / Operations Research (OR)

Computer Science

Physics

Chemistry

Biochemistry

Plant Sciences

Animal Sciences

Biotechnology

English

Philosophy

Hindi

Telugu

Urdu

Applied Linguistics

Translation Studies

Comparative Literature

Sanskrit Studies

English Language Studies

Dalit and Adivasi Studies and Translation

Economics  
History  
Political Science  
Sociology  
Anthropology  
Regional Studies  
Folk Culture Studies  
Social Exclusion & Inclusive Policy  
Indian Diaspora  
Science Technology and Society Studies  
Human Rights  
Gandhian Economic Thought

Dance  
Theatre Arts  
Communication  
Management Studies  
Medical Sciences  
Materials Engineering  
Nano Science and Technology  
Earth & Space Sciences  
ACRHEM  
Psychology  
Cognitive Science  
Gender Studies  
Buddhist Studies  
Advanced Computational Methods

**Integrated M.Tech / Ph.D. (2 to 5 years)**

Materials Engineering  
Nano Science and Technology

**Integrated M.Sc./Ph.D. (2 to 5 years)**

Biotechnology

*Note: Candidates seeking admission to any of the Ph.D. programmes listed above should note that it may not be possible to work under a supervisor of her/his choice if the supervisor is already guiding more students than the number prescribed by the respective Board of Studies of the Schools.*

## Criteria for Admission

1. The University offers facilities for Postgraduate, Advanced PG/PG Diploma, 5 -Year Integrated Master's Degree Courses, and Research Studies in several major areas in Sciences, (including Medical Sciences, Engineering Sciences & Technology), Humanities, Social Sciences, Performing Arts, Fine Arts, Communication and Management Studies.

2. Admission to the University is open to all who fulfill the prescribed qualifications without any distinction of race, caste, creed, language or sex. The selection is made strictly on the basis of merit at the entrance examination except the admission into the following subjects:

**M.Tech CS/AI/IT:** Admission is based on only the GATE percentile scores in Computer Science and Information Technology. (No written test or interview will be conducted)

**M.Tech. IC Technology:** Shortlisting of candidates for interview is based on the GATE scores in the order of merit, in one of the following subjects: (1) Electronics and Communication Engineering (2) Instrumentation Engineering (3) Physics.

**M.Tech. Computational Techniques:** Shortlisting of candidates for interview is based on the GATE scores in the order of merit in Physics or being qualified in UGC-CSIR NET for JRF.

**M.Tech. Bioinformatics:** Shortlisting of candidates for interview is based on the scores obtained in GATE in the following subjects: Biotechnology – BT; Chemistry – CY; Mathematics - MA; Physics – PH; Agricultural Engineering – AG; Electronics & Communication Engg. – EC; Computer Science and Information Technology – CS; Chemical Engineering – CH. Upto half of the total number of seats may be filled with candidates having background other than Biotechnology.

3. No student shall be eligible for admission to the Postgraduate Degree/Diploma Courses unless She/he has successfully completed a three year Undergraduate Degree through an examination conducted by a University/Autonomous College. However, as a transitory measure, a candidate who has passed a two year degree course may also be considered for admission provided She/he has undergone a further one year bridge course and passed the same.

**4. The minimum eligibility requirements for admission to the above courses are given in a tabular form at the end of this chapter.**

The eligibility of candidates passing their qualifying examinations from Universities following the letter grading system / CGPA will be determined on the basis of percentage equivalent to the letter grade/ CGPA obtained by the candidates according to the conversion formula adopted by the University concerned. In the absence of any such formula, the decision of the University shall be final and binding on the candidates.

**5. Candidates who may be appearing for the qualifying degree examination and expecting their results and certificates before 31.7.2012 may also apply for admission.**

Candidates who have completed and will be completing all the formalities viz., written the theory examinations, completed practical examinations, submitted Project reports, completed viva-voce exams etc. before 31.7.2012 and are waiting for the results of the qualifying degree examination and those who are due to appear in the qualifying degree examination in the above stated aspects and expecting their results to be declared and are getting their certificates before **31 July, 2012** will also be allowed to appear for the entrance test. The condition is that, in case of their selection to a course in the University, they should submit the certificates of the qualifying degree examination and other earlier examinations positively at the time of completion of the admission. In exceptional cases, the University may give extension of time up to **31.8.2012** to submit the certificates of the qualifying degree examination. Such candidates will be given conditional admission up to **31.8.2012** only. *However, this facility*

*shall not be extended to those who are taking regular or supplementary or improvement examinations of the qualifying degree after 31.07.2012 and waiting for the results.* In the event of the concerned students failing to (i) submit their certificates of the qualifying Degree examination by **31.8.2012**, and (ii) not passing the qualifying degree examinations with the prescribed percentage of marks, they will not be allowed to attend classes any further and their conditional admission shall be cancelled forthwith. No request will be entertained for extension of time to submit the certificates under any circumstances beyond **31.8.2012**.

In case of non-submission of other certificates like Transfer Certificate, Migration Certificate and any other academic certificate other than the qualifying degree examination certificates, students may be allowed time upto **30.9.2012**, failing which the Provisional admission of such candidates shall also be cancelled forthwith.

In the case of candidates admitted into Ph.D. programmes under the result awaited category those who have completed all the formalities including the viva voce of their M.Phil./M.Tech. courses before the date of their interview for admission and are awaiting their results may be allowed to submit their M.Phil or M.Tech results and certificates within a maximum period of one year from the date of their admission. During this period, they will not be paid any scholarship or fellowship. Once they submit the certificates, proving their eligibility for admission into the Ph.D., their scholarship/fellowship will be paid with retrospective effect from the date of their admission. If they fail to submit the results and the certificates within one year, their admission shall stand cancelled forthwith.

**6. All courses at the Master's Degree level, 5-Year Integrated Master's Degree, Advanced PG/PG Diploma, M.Phil.; M.Tech.; Integrated M.Sc./Ph.D. and M.Tech./Ph.D. are full time regular courses.**

For Ph.D. programmes, the candidates are encouraged to join as regular students. However, for those who are not in a position to do research on full time basis, a limited provision exists for part time research. Facility is also available for external registration to Ph.D. on regular basis

at the recognized Centres of the University. The details are given in subsequent paragraphs of this chapter.

**Students admitted to the regular courses are not allowed to pursue any other course except part time evening Certificate/Diploma Course of a Professional nature with prior permission of the School /Department / Centre concerned of the University.** They are also not allowed to take up any employment during the period of their studies in the University. Those employed, if selected for admission, are required to submit at the time of completion of their admission, a “No Objection Certificate” besides orders from the competent authorities sanctioning leave covering the entire duration of the course, failing which, the provisional selection for admission for such candidates will be cancelled.

## **Reservation of Seats**

### **1. Reservation of seats for SC and ST candidates:**

In accordance with the policy of the Government of India and the guidelines of the University Grants Commission, the University has reserved 15% of seats in each course for candidates belonging to the Scheduled Castes and 7.5% for those belonging to the Scheduled Tribes, with a provision for inter changeability between these categories, wherever necessary. *Candidates should submit along with the application a copy of the certificate of their caste/ tribe from a Revenue Officer not below the rank of Tahsildar / Mandal Revenue Officer.* Remedial courses in English and other subjects are conducted for such students depending upon the actual need.

*Note: SC/ST candidates belonging to the State of Andhra Pradesh should submit an Integrated Community Certificate issued by the competent revenue authority.*

For admission to all Postgraduate Courses, viz., M.A., M.Sc., M.C.A., M.F.A., M.P.A., Adv. P.G. Diploma; PG Diploma Courses and 5-Year Integrated Master’s Degree Courses, the minimum eligibility condition for SC/ST candidates is “Pass” in the minimum qualifying examination.

For admission to M.Phil., M.Tech., and Ph.D. a relaxation of only 5% marks in the minimum eligibility condition is provided to SC/ST candidates.

### **2. Reservation of seats for OBC candidates**

In accordance with the policy of the Govt. of India and the guidelines of the University Grants Commission, 27% of the seats in each course are reserved for OBC (non-creamy layer category) candidates. There is no relaxation in minimum qualifications for admission and no concession in the entrance examination fee for OBCs. However, there is a concession in the cut off marks in the entrance examination (both written and interview put together) which is 10% lower than the cut off prescribed for admission for General category candidates in any course. Candidates claiming reservation under this category must enclose an attested copy of the OBC (non-creamy layer) certificate issued by a competent authority without which their claim will not be considered under OBC category.

### **3. Reservation of seats for the Persons with Disability (PWD) (physically challenged) candidates**

3% of seats on approved intake in each course are provided as supernumerary seats for the physically challenged candidates having minimum degree of disability to the extent of 40% provided that their physical disability does not come in the way of pursuing the course. This is split into: 1% for visually challenged (VH), 1% for hearing impaired (HI) and 1% for orthopedically handicapped (OH) candidates with a provision of interchangeability. The minimum eligibility requirements prescribed are relaxed in their cases as in the cases of SC / ST candidates. The candidates under this category should take the entrance examination for admission. Physically Challenged candidates are required to submit a certificate from a Civil Surgeon of a Govt. Hospital indicating the extent of visual/physical disability and also the extent to which the disability hampers the candidate in pursuing her/his studies.

*The candidates under this category may have to undergo a fresh medical examination, if so prescribed by the University, before being admitted.*

Visually challenged candidates appearing for the entrance examinations will be given extra time of 20 minutes for two hour papers and will also be allowed the use of a personal typewriter during the examination. The University will provide scribes for such students. ***They will not be allowed to bring their own scribes.***

#### **4. Reservation of seats to the wards/dependants of Defence personnel**

Upto 5% of seats on the approved intake in each course are provided as supernumerary seats for the wards/dependants of Defence Personnel. The candidates should enclose a copy of the certificate issued by a competent authority in support of their claim without which their claim will not be considered. The candidates under this category should take the entrance examination for admission and fulfill all other requirements of admission.

#### **5. Reservation of seats for candidates from the Union Territories / North-Eastern States:**

One seat in each of the Departments/Centres in multi-departmental Schools of the University is reserved for the nominees from the following States/Union Territories: **Tripura, Sikkim, Andaman & Nicobar Islands, Manipur, Mizoram, Nagaland, Arunachal Pradesh, Lakshadweep, Dadra and Nagar Haveli.** Further, in the event of non-availability of nominated candidates for a particular department, other departments in the multi-departmental Schools may be permitted to admit up to two students provided that the total number of nominated candidates in a multi-departmental School shall not exceed the total number of departments/centres in the school. In the Schools having no departments, there is a provision of a maximum of two nominated seats in each School.

The nominations of the candidates belonging to the above Union Territories / States should reach the University through the respective UT / State Government by **31<sup>st</sup> May, 2012.** (*The candidates should fulfill the minimum eligibility requirements prescribed*). Reservations are made for candidates of all the above mentioned States and Union Territories as a whole on the basis of the candidate's performance in the qualifying degree, and the seats so filled

shall be over and above the approved intake (supernumerary seats) for the year.

***Note : Applications received directly from the candidates without routing them through the respective Directorate of Higher Education of the UT/NE state and nominations received after 31.5.2012 will not be considered.***

#### **Weightage for distinction in sports/cultural activities:**

With a view to encourage admission of candidates with an excellent record in Sports and Cultural activities, the University provides a weightage of upto two marks in the entrance examinations - two marks for distinctions achieved at national level and one mark for distinctions at the state level (but not both), for admission to various Post-Graduate courses, and 5-year Integrated Master's Degree courses provided the candidates satisfy the prescribed qualifications for admission. (*Candidates seeking weightage for distinctions in sports / cultural activities must furnish along with their applications, attested/Xerox copies of certificate/s in support of their claim, failing which no weightage would be considered*).

#### **Admission of Foreign Nationals:**

Foreign nationals will be admitted over and above the approved intake in each course up to a maximum of 15% of the sanctioned seats in each course, depending upon the availability of adequate infrastructure. Foreign nationals seeking admission through ICCR or other governmental agencies may apply to the University in the prescribed form through the respective bodies. However, self supporting foreign nationals may apply directly to the University for admission in the prescribed form latest by **15<sup>th</sup> April, 2012** for the July 2012 session. The University may consider admission of foreign nationals '*in absentia*', on the basis of their desire "to be considered *in absentia*" if they possess a valid foreign passport at the time of applying to the University, irrespective of from where they have passed the qualifying examination, subject to the condition that they are found suitable for admission by the Admission Committee of the concerned School / Department / Centre.

Those who have passed the qualifying examination from Universities outside India should enclose with their application, copies of relevant certificates, marks sheets together with the English version of such copies duly attested, if they are in a different language.

Foreign nationals seeking admission to the University will be required to produce a medical certificate of fitness from a recognized hospital in their country. Those offered admission may also be required to undergo a comprehensive medical examination as prescribed by the university. ***Proficiency in English is a pre-condition for admission of foreign nationals.*** No foreign national will be admitted without a student visa. **Foreign nationals selected for Ph.D. programmes will be allowed to complete the admission only after obtaining a research visa from the Indian Embassy abroad. There is a different fee structure for foreign nationals, as indicated on subsequent pages of this chapter.** Accommodation in the University hostels may be provided if available.

**Non-Resident Indians (NRIs):** NRIs will also be considered for admission in different courses in accordance with the rules in vogue. NRIs may apply directly to the University for admission in the prescribed form latest by **15<sup>th</sup> April 2012.** They may be considered for admission, if they are found suitable for admission by the Admission Committee of the concerned School / Department / Centre in accordance with the rules. Candidates who take admission under this category **shall pay the tuition and other fees as payable by foreign nationals.**

### **Entrance Examinations**

1. The Entrance Examinations for various P.G. Degree Courses (other than those offered by the Sarojini Naidu School and M.Sc Mathematics, Statistics-OR, Physics, Health Psychology), M.Sc. (5-year Integrated ) courses in Sciences and M.A. (5-year Integrated) courses in Humanities and Social Sciences will consist of only a written test of 100 marks.

2. The entrance examinations in the case of MPA, MFA, and M.A. in Communication in the Sarojini Naidu School will consist of a written test and a practical test/interview.

Only such candidates who are found successful in the written test will be called for the practical test/interview at Hyderabad. *The tentative schedule for the written test, practical test/ interview for all the courses is given in a tabular form at the end of this chapter.*

3. The entrance examination for the **M.Sc. Mathematics, Statistics-OR, Physics, and Health Psychology, M.Phil, Integrated M.Sc./Ph.D. Biotechnology; M.Tech. / Ph.D. Materials Engineering, Nano Science and Technology and Ph.D.** in different subjects will consist of a written test and an interview (after qualifying in the former). The written test will carry 75 marks and the interview 25 marks.

Admissions in **M.Tech Computer Science, Artificial Intelligence, and Information Technology,** will be granted only on the basis of GATE scores in Computer Science and Information Technology.

Admission in **M.Tech IC Technology** is based on the GATE scores in the order of merit in one of the following:

1) Electronics and Communication Engineering, 2) Instrumentation Engineering and 3) Physics followed by an interview for the short listed candidates. There is no written test for admission to this course.

Admission in **M.Tech. Computational Techniques** is based on the GATE scores in the order of merit in Physics or being qualified in UGC-CSIR NET for JRF followed by an interview for the shortlisted candidates. There is no written test for admission to this course.

Admission in **M.Tech. Bioinformatics** is based on the percentile score obtained in GATE examination and followed by an interview. GATE in the following subjects will be considered: Biotechnology – BT; Chemistry – CY; Mathematics - MA; Physics – PH; Agricultural Engineering – AG; Electronics & Communication Engg. – EC; Computer Science and Information Technology – CS; Chemical Engineering – CH.

4. **The question paper should be answered only in English** except in the case of admission to language



courses for which the question paper should be answered in the language concerned.

The performance of the candidates in the **written test in some of the courses** as listed below is in objective or multiple choice questions and will be evaluated using the OMR technology. The candidates will be required to **mark the answers in the OMR Sheet with blue or black ball-point or sketch pen** during the test. Necessary instructions will be given in the relevant question papers.

**The question paper for the following subjects shall be answered on OMR sheet :**

M.Sc. and M.A. (5-year Integrated) in different disciplines, M.Sc. - Mathematics/Applied Mathematics, Statistics-OR, Physics, Chemistry, Biochemistry, Plant Biology & Biotechnology, Molecular Microbiology, Animal Biotechnology, Ocean and Atmospheric Sciences, Health Psychology; M.C.A., M.A. - Hindi, Telugu, Applied Linguistics, Economics; M.Phil. – Hindi, Telugu, Applied Linguistics, Translation Studies Economics; Integrated M.Tech./Ph.D. Materials Engineering, Nano Science and Technology; Ph.D. in Animal Sciences, Plant Sciences, Biotechnology, Hindi, Applied Linguistics, Translation Studies, Economics, Management Studies, Materials Engineering, Nano Science and Technology, ACRHEM, Integrated M.Sc./Ph.D. Biotechnology and PG Dip in Health Fitness & Life Style Management.

**Note:** The candidates for M.A. Communication are required to answer the question paper partly in OMR sheet and partly in a separate answer book provided to them.

5. The written tests for all the courses will be held from **1<sup>st</sup> to 7<sup>th</sup> June 2012** at 35 different Centres in the country, as listed in this chapter.

6. **The duration of the written test for all courses will be two hours.**

7. **A candidate is free to apply for admission to as many courses as She/he wishes after ensuring from the schedule for the Entrance Examination that there is no clash in the subjects of his/her choice.** *The University has made the best possible efforts to avoid overlap in the*

*schedule of examinations of related subjects to the extent possible. The candidates are advised to study the examination schedule carefully before deciding on their choice of subjects.*

8. **Please read the following carefully:**

The question paper for the entrance test for all courses (except for Ph.D. in some subjects - please see the Chapter on 'Schools of Study' for further details) shall consist of two parts - Part-'A' and Part- 'B'.

Part-'A' of the question paper shall necessarily consist of objective type questions preferably of one mark each for a total of 25 marks. *The marks obtained by the candidates in Part 'A' will be used for resolving tie cases.*

All the Schools/Departments/Centres will follow negative marking for Part- 'A' of the question paper. **There will be negative marking of 0.33 mark for every wrong answer.**

Those Schools/Departments/Centres, which may set the entire paper as "objective type", may follow negative marking for Part- 'B' of the question paper as well.

The following criteria shall be followed, in sequence to resolve ties, where candidates secure the same marks in the written test :

- (a) **First criterion:** Marks obtained in Part - A of the written test.
- (b) **Second criterion:** Marks obtained by the candidates in the qualifying degree/other examination. If the final result is not available, then the marks up to the 2nd year will be taken into account.
- (c) **Third criterion:** Marks obtained in the degree examination immediately preceding the qualifying degree examination.
- (d) **Fourth criterion:** Marks obtained in the next lower public examination.

9. Interviews for candidates short-listed for admission to M.Phil., M.Tech., and Ph.D. on the basis of written test and those exempted from written test (on the basis of UGC/CSIR JRF, RGNF/MANF, (NBHM, in the case of Ph.D. for Maths, ICMR/ ICAR/DBT Fellowship for Ph.D. in the School of Life Sciences), and ICMR Fellowship for



Ph.D. in the School of Social Sciences, Integrated M.Tech./Ph.D. Materials Engineering, Nano Science and Technology, Integrated M.Sc./Ph.D. Biotechnology, M.Sc Mathematics, Statistics-OR, Physics, Health Psychology and the courses offered by the S.N. School are tentatively scheduled to be held between 5<sup>th</sup> July to 11<sup>th</sup> July 2012, in the respective Schools/ Departments/ Centres. However, exact dates of the interview/practical test will

be notified and made available on the University website for the information of the short listed candidates.

10. Candidates called for the entrance examinations (Both written and/or practical test / interview) will appear for the examinations at their own expense.

**Schedule for notification of the entrance examination results etc. and making them available on the University website**

|  |  |   |                 |
|--|--|---|-----------------|
| Particulars of the scheduled event                                       | Adv. PG Dip. / PG Degree Courses in Sciences (except M.Sc in Maths, Statistics-OR, Physics, and Health Psychology), Humanities, Social Sciences and M.A./M.Sc. (5-year Integrated) Courses | M.Tech. CT, IC Technology and Bioinformatics, Adv. PG Dip. / M.Tech. Mineral Exploration , M.Phil, Ph.D, P.G./P.G. Diploma courses of S.N. School, M.Sc. in Maths, Statistics-OR, Physics, and Health Psychology, M.Sc. (5-year Integrated) in Optometry and Vision Sciences, P.G. Dip. in Health Fitness and Life Style Management | M.Tech CS/AI/IT |
| Notification of short-listed candidates for interviews / practical tests | -----  | 27.6.2012   | ---             |
| Notification of list of selected candidates (Main & waiting lists)       | 4.7.2012   | 23.7.2012   | 6.6.2012        |

Note:(i) The Entrance results will be made available on the internet: <http://www.uohyd.ac.in>; [www.schools9.com](http://www.schools9.com); <http://www.indiaresults.com>. The University will not communicate any of the above information to the candidates concerned by post. Therefore, it is the responsibility of the candidates to obtain the information on their selection by visiting the University website.

(ii) No request for extension of time for interview/practical test or for completion of admission will be entertained on account of any reason/s whatsoever.

iii) Lists will be notified at the Office of the Controller of Examinations, Administration Building, University Campus, Hyderabad, and also at the city campus “The Golden Threshold (GT)”, Abids, Nampally Station Road, Hyderabad.

**Commencement of classes**

- a) MBA and M.Tech. in CS/AI/IT : 16.7.2012
- b) All PG courses in Sciences (except M.Sc., Mathematics, Statistics-OR and Physics), Humanities, Social Sciences and M.A./M.Sc.( 5-year Integrated) Courses : 23.7.2012
- c) M.Tech. Integrated Circuit Technology, Computational Techniques, Bioinformatics, M.Phil., Ph.D., Adv. PG Dip/ M.Tech. Mineral Exploration, Integrated M.Tech./Ph.D.; M.Sc./Ph.D.; PG/PG Dip Courses offered by the S.N. School, M.Sc in Mathematics, Statistics-OR, Physics and Health Psychology : 8.8.2012

Cut off marks for admission to M.Phil., M.Tech., Integrated M.Sc./Ph.D., M.Tech./Ph.D. and Ph.D. programmes

- 1) The following cut-off marks will be followed in respect of the entrance examination (both written and interview put together) for admission to M.Phil., M.Tech., Integrated M.Tech./Ph.D., Integrated M.Sc./Ph.D. and Ph.D. programmes with a provision that all the seats reserved for SC/ST will be filled during July 2012 session.

| Course                                   | Cut off marks        |  |              |
|--|----------------------|--|--------------|
|  | For General category | For OBC (10% less than the cut off for General category) | For SC/ST/PH |
| M.Phil and M.Tech                        | 50%                  | 45.0%  | 30%          |
| Ph.D.                                    | 55%                  | 49.5%  | 40%          |
| Integrated M.Tech/ Ph.D. and M.Sc./Ph.D. | 55%                  | 49.5%  | 40%          |

- 2) a) Candidates qualified in **UGC/Joint UGC-CSIR** National level test for JRF, **NBHM Fellowships test** (for the purpose of admission to Ph.D. in Mathematics/Statistics), **ICMR / ICAR / DBT** Fellowship test (for the purpose of admission to Ph.D. in the School of Life Sciences), and **ICMR Fellowship** test (for the purpose of admission to Ph.D. in the School of Social Sciences) and the awardees of **RGNF and MANF** are exempted from appearing in the written test of the entrance examination for admission to **M.Phil or Ph.D.** in the concerned subject, in lieu of which they will be given a weightage of 40 out of 75 marks in the written tests. They will, however, have the option to appear in the written tests to secure more than 40 out of 75 marks.
- b) As the UGC-CSIR JRF holders are expected to avail of the Fellowship within one year from the date of the award, such candidates may be exempted from the written test for admission to Ph.D. if they have been holding the Fellowship for not more than two years before their application for Ph.D. admission. No candidate will be allowed to avail of this facility more than once.
- c) KVPY scholars, Science Olympiad and 1<sup>st</sup> rankers of different Boards of +2 level of education seeking admission in 5-year Integrated M.Sc. in Sciences, Health Psychology and M.A. in Humanities/Social Sciences courses are exempted from the written test in

lieu of which they will be given a weightage of marks equal to the average of first 64 students from our entrance examination in lieu of the written test.

**Note:** - (i) *Candidates qualified in UGC-CSIR National level test for Lectureship alone and those who have qualified in GATE, JEST, wherever these are prescribed as one of the eligible conditions for admission are not exempted from appearing in the written test for admission to M.Phil./Ph.D. Therefore such candidates should appear in the written test also.*

- (ii) Candidates possessing M.Phil./M.Tech. degree and seeking admission to the Ph.D. Programme for which they are otherwise eligible to apply, are also not exempted from appearing in the written test of the entrance examination. Therefore, they must note that they have to take the written test also.

(iii) Wherever interview is component of entrance examination for admission, though the candidates secure more than the cutoff marks in the written test / weightage and fail to appear for the interview shall not be entitled for admission.

3) **Part time registration to Ph.D.:** Facilities exist to a limited extent for part time registration for Ph.D. Programmes. Persons engaged in teaching and research in reputed institutions are eligible for admission under this category, provided they fulfill the minimum eligibility requirements and are found successful in the entrance examination as prescribed. This facility is limited to those working in the twin cities (Hyderabad and Secunderabad) in respect of Science Schools (except Mathematics) and anywhere in Andhra Pradesh for the remaining Schools (except the Department of Computer and Information Sciences). Part-time Registration to Ph.D in Computer Science is only for teacher candidates who are teaching in UGC/AICTE approved Universities or P.G colleges or Engineering Colleges within Andhra Pradesh.

4) **External Registration to Ph.D.:** The University also provides facility for admission to the Ph.D. under External Registration category. The external candidate shall work at the recognised institution. The admission procedure is the same as in the case of regular admissions to Ph.D. Candidates will be under joint supervision viz., one from

the University and the other from the recognised institution.

**In the case of External Registration to Ph.D in Computer Science**, the candidates who are working in the following Institutes in the twin cities alone are allowed to register under this category. Candidates who register under external registration should have a recognised guide

(recognised by the University) from the parent organization listed below, and also a guide from the Department of Computer / Information Sciences.

\* NRSA \*CMC \*ADRIN \*ANURAG \*RCI \*IDRBT \* NGRI \* CDAC \*ATC of TCS

### List of Institutions recognized as External Centres

The following Institutions in the twin cities of Hyderabad and Secunderabad have been recognised by the University for external registration to Ph.D. in the subjects indicated against them.

| S.No. Name of the Institution  | Subject/s of Research  |
|--|--|
| 1 National Remote Sensing Agency   | - Computer Science, Physics, Earth & Space Sciences  |
| 2 Computer Maintenance Corporation Ltd.  | - Computer Science   |
| 3 Defence Metallurgical Research Laboratory  | - Physics, Engineering Sciences & Technology   |
| 4 Centre for Economic and Social Studies   | -Economics, Political Science, Anthropology, and Regional Studies                          |
| 5 National Institute of Small Industry Extension Training                                | - Economics and Anthropology   |
| 6 Institute of Public Enterprise   | - Economics  |
| 7 Advanced Data Processing Research Institute  | - Computer Science   |
| 8 Directorate of Rice Research   | - Life Sciences  |
| 9 Directorate of Oil Seeds Research  | - Life Sciences  |
| 10 Bhagwan Mahavir Medical Research Centre   | - Life Sciences  |
| 11 Advanced Numerical Research and Analysis Group  | - Computer Science (ANURAG)  |
| 12 Dr. Reddy's Research Foundation   | - Chemistry and Life Sciences  |
| 13 International Crops Research Institute for Life Sciences                              | - Semi Arid Tropics (ICRISAT)  |
| 14 Research Centre Imarat (RCI)  | - Computer Science   |
| 15 Centre for DNA Fingerprinting and Diagnostics (CDFD)                                  | - Life Sciences  |
| 16 National Institute of Rural Development (NIRD)  | - Economics, Political Science, Sociology, Anthropology, Regional Studies                  |
| 17 Institute for Development and Research in Banking Technology (IDRBT)                  | - Computer Science, Information Technology, Management Studies                             |
| 18 Indian Institute of Chemical Technology   | - Chemistry  |
| 19 L.V. Prasad Eye Research Institute  | - Biochemistry, Animal Science, and Communication  |
| 20 Shantha Biotechnics   | - Animal Sciences  |
| 21 Indian Immunologicals   | - Animal Sciences  |
| 22 Administrative Staff College of India (ASCI)  | - Management Studies   |
| 23 Blue Peter Research Centre  | - Animal Sciences  |
| 24 National Geophysical Research Institute (NGRI)  | - Computer Science, Artificial Intelligence, Physics, Chemistry and Earth & Space Sciences |
| 25 National Institute of Nutrition (NIN)   | - Biochemistry   |
| 26 International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI) | - Engineering Sciences & Technology, ACRHEM and Physics                                    |
| 27 Non-ferrous Materials Technology Development Centre(NFTDC)                            | - Engineering Sciences & Technology  |
| 28 Institute of Life Sciences (ILS)  | - Chemistry and Life Sciences  |
| 29 Centre for Development of Advanced Computing (CDAC)                                   | - Computer/Information Sciences  |
| 30 Advanced Technology Centre (ATC) of TCS   | - Computer/Information Sciences, Life Sciences   |
| 31 Bharat Biotech Foundation   | - Life Sciences  |
| 32 Aurigen Discovery Technologies  | - Chemistry and Life Sciences  |
| 33 Asian Health Care Foundation  | - Life Sciences  |
| 34 Global Medical Education and Research Centre  | - Life Sciences  |
| 35 Indian National Centre for Ocean Information Sciences (INCOIS)                        | - Earth and Space Sciences   |

### **Associate Institution Status**

In order to boost partnerships for mutual benefit, the University has granted **Associate Institution Status** to the following Institutions. These Institutions are entitled to admit Ph.D. students based on their infrastructure and logistics strictly complying with the guidelines approved by the University in this regard and also complying with the other rules and regulations on admissions of the University which will change from time to time.

1. Indian Institute of Chemical Technology (IICT)
2. L.V. Prasad Eye Research Institute (LVPEI)
3. Institute of Life Sciences (ILS)
4. Institute for Development and Research in Banking Technology (IDRBT)

### **6) Ph.D. admissions for October 2012, January 2013, and April 2013 sessions**

After completion of the regular admissions in July, 2012, vacant seats if any, in the Ph.D. programmes may be filled from among the JRF qualified candidates. CSIR JRFs may join an interested Faculty member of the University at any time before the time lapse of the award for the sake of claiming their fellowship. However, they may be considered for admission in accordance with the norms of the University for which the candidates have to apply in the prescribed application form. Interviews will be conducted and selections for admission will be made based on the performance of the candidates in the interview, also considering the weightage for their JRF qualification in accordance with the following schedule :

- i) **1<sup>st</sup> to 31<sup>st</sup> of October 2012**
- ii) **1<sup>st</sup> to 31<sup>st</sup> of January 2013**
- iii) **1<sup>st</sup> to 30<sup>th</sup> of April 2013**

The University will not issue any press notification in this regard. However, information indicating the likely number of seats to be filled in each School/Department/Centre, will be available at the University's web site: [www.uohyd.ac.in](http://www.uohyd.ac.in)

**Note:** Candidates for admission to Ph.D during the above sessions **should possess the certificates of their qualifying degree examination by the date of their interview.** Selected candidates must submit all their qualifying degree certificates and other certificates required at the time of admission. Extension of time will not be granted for submission of any of the certificates during these sessions and the provisional selection for admission

will automatically stand cancelled in the case of those who are unable to submit the certificates required for admission on the date of completion of the admission formalities.

### **Semester-wise Registration System**

In order to maintain an effective enrolment of students and their progress in their studies/research, the University has introduced a system of student registration at the beginning of each semester for all the courses offered on regular basis including part time/external/associate registration for Ph.D. A schedule for semester-wise registration is given in the Academic Calendar in the Prospectus. However, a schedule for semester wise registration will be notified by the Academic Section from time to time. Students of all the courses (P.G./Integrated Master's Degree/Adv. PG/PG Dip./ M.Phil./ M.Tech./ Ph.D./M.Sc./Ph.D.), are required to clear their dues of the earlier semester/s in all respects before registering for the following semester of the course.

Every Ph.D. student (regular/part-time/external/associate) should enclose a copy of the report of the doctoral committee of the previous semester to the requisition form of the semester registration, without which ongoing semester registration will not be done.

*Note: In the case of post-matric scholarship holders belonging to the SC/ST/OBC categories from the State of Andhra Pradesh, semester-wise registration for the winter semester will be done without insisting on the clearance of mess and tuition fee dues of the monsoon semester, if the same are reimbursable by the Social Welfare/Backward Classes Welfare Department of the State Government. However, they should clear all the dues of the winter semester before registering for the monsoon semester.*

### **Implementation of Credit System for all the courses**

The credit system has been implemented for all the PG / Adv.PG / PG Diploma, all the M.Phil and M.Tech courses from the academic year 2004-05. The necessary guidelines for evaluation of students under this system are available in Chapter 6 of this brochure.

## General

1) Before filling the Application Form and the Basic Data Form, candidates are advised to read the instructions carefully and complete the form accordingly, particularly about their performance in the qualifying degree or earlier examinations. This is necessary since the performance of the candidates in the qualifying degree and earlier examinations shall be used in determining relative positions in the merit list for those candidates who secure the same marks in the written test.

2) The last date for receiving the completed applications for admissions for the July session is **May 4, 2012**. Applications received after the closing date will not be considered. *For further details, please refer to the "Instructions to the Candidates for filling the application form"*.

3) The University will not be responsible for any postal delay. Candidates are therefore advised to apply for admission well in time.

4) **All disputes are subject to Hyderabad jurisdiction.**

### Hall Tickets for the Entrance Examinations:

a) The Hall Tickets will be made available for downloading on the University website by 21<sup>st</sup> May, 2012. The University will not send the hall tickets by post.

b) The candidates are required to download the hall tickets and appear for the examination at the centre opted for. **Candidates will not be permitted to write**

**the entrance exam at any other centre except the centre mentioned in the hall tickets downloaded.**

c) It may be noted that all those who apply may be issued Hall Tickets without verifying whether or not they satisfy the eligibility criterion for admission to a course. This will be examined at the time of final admission, if granted. The candidates are therefore advised to go through the Prospectus-cum-application 2012-2013 carefully and judge their eligibility before submitting their application forms. Despite this caution, in case the candidates do not meet the minimum eligibility criteria and still apply for the entrance examination, they will do so at their own risk and cost. Mere issue of Hall Ticket and allowing a candidate for entrance exam including interview / practical test will not entitle a candidate for any claim on admission if she/he does not fulfil the required eligibility conditions for admission as prescribed in the Prospectus-cum-application form 2012-13. **This will be thoroughly verified at the time of admission, if granted. At any stage if it is found that any candidate does not fulfill the minimum eligibility requirements, the admission if granted, shall be cancelled forthwith.**

d) *Use of cell/mobile phones in the Examination Hall is strictly prohibited.*

e) *Candidates will be required to produce the Hall Ticket at the time of the entrance examination/ interview/ practical test and completion of admission, if granted.*

## List of Examination Centres

| S.No. | Exam Centre    | Venue of the Exam Centre   |
|-------|----------------|--|
| 1.    | Ahmedabad      | School of Sciences, Gujarat University, Navrangpura, Ahmedabad – 380 009. Gujarat, India.  |
| 2.    | Aizawl         | Life Science Block, Pachhunga University College, Aizawl, Mozoram  |
| 3.    | Anantapur      | S.K.University College, Anantapur  |
| 4.    | Bengaluru      | Rashtreeya Vidyalaya Teachers College, Jayanagar, Bangalore – 560 011  |
| 5.    | Bhubaneswar    | P.G. Dept. of Political Science, Utkal University, Bhubaneswar 751 004, Orissa   |
| 6.    | Bhopal         | Barkatullah University Institute of Technology<br>Barkatullah University, Hoshangabad Road, Bhopal – 462026 (MP)                   |
| 7.    | Chennai        | Chandrashekar Hall, The Institute of Mathematical Sciences, 4 <sup>th</sup> Cross Road, CIT., Campus, Taramani, Chennai – 600 113  |
| 8.    | Cochin         | Department of Polymer Science & Rubber Technology, Kochi – 682022  |
| 9.    | New Delhi      | Faculty of Engineering & Technology, Jamia Millia Islamia, Maulana Mohammed Ali Jauhar Marg, New Delhi – 110 025                   |
| 10.   | Dimapur        | Dimapur Government College, Oriental Colony, Dimapur – 797112 – Nagaland   |
| 11.   | Guwahati       | Arts Building, Gauhati University, Guwahati – 781014   |
| 12.   | Hyderabad      | University of Hyderabad Campus, Prof. C.R. Raod, P.O. Central University, Hyderabad – 500 046                                      |
| 13.   | Jammu          | Govt. Gandhi Memorial Science College, Canal Road, Jammu (Tawi)<br>Main Block, Room NO.10 & 11                                     |
| 14.   | Jaipur         | Jaipur University, Jaipur  |
| 15.   | Kadapa         | Yogi Vemana University, Kadapa   |
| 16.   | Karimnagar     | S.R.R.Government Degree & P G College, Jagtial Road, Karimnagar – 505001   |
| 17.   | Kolkatta       | Jadhavpur University Campus, Kolkatta  |
| 18.   | Lucknow        | School for Ambedkar Studies (SAS), Babasaheb Bhimrao Ambedkar University, Vidya Vihar, Raibareli Road, Lucknow – 226025            |
| 19.   | Madurai        | School of Historical Studies, Madurai Kamaraj University, Palkalai Nagar, Madurai 625 021  |
| 20.   | Mumbai         | University of Mumbai, Vidyanagari Campus, Kalina, Santacruz (East), Mumbai – 400 098   |
| 21.   | Nellore        | Vikrama Simhapuri University, Dargamitta, Nellore 534003   |
| 22.   | Nizamabad      | Telangana University, Nizamabad  |
| 23.   | Nagpur         | Laxminarayana Institute of Technology, Opp. Bharat Nagar, Amravati Road Nagpur – 44003 (M.S.)                                      |
| 24.   | Pune           | Department of Law, University of Pune, Ganeshkhind Road, Pune – 411 007  |
| 25.   | Patna          | B.N. College, Pariksha Bhavan, Ashok Rajpath, Patna – 800004   |
| 26.   | Raipur         | College of Agriculture, Krishak Nagar, Raipur (CG) – 492012  |
| 27.   | Ranchi         | Multipurpose Examination Hall, Morhabadi Campus, Ranchi University, Ranchi   |
| 28.   | Shillong       | Science Seminar Hall, Near Department of Biochemistry, NEHU, Permanent Campus, Malai Shillong – 793022                             |
| 29.   | Srikakulam     | Dept. of Commerce & Management Studies, Dr. B.R.Ambedkar University Srikakulam, Etcherla (A.P.) – 532410                           |
| 30.   | Srinagar       | Examination Block, University of Kashmir, Srinagar   |
| 31.   | Tirupathi      | S.G.S. Arts College, Tiruchanoor Road, Tirupati 517 501  |
| 32.   | Vijayawada     | P.B.Siddhartha College of Arts & Science, Mogalrajpuram, Siddhartha Nagar, Vijayawada – 520 010                                    |
| 33.   | Visakahapatnam | School of Distance Education, Near Outgate, Andhra University, Visakhapatnam – 530 003   |
| 34.   | Vizianagaram   | M.R. College (Autonomous), Vizianagaram, Near Police Station Complex And Clock Tower   |
| 35.   | Warangal       | 1. Humanities Building, University College, Kakatiya University, Warangal<br>2. Examination Branch, Kakatiya University, Warangal. |

- Note :** (1) The University reserves the right to cancel any of these centers and allot another nearer centre to the applicants of the Centre cancelled.
- (2) If any of the examination/s could not be held in any of the session/s due to sudden declaration of bandhs, hartals, etc. at any of the above centres, the University shall not be held responsible for the same and fresh examination /s at such centres for the year will not be held again under any circumstances. However, the entrance examination fees paid by the candidates opted for such centres for whom the examination / s were disturbed and could not be held will be refunded.
- (3) Based on the number of candidates, the venues at the centres may be increased.

## Fees Payable by Students (Indian Nationals) admitted during 2012-2013

- |                                  |   |                                 |
|----------------------------------|---|---------------------------------|
| 1) Course                        | 6) Library Fee (Per Sem)                      | 11) Medical Fee, (Per annum)    |
| 2) Admission Fee                 | 7) Exam fee (Per Sem)                         | 12) Students aid fund (Per Sem) |
| 3) Other Fees:                   | 8) Sports Fee (Per Sem)                       | 13) Total Cols. (2-12)          |
| a) once at the time of admission |   |                                 |
| b) Fees (Per Sem /Per annum)     |   |                                 |
| 4) Tuition Fee (Per Sem)         | 9) Internet Charges (Per Sem)                 | 14) Deposits (Refundable)       |
| 5) Lab Fee (Per Sem)             | 10) Students Welfare / Union Fund (Per annum) | 15) Grand Total Col (13-14)     |

Figures in Rs.

| (1)  | (2)  | (3)            |        | (4)       | (5)  | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13)  | (14) | (15)  |
|--|------|----------------|--------|-----------|------|-----|-----|-----|-----|------|------|------|-------|------|-------|
|  |      | (a)            | (b)    |           |      |     |     |     |     |      |      |      |       |      |       |
| <b>M.A. (5-year Integrated), M.A.</b><br>Courses in<br>Humanities & Social<br>Sciences   | 240  | 250            | --     | 385       | --   | 200 | 150 | 120 | 175 | 330  | 700  | 65   | 2615  | 1100 | 3715  |
| <b>M.Sc.</b><br>Maths/Statistics/Physics<br><b>M.P.A</b> Dance/Theatre<br>Arts<br><b>M.F.A</b> Painting/ Print<br>Making/ Sculpture/ Art<br>History/ <b>Adv.P.G.</b><br>Diploma In Folk Culture<br>Stud. | 240  | 250            | --     | 385       | 660  | 200 | 150 | 120 | 175 | 330  | 700  | 65   | 3275  | 1320 | 4595  |
| <b>M.Sc. Biotechnology</b>   | 240  | 250            | --     | 2630      | 1275 | 200 | 150 | 120 | 175 | 330  | 700  | 65   | 6135  | 1320 | 7455  |
| <b>5 – Year Int. M.Sc. in</b><br>Optometry & Vision<br>Sciences  | 240  | 250            | 5500 * | 6710      | 1165 | 200 | 150 | 120 | 275 | 330  | 700  | 65   | 15705 | 1980 | 17685 |
| <b>M.Sc. Animal</b><br>Biotechnology   | 240  | 250            | 4950** | 385       | 660  | 200 | 150 | 120 | 175 | 330  | 700  | 65   | 8225  | 1980 | 10205 |
| <b>M.Sc. Chemistry/</b><br>Biochemistry /Plant<br>Biology<br>& Biotechnology,<br>Molecular Microbiology,<br><b>M.Sc. (5-year</b><br>Integrated) (Sciences/<br>Health Psychology)                         | 240  | 250            | --     | 385       | 660  | 200 | 150 | 120 | 175 | 330  | 700  | 65   | 3275  | 1980 | 5255  |
| <b>M.Sc. Health Psychology</b>   | 1605 | 250            | 5500** | 1250      | 1275 | 200 | 220 | 120 | 175 | 330  | 700  | 65   | 11690 | 1980 | 13670 |
| <b>M.C.A.</b>  | 240  | 250+<br>14300  | --     | 7920      | 2145 | 200 | 150 | 120 | 175 | 330  | 700  | 65   | 26595 | 1320 | 27915 |
| <b>M.B.A.</b>  | 2145 | 250 +<br>14300 | --     | 1646<br>5 | 4290 | 200 | 150 | 120 | 175 | 330  | 700  | 65   | 39190 | 2805 | 41995 |
| <b>M.B.A. Health Care and</b><br>Hospital Management   | 2220 | 250 +<br>17600 | --     | 2200<br>0 | 5500 | 200 | 220 | 120 | 275 | 330  | 700  | 65   | 49480 | 2640 | 52120 |
| <b>P.G. Diploma in Health</b><br>Fitness and Life Style<br>Management  | 240  | 250            | --     | 6820      | 2200 | 200 | 220 | 120 | 275 | 330  | 700  | 65   | 11420 | 1980 | 13400 |
| <b>M.A. Communication</b>  | 240  | 250            | 4950*  | 385       | 1320 | 200 | 150 | 120 | 175 | 330  | 700  | 65   | 8885  | 1320 | 10205 |
| <b>P.G. Diploma in</b>   | 240  | 250            | --     | 385       | 1320 | 200 | 150 | 120 | 175 | 330  | 700  | 65   | 3935  | 1320 | 5255  |

| (1)  | (2)  | (3)           |             | (4)  | (5)  | (6) | (7) | (8) | (9) | (10) | (11) | (12) | (13)  | (14) | (15)  |
|--|------|---------------|-------------|------|------|-----|-----|-----|-----|------|------|------|-------|------|-------|
|  |      | (a)           | (b)         |      |      |     |     |     |     |      |      |      |       |      |       |
| Counseling Psychology  |      |               |             |      |      |     |     |     |     |      |      |      |       |      |       |
| <b>M.Tech</b> (CS / AI / IT)   | 240  | 250+<br>14300 | --          | 7865 | 2145 | 200 | 220 | 120 | 275 | 330  | 700  | 65   | 26710 | 1320 | 28030 |
| <b>M.Phil</b> Courses in Humanities and Social Sciences/ Gender Studies  | 240  | 250           | --          | 605  | --   | 200 | 220 | 120 | 275 | 330  | 700  | 65   | 3005  | 1320 | 4325  |
| <b>M.Phil.</b> Cognitive Science/ <b>M.Tech.</b> Comp. Tech./ <b>M.Tech</b> IC Technology  | 240  | 250           | --          | 605  | 660  | 200 | 220 | 120 | 275 | 330  | 700  | 65   | 3665  | 1320 | 4985  |
| <b>M.Tech.</b> Bioinformatics  | 1610 | 250           | 13200<br>** | 1255 | 1275 | 200 | 220 | 120 | 175 | 330  | 700  | 65   | 19400 | 1980 | 21380 |
| <b>Ph.D. (Full – time)</b> Humanities/Social Sciences / Gender Studies / Buddhist Studies  | 240  | 250           | --          | 825  | --   | 200 | --  | 120 | 275 | 330  | 700  | 65   | 3005  | 1100 | 4105  |
| Maths/Statistics/Computer Science/ Physics/ Electronics Science/ Dance/Theatre Arts / Management Studies/ Communication/ Folk Culture Studies/ Cognitive Science                   | 240  | 250           | --          | 825  | 660  | 200 | --  | 120 | 275 | 330  | 700  | 65   | 3665  | 1320 | 4985  |
| Chemistry/Biochemistry/ Plant Sciences/Animal Sciences/ Biotechnology/ ACRHEM/ Earth & Space Science/ Int. M.Sc./Ph.D. Biotechnology/ High Performance Computing/ Medical Sciences | 240  | 250           | --          | 825  | 660  | 200 | --  | 120 | 275 | 330  | 700  | 65   | 3665  | 1980 | 5645  |
| <b>Int. M.Tech/Ph.D.</b> Materials Engineering/ Nano Science and Technology / <b>Ph.D.</b> Materials Engineering / Nano Science & Technologies                                     | 240  | 250           | 5500 *      | 3960 | 1650 | 200 | 220 | 120 | 275 | 330  | 700  | 65   | 13510 | 1980 | 15490 |
| <b>Ph.D. Part –Time / External Registration</b> Humanities/Social Sciences / Gender Studies / Buddhist Studies   | 240  | 250           | --          | 1430 | --   | 200 | --  | 120 | 275 | 330  | 700  | 65   | 3610  | 1100 | 4710  |
| Maths/Statistics/ Computer Science/ Physics/Electronics Science/Dance/Theatre Arts/ Management Studies/ Communication/ Folk Culture Studies/ Cognitive Science                     | 240  | 250           | --          | 1485 | 660  | 200 | --  | 120 | 275 | 330  | 700  | 65   | 4325  | 1320 | 5645  |
| Chemistry/Biochemistry/ Plant Sciences/Animal Sciences/ Biotechnology/ ACRHEM/ Earth & Space Science/ High Performance Computing/Medical Sciences                                  | 240  | 250           | --          | 1485 | 660  | 200 | --  | 120 | 275 | 330  | 700  | 65   | 4325  | 1980 | 6305  |
| Ph.D. Materials Engineering / Nano Science & Technologies  | 240  | 250           | 5500 *      | 3960 | 1650 | 200 | 220 | 120 | 275 | 330  | 700  | 65   | 13510 | 1980 | 15490 |

Note: \* = fees per semester; \*\* = fees per annum



### Mess deposit to be paid at the time of Hostel admission

|   | General Category<br>Rs. | SC/ST Scholarship holders<br>Rs. |
|---|-------------------------|----------------------------------|
| Mess Deposit (At the time of admission)(refundable) :<br>5-Year Integrated courses<br>For all other courses | 5000 *<br>2500          | 1500                             |
| Room rent (per semester)  | 500                     | -Nil-                            |
| Crockery fees (per year)  | 250                     | 250                              |
| Hostel Caution Money Deposit<br>(refundable except service charge of Rs.200/-)                              | 600                     | 400                              |

\* To be collected in two installments @ 2500/- at the time of admission and Rs.2500/- at the beginning of their 3<sup>rd</sup> year of study.

### Fees payable by the Foreign National/NRI students

| Sl. No. | Course   | Fees per semester<br>(in US \$) |
|---------|--|---------------------------------|
| 1       | MCA, M.Tech.(CS / AI / IT) and M.A. Communication  | 990                             |
| 2       | MBA<br>For the candidates from developed countries<br>For the candidates from developing countries                             | 4950<br>2200                    |
| 3       | MBA Health Care and Hospital Management  |                                 |
| 4       | PG Courses in Sciences, 5-Year Integrated Master's Degree courses in Sciences, M.Tech. in CT, IC Technology and Bioinformatics | 990                             |
| 5       | PG Courses other than Sciences and 5-year Integrated M.A. Courses in Humanities and Social Sciences                            | 605                             |
| 6       | M.Phil Programmes in Humanities and Social Sciences  | 800                             |
| 7       | Ph.D. Programmes in Sciences, Computer Science and Management Studies  | 990                             |
| 8       | Ph.D. Programmes in Humanities, Social Sciences and S.N. School  | 800                             |
| 9       | M.Phil/Ph.D. Programmes in all subjects for the candidates from SAARC countries  | 400                             |

- Note:**
- Foreign Nationals/ NRIs are required to pay the above specified semester fees and the fees as shown against columns **9 to 11 and 14** of the fees structure and Rs. 250 towards the Alumni fund in Indian Rupees.
  - Candidates who are granted admission in MBA, MCA and M.Tech (CS/AI/IT), M.Tech Bioinformatics, M.Sc Animal Biotechnology, Health Psychology, Integrated M.Tech/Ph.D. in Materials Engineering/Nano Science and Technology, 5-year Integrated M.Sc in Optometry & Vision Sciences, MBA in Health Care and Hospital Management and M.A. communication are also required to pay in Indian Rupees an amount equivalent to US \$ 910 as one time payment towards Development Fee at the time of admission.

**Minimum qualifications for admission to various courses  
and schedule for the entrance examinations during the year 2012-13**

**Master's degree courses (5-year Integrated)**

| Course   | Subject   | Intake                     | Minimum Qualifications for admission  | Date and time of written test        | Date and time of Interview           |
|--|---|----------------------------|---|--------------------------------------|--------------------------------------|
| <b>M.Sc. (5-Year Integrated) in Sciences</b>       | <b>Mathematical Sciences</b><br><b>Physics/Chemical Sciences</b><br><b>Systems Biology</b>                | 16<br>16<br>16<br>16       | With a minimum of 60% marks at +2 level of education (Intermediate/CBSE/ICSE/HSC or equivalent) with Science subjects<br><b>Note:</b> The candidates who hold KVPY fellowship, Science Olympiad (those who have atleast attended the training programs conducted by the Homi Bhabha Centre, Mumbai), IIT - JEE 2012 main list qualified candidates and first rank holders of different State/Central Boards at +2 level may seek exemption from the written test. In such cases, they would be awarded the equivalent of the average of the first 64 students from the University written test. They have the option of writing the exam to improve their position. | <b>7.6.2012</b><br><b>10.00 a.m.</b> | --                                   |
| <b>M.A. (5-Year Integrated) in Humanities</b>      | <b>Telugu</b><br><b>Hindi</b><br><b>Urdu</b><br><b>Language Science</b>                                   | 15<br>08<br>07<br>15       | With a minimum of 60% marks at +2 level of education (Intermediate/CBSE/ICSE/HSC or equivalent)   | <b>5.6.2012</b><br><b>10.00 a.m.</b> | --                                   |
| <b>M.A. (5-Year Integrated) in Social Sciences</b> | <b>Economics</b><br><b>History</b><br><b>Political Science</b><br><b>Sociology</b><br><b>Anthropology</b> | 11<br>10<br>10<br>11<br>10 | With a minimum of 60% marks at +2 level of education (Intermediate/CBSE/ICSE/HSC or equivalent)   | <b>7.6.2012</b><br><b>2.00 p.m.</b>  | --                                   |
| <b>M.Sc. (5-Year Integrated)</b>                   | <b>Health Psychology</b>  | 16                         | With a minimum of 60% marks at +2 level of education or equivalent (Intermediate/ CBSE/ ICSE/ HSC or equivalent) in Arts and Sciences   | <b>2.6.2012</b><br><b>10.00 a.m.</b> | --                                   |
| <b>M.Sc. (5-Year Integrated)</b>                   | <b>Optometry and Vision Sciences</b>  | 20                         | With a minimum of 60% aggregate marks in Intermediate/CBSE/ICSE/HSC or equivalent Board Examination with Science subjects   | <b>6.6.2012</b><br><b>2.00 p.m.</b>  | <b>7.7.2012</b><br><b>10.00 a.m.</b> |

*Postgraduate courses*

| Course        | Subject                                  | Intake | Minimum Qualifications for admission   | Date and time of written test        | Date and time of interview                          |
|---------------|--|--------|--|--------------------------------------|---|
| <b>M.Sc.</b>  | <b>Mathematics/ Applied Mathematics</b>  | 40     | Bachelor's degree with a minimum of 60% marks in the aggregate of optional subjects with Mathematics/ Statistics as one of the subjects; OR with at least 55% of marks for those students who have done B.A. /B.Sc. (Hons) course in Maths / Statistics  | <b>2.6.2012</b><br><b>2.00 p.m.</b>  | <b>6.7.2012 &amp; 7.7.2012</b><br><b>10.00 a.m.</b> |
| <b>M.Sc.</b>  | <b>Statistics-OR</b>                     | 20     | Same as above  | <b>1.6.2012</b><br><b>2.00 p.m.</b>  | <b>6.7.2012 &amp; 7.7.2012</b><br><b>10.00 a.m.</b> |
| <b>M.Sc.</b>  | <b>Physics</b>                           | 45     | B.Sc. with a minimum of 60% marks in the aggregate of science subjects with Physics as one of the main subjects in combination with Mathematics OR with atleast 55% marks in B.E./B.Tech. degree with a minimum of 60% in the aggregate of science related subjects: Physics, Mathematics and Electronics. | <b>5.6.2012</b><br><b>2.00 p.m.</b>  | <b>6.7.2012 &amp; 7.7.2012</b><br><b>10.00 a.m.</b> |
| <b>M. Sc.</b> | <b>Chemistry</b>                         | 45     | B.Sc. with a minimum of 60% marks in the aggregate of Science subjects with Chemistry as one of the subjects, preferably in combination with Physics and Mathematics   | <b>3.6.2012</b><br><b>2.00 p.m.</b>  | --  |
| <b>M.Sc.</b>  | <b>Biochemistry</b>                      | 26     | B. Sc. With a minimum of 60% marks in the aggregate of Science subjects with Chemistry or Biochemistry as one of the subjects  | <b>1.6.2012</b><br><b>2.00 p.m.</b>  | --  |
| <b>M.Sc.</b>  | <b>Plant Biology &amp; Biotechnology</b> | 18     | B. Sc. With a minimum of 60% marks in the aggregate of Science subjects with at least one of the following subjects: Chemistry, Botany, Genetics, Microbiology, Biochemistry, Biotechnology.   | <b>6.6.2012</b><br><b>10.00 a.m.</b> | --  |
| <b>M.Sc.</b>  | <b>Molecular Microbiology</b>            | 12     | B. Sc. With a minimum of 60% marks in the aggregate of Science subjects with at least one of the following subjects : Zoology, Genetics, Biotechnology, Biochemistry, Botany, Microbiology, Life Sciences.   | <b>1.6.2012</b><br><b>10.00 a.m.</b> | --  |
| <b>M.Sc.</b>  | <b>Animal Biotechnology</b>              | 18     | B. Sc. with a minimum of 60% marks in the aggregate of Science subjects with at least one of the following subjects: Zoology, Genetics, Biotechnology, Biochemistry, Botany, Microbiology, Life Sciences.  | <b>2.6.2012</b><br><b>10.00 a.m.</b> | --  |
| <b>M.Sc.</b>  | <b>Biotechnology*</b>                    | 25*    | Bachelor/s degree in Physical, Biological, Agricultural, Veterinary and Fishery Sciences, Pharmacy, Engineering/Technology, 4 years B.Sc. (Physician Assistant Course) or medicine (MBBS) or BDS with atleast 55% marks  |                                      |   |

|               |   |              |   |                                |                                |
|---------------|---|--------------|---|--------------------------------|--------------------------------|
| <b>M.Sc.</b>  | <b>Health Psychology</b>                | 12           | With a minimum 60% marks at the Graduate level with Psychology as one of the subjects   | <b>4.6.2012<br/>10.00 a.m.</b> | <b>7.7.2012<br/>10.00 a.m.</b> |
| <b>M.C.A.</b> |   | 60           | Bachelor's degree with at least 60% marks in aggregate, in any discipline with mathematics as a compulsory subject at the Higher Secondary (10+2) level.                                      | <b>3.6.2012<br/>10.00 a.m.</b> | --                             |
| <b>M.Sc.</b>  | <b>Ocean &amp; Atmospheric Sciences</b> | <b>10+5@</b> | With atleast 55% marks in the Bachelor's degree in any branch of Science with Mathematics & Physics as compulsory subjects at the B.Sc. level, OR B.Tech. in Civil / Mechanical / Electrical. | <b>4.6.2012<br/>2.00 p.m.</b>  | <b>9.7.2012<br/>10.00 a.m.</b> |

\* The admissions will be based on the allotment made by Jawaharlal Nehru University (JNU), New Delhi which will conduct a common entrance test on 25.5.2012.

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**Note:** 1. For calculating the prescribed percentage of marks for admission to M.Sc./MCA courses the marks obtained in the language papers of the qualifying degree will be excluded.

2. The marks in Hons/Core subjects of B.A. (Hons), B.Sc. (Hons) degrees will only be taken into account for calculating the prescribed percentage of marks.

| <b>Course</b> | <b>Subject</b>                | <b>Intake</b> | <b>Minimum Qualifications for admission</b>   | <b>Date and time of written test</b> | <b>Date and time of Inter-view</b> |
|---------------|-------------------------------|---------------|---|--------------------------------------|------------------------------------|
| <b>M.A.</b>   | <b>English</b>                | 45            | At least 50% marks in the Bachelor's degree with at least 50% marks in English as optional subject; <b>OR</b> at least 50% marks in the Bachelor's degree with at least 55% marks in English as compulsory subject.   | <b>5.6.2012<br/>10.00 a.m.</b>       | --                                 |
| <b>M.A.</b>   | <b>Philosophy</b>             | 23            | Bachelor's degree in any subject/s with at least 50% marks in aggregate.  | <b>6.6.2012<br/>10.00 a.m.</b>       | --                                 |
| <b>M.A.</b>   | <b>Hindi</b>                  | 38            | With at least 50% marks in the Bachelor's degree with at least 50% marks in Hindi as optional (Elective) subject; <b>OR</b> with at least 50% marks in the Bachelor's degree with at least 55% marks in Hindi as compulsory Language subject (second language).<br>Note: <i>Bachelor Degree holders who do not possess 55% marks in compulsory (Second language) Hindi or 50% marks in optional (elective) Hindi will also be considered for admission provided they pass the certificate examination with 50% marks (equivalent to B.A. in Hindi) approved by the Government of India.</i> | <b>4.6.2012<br/>10.00 a.m.</b>       | --                                 |
| <b>M.A.</b>   | <b>Telugu</b>                 | 45            | With at least 50% marks in the Bachelor's degree with at least 50% marks in Telugu as optional subject; <b>OR</b> with at least 50% marks in the Bachelor's degree with at least 55% marks in Telugu as the compulsory subject.   | <b>6.6.2012<br/>2.00 p.m.</b>        | --                                 |
| <b>M.A.</b>   | <b>Urdu</b>                   | 25            | With at least 50% marks in the Bachelor's degree or equivalent with at least 50% marks in Urdu, Persian or Arabic as optional papers; <b>OR</b> Bachelor's degree or equivalent with at least 55% marks in Urdu, Persian or Arabic as compulsory subject i.e. as second language.   | <b>6.6.2012<br/>2.00 p.m.</b>        | --                                 |
| <b>M.A.</b>   | <b>Applied Linguistics</b>    | 23            | At least 50% marks in the Bachelor's degree with at least 50% marks in Linguistics / any language as an optional/honours subject; <b>OR</b> with at least 55% marks in the Bachelor's degree in any other discipline.   | <b>4.6.2012<br/>2.00 p.m.</b>        | --                                 |
| <b>M.A.</b>   | <b>Comparative Literature</b> | 11            | 50% marks in the Bachelors degree with at least 50% marks in English as optional subject; <b>OR</b> 50% marks in Bachelors degree with 55% marks in any literature subject/ English as <u>Compulsory</u> subject.   | <b>1.6.2012<br/>2.00 p.m.</b>        | --                                 |
| <b>M. A.</b>  | <b>Economics</b>              | 60            | With at least 50% marks in the Bachelor's degree and at least 50% marks in Economics; <b>OR</b> Bachelor's degree with at least 60% marks in any of the allied subjects viz. Commerce, Statistics, Mathematics, Engineering or any of the Social Sciences subjects.   | <b>4.6.2012<br/>2.00 p.m.</b>        |                                    |
| <b>M.A.</b>   | <b>History</b>                | 52            | With at least 50% marks in the Bachelor's degree and at least 50% marks in History; <b>OR</b> with at least 50% marks in the Bachelor's degree and at least 55% marks in aggregate in the allied subjects viz. Political Science, Public Administration, Economics, Sociology, Anthropology, Indology, Archaeology, Ancient Indian History and Culture ; <b>OR</b> Bachelor's degree in any subject(s) with at least 60% marks in aggregate.  | <b>4.6.2012<br/>10.00 a.m.</b>       |                                    |
| <b>M.A.</b>   | <b>Political Science</b>      | 52            | Bachelor's degree with atleast 50% marks <b>OR</b> Equivalent Grade in Social Sciences or Humanities subjects <b>OR</b> 55% marks in any other subjects.  | <b>6.6.2012<br/>10.00 a.m.</b>       |                                    |

| Course          | Subject                                | Intake | Minimum Qualification   | Date and time of written test | Date and time of interview           |
|-----------------|--|--------|---|-------------------------------|--------------------------------------|
| M.A.            | Sociology                              | 52     | With at least 50% marks in the Bachelor's degree and at least 50% marks in the subject concerned <b>OR</b> with at least 50% marks in the Bachelor's degree and at least 55% marks in aggregate in the allied subjects viz., all Social science subjects, Philosophy, Communication, Linguistics; <b>OR</b> Bachelor's degree in any subject (s) with 60% marks in aggregate. | 6.6.2012<br>2.00 p.m.         | --                                   |
| M.A.            | Anthropology                           | 30     | With at least 50% marks in the Bachelor's degree in Social Sciences / Humanities / Commerce subjects <b>OR</b> Bachelor's degree with at least 55% marks in any other subject.  | 2.6.2012<br>2.00 p.m.         | --                                   |
| Adv. PG Diploma | Folk Culture Studies                   | 19     | Any Master's degree with a minimum of 55% aggregate Marks in Social Sciences, Humanities, Fine Arts, Performing Arts and Communication  | 7.6.2012<br>2.00 p.m.         | --                                   |
| P.G. Diploma    | Health Fitness & Life Style Management | 30     | Bachelor's degree in any subject  | 5.6.2012<br>2.00 p.m.         | 6.7.2012 &<br>7.7.2012<br>10.00 a.m. |

- Note: 1. For calculating the prescribed percentage of marks for admission to M.A. Courses in Economics, History, Political Science, Sociology and Anthropology marks obtained in the language papers of the qualifying degree will be excluded.
2. The marks in Hons/Core subjects of B.A. (Hons), B.Sc. (Hons) degrees will only be taken into account for calculating the prescribed percentage.

#### Post-graduate courses offered by the Sarojini Naidu School of Arts and Communication

| Course     | Subject                                   | Intake         | Minimum Qualifications for admission  | Date and time of written test | Date and time of Interview            |
|------------|---|----------------|---|-------------------------------|---------------------------------------|
| M.P.A.     | Dance (Kuchipudi)<br><br>(Bharata-natyam) | 08<br><br>08   | Bachelor's degree in dance; <b>OR</b> Bachelor's degree in any subject with a professional diploma or certificate in dance recognised by the University; <b>OR</b> Bachelor's degree in any subject with a certificate from a reputed Guru recognised by the University to the effect that the candidate has undergone training in dance under him/her for a period not less than five years. <i>(The experience/training certificate should be furnished during the practical test.)</i><br><br><b>OR</b><br>A candidate with 10+fulltime 4 year diploma / certificate from a nationally recognized institution + 1 year practical work in the same institution; <b>OR</b> A candidate with 10+2+fulltime 3 year diploma from a nationally recognized institution. | 2.6.2012<br>10.00 a.m.        | 6.7.2012<br>10.00 a.m.                |
| M.P.A.     | Theatre Arts                              | 23             | Bachelor's degree in any subject with an aptitude for theatre which will be tested at the time of viva.   | 1.6.2012<br>10.00 a.m.        | 6.7.2012<br>10.00 a.m.                |
| M.F.A.     | Painting<br>Print making<br>Sculpture     | 14<br>08<br>08 | Bachelor's degree in Painting / Printmaking / Sculpture   | 6.6.2012<br>2.00 p.m.         | 6.7.2012 &<br>7.7.2012<br>10.00 a.m.  |
| M.F.A.     | Art History                               | 08             | BA/BFA/BVA/BPA in subjects of Arts, Humanities or Social Sciences with 55% marks.<br>Bachelor's degree in Fine Arts, Visual Arts, Architecture, Applied are eligible to apply, with a minimum of 55% marks.<br>Students from design, film and media studies, Performing Arts, humanities and Social Sciences will also be considered.<br>All candidates must demonstrate adequate linguistic and interpretative skills in English and another Indian language to demonstrate conceptual thinking capacity.  | 5.6.2012<br>10.00 a.m.        | 8.7.2012<br>10.00 a.m.                |
| M. A.      | Communi-<br>cation                        | 40@            | Bachelor's degree with at least 55% marks in Communication / Journalism; <b>OR</b> Bachelor's degree in any subject with at least 55% marks in aggregate.<br>@ Communication & Media Studies 10<br>Print Journalism & New Media 15<br>Television & Radio 15   | 1.6.2012<br>10.00 a.m.        | 6.7.2012 to<br>8.7.2012<br>10.00 a.m. |
| PG Diploma | Health Commu-<br>nication                 | 15+5*          | Bachelor's degree in any discipline with atleast 55% aggregate marks PLUS work experience of two years in a communication or a health related organization <b>OR</b> Master's degree in any Social Science discipline with atleast 50% aggregate  | 1.6.2012<br>2.00 p.m.         | 10.7.2012<br>10.00 a.m.               |

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|              |  |    |   |                               |   |
|--------------|--|----|---|-------------------------------|---|
| <b>MBA</b>   | <b>Health Care &amp; Hospital Management</b> | 20 | Three or four year Bachelor's degree with a minimum of 60% marks or equivalent grade of any University recognized by AIU/AICTE. Preference will be given to those who have an academic background/experience relating to health care management/administration areas. | <b>7.6.2012<br/>2.00 p.m.</b> | <b>7.7.2012 &amp;<br/>8.7.2012<br/>10.00 a.m.</b> |
| <b>MBA**</b> |  | 60 | A three year Bachelor's degree (or its equivalent) in any discipline recognized by the Association of Indian Universities/AICTE, obtained before July 2012.   | --                            | --  |

\*\* The admission of candidates into MBA for the year 2012-13 has been completed based on the percentile scores of the applicants in CAT 2011 followed by Group Discussion/Interview.

### M.Tech. Courses

| Course  | Subject                         | Intake | Minimum Qualifications for admission  | Date and time of written test | Date and time of Interview     |
|---|---------------------------------|--------|---|-------------------------------|--------------------------------|
| <b>M.Tech</b>                                       | <b>Computer Science</b>         | 45+5*  | With a minimum of 60% marks in the Bachelor's degree examination in Engineering/Technology (B.E./B.Tech); <b>OR</b> First class in MCA or M.Sc in (Computer Science/Information Sciences/Electronics)<br><br>GATE scores in Computer Science and Information Technology and in order of merit, will be the only criteria for admission. (No entrance examination or any interview will be conducted).   | --                            | --                             |
|   | <b>Artificial Intelligence</b>  | 30+5*  |   |                               |                                |
|   | <b>Information Technology</b>   | 30+5*  |   |                               |                                |
| <b>M.Tech.</b>                                      | <b>Computational Techniques</b> | 15     | With at least 55% marks in the Master's degree in Physics or a closely related area with at least one computer related course either in M.Sc. or more than one computer course at the B.Sc. level.<br><br>Note: Valid GATE scores in the order of merit in Physics or qualified in UGC-CSIR NET for JRF will be the criterion for short listing candidates for interview. No written test will be conducted.  | --                            | <b>8.7.2012<br/>10.00 a.m.</b> |
| <b>M.Tech.</b>                                      | <b>IC Technology</b>            | 15+8*  | With at least 55% marks in the Master's degree in Electronics, or in Physics with Electronics Specialization <b>OR</b> B.E. / B.Tech., with a minimum of 60%, with Electronics as one of the subjects<br><br><b>Note: Valid GATE scores in the order of merit, in one of the following:<br/>(1) Electronics and Communication Engineering (2) Instrumentation Engineering (3) Physics will be the criterion for short listing candidates for interview. No written test will be conducted.</b>  | --                            | <b>9.7.2012<br/>10.00 a.m.</b> |
| <b>M.Tech.</b>                                      | <b>Bioinformatics</b>           | 25     | Masters degree with a minimum of 55% aggregate marks in Biological or Agricultural or Physical or Chemical sciences OR Statistics or Mathematics or computer sciences or B.Pharmacy, B.Tech with a minimum of 60% marks.<br>Candidates will be short-listed in two categories Biotechnology and Non-Biotechnology subjects based on the GATE scores obtained in respective subjects. The admission is based on the performance of the candidates in Computer Sciences, Mathematical Sciences, Physical Sciences and Biological Sciences in a comprehensive interview. | --                            | <b>8.7.2012<br/>10.00 a.m.</b> |
| <b>M.Tech.</b><br><b>/Adv. PG</b><br><b>Diploma</b> | <b>Mineral Exploration</b>      | 10+5*  | With at least 55% Marks in the Masters degree in any branch of Science with Mathematics as one of the subjects at the B.Sc. level.  | <b>6.6.2012<br/>2.00 p.m.</b> | <b>6.7.2012<br/>10.00 a.m.</b> |

\* Sponsored seats

## M.Phil. Courses

| Course  | Subject                                   | Intake | Minimum Qualifications for admission   | Date and time of written test | Date and time of Interview            |
|---------|---|--------|--|-------------------------------|---------------------------------------|
| M.Phil. | English                                   | 15     | Master's degree in English with at least 55% marks   | 5.6.2012<br>10.00 a.m.        | 5.7.2012 to<br>8.7.2012<br>10.00 a.m. |
| M.Phil. | Philosophy                                | 14     | Master's degree in Philosophy with at least 55% marks  | 5.6.2012<br>2.00 p.m.         | 6.7.2012<br>10.00 a.m.                |
| M.Phil. | Hindi                                     | 23     | Master's degree in Hindi with at least 55% marks   | 5.6.2012<br>2.00 p.m.         | 6.7.2012<br>10.00 a.m.                |
| M.Phil. | Telugu                                    | 20     | Master's degree in Telugu with at least 55% marks  | 5.6.2012<br>2.00 p.m.         | 6.7.2012<br>10.00 a.m.                |
| M.Phil. | Urdu                                      | 30     | Master's degree in Urdu with at least 55% marks  | 5.6.2012<br>2.00 p.m.         | 6.7.2012<br>10.00 a.m.                |
| M.Phil. | Applied Linguistics                       | 09     | Master's degree in the subject concerned (Linguistics/ Applied Linguistics) with at least 55% marks; <b>OR</b> Master's degree in allied subjects with at least 55% marks and a post-graduate diploma in Linguistics / Applied Linguistics or an equivalent field in Linguistics. Allied subjects include all language and literature disciplines, Philosophy, Anthropology, Sociology, Psychology, Computer Science, Mathematics, Statistics, Communication Studies, Speech and Hearing | 4.6.2012<br>2.00 p.m.         | 6.7.2012<br>10.00 a.m.                |
| M.Phil. | Translation Studies                       | 09     | Master's degree in any subject with a minimum of 55% marks with proficiency in two languages reflected in previous qualifying examination.   | 6.6.2012<br>10.00 a.m.        | 7.7.2012<br>10.00 a.m.                |
| M.Phil. | Comparative Literature                    | 08     | Master's degree in Comparative Literature with at least 55% marks; <b>OR</b> Master's degree in any language / literature / related discipline with at least 55% marks. Whatever the M.A., the candidate must present documentary evidence of knowledge of at least two literatures / languages.   | 2.6.2012<br>2.00 p.m.         | 8.7.2012<br>10.00 a.m.                |
| M.Phil. | English Language Studies                  | 02     | i) M.A. in English <b>OR</b><br>ii) M.A. in Linguistics <b>OR</b> Education <b>OR</b> Comparative Literature (with English as the medium of instruction) <b>OR</b><br>iii) M.Ed. (with English as the medium of instruction) - all with at least 55% marks   | 2.6.2012<br>2.00 p.m.         | 10.7.2012<br>10.00 a.m.               |
| M.Phil. | Dalit and Adivasi Studies and Translation | 06     | Master's degree in Hindi with atleast 55% marks<br><b>Desirable : Sound knowledge of any Indian Language.</b>  | 4.6.2012<br>10.00 a.m.        | 9.7.2012<br>10.00 a.m.                |
| M.Phil. | Economics                                 | 30     | Master's degree in Economics, <b>OR</b> in any of the allied subjects with at least 55% of marks.<br>(Allied subjects : Commerce, Statistics, Mathematics, Engineering, Management or any of the Social Science subjects)  | 1.6.2012<br>2.00 p.m.         | 6.7.2012<br>10.00 a.m.                |
| M.Phil. | History                                   | 14     | Master's degree in History with at least 55% marks or equivalent grade; <b>OR</b> Master's degree in allied subjects with at least 60% marks or Equivalent Grade (Allied subjects: Political Science, Public Administration, Economics, Sociology, Anthropology, Indology, Archaeology, Ancient Indian History and Culture, Literature, Religious Studies, Environmental Studies and Science Policy.)  | 6.6.2012<br>10.00 a.m.        | 6.7.2012<br>10.00 a.m.                |
| M.Phil. | Political Science                         | 15     | Master's degree in Political Science or Public Administration or in any Social Science subjects including Humanities with at least 55% marks or Equivalent Grade   | 5.6.2012<br>2.00 p.m.         | 6.7.2012<br>10.00 a.m.                |
| M.Phil. | Sociology                                 | 12     | Master's degree in Sociology or Social Anthropology with at least 55% marks.   | 5.6.2012<br>2.00 p.m.         | 6.7.2012<br>10.00 a.m.                |
| M.Phil. | Anthropology                              | 08     | Master's degree in Anthropology with at least 55% marks; <b>OR</b> Master's degree in an allied subject with at least 60% marks (Allied subjects: Sociology, Social Work, Social & Preventive Medicine, History, Political Science, Economics, Archaeology, Linguistics, Environmental Sciences and Developmental Studies including Rural and Regional Development)  | 5.6.2012<br>10.00 a.m.        | 8.7.2012<br>10.00 a.m.                |
| M.Phil. | Regional Studies                          | 06     | M.A. degree with at least 55% marks or equivalent grade in any of the Social Science subjects.   | 2.6.2012<br>2.00 p.m.         | 9.7.2012<br>10.00 a.m.                |
| M.Phil. | Social Excl. & Incl. Policy               | 12     | Master's degree with at least 55% marks in any of the Social Science or Humanities subjects.   | 1.6.2012<br>10.00 a.m.        | 8.7.2012<br>10.00 a.m.                |
| M.Phil. | Indian Diaspora                           | 06     | Master's degree in any subject in Social Sciences or Humanities with at least 55% of marks. Also should have some exposure to migration and diaspora studies either in the form of a course in Indian diaspora during their M.A. degree or have some research experience.  | 4.6.2012<br>2.00 p.m.         | 8.7.2012<br>10.00 a.m.                |
| M.Phil. | Cognitive Science                         | 08     | Master's degree in any discipline in humanities or social or natural sciences with at least 55% marks.   | 1.6.2012<br>10.00 a.m.        | 9.7.2012<br>10.00 a.m.                |
| M.Phil. | Gender Studies                            | 10     | Master's degree with a minimum of 55% marks in aggregate in Social Sciences , Humanities, Management, Natural sciences, Performing Arts and Communication.   | 6.6.2012<br>2.00 p.m.         | 10.7.2012<br>10.00 a.m.               |



| Course                    | Subject                                      | Intake | Minimum Qualifications for admission  | Date and time of written test  | Date and time of Interview     |
|---------------------------|--|--------|---|--------------------------------|--------------------------------|
| <b>M.Tech./<br/>Ph.D</b>  | <b>Materials<br/>Engineering</b>             | 16     | BE/B.Tech., or equivalent degree in Metallurgy, Mechanical/Production/ Manufacturing Engineering, Materials Engineering, Chemical Engineering, Ceramic Engineering/Technology, Polymer Engineering/Technology or Engineering Physics <b>OR</b> B.Sc. or equivalent degree with Mathematics, Physics & Chemistry followed by AMIE in Chemical Engineering, Materials & Metallurgical Engineering, Mechanical Engineering, Production Engineering or AMIIM (Metallurgical/Materials) <b>OR</b> Diploma in Mechanical Engineering, Metallurgical Engineering, and Production Engineering followed by AMIE in Chemical Engineering, Materials and Metallurgical Engineering, Mechanical Engineering, Production Engineering or AMIIM <b>OR</b> Master's degree in Physics, Chemistry, or Materials Science<br><i>Candidates should have at least 60% marks in the respective qualifying exam.</i>   | <b>7.6.2012<br/>2.00 p.m.</b>  | <b>6.7.2012<br/>10.00 a.m.</b> |
| <b>M.Tech./<br/>Ph.D.</b> | <b>Nano<br/>Science &amp;<br/>Technology</b> | 12     | B.E./B.Tech. or equivalent degree in Metallurgy, Mechanical/Production/Manufacturing Engineering, Materials Engineering, Chemical Engineering, Ceramic Engineering/ Technology, Polymer Engineering/ Technology, Nano Science and Engineering/Technology or Biotechnology or Engineering Physics <b>OR</b> B.Sc. or equivalent degree with Mathematics, Physics, & Chemistry followed by AMIE in Chemical Engineering, Materials & Metallurgical Engineering, Mechanical Engineering, Production Engineering or AMIIM <b>OR</b> Diploma in Mechanical Engineering, Metallurgical Engineering, and Production Engineering followed by AMIE in Chemical Engineering, Material and Metallurgical Engineering, Mechanical Engineering, Production Engineering or AMIIM <b>OR</b> Master's degree in Physics, Chemistry, Materials Science, Nano Science and Technology, Nano Science and Engineering.<br><i>Candidates should have atleast 60% marks in the respective qualifying exam.</i> | <b>7.6.2012<br/>10.00 a.m.</b> | <b>8.7.2012<br/>10.00 a.m.</b> |

#### Ph.D. programmes

| Course        | Subject                                | Intake | Minimum Qualifications for admission   | Date and time of written test  | Date and time of Interview                          |
|---------------|--|--------|--|--------------------------------|---|
| <b>Ph. D.</b> | <b>Mathematics/<br/>Applied Maths/</b> | 06     | Master's degree in concerned or related subjects with at least 55% marks or equivalent grade   | <b>2.6.2012<br/>2.00 p.m.</b>  | <b>8.7.2012<br/>10.00 a.m.</b>                      |
| <b>Ph.D.</b>  | <b>Statistics/OR</b>                   |        |  | <b>1.6.2012<br/>2.00 p.m.</b>  | <b>2.00 p.m.</b>                                    |
| <b>Ph. D.</b> | <b>Computer Science</b>                | 12     | Masters Degree in any Engineering/Technology; <b>OR</b> M.Phil. in Mathematics or Statistics or Electronics; <b>OR</b> Bachelor's Degree in BE/B.Tech.; <b>OR</b> Master's degree in Computer Applications / Computer Science / Mathematics / Statistics / Electronics / Information Systems / Internet Technology / GeoInformatics / BioInformatics with a minimum of 60% marks in the above stated qualifying degrees. | <b>5.6.2012<br/>10.00 a.m.</b> | <b>6.7.2012 &amp;<br/>7.7.2012<br/>10.00 a.m.</b>   |
| <b>Ph. D.</b> | <b>Physics</b>                         | 20     | M.Sc. degree with at least 55% marks in Physics or a closely related area.   | <b>1.6.2012<br/>2.00 p.m.</b>  | <b>10.7.2012 &amp;<br/>11.7.2012<br/>10.00 a.m.</b> |
| <b>Ph. D.</b> | <b>Chemistry</b>                       | 34     | M.Sc <b>OR</b> equivalent degree with at least 55% marks with JRF/RGNF/MANF (Note: B.Tech, B.Pharm. etc., are also treated as equivalent to M.Sc for this purpose)   | <b>--</b>                      | <b>6.7.2012 To<br/>8.7.2012<br/>10.00 a.m.</b>      |
| <b>Ph.D.</b>  | <b>Biochemistry</b>                    | 06     | Master's degree in Biochemistry or in a closely related area with at least 55% marks <b>OR</b> an M.B.B.S. degree with a minimum of 55% marks with UGC/CSIR/ICMR/JRF/RJNF/MANF.  | <b>--</b>                      | <b>7.7.2012<br/>10.00 a.m.</b>                      |
| <b>Ph.D.</b>  | <b>Plant Sciences</b>                  | 18     | M.Sc. in Plant Sciences/Botany or in a closely related area with at least 55% marks or B.Tech. in Biotechnology/ Bioengineering; B.Pharm. etc. with a minimum of 55% marks   | <b>6.6.2012<br/>10.00 a.m.</b> | <b>8.7.2012<br/>10.00 a.m.</b>                      |
| <b>Ph. D.</b> | <b>Animal Sciences</b>                 | 12     | Master's degree in Animal Sciences or in any area of Life Sciences with atleast 55% marks; <b>OR</b> M.Pharm, M.V.Sc. degree with a minimum of 55% marks.  | <b>4.6.2012<br/>2.00 p.m.</b>  | <b>9.7.2012<br/>10.00 a.m.</b>                      |

|                                |                                       |        |   |                                |                                 |
|--------------------------------|---------------------------------------|--------|---|--------------------------------|---------------------------------|
| <b>Ph.D.</b>                   | <b>Biotechnology</b>                  | 13     | Master's degree in Biotechnology or in a closely related area with atleast 55% marks <b>OR</b> an M.B.B.S., M.Tech., M.Pharm, M.V.Sc., with a minimum of 55% marks  | <b>1.6.2012<br/>10.00 a.m.</b> | <b>10.7.2012<br/>10.00 a.m.</b> |
| <b>Integrated M.Sc./ Ph.D.</b> | <b>Biotechnology</b>                  | 06     | Bachelor degree in Physical and Biological Sciences, Pharmacy, Engineering/Technology, MBBS with 60% marks. Degree should be awarded within 2 years from the year of examination  | <b>1.6.2012<br/>10.00 a.m.</b> | <b>11.7.2012<br/>10.00 a.m.</b> |
| <b>Ph.D.</b>                   | <b>Medical Sciences</b>               | 03     | Masters degree in Biochemistry/Animal Sciences/ Biotechnology/Biosciences/ Toxicology/ Microbiology/ Life Sciences/Genetics/Medical Sciences / Pharmacology and those who have NET qualification for JRF from CSIR, UGC RGNF, MANF and ICMR, are eligible to apply.   | --                             | <b>9.7.2012<br/>10.00 a.m.</b>  |
| <b>Ph.D.</b>                   | <b>ACRHEM: Physics Chemistry</b>      | 5<br>2 | Same as above in the case of Ph.D. Mathematics/ Applied Maths/Statistics/OR, Computer Science; Physics; and Chemistry OR with atleast 60% marks in B.E./B.Tech. degree in an appropriate area with strong aptitude in Physics/Chemistry/Mathematics.  | <b>2.6.2012<br/>10.00 a.m.</b> | <b>10.7.2012<br/>10.00 a.m.</b> |
| <b>Ph.D.</b>                   | <b>Advanced Computational Methods</b> | 03     | Minimum qualifications for admission will be as per the stipulations for the doctoral programmes by the respective Schools/Departments/Centres including the Schools of Life Sciences, Chemistry, Physics, Mathematics/Computer Science, Engineering Sciences and Technology, University Centre for Earth and Space Sciences, and Advanced Centre of Research in High Energy Materials. |                                | <b>6.7.2012<br/>10.00 a.m.</b>  |
| <b>Ph.D.</b>                   | <b>Cognitive Sciences</b>             | 03     | Master's degree in any discipline in humanities or social or natural sciences with at least 55% marks.  | <b>1.6.2012<br/>10.00 a.m.</b> | <b>9.7.2012<br/>2.00 p.m.</b>   |

\*\* Subjects concerned are: Computer Science, Animal Science, Biotechnology, Chemistry, Physics, Earth and Space Sciences, Materials Engineering and ACRHEM. Only one option of subject will be considered.

| <b>Course</b> | <b>Subject</b>             | <b>Intake</b> | <b>Minimum Qualifications for admission</b>  | <b>Date and time of written test</b> | <b>Date and time of Interview</b> |
|---------------|----------------------------|---------------|--|--------------------------------------|-----------------------------------|
| <b>Ph. D.</b> | <b>English</b>             | 05            | M. Phil degree in the subject concerned and Master's degree in the subject concerned with at least 55% marks;<br><b>OR</b><br>Master's degree in the subject concerned with at least 55% marks with two years teaching experience in a degree college or two years of teaching/research experience in the subject concerned in a University department or a recognised institute of higher learning or qualified in UGC JRF/RGNF/MANF<br><b>OR</b><br>Master's degree with at least 60% marks in any subject with 2 years of teaching experience in a degree college or two years of teaching/research experience in the subject concerned or closely related area in a University department or recognized institute of higher learning or a minimum of 3 publications in a recognized refereed journal in the subject in which admission is sought.  | <b>4.6.2012<br/>10.00 a.m.</b>       | <b>9.7.2012<br/>10.00 a.m.</b>    |
| <b>Ph.D.</b>  | <b>Communi-<br/>cation</b> | 04            | Same as above<br>Note: The concerned subjects are Communication or Journalism.   | <b>1.6.2012<br/>2.00 p.m.</b>        | <b>9.7.2012<br/>10.00 a.m.</b>    |
| <b>Ph.D.</b>  | <b>Dance</b>               | 03            | M.Phil. degree in the subject concerned and Master's degree in the subject concerned with at least 55% marks ;<br><b>OR</b><br>Master's degree in the subject concerned with at least 55% marks with two years teaching experience in a degree college or two years of teaching/research experience in the subject concerned in a University department or a recognised institute of higher learning or qualified in UGC JRF/RGNF/MANF<br><b>OR</b><br>Master's degree with atleast 60% marks in any subject with 2 years of teaching experience in a degree college or two years of teaching/research experience in the subject concerned or closely related area in a University department or recognized institute of higher learning or a minimum of 3 publications in a recognized refereed journal or in reputed non-refereed journals/magazines/ websites in the subject in which admission is sought. The non-refereed publications must be from a pre-approved list prepared by the Department.<br><b>Note:</b> The concerned subjects are Dance and related areas. | <b>2.6.2012<br/>10.00 a.m.</b>       | <b>7.7.2012<br/>10.00 a.m.</b>    |



|               |                            |    |  |                                |                                |
|---------------|----------------------------|----|--|--------------------------------|--------------------------------|
| <b>Ph.D.</b>  | <b>Theatre Arts</b>        | 04 | <p>Master's degree or equivalent in the subject concerned with at least 55% marks with practical experience in three major productions after the Master's programme</p> <p style="text-align: center;"><b>OR</b></p> <p>Master's degree in the subject concerned with at least 55% marks with two years teaching experience in a degree college or two years of teaching/research experience in the subject concerned in a University department or a recognised institute of higher learning or qualified in UGC JRF/RGNF/MANF;</p> <p style="text-align: center;"><b>OR</b></p> <p>Master's degree with at least 60% marks in any subject with 2 years of teaching experience in a degree college or two years of teaching/research experience in the subject concerned or closely related area in a University department or recognized institute of higher learning or a minimum of 3 publications in a recognized refereed journal in the subject in which admission is sought.</p> <p>Note: The concerned subjects are Theatre Arts.</p> | <b>1.6.2012<br/>2.00 p.m.</b>  | <b>67.2012<br/>2.00 p.m.</b>   |
| <b>Ph. D.</b> | <b>Philosophy</b>          | 09 | <p>M. Phil degree in the subject concerned and Master's degree in the subject concerned with at least 55% marks;</p> <p style="text-align: center;"><b>OR</b></p> <p>Master's degree in the subject concerned with at least 55% marks with two years teaching experience in a degree college or two years of teaching/research experience in the subject concerned in a University department or a recognised institute of higher learning or qualified in UGC National level test for JRF//RGNF/MANF or for Lectureship;</p> <p style="text-align: center;"><b>OR</b></p> <p>Master's degree in any subject with atleast 60% marks with 2 years of teaching experience in a degree college or two years of teaching/research experience in the subject concerned or closely related area in a University department or recognised institute of higher learning or a minimum of 3 publications in a recognised refereed journal in the subject in which admission is sought.</p>   | <b>5.6.2012<br/>10.00 a.m.</b> | <b>7.7.2012<br/>10.00 a.m.</b> |
| <b>Ph.D</b>   | <b>Telugu</b>              | 12 | Same as above  | <b>5.6.2012<br/>10.00 a.m.</b> | <b>7.7.2012<br/>10.00 a.m.</b> |
| <b>Ph. D.</b> | <b>Urdu</b>                | 14 | Same as above  | <b>2.6.2012<br/>2.00 p.m.</b>  | <b>7.7.2012<br/>10.00 a.m.</b> |
| <b>Ph.D.</b>  | <b>Hindi</b>               | 14 | <p>M.Phil. degree in the subject concerned and Master's degree in the subject concerned with at least 55% marks ;</p> <p style="text-align: center;"><b>OR</b></p> <p>Master's degree in the subject concerned with at least 55% marks with two years teaching experience in a degree college or two years of teaching/research experience in the subject concerned in a University department or a recognised institute of higher learning or qualified in UGC National level test for JRF/RGNF/MANF</p> <p style="text-align: center;"><b>OR</b></p> <p>Master's degree in any subject with 2 years of teaching experience in a degree college or two years of teaching/research experience in the subject concerned or closely related area in a University department or recognized institute of higher learning or a minimum of 3 publications in a recognized refereed Hindi journal.</p>  | <b>5.6.2012<br/>10.00 a.m.</b> | <b>7.7.2012<br/>10.00 a.m.</b> |
| <b>Ph. D.</b> | <b>Applied Linguistics</b> | 08 | <p>M.A. in the subject concerned (with at least 55% marks) or Master's degree in allied subjects (with at least 60% marks) with M.Phil. Degree/UGC JRF/RGNF/MANF or NET qualification for Lecturership/Two years of teaching/ research experience in Linguistics/Applied Linguistics in a recognised institution of higher learning or three publications in the subject concerned in recognised and refereed journals.</p> <p>Allied subjects include all language and literature disciplines, Philosophy, Anthropology, Sociology, Psychology, Computer Science, Mathematics, Statistics, Communication Studies, Speech and Hearing.</p>   | <b>1.6.2012<br/>2.00 p.m.</b>  | <b>6.7.2012<br/>2.00 p.m.</b>  |
| <b>Ph. D.</b> | <b>Translation Studies</b> | 08 | <p>M.A. in any subject (with at least 55% marks) with M.Phil. Degree/ UGC JRF/RGNF/MANF or NET qualification for Lectureship/ Two years of teaching/ research experience in language/literature/ translation/comparative literature/linguistics in a recognised institution of higher learning or three publications in the subject concerned in recognised refereed journals.</p>   | <b>4.6.2012<br/>2.00 p.m.</b>  | <b>7.7.2012<br/>2.00 p.m.</b>  |

|              |  |    |   |                                |                                |
|--------------|--|----|---|--------------------------------|--------------------------------|
| <b>Ph.D.</b> | <b>Comparative Literature</b>                    | 04 | M.Phil. degree in Comparative Literature or related disciplines. <b>OR</b> Master's degree in the subject concerned / or related disciplines with at least 55% marks with two years of teaching experience in a degree college or two years of teaching / research experience in the subject concerned in a university department or a recognized institute of higher learning or qualified in UGC JRF/RGNF/MANF.<br><i>Note: The concerned subject is Comparative Literature / English / Indian Language / Literature / Liberal Arts / Social Sciences &amp; Communication. Furthermore a candidate without any earlier Comparative Literature degree must present documentary evidence of knowledge of at least two literatures / languages. The medium of instruction is English..</i>   | <b>5.6.2012<br/>2.00 p.m.</b>  | <b>8.7.2012<br/>2.00 p.m.</b>  |
| <b>Ph.D.</b> | <b>Sanskrit Studies</b>                          | 03 | M.A. in Sanskrit or equivalent with at least 55% marks / P.G. Diploma in Sanskrit from a recognized Institution,<br><b>AND</b><br>M.Phil Degree or qualified in UGC JRF/RGNF/MANF/NET/SET/SLET OR M.A. in Natural Language Processing / PG Diploma in Computational Linguistics/ PG Diploma in Linguistics/P.G. Diploma in Manuscriptology / Master's degree with at least 60% marks in any subject with 2 years of teaching experience in a degree college/Two years of teaching or research experience in the subject concerned or closely related area in a University department or recognized institute of higher learning/a minimum of 3 publications in a recognized refereed journal in the subject in which admission is sought.   | <b>6.6.2012<br/>10.00 a.m.</b> | <b>10.7.2012<br/>2.00 p.m.</b> |
| <b>Ph.D.</b> | <b>English Language Studies</b>                  | 02 | i) M.Phil. degree in English OR Linguistics OR Education (with a dissertation in any area of English Language Studies written in English)<br><b>OR</b><br>ii) a) Master's degree in English OR<br>b) Master's degree in Linguistics OR Education OR Comparative Literature (with English as the medium of instruction)<br><br>With at least 55% marks and two years experience of teaching English in a degree college or university OR two years of research experience in any area of English Language Studies in a University department or a recognized institute of higher learning OR qualified in UGC/JRF/RGNF/MANF in English or Linguistics or Education.  | <b>2.6.2012<br/>10.00 a.m.</b> | <b>10.7.2012<br/>2.00 p.m.</b> |
| <b>Ph.D.</b> | <b>Dalit and Adivasi Studies and Translation</b> | 02 | M. Phil degree in the subject concerned and Master's degree in the subject concerned with at least 55% marks;<br><b>OR</b><br>Master's degree in the subject concerned with at least 55% marks with two years teaching experience in a degree college or two years of teaching/research experience in the subject concerned in a University department or a recognised institute of higher learning or qualified in UGC National Level Test for JRF //RGNF/MANF or for Lectureship;<br><b>OR</b><br>Master's degree in any subject with 2 years of teaching experience in a degree college or two years of teaching/research experience in the subject concerned or closely related area in a University department or recognized institute of higher learning or a minimum of 3 publications in a recognized refereed journal in the subject in which admission is sought.<br><b>Desirable : Sound knowledge of any Indian Language.</b> | <b>2.6.2012<br/>10.00 a.m.</b> | <b>9.7.2012<br/>2.00 p.m.</b>  |
| <b>Ph.D.</b> | <b>Economics</b>                                 | 23 | M.A. in Economics (with at least 55% marks or Equivalent Grade) OR Masters degree in the allied subjects(Commerce, Statistics, Mathematics, Engineering and Management or any of the Social Science subjects with at least 60% marks or Equivalent Grade)<br><br><b>And any one of the following :</b><br>M.Phil. Degree/ in Economics or allied subjects as mentioned above OR UGC JRF /RGNF/MANF qualification OR Two years of teaching/ research experience in economics or allied subjects in a recognised institution of higher learning OR Three publications in the subject concerned in recognised refereed journals.   | <b>1.6.2012<br/>2.00 p.m.</b>  | <b>7.7.2012<br/>10.00 a.m.</b> |

|               |                                  |    |   |                                |                                |
|---------------|----------------------------------|----|---|--------------------------------|--------------------------------|
| <b>Ph. D.</b> | <b>History</b>                   | 12 | M.A. in the subject concerned (with at least 55% marks) or Equivalent Grade or M.A. in allied subjects (with atleast 60% marks) or equivalent grade with M.Phil. Degree /UGC JRF /RGNF/MANF / Two years of teaching/research experience in the subject concerned in a recognised institution of higher learning or three publications in the subject concerned in recognised refereed journals.<br><b>OR</b><br>With at least 60% marks Or Equivalent Grade in Master's degree in any subject with two years teaching experience in a degree college in the subject concerned or a closely related area or two years teaching/research experience in the subject concerned or in a closely related area in a University Department or a recognised institute of higher learning or a minimum of three publications in recognised refereed journals in the subject in which admission is sought.   | <b>4.6.2012<br/>10.00 a.m.</b> | <b>7.7.2012<br/>10.00 a.m.</b> |
| <b>Ph. D.</b> | <b>Political Science</b>         | 12 | M.A. in the subject concerned (with at least 55% marks) or Equivalent Grade OR M.A. in allied subjects (with at least 60% marks) or Equivalent Grade with M.Phil. Degree /UGC JRF /RGNF/MANF/Two years of teaching/research experience in the subject concerned in a recognised institution of higher learning or two publications in the subject concerned in recognised journals.<br><b>OR</b><br>With at least 60% marks Or Equivalent Grade in Master's degree in any subject with two years teaching experience in a degree college in the subject concerned or a closely related area or two years teaching/research experience in the subject concerned or in a closely related area in a University Department or a recognised institute of higher learning or a minimum of two publications in recognised refereed journals in the subject in which admission is sought.<br>Note: The concerned subjects are Political Science or Public Administration. | <b>5.6.2012<br/>10.00 a.m.</b> | <b>7.7.2012<br/>10.00 a.m.</b> |
| <b>Ph. D.</b> | <b>Sociology</b>                 | 10 | M. Phil degree in the subject concerned and Master's degree in the subject concerned with at least 55% marks; <b>OR</b><br>Master's degree in the subject concerned with at least 55% marks with two years teaching experience in a degree college or two years of teaching/research experience in the subject concerned in a University department or a recognised institute of higher learning or qualified in UGC National level test for JRF /RGNF/MANF<br>Note: The concerned subjects are Sociology or Social Anthropology  | <b>6.6.2012<br/>2.00 p.m.</b>  | <b>7.7.2012<br/>10.00 a.m.</b> |
| <b>Ph. D.</b> | <b>Anthropology</b>              | 06 | M.A./M.Sc in Anthropology with a minimum 55% marks <b>OR</b> M.A. in allied subject with at least 60% marks; <b>AND</b> M.Phil degree in Anthropology or allied subjects <b>OR</b> UGC-JRF/RGNF/MANF or equivalent qualification <b>OR</b> Two years of teaching/research experience in the subject concerned in a recognized institution of higher learning/degree college with three publications in recognized and referred research journals, in the subject in which admission is sought.  | <b>5.6.2012<br/>10.00 a.m.</b> | <b>8.7.2012<br/>2.00 p.m.</b>  |
| <b>Ph.D.</b>  | <b>Regional Studies</b>          | 04 | M.A. in any of the Social Science subjects with at least 55% marks or Equivalent Grade Or M.A. in allied subjects (with at least 60% marks) or Equivalent Grade with M.Phil. Degree in a Social Science subject/UGC JRF//RGNF/MANF Two years of teaching/ research experience in any Social Science subject in a recognised institution of higher learning or three publications in any Social Science subject in recognised refereed journals.   | <b>2.6.2012<br/>2.00 p.m.</b>  | <b>9.7.2012<br/>2.00 p.m.</b>  |
| <b>Ph.D</b>   | <b>Folk Culture Studies</b>      | 04 | Master's degree with at least 55% marks in any of the subjects in Social Sciences, Humanities, Fine Arts, Performing Arts, and Communication with any one of the following qualifications:<br>a) M.Phil in any of the above subjects with Folklore/Folk Culture related topic<br>b) Qualified in UGC-NET for JRF/RGNF/MANF or for Lectureship in any of the above subjects.<br>c) 2years teaching experience in a Degree College or equivalent experience of teaching or research in a University Department or a recognized institute of higher learning.<br>d) A minimum of three publications in any of the above subjects in a refereed journal.  | <b>7.6.2012<br/>10.00 a.m.</b> | <b>6.7.2012<br/>10.00 a.m.</b> |
| <b>Ph.D.</b>  | <b>Social Excl. Incl. Policy</b> | 03 | M.A. in Social Sciences or Humanities subjects (with at least 55% marks) or equivalent Grade; <b>OR</b> M.A. in allied subjects (with at least 60% marks) or Equivalent Grade with M.Phil Degree/ UGC JRF/RGNF/MANF or NET qualification for Lecturership / Two years of teaching/research experience in the subject concerned or three publications in the recognized refereed journals in the subject in which admission is sought.   | <b>6.6.2012<br/>10.00 a.m.</b> | <b>9.7.2012<br/>10.00 a.m.</b> |
| <b>Ph.D.</b>  | <b>Indian Diaspora</b>           | 04 | M.Phil degree in any subject in Social Sciences or Humanities and a Master's degree with at least 55% marks OR two years teaching experience in a degree college OR two years of teaching/research experience in the subject in migration and diaspora studies in a recognized institute of higher learning and/or research or qualified in UGC National level test for JRF/RGNF/MANF. Also should have some exposure to migration and diaspora studies either in the form of a course in Indian diaspora during their M.A. degree or have some research experience.  | <b>7.6.2012<br/>10.00 a.m.</b> | <b>8.7.2012<br/>2.00 p.m.</b>  |

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|--------------|---|----|---|--------------------------------|---------------------------------|
| <b>Ph.D.</b> | <b>Science, Technology, and Society Studies</b> | 02 | <p>An M.Phil degree in the area of social studies of science from the following disciplines: Sociology, Political Science, History, Economics, Anthropology and Philosophy.</p> <p style="text-align: center;"><b>Or</b></p> <p>i) M.Sc. degree in any branch of science or B.E/ B.Tech degree in any branch of Engineering with 60 per cent marks; and ii) a published research paper in a peer reviewed journal in any area of social studies of science, technology and innovation to be submitted along with the application form.</p> <p style="text-align: center;"><b>Or</b></p> <p>i). M.A. degree in any discipline of the social sciences or philosophy with 55 per cent marks; or M.Sc. Degree in any branch of science or B.E./B.Tech in any branch of engineering with 60 per cent marks; ii) at least three years of work experience in an industry/research organization; and iii) a sample of written work of 2000 words or a published research paper in a peer reviewed journal in any area of social studies of science, technology and innovation to be submitted along with the application form.</p> <p style="text-align: center;"><b>Or</b></p> <p>i) UGC-CSIR JRF/RGNF/MANF holders in any of the social science disciplines mentioned above, and Philosophy with 55 per cent marks in their M.A. degree. UGC-CSIR JRF holders in any discipline of sciences or GATE-qualified with a score above 85 percentile in any discipline of Engineering with 60 per cent in their M.Sc. degree in sciences or BE/B.Tech degree in Engineering; and ii) a sample of written work of 2000 words or a published research paper in a peer reviewed journal in any area of social studies of science, technology and innovation to be submitted along with the application form.</p> | <b>7.6.2012<br/>10.00 a.m.</b> | <b>9.7.2012<br/>10.00 a.m.</b>  |
| <b>Ph.D.</b> | <b>Gandhian Economic Thought</b>                | 02 | <p>Postgraduate degree in any subject (with atleast 55% marks or Equivalent Grade points), AND any one of the following :</p> <p>M.Phil. (in any subject); OR</p> <p>UGC-JRF/RGNF/MANF qualification; OR</p> <p>three publications in recognized refereed journals OR 2 years teaching / research / administrative experience in a recognized institution of higher learning.</p>   | <b>7.6.2012<br/>2.00 p.m.</b>  | <b>10.7.2012<br/>10.00 a.m.</b> |

|              |                                      |                                 |   |                                |                                |
|--------------|--------------------------------------|---------------------------------|---|--------------------------------|--------------------------------|
| <b>Ph.D.</b> | <b>Human Rights</b>                  | 02                              | <p>M.A. with 55% marks in any branch of Social Sciences OR 60% marks in allied subjects (Philosophy, Psychology, Management, Education and Literature) with M.Phil. degree/ UGC JRF/RGNF/MANF /two years teaching/research experience in the subject concerned in a recognized institute of higher learning or two publications in the subject concerned in recognized journals <b>OR</b> candidates with any branch of science with 60% marks in Masters degree with proven interest in Human Rights will also be considered (in the form of publications, research reports etc.)</p>                                | <b>2.6.2012<br/>10.00 a.m.</b> | <b>9.7.2012<br/>10.00 a.m.</b> |
| <b>Ph.D</b>  | <b>Management Studies</b>            | 12                              | <p>With at least 55% marks in Master's degree or its equivalent in Management or Commerce or Accounting (MBA, M.Com, C.A, ICWA)</p>   | <b>5.6.2012<br/>2.00 p.m.</b>  | <b>6.7.2012<br/>10.00 a.m.</b> |
| <b>Ph.D.</b> | <b>Psychology</b>                    | 07                              | <p>Qualification in UGC JRF/RGNF/MANF exam in Psychology or Post Graduation Degree in Psychology with atleast 55% marks</p>   | <b>4.6.2012<br/>10.00 a.m.</b> | <b>8.7.2012<br/>10.00 a.m.</b> |
| <b>Ph.D.</b> | <b>Earth and Space Sciences</b>      | 06                              | <p>Master's degree in Earth / Ocean / Atmospheric Sciences, Remote Sensing, Environmental Sciences, Water Resources or a closely related area with atleast 55% marks</p>  | <b>4.6.2012<br/>2.00 p.m.</b>  | <b>7.7.2012<br/>2.00 p.m.</b>  |
| <b>Ph.D.</b> | <b>Materials Engineering</b>         | 08<br>Regular<br>06<br>External | <p>M.E./M.Tech. or equivalent Master's degree in Metallurgy, Mechanical (Production or Manufacturing Engineering), Materials Engineering, Chemical Engineering, Ceramic Engineering/ Technology, Polymer Engineering/ Technology or Engineering Physics <b>OR</b> Master's degree in Physics/Chemistry / Materials Science or Bachelor's degree in Engineering/Technology in any of the above disciplines.</p> <p><i>Candidates should have at least 60% marks in the respective qualifying exam.</i></p>   | <b>7.6.2012<br/>2.00 p.m.</b>  | <b>7.7.2012<br/>10.00 a.m.</b> |
| <b>Ph.D.</b> | <b>Nano Science &amp; Technology</b> | 4<br>Regular<br>4<br>External   | <p>M.E./M.Tech. or equivalent Master's degree in Metallurgy, Mechanical (Production /Manufacturing Engineering), Materials Engineering, Chemical Engineering, Ceramic Engineering/ Technology, Polymer Engineering/ Technology, Nano Science and Technology, Nano Science and Engineering, Bio-Technology, or Engineering Physics <b>OR</b> Master's degree in Physics/Chemistry/ Materials Science, or M.Sc. in Nano Science, or Bachelor's degree in Engineering/Technology in any of the above disciplines.</p> <p><i>Candidates should have at least 60% marks in the respective qualifying examinations.</i></p> | <b>7.6.2012<br/>10.00 a.m.</b> | <b>9.7.2012<br/>10.00 a.m.</b> |

|              |                         |        |  |                               |                                |
|--------------|-------------------------|--------|--|-------------------------------|--------------------------------|
| <b>Ph.D.</b> | <b>Gender Studies</b>   | 08     | An M.A., MBA or M.Sc. in Social Sciences, Humanities, Performing Arts, Communication, Management and the Natural Sciences, with at least 55% marks, or an equivalent grade with any one of the following qualifications :<br>1. M.Phil degree in any of the above subjects with women's issue or gender related topics.<br>2. UGC JRF /RGNF/MANF or NET qualification for lecturership<br>3. Two years of teaching/research experience in a recognized institution of higher learning<br>4. Minimum of three publications in a recognized, refereed Journal. | <b>4.6.2012<br/>2.00 p.m.</b> | <b>10.7.2012<br/>2.00 p.m.</b> |
| <b>Ph.D.</b> | <b>Buddhist Studies</b> | Upto 4 | With atleast 60% marks in M.A. in i) Buddhist Studies <b>OR</b><br>ii) M.A. in Pali Language & Literature <b>OR</b> iii) M.A. in Humanities/Social Sciences with atleast one paper in Buddhism <b>OR</b> a candidate must have passed UGC JRF/RGNF/MANF /NET in (a) Buddhist Studies (UGC subject code 60); or (b) Pali (UGC subject Code 83).<br><br>In case of an applicant with a foreign Master's Degree in the above areas must have proven proficiency in English in the above subject with atleast one paper in Buddhism.                             | <b>2.6.2012<br/>2.00 p.m.</b> | <b>6.7.2012<br/>10.00 a.m.</b> |

- Note:**
1. The approved intake for Ph.D. is expected to be filled over four sessions in July 2012, October, 2012, January 2013 and April 2013. Therefore, all the seats need not necessarily be filled in July 2012 alone.
  2. Candidates possessing M.Phil. or M.Tech. or UGC-NET for lecturership alone should also appear for the written test as they are not exempted from written test for admission to Ph.D. programmes.

## SCHOOLS OF STUDIES

### School of Mathematics and Computer / Information Sciences

The School offers facilities for intensive training and research in the basic areas of Mathematics (including Applied Mathematics), Statistics, Operations Research and Computer and Information Sciences. The School has two constituent departments, namely:

- 1) Department of Mathematics & Statistics
- 2) Department of Computer and Information Sciences

**Prof. T. Amaranath**, Dept. of Mathematics and Statistics is the Dean of the School.

### Department of Mathematics & Statistics

The Department aims to train people who are oriented towards research and teaching in advanced areas of Mathematics and Statistics. Special attention is given to foundational topics.

The Department offers research facilities in the following areas:

- Algebra, Analysis (Complex Analysis, Functional Analysis, Global Analysis), Algebraic Geometry, Topology, Algebraic Number Theory, Dynamical Systems.
- Fluid Mechanics.
- Statistical Inference, Outliers, Regression Diagnostics, Order Statistics, Reliability, Operations Research.

### Programmes of Study

The Department offers M.Sc. and Ph.D. Programmes.

The **M.Sc.** Programme is offered in three streams namely, Mathematics, Applied Mathematics and Statistics-Operations Research. This programme is spread over a period of four semesters. For each stream, there are separate core courses and electives.

The Department offers **Ph.D.** programmes in Mathematics, Applied Mathematics, Statistics and Operations Research. Admission to the Ph.D. Programme is open to both M.Phil. and M.Sc. Students. Students admitted to this programme are required to pass a few courses recommended by the Department in the first year and have to face a comprehensive viva at the end of the 1<sup>st</sup> year. Only those candidates who qualify in the viva are eligible to continue their registration in the Ph.D. programme of the Department. They are also expected to take part in the weekly Colloquium / Seminar of the School.

### Entrance Examination

The entrance examinations for admission to various courses are aimed at assessing the candidate's understanding of the concepts rather than capacity for memorization.

Admission to **M.Sc. (Maths/Applied Maths and Statistics-OR)** is based on a written test followed by an interview. The written test consists of objective type questions only.

A majority of the questions for **M.Sc. Mathematics/Applied Mathematics** will be on the following topics:

Sets, sequences, series, limits, continuity, differentiation, integration, graphs of functions, coordinate geometry of two and three dimensions, group theory, vector spaces, matrices, determinants, linear transformations, rank, nullity, eigen values, system of linear equations, elementary probability and logical reasoning.

A majority of the questions for **M.Sc. Statistics – OR** will be on the following topics:

- Sets, Sequences, Series, Limits, Continuity, Differentiation, Integration, Graphs of Functions, Vector Spaces, Matrices, Determinants, Linear Transformations.
- Elementary Probability - Events, Independent Events, Conditional Events, Bayes' Theorem, Chebyshev's Inequality.



- Random Variables and their Distributions – Binomial, Poisson, Geometric, Negative Binomial, Uniform, Normal, Exponential, Gamma, Beta.
- Inference – Methods of Moments and ML Estimation, Test for Mean and Variance of the normal distribution, Contingency Tables, Simple Linear Regression.
- Linear Programming Problem- Graphical Solution.

The admission will be made separately for M.Sc. Mathematics (including Mathematics and Applied Mathematics) and M.Sc. Statistics-Operations Research. At the end of the first year, the students of M.Sc. Mathematics will be given the option to choose either Mathematics or Applied Mathematics.

**Note: Change of option between Mathematics and Statistics-OR is not allowed.**

There will be separate entrance tests for programmes in Ph.D Mathematics (including Applied Mathematics) and Statistics/Operation Research.

Only those who qualify on the basis of their performance in the written examination will be called for interview.

Those candidates who have a UGC-CSIR/NBHM fellowship are exempted for the written exam, but have to appear for the interview. These candidates will be given a weightage of 40 marks out of 75 in lieu of the written exam. A majority of questions in the written test for admission to **Ph.D. Programme (Mathematics, Applied Mathematics)** will be at the level of M.Sc. in the areas: Real Analysis, Complex Analysis, Algebra, Linear Algebra, Topology, Functional Analysis, Ordinary and Partial differential equations, Calculus of Variations, Classical Mechanics, Numerical Analysis.

For **Ph.D. (Statistics/OR)** the questions will be at the level of M.Sc. in the areas: Probability theory, Statistical Inference, Sampling techniques, Stochastic Processes, Linear Models, Design & Analysis of experiments, Multivariate analysis, Linear Programming, Combinational Optimization.

The questions need not only be of the objective type and may require writing out answers. Credit will be given more

to the understanding of concepts rather than to mechanical proofs of the results.

For a **Ph.D** in **OR**, a person may appear for the admission test either in Applied Mathematics or Statistics/OR.

### **Infrastructure facilities**

The Department has good computing facilities. There are four labs. A Statistics lab with 15 PCs and 2 UGC (SAP) labs with 25 Pentium –IV and another Lab with 10 Pentium IV.

These labs have licensed versions of Mathematica, SPSS 17.0 and SYSTAT 12 along with other open source software such as Maxima, Octave, R, etc.

The University Library has been recognized as a Regional Library by the National Board for Higher Mathematics (NBHM).

### **Faculty**

#### **Professors**

**R.Tandon**, Ph.D.(Yale) - Algebraic Number Theory, Cryptology

**T. Amaranath**, Ph.D. (I.I.T.Madras) F.N.A.Sc. - Fluid Mechanics (**Dean of the School**)

**V. Suresh**, Ph.D. (TIFR, Mumbai) F.A.Sc., F.N.A., F.N.A.Sc. – Algebra & Algebraic Geometry (on leave till 30.5.2013)

**Mirza Iftexhar Beg**, Ph.D. (AMU) - Order Statistics

**S. Kumaresan**, Ph.D. (TIFR, Mumbai) – Differential Geometry, Analysis, Pedagogy (**Head of the Department**)

**B.Sri Padmavati**, Ph.D. (Hyderabad) - Fluid Dynamics

**V.Kannan**, Ph.D.(Madurai) F.A.Sc., F.N.A. - Topology and Analysis (**Re-employed**)

#### **Associate Professors**

**R. Radha**, Ph.D. (IIT, Bombay) – Fluid Dynamics

**G. Lakshma Reddy**, Ph.D. (Madras) – Complex Analysis and Applications

**B. Shobha**, Ph.D. (IIT, Delhi) – Statistical Inference and Reliability

**M. Sumanth Datt**, Ph.D. (Hyderabad) – Hopf Algebras, Algebraic Groups

### Assistant Professors

**Saroj Panigrahi**, Ph.D. (Berhampur) – Differential Equations (on leave till 11.09.2012)

**Vishnu Namboothiri K**, Ph.D. (Hyderabad) – Algebraic Number Theory (on leave till 03.08.2012)

**T.K.S. Moothathu**, Ph.D. (Hyderabad) – Topological Dynamics

**Sudheesh Kumar Kattumannil**, Ph.D. (Cochin) Reliability (on leave till 22.12.2012)

**T. Suman Kumar**, Ph.D. (Universite Pierre et Marie Curie) Nonlinear population dynamics, Hyperbolic PDE.

### Honorary Professor

**M.S.Raghunathan**, F.R.S. – Lie groups and algebraic groups

**Manjul Bhargava**, Ph.D. (Princeton University, USA) - Algebraic Number Theory

### Dr. Homi J. Bhabha Chair Professor

**B.L.S. Prakasa Rao**, Ph.D. (MSU, USA) F.A.Sc., F.N.A., F.N.A.Sc. – Probability, Inference & Stochastic Processes

### Adjunct Professor

**Prof.R.Parimala**, Ph.D (TIFR, Mumbai) (Emory University, USA) – Arithmetic -Algebraic Geometry, Quadratic Forms

## Department of Computer and Information Sciences

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The Department of Computer and Information Sciences offers high quality postgraduate teaching and research programmes in all major areas of Computing, Information Science and Artificial Intelligence. The department is unique in offering M.Tech. Programmes (with GATE fellowships) in Artificial Intelligence (since 1987), and in Information Technology with specialization in Banking Technology and Information Security (since 2001). The research areas of faculty include Computer Networks and Distributed Processing, Database Management Systems, Software Engineering, Computer and Network Security, Mobile Computing, Logic, Cryptography, Network Forensics, Geographical Information Systems, Data Warehousing and Data Mining, Bioinformatics, Artificial Intelligence, Machine Learning, Cognition, Natural Language Engineering, Speech Processing, Image

Processing, Pattern Recognition, Vision, Parallel & Grid Computing.

Department of Science and Technology (DST), Government of India has recognized the research contributions of the department by funding it under FIST programme. University grants commission (UGC) has sanctioned a Special Assistance Program (SAP), at the level of Departmental Research support (DRS) - Phase I, to enhance teaching and research programmes in department.

The Department maintains active contact with both industry and research labs and participates in developing state-of-art computing systems. The department has initiated academic collaboration at an international level with United Nations University/International Institute of Software Technology, Macau, University of Trento, Italy and Mahasarakham University, Thailand. The Department has MoUs for collaborative work with NISG (National Institute for Smart Government), Anna University, IBM (ISTL), Sierra Atlantic and Altair Engineering to promote research and teaching programme in Business Process Re-engineering and Middleware Technology.

The Department currently executes several research projects (funded by MIT, UGC, ISRO, DRDO, DLRL, MHA, DST, INCOIS etc.) on Content-Based Image Retrieval, Speech and Natural Language Processing, Grid Computing, Cryptography, Neural Networks, Formal Methods in Software Engineering, Business Process Re-engineering, Forensic Document Analysis, System Security and Grid Middleware etc.

Ph.D. students may have opportunity to work at University of Trento, Italy, National University of Singapore, Freie University, Berlin etc. As the department has a high priority for research, it strongly encourages students to participate in the above exciting research programmes as full-time Ph.D. students.

GATE fellowships are offered to eligible M.Tech. students by the UGC/AICTE as per their norms.



A department orientation programme will be conducted on the first day of the semester for all the new students of M.C.A and M.Tech. programmes. The Elective Orientation & Elective Registration will be conducted on the following day.

### **Programmes of Study**

The Department offers four different programmes of study leading to **M.C.A.**, **M.Tech.** (Computer Science), **M.Tech.** (Artificial Intelligence), **M.Tech.** (Information Technology) with specialization in Banking Technology & Information Security, in collaboration with IDRBT and **Ph.D.** in Computer Science.

In addition, the department also contributes and supports the **M.Tech.** (Computational Techniques) of Schools of Physics and MCIS, **M.Tech.** (Bioinformatics) of School of Life Sciences, M.A. and M.Sc. (5-year Integrated) courses and Center for Neural & Cognitive Science.

In all the courses, classroom teaching is supplemented with seminars, term papers, minor projects and assignments.

**M.C.A. Programme** aims to prepare graduates in all the major areas of computer science, relevant aspects of mathematics and management so that they can take up both technical and managerial positions in industry. The training is rigorous and involves five semesters of course work and one semester of project work. Students through a selection process are offered internships at companies such as IBM, GE, Microsoft, CA, CMC, Honeywell etc thus being provided an opportunity to learn in industry environment during their last semester.

**Master of Technology (M.Tech.) Programme** is meant for graduates in engineering disciplines and meant for postgraduates in related sciences. This is a four-semester programme with two semesters of course work and two semesters of project work. The first semester constitutes major core courses of that stream and many state-of-art electives are offered during both first and second semesters. The projects offered by faculty provide an opportunity for students to work on real world research problems.

**M.Tech. (Computer Science) Programme** offer core courses of computer science like Operating Systems, Computer Architecture, Algorithms and Software Engineering at an advanced level. Specialized electives of faculty research interest are offered as electives. The course work develops scientific and mathematical approach to computing.

**M.Tech. (Artificial Intelligence) Programme** is meant for students already well equipped in computing sciences and imparts advanced training in all the major areas of artificial intelligence and other emerging technologies, such as Human Computer Interaction, Machine Learning and Computational Intelligence etc. The projects are offered in major areas of artificial intelligence.

**M.Tech. (Information Technology) Programme** with specialization in Banking Technology and Information Security aims at imparting in-depth knowledge and state-of-art expertise to the students through innovative learning supported by high calibre research and technology leadership to create a pool of responsible and resourceful IT professionals, in particular, for the financial-banking sector.

**The general information on admission of sponsored candidates and foreign nationals in M.Tech. is as follows:**

**Sponsored candidates:** Five sponsored seats are available for admission into each stream of M.Tech. (CS, AI and IT). Candidates with required basic qualifications would be selected through interviews. Employees with a minimum 2 years of work experience in IT companies registered with STPI or NASSCOM or Central Government Organisations can apply for admission in M.Tech. (CS/AI). For M.Tech. (IT) those working in Banks/Financial institutions with a minimum of 3 years work experience will be considered. A candidate seeking admission in this category into M.Tech. (CS/AI/IT) must submit (along with application) the organization's willingness to pay a sponsorship amount of **One Lakh Rupees per candidate** (one time) to the development fund of the department. After admission,

candidates are required to pay the sponsorship amount and also the usual tuition, admission and other fees as prescribed by the University for other students from time to time.

**Foreign candidates:** Foreign nationals seeking admission to M.Tech. programmes should have the required qualification with background knowledge in Mathematics, Algorithms, Computer Programming etc. Candidates should have ability to communicate in English and should submit a supportive document with a good score in TOEFL/ELT at the time of admission. In addition, students should submit a letter of reference which supports their claims to the background, capabilities and ability to communicate in English.

**Note:** Sponsored and foreign candidates seeking admission in the **M.Tech.** (CS/AI/IT) programmes are exempted from the **GATE** qualification.

**Ph.D. programme** is offered on full time, part time\* and external registration basis as per the university regulations. The department has a very vibrant Ph.D programme with more than 70 students registered currently. Interested candidates are advised to study the areas of research from the department and faculty profiles.

\*Candidates who have the required qualifications and are doing teaching/research in recognized institutions or researchers from companies registered with STPI/NASSCOM/Central Government Organizations who operate within the jurisdiction of the University can apply for part time admission subject to the availability of seats under this category.

**Foreign candidates:** Foreign nationals seeking admission in PhD programme should have the required basic qualifications. Candidates must demonstrate their ability to communicate in English. Following are the guidelines for admission to PhD:

Foreign students are required to submit past academic records, three reference letters, and a statement of purpose on the research topic of their interest. They must have good ability to communicate in English. In order to support the

claim for admission into PhD following guidelines are stipulated:

- Students residing in India and who have taken prior qualifying education in India have to appear for Interview with all required supporting documents
- Both GRE and TOFEL/ELTS scores are to be submitted at the time of admission

### **Entrance examination**

**M.C.A. Program.** Admission is based on a written test conducted by the University. The written test consists of objective type questions in two parts with equal weightage. Part 'A' deals with general mental ability (consisting of items on reasoning, analysis, comprehension and synthesis). Part 'B' deals with mathematical topics such as Sets, Relations, Integration, Differentiation, Analytical Geometry, Trigonometry, Vectors, Matrices, Determinants, Differential Equations, Elementary Probability and Statistics, Number Systems, Data Representation, Algorithms and Flowcharts. Part A and Part B are for 50 marks each for a total of 100 marks. Part A consists of 25 objective type questions each for 2 marks. Part B consists of 50 objective type questions each for one mark.

### **Admission will be done by counseling.**

**M.Tech. Programmes.** Admission to programmes in *Computer Science, Artificial Intelligence* and *Information Technology* courses is based on only GATE scores in Computer Science and Information Technology. **No entrance examination or any interviews will be conducted. GATE scores, in order of merit, will be the basis for admission which done by counseling.**

Students should indicate their preference for the choice of program (whether CS/AI/IT) in the application form. Request for change of option will not be entertained during counseling. Admission and tuition fees for all the three M.Tech. programmes are uniform. Sliding from one branch to another may be allowed subject to availability only upto 1<sup>st</sup> August 2012.

**Ph.D. Programme.** Admission is based on a written test with objective type questions, short answer questions, descriptive questions and technical comprehension. The written test covers the areas of Computer Organization,

Computer Programming, Discrete Mathematics, Data Structures, Algorithms, Operating Systems, Database Management Systems, Graph Theory, Computer Networks and Automata. The written test consists of Part A for 40 marks and Part B for 35 marks for a total of 75 marks. The number of candidates called for interview is four times the available seats. Candidates must indicate their research interest. Candidates having UGC-CSIR JRF are eligible to appear directly for interview. They will be given a weightage of 40 marks in lieu of written test for 75 marks. However to gain more than the minimum marks they are strongly advised to appear for the written test.

At the time of interview all candidates must come prepared with a tentative research plan write-up of maximum size of 4 pages and are encouraged to submit details of research papers/technical reports they have authored.

### **Pre-PhD course work for registration to Ph.D. programme**

The candidates admitted to Ph.D. programme in the department will be governed by the following rules:

1. All candidates admitted to PhD in the department, whether full time, part time or external, are required to pass a comprehensive examination within a period of One ( 1) year from the date of admission. Initial admission is provisional and the continuation of the registration is subject to candidate passing the comprehensive examination. In case a candidate is unable to pass the comprehensive exam within One year and One month, his/her admission stands automatically cancelled.
2. The comprehensive exam will be a written examination and will consist of four papers (2 core papers and 2 elective papers), to be decided by the Doctoral Research Committees of the candidates concerned.
3. Passing the comprehensive examination means passing each of the papers with a minimum of 50% mark.
4. We are conducting exam for two core subjects during November /December in the first semester and for two

elective subjects during April/May in the second semester.

Candidates are advised to write and clear two exams at a time, eg: Core and electives.

5. Students can take supplementary examination at the end of the academic year for the course(s) he/she has failed. Supplementary examination will be conducted once in a year during July/August of every year. The result of the supplementary will be notified by last working day of August.

On successful completion of the four papers, the candidate will be allowed to continue the registration for Ph.D.

### **Infrastructural facilities**

The facilities at the Department include a variety of computing machines such as SUN Workstations, Multi-Core Processor based Multi-Media personal computers with high resolution graphics cards, network support and cluster systems all equipped with the latest software packages. Image processing equipment such as flat-bed scanners, 20" high-resolution monitors, CCD-Cameras are also available to students.

Under DST-FIST programme and PURSE grants, the department hosts the following labs: Software Engineering lab, Spoken Language Processing lab, Network & Security Systems lab, Embedded Systems lab, Computer Vision and Image Processing lab and Data & Network Forensic lab. It also hosts a resource center for Telugu Language funded by MCIT, Govt. of India.

These facilities are also continually augmented through funded research projects as well as industrial consultancy projects. Apart from the departmental facilities, there is also a well-equipped University Computer Centre and state-of-the-art high performance computing facilities at CMSD.

### **Faculty**

#### **Professors**

**Arun Kumar Pujari**, Ph.D. (I.I.T.Kanpur) - Combinatorial Algorithms, Data Mining, Artificial Intelligence.

**Arun Agarwal**, Ph.D. (I.I.T, Delhi) B.Tech. (I.I.T Delhi), SMIEEE, FIETE, FAPAS - Image Processing, Computer Vision, Pattern Recognition and Neural Networks, Grid Computing.

**Hrushikesh Mohanty**, Ph.D. (I.I.T.Kharagpur) - Distributed Computing, Software Engineering, Computational Social Science

**C. Raghavendra Rao**, Ph.D. (Osmania University) - Simulation & Modeling, Knowledge Discovery, Computational Intelligence

**P.N. Girija**, Ph.D. (SVU) - Speech Recognition, Speech Synthesis, Human Computer Interaction (**Head of the Department**)

**K.Narayana Murthy**, Ph.D. (University of Hyderabad) - Natural Language Engineering

**Chakravarthy Bhagvati**, Ph.D. (RPI, USA) - Image Processing, Computer Vision, Pattern Recognition

**Bapi Raju Surampudi**, Ph.D. (UTA, USA) - Neural Networks, Cognitive Modeling, Pattern Recognition, Machine Learning

#### Associate Professors

**Atul Negi**, Ph.D. (University of Hyderabad), M.S.(I.I.Sc., Bangalore) - Pattern Recognition and its Applications, Computational Intelligence

**Rajeev Wankar**, Ph.D. (DAVV, Indore) – Parallel Computing, Grid Computing, Analysis of Algorithms

**S. Durga Bhavani**, Ph.D. (University of Hyderabad) - Analysis of Algorithms, Fractal Geometry, Mathematical Modeling

**Alok Singh**, D.Phil. (University of Allahabad) - Combinatorial Optimization using Heuristic & Metaheuristic techniques.

**Siba Kumar Udgata**, Ph.D. (Berhampur) - Mobile Computing, Networks and Architecture.

#### Assistant Professors

**T. Sobha Rani**, Ph.D. (University of Hyderabad) - Bioinformatics, Machine Learning Techniques, Advanced Data Structures

**K. Swarupa Rani**, MCA(SKU), M.Phil(CS) - Incremental Mining, Time-Variant Databases, Text Mining

**Y.V. Subba Rao**, M.Tech. (ISI, Kolkata) - Cryptography, Theory of Computation, DBMS, Data Forensics

**Wilson Naik**, M.Tech.(JNTU Hyderabad) - Network Forensics, Systems Security, Networking (On Study Leave)

**P. Anupama**, M.S. (UMBC, USA) - Networking, Systems Security, Operating Systems

**M. Nagamani**, M.Tech. (JNTU, Hyderabad) - Speech Processing, Information Retrieval, Intelligent tutoring system, Cognitive psychology, Embedded Systems

**PSVS Sai Prasad**, M.Tech. (Sri Satya Sai University, Prasanthi Nilayam) - Data Mining, Rough Sets, Unix and Network Programming (Study Leave)

**Rajendra Prasad Lal**, M.Tech. (Computer Applications, IIT-Delhi) - Graph Algorithms, Mathematical Programming, Computational Geometry

**N. Rukma Rekha**, M.Tech. (Andhra University) - Object Oriented Analysis and Design, UML, Cryptography, Pervasive Computing, Software Engineering

**Vineet C. P. Nair**, Ph.D. (Griffith University, Australia) - Knowledge Representation and Reasoning, Multi-Agent Systems, Logics in Artificial Intelligence.

**Anjeneya Swami Kare**, M.Tech. ( IIT-Kanpur) - Graph Theory, Algorithms, Data Structures, Theory of Computation.

#### Faculty of IDRBT

**V.N. Sastry**, Ph.D. (IIT, Kharagpur) - Networks, Multiple Criteria Optimization, Risk Modeling, Fuzzy Control.

**V. Radha**, Ph.D (University of Hyderabad) - Computer Applications, Multimedia, Databases and Internet.

**M.V. Sivakumaran**, MBA (IGNOU) - Customer Relationship Management, Internet and Intranet Technology, Total Branch Automation Packages.

**Mahil Carr**, Ph.D. (University of Hong Kong) - Software Engineering, Programming Languages, Research Methodology.

**M.V.N.K. Prasad**, Ph.D. (B.H.U., Varanasi) - Image Processing and Security.

**Vadlamani Ravi**, Ph.D. (Osmania University) - Fuzzy Optimization & Fuzzy Rule based classification models and applications.

**B. M. Mehtre**, Information Security, Biometrics, Pattern Recognition, Image Processing

**G. R. Gangadharan**, Internet Technologies, Information and Communication .

**Jitendra Kumar**, Time Series, Design of Experiment, Business Process Reengineering

**Rajarshi Pal**, Visual Attention, Image Watermarking, Steganography, Video Summarization

**Shakti Mishra**, Distributed Computing, Formal Methods

#### Visiting Professors

**Andre Rossi**, Université de Bretagne Sud, France.

**Raj Kumar Buyya**, University of Melbourne, Australia.

**Vivek Sarkar**, Rice University, USA.

**N S Choudhari**, IIT Indore.

**Chatrakul Sombattheera**, Mahasarakham University, Thailand.

**Richard Booth**, University of Collective Reasoning, Luxembourg.

**Sheela Ramanna**, University of Winnipeg, Canada.

**James F. Peters**, University of Manitoba, Canada.

## School of Physics

The School of Physics is a centre of excellence for multi-disciplinary and interfacial research and teaching in diverse fields ranging from nanosciences to cosmology, photonics to spintronics, quantum computing to complex systems and biology. The School has been selected by the UGC as the Centre of Advanced Study (CAS) to strengthen its teaching and research programs. The School of Physics has been chosen for level II funding under the FIST scheme of DST in a nation wide competition. The DST recognized the School as one of the five founding centers in the country for the Theoretical Physics Seminar Circuit (TPSC). The School has been recognized as a ‘Centre for Excellence’ by the Third World Academy of Sciences, Trieste, Italy.

The School of Physics has developed high quality teaching programs at the M.Sc., M. Tech. and Ph.D. levels with a student-teacher ratio highly favorable for individual attention.

The School has vigorous research programs to train Ph.D. scholars and has achieved national and international recognition in the areas of condensed matter physics, high energy physics, non-linear optics, quantum optics and laser physics, materials science, nanosciences and electronics science. The areas of research include high  $T_c$  superconductivity, magnetism, phase transitions, critical phenomena, glasses and ceramics, liquid crystals, thin films, ion-solid interactions, semiconductors and super lattices, nanostructured materials, low-dimensional systems, localization, percolation, molecular dynamics, neural networks, quantum field theory, quantum chromo dynamics, CP violation, heavy quarks, non-linear dynamics, quantum computing, stochastic-quantization, modern quantum optics including Femto second laser experiments and theory, VLSI and Signal processing, ferroelectrics and microwave devices.

**Prof. C. Bansal** is the Dean of the School.

### Programs of Study

The School offers M.Sc. (5-year Integrated) Physics, M.Sc. (Physics), M. Tech. in Computational Techniques,

M. Tech. in Integrated Circuits Technology and Ph.D. in Physics.

**M.Sc. (5-year Integrated) (Physics):** This program is of five years (10 semesters) duration. The courses taken by the students during the first six semesters are Mechanics and Properties of Matter, Kinetic Theory and Thermodynamics, Waves and Optics, Electromagnetic Theory and Modern Physics and Atomic / Molecular Physics. Emphasis is on tutorials and problem solving.

**M. Sc. (Physics):** This program is of four semesters duration. The first three semesters cover the fundamentals of the subject. The courses taken by all the students include Classical Mechanics, Quantum Mechanics, Mathematical Methods, Nuclear Physics, Introductory Particle Physics, Solid State Physics, Laser Physics, Computer Applications, Electronics, Electrodynamics, Statistical Mechanics, besides laboratory courses in Electronics, Solid State Physics, Digital Electronics, Lasers, Microwaves, Modern Physics and Nuclear Physics. There is a strong emphasis on problem solving and learning experimental techniques.

During the fourth semester, students may opt for one of the following specializations:

- a) Particle Physics and Field Theory
- b) Condensed Matter Physics
- c) Laser Physics and Modern Optics

In addition, a student can opt for a course of 100 maximum marks among the current topics run in any interdisciplinary subject/department of the University. Each student also has to do a project work of 6 credits in the fourth semester.

**M. Tech. in Computational Techniques:** This is a four semester program open to students with Master’s degree in Physics or related areas. The objective of this program is to train physicists in modern areas of computational techniques suitable for solving physics problems using simulation methods. The first two semesters involve formal instructions, while the third and fourth semesters are devoted to project work. The subjects covered include:



numerical techniques, mathematical methods, computer organization, data structures, programming methodology, Monte Carlo techniques and molecular dynamics. The second semester offers four electives to be chosen from: evolutionary computing, disorder, wavelet transforms, quantum computing, cellular automata, direct discrete methods, file structures, image processing, pattern recognition, speech recognition, algorithms and computer graphics. This program is being offered with the participation of the Department of Computer and Information Sciences of the University.

The project work in the third and fourth semesters may be carried out in School of Physics or Department of Computer and Information Sciences, or other recognized R & D centers in Hyderabad.

**M. Tech. (Integrated Circuits Technology):** This is a four semester program with two semesters of course work and two semesters of project work. The program is designed to impart broad based knowledge in Integrated Circuit Technology. All cutting edge technology aspects involving design techniques, fabrication techniques, numerical techniques required in the field of I.C. Technology will be covered. The curriculum involves theory courses covering semiconductor physics, digital systems design, special IC design (such as DSP), rf/microwave IC's, IC fabrication techniques, MEMS, nano-devices, integrated optics and computer simulation techniques. The curriculum also includes laboratory courses covering all the above subjects. In addition to existing Faculty, experts in this area from Government and private laboratories / industries will be participating in this program, both in teaching as well as in the project work.

Admissions to M. Tech. (IC Technology) program is also open to sponsored candidates from DRDO, ISRO, DAE, CSIR, and to ISO certified organizations as per the rules laid down by the University of Hyderabad for sponsored candidates in M. Tech. programs. The academic qualifications for sponsored candidates would be the same as that of regular candidates but the requirement for valid GATE scores would be waived for the sponsored candidates. Up to 8 candidates can be admitted in this

category. The sponsored candidates would be allowed to do their project work in their parent organizations.

**Ph.D.** All students admitted into the Ph. D. program are required to undergo course work. Satisfactory completion of course work with at least 50% marks is a prerequisite for confirmation of Ph. D registration. This is a research program with students undertaking research under the supervision of a Faculty member, on a topic approved by the School. The student is required to show satisfactory progress throughout the period of research as well as fulfill other requirements prescribed by the School. The Ph.D. requirements include prescribed course work and submission of research results in the form of a thesis, two research papers in journals and defense of the thesis in a viva voce.

#### **Entrance Examination**

The written test for **M.Sc. (Physics)** will mainly be in Physics (mechanics, general properties of matter, kinematics, heat and thermodynamics, wave motion, electricity and magnetism, light, modern physics, electronics and measurements) and mathematics (algebraic equations, differential and integral calculus including limits, vectors, matrices and determinants, elementary differential equations and elementary functions and their graphs). Short listed candidates from among those who qualify in the written test have to appear for an interview.

Admission to **Ph. D.** in Physics will be based on a written test and interview. The material covered in the written test will be based on typical M. Sc. syllabus of Indian Universities i.e. Classical Mechanics, Relativity, Thermodynamics and Statistical Mechanics, Electromagnetic Theory, Quantum Mechanics, Modern Physics, Condensed Matter Physics, Nuclear and Particle Physics, Optics, Electronics, Mathematical Physics, and Experimental Techniques. The written test will consist of objective type questions. The written test will be followed by an interview for the short listed candidates.

Candidates who have qualified for UGC-JRF can appear for interview without appearing in the written test if they so desire. They would be awarded 40 marks in lieu of the written test.

### Infrastructural facilities

Materials preparation and characterization facilities including nanocluster deposition systems, pulsed laser deposition system, Nano Indenter, C- V & I- V measurement system, Wafer inspection microscope, Rheometer, Micro-Raman Spectrometer, Scanning Probe Microscope, crystal growth equipment, cutting and surface polishing equipment, high vacuum coating machine, RF sputtering units, arc-melting furnace and RF induction furnace, temperature controlled ovens, continuous flow cryostat and electronic equipment for measurement of electrical and thermal transport properties, facilities to investigate field cycling NMR spectrometer, pulsed NMR, simultaneous measurement of electro optic and dielectric properties, vibrating sample magnetometer, closed cycle helium refrigerator, INEL X-ray diffractometer with wide angle position sensitive detector, atomic force microscope, vector network analyzer, Laser spectroscopy using pulsed Nd-YAG high power helium-neon and nitrogen lasers, dye laser and Femto second laser facilities, CW tunable Ar ion laser, ESR, NMR, Mossbauer and laser Raman spectrometer, Liquid Helium plant, Carl Zeiss Field Emission Scanning Electron Microscope, and X-ray reflectometry system are some of the facilities available in the School of Physics. Varieties of EDA tools (complete VLSI tools from FPGA implementation, PCB layout design tools) are also available. Microfabrication facilities, including mask aligner, scribe, wire bonder, profiler, spin coater, have been set up. Electron Microscope, Physical Properties Measurement System & Magnetic Properties Measurement System are available in the Centre for Nanotechnology.

The School attracts substantial funding from agencies such as UGC, CSIR, DST, DAE, DRDO, ISRO and DOE for research work.

### Computer facilities

A number of PCs are networked through LAN with the Computer Centre so that internet and E-Mail facilities are directly accessible from laboratories and Faculty offices. The school has a teaching laboratory with 20 terminals connected to an IBM server.

CMSD/HPCF computer facility is used for simulation work.

### Faculty

#### Professors

**S. N. Kaul**, D.I.I.T., Ph.D. (I.I.T. Kharagpur), F.N.A., F. A. Sc., C. Phys., F. Inst. P (London) - Condensed Matter Physics, Phase Transitions, Magnetism, Critical and Re-entrant Phenomena (E)

**V. S. S. Sastry**, Ph.D. (I. I. Sc., Bangalore) - Condensed Matter Physics, Magnetic Resonance, Computer Simulations (E)

**A. K. Kapoor**, Ph.D. (I.I.T. Kanpur) - Elementary Particles, Quantum Field Theory, Path Integrals (T)

**Vipin Srivastava**, Ph.D. (Roorkee) - Condensed Matter Physics, Neural Networks, Brain Function Modeling (T)

**C. Bansal**, Ph.D. (TIFR, Bombay) - Condensed Matter Physics, Phase Transformations, Mossbauer Spectroscopy, Nanomaterials and Devices (E) (**Dean of the School**)

**S. P. Tewari**, Ph.D. (Delhi) - Quantum Optics, Nonlinear Optics (T)

**S. Chaturvedi**, Ph.D. (Waikato, NZ) F.A.Sc., F.N.A.Sc. – Space Quantum Field Theory, Stochastic Processes, Non-Equilibrium Phenomena (T)

**C. S. Sunandana**, Ph.D. (I.I.T. Madras) - Condensed Matter Physics (E)

**Rajender Singh**, Ph.D. (Delhi) - Condensed Matter Physics, Ultrasonics, Superconductivity and Magnetism (E)

**S. Dutta Gupta**, Ph.D. (Moscow) - Nonlinear Optics (T)

**D. Narayana Rao**, Ph.D. (I.I.T. Kanpur) - Non-linear Laser Spectroscopy (E)

**Bindu A. Bambah**, Ph.D. (Chicago) – Particle Physics, Non Linear Dynamics (T)

**V. Seshu Bai**, Ph.D. (I.I.T. Madras) - Condensed Matter Physics, Magnetism and Superconductivity (E)

**Ashok Chatterjee**, Ph.D. (IACS, Jadavpur) - Condensed Matter Physics (T)

**M. Sivakumar**, Ph.D. (Madras) - Quantum Field Theory (T)

**G. Rajaram**, Ph.D. (TIFR, Bombay) - Condensed Matter Physics, Magnetism and Superconductivity, Device Fabrication.

**K. P. N. Murthy**, Ph.D. (UoH, Hyderabad) Equilibrium and non-Equilibrium Statistical Physics, Monte Carlo Simulation (T)

**P. K. Suresh**, Ph.D. (Cochin) - Cosmology (T)

#### Readers

**P. Anantha Lakshmi**, Ph.D. (UoH, Hyderabad) - Quantum Optics (T)

**Suneel Singh**, Ph.D. (UoH, Hyderabad) - Quantum Optics (T)



**K. C. James Raju**, Ph.D. (IIT, Madras) - Microwave Electronics, Ferroelectric thin films, RF MEMS, Microwave materials and characterization techniques (E)

**M. Ghanashyam Krishna**, Ph.D. (IISc, Bangalore) – Nanostructured Materials, Thin Films and Sensors (E)

**Janaki Balakrishnan**, Ph.D. (Delhi) – Dynamical systems, stochastic processes, problems motivated by biology, quantum field theory (T)

**Nirmal K. Viswanathan**, Ph.D. (UoH, Hyderabad) – Photonics Devices – Fiber optic devices, Polymer optic devices – Optical interferometry (E)

**Rukmani Mohanta**, Ph.D. (Utkal) - High Energy Physics (T)

**Samrat L. Sabat**, Ph.D. (Berhampur) – Embedded Systems, Digital Signal Processing (E & T)

**Surajit Dhara**, Ph.D. (RRI Bangalore) – Liquid Crystals (E & T)

**S. Srinath**, Ph.D. (UoH, Hyderabad) – Condensed matter physics, Magnetic nanostructures, Multilayers/thin films, Magnetic oxides, Multiferroics (E)

**E. Harikumar**, Ph.D. (UoH, Hyderabad) – Quantum field theory and gravity (T)

**S. V. S. Nageswara Rao**, Ph.D. (UoH, Hyderabad) – Condensed Matter Physics: Ion-solid interactions and Ion-beam based materials science (E)

#### **Assistant Professors**

**Ashoka Vudayagiri**, Ph.D. (UoH, Hyderabad) - Quantum Optics, Laser Cooling, Quantum Information (E)

**Soma Sanyal**, Ph.D. (IOP, Bhubaneswar) - Cosmology, Heavy – ion Collisions (T)

#### **Guest Faculty**

**P. A. Govindacharyulu**, Ph.D. (I. I. Sc.) – Semiconductor Device Physics, IC Technologies. Professor, ECE Department., Vasavi Engineering College, Hyderabad.

**K. Venu**, Ph. D. (UoH, Hyderabad)- Magnetic Resonance, Electronics, VLSI design and fabrication

#### **Distinguished Faculty**

**A. K. Bhatnagar**, Ph.D. (Maryland) – Materials Science (E) – INSA Senior Scientist

**A. P. Pathak**, Ph.D. (I.I.T. Kanpur), F.N.A.Sc., F.Inst.P. (London), C.Phys. - Atomic Collisions in Solids, Radiation Damage, Surface Physics, Superlattices & Heterostructures (T & E) – BSR Fellow of UGC

#### **Honorary Professors**

**Professor Horst Hahn**, Director, Institute of Nanotechnology, Karlsruhe, Germany

**Professor T. V. Ramakrishnan**, FRS, DAE Homi Bhabha Professor, BHU

## School of Chemistry

School of Chemistry is a dynamic centre for research in the frontier areas of chemical sciences. The emphasis at the curricular level is to give a broad coverage of all branches of chemistry in keeping with the interdisciplinary nature of the subject today.

The School of Chemistry has made notable impact on the chemical research scene and is widely acclaimed at the national and international levels. The School receives support from a large number of research grants from funding agencies like Department of Science and Technology (DST) and Council of Scientific and Industrial Research (CSIR), international collaborative projects and industrial projects. The School has been identified by DST for support under the new FIST programme at Level II. UGC has selected the School of Chemistry as a Centre for Advanced Studies under Special Assistance Programme. DST has awarded a special one time research grant to the school during the International Year of Chemistry (2011).

A networking Resource Centre in Chemistry funded by the UGC is functioning in the school. The centre supports short term visits by about 50 teachers, research scholars and students (M.Sc. and B.Sc.) from other Universities and Colleges. Further information and details of the program can be obtained from the school website.

The School website can be reached at <http://202.41.85.161/> or <http://chemistry.uohyd.ernet.in>

**Prof. M.V.Rajasekharan** is the **Dean of the School**.

### Programmes of study

The School admits students to the **M.Sc.** and **Ph.D.** Programmes.

The 2-year **M.Sc.** programme lays equal emphasis on Organic, Inorganic and Physical Chemistry. The **M.Sc.** programme lasting four semesters comprises 3 courses each in Organic, Inorganic, Physical and Theoretical Chemistry, 2 laboratory courses each in Organic, Inorganic and Physical Chemistry and elective courses. The syllabus is reviewed and upgraded regularly paying special attention to the contemporary development in Chemical Sciences. Some of the unique features of the programme are the core courses in Instrumentation and Computer Applications, Mathematics for Chemists, Materials Chemistry, Biological Chemistry, elective courses and project work in final

semester. The student completing the M.Sc. is proficient in all branches of Chemistry and is equipped to take up research in a variety of specialized fields including those areas where Chemistry intersects with Biology on the one hand and Physics on the other.

The School is actively involved in the M.Sc. (5-year Integrated) course run by the Centre for Integrated Studies.

The **Ph.D.** programme is entirely research-oriented in which a student undertakes research under the guidance of the Faculty of the School in an area chosen by him/her and approved by the School. The specific research areas of the individual Faculty members are mentioned against their names. Students admitted to the Ph.D. programme are required to satisfactorily complete a course work within the first four semesters; the modules consists of core course in research methodology and optional courses chosen on the basis of their background and the requirements of their research. Candidates who have passed the **NET** of the **CSIR/UGC** with a **JRF** qualification may apply for admission at any time of the year. However, admission will be based on the interviews to be conducted three times in a year i.e. October, January and April in addition to the July session.

### Infrastructure facilities

The School is well equipped with a wide range of sophisticated analytical equipment such as infrared and UV-visible spectrometers, spectrofluorimeters, single photon counting spectrofluorimeter, GC-MS and LC-MS chromatographic systems, CHNS elemental analyzer, polarimeter, electrochemistry equipment, isothermal titration calorimeter, high sensitivity differential scanning calorimeter laser flash photolysis setup, atomic force microscope, dynamic light scattering apparatus, confocal Raman microscope, fluorescence lifetime imaging microscope and small/wide angle x-ray diffractometer. The NMR facility in the School consists of 200, 400 and 500 MHz spectrometers. A X/Q-band EPR spectrometer with low temperature accessories is also available. The single crystal X-ray diffractometer facility consists of two CCD detector based diffractometers and a powder x-ray diffractometer with variable temperature accessories. The School also uses the facilities at the Central Instrumentation Laboratory, (X-band ESR spectrometer,

circular dichroism spectrometer, scanning electron microscope, differential scanning calorimeter, vibrating sample magnetometer) and Centre for Nanotechnology (transmission electron microscope, rapid thermal annealing and scanning near field optical microscope). The School has ample computing facility consisting of a large number of workstations and personal computers; the state-of-the-art high performance computing facility available at the Centre for Modeling, Simulation and Design is also extensively used by the School. The internet and email facility provided by the University is effectively utilized by the School for scientific correspondence work. Access to most of the important journals is available online.

### Entrance Examinations

The admission to **M.Sc.** is based on the performance of the candidates in the written test. The written test for admission to the **M.Sc.** degree course consists of objective type questions. Candidates are expected to have sound knowledge of **B.Sc.** level general Chemistry and basic Mathematics. The question paper for the test consists of two parts. **Part I** carries 25 marks and **Part II** carries 75 marks. The paper consists of multiple choice questions and wrong answers carry negative marks.

The admission to **Ph.D.** is confined to the awardees of Junior Research Fellowships (JRF) from various government agencies and the shortlisted candidates will be required to appear for an interview.

### Faculty

#### Professors

**Kalidas Sen**, Ph.D. (IIT, Kanpur) – Confined quantum systems, Eigenspectral, information theoretical and complexity studies

**M. Periasamy**, Ph.D. (IISc, Bangalore), F.A.Sc., F.N.A. – Organic Chemistry, Organometallics and Chiral Reagents, Renewable energy sources

**D. Basavaiah**, Ph.D. (BHU) F.A.Sc., F.N.A. – Organic Chemistry: The Baylis Hillman Chemistry, Chiral Catalysis

**M.V. Rajasekharan**, Ph.D. (IIT, Madras) – Inorganic Chemistry (**Dean of the School**)

**M. Durga Prasad**, Ph.D. (Calcutta) – Theoretical Chemistry: Quantum Dynamics and Many Body Theories

**T.P. Radhakrishnan**, Ph.D. (Princeton) F.A.Sc., F.N.A. - Materials Chemistry, Computational Chemistry

**Ashwini Nangia**, Ph.D. (Yale), F.A.Sc., F.N.A.Sc., F.N.A. – Supramolecular Chemistry, Crystal Engineering, Cocrystals and Polymorphism

**K.C. Kumara Swamy**, Ph.D. (IISc, Bangalore) F.A.Sc., F.N.A. - Organophosphorus Chemistry, Main Group Chemistry

**Anunay Samanta**, Ph.D. (Jadavpur) F.A.Sc., F.N.A.Sc. F.N.A. - Physical Chemistry, Photochemistry, Fluorescence Spectroscopy, Time-resolved Spectroscopy

**Samudranil Pal**, Ph.D. (Jadavpur) – Coordination and Organometallic Chemistry

**Musti J. Swamy**, Ph.D. (IISc, Bangalore) F.A.Sc., F.N.A.Sc. – Biophysical Chemistry

**Susanta Mahapatra**, Ph.D. (IIT, Kanpur) – Theoretical Chemical Dynamics, Non-adiabatic Chemistry (Professor – ACRHEM)

**Abani K. Bhuyan**, Ph.D. (Univ. of Pennsylvania) - NMR Spectroscopy, Physics and Biology of Biological Molecules (Professor – ILS)

**Samar Kumar Das**, Ph.D. (IIT, Kanpur), F.A.Sc. – Inorganic and Supramolecular Chemistry

#### Associate Professors

**K. Lalitha Guruprasad**, Ph.D. (Osmania) – Structural Biology

**Tushar Jana**, Ph.D. (Jadavpur) – Polymer Chemistry and Materials Science

**D.B. Ramachary**, Ph.D. (IISc, Bangalore) – Synthetic Organic Chemistry, Engineering Asymmetric Organocatalysis, Theoretical Aspects of Organocatalysis and engineering multi-catalysis cascade (MCC) reactions

**R. Nagarajan**, Ph.D. (Madras) – Organic Chemistry: Heterocycles Chemistry

#### Assistant Professors

**Pradeepta Kumar Panda**, Ph.D. (IISc, Bangalore) – Synthesis and Exploration of Chemical, Material and Biological Aspects of Porphyrinoids.

**Rangarajan Balamurugan**, Ph.D. (IIT, Kanpur) – Synthetic Organic Chemistry, Development of Inhibitors for Biological Functions

**K. Muralidharan**, Ph.D. (IIT, Kanpur) – Synthetic Main Group Chemistry, Polymers and Nano materials

**Viswanathan Baskar**, Ph.D. (IIT, Kanpur) – Clusters: Main group, Transition and Lanthanides

**P. Ramu Sridhar**, Ph.D. (IISc, Bangalore) – Synthetic Carbohydrate Chemistry

**Akhil Kumar Sahoo**, Ph.D. (NCL, Pune) – Organic Chemistry, Material/Medicinal Chemistry, Organometallic Chemistry

**R. Chandrasekhar**, Ph.D. (Max-Planck) - Nano Materials Chemistry

## School of Life Sciences

The School of Life Sciences has been established with an emphasis on interdisciplinary teaching and research in modern biology.

The School consists of four departments:

1. Department of Biochemistry
2. Department of Plant Sciences
3. Department of Animal Sciences
4. Department of Biotechnology

M.Sc. (5-year Integrated) course in Systems Biology is offered at the school level with the participation of faculty from all the departments of the School of Life Sciences as well as faculty from School of Mathematics and Computer Information Sciences, School of Chemistry and School of Physics. The first two years of the programme is coordinated by the Centre for Integrated Studies and the next 3 years by the School of Life Sciences. The School participates in a P.G. Diploma programme in “Medicinal Botany” offered by the Centre for Distance and Virtual Learning. The other academic programmes offered by the School are given under the respective departmental profiles.

The School has established the following Centres for teaching and research:

### 1. UoH-DBT Centre for Research and Education in Biology and Biotechnology (CREBB)

The Centre has been established in 2007 with financial support from the Department of Biotechnology. The activities of this centre include teaching, research and training in diverse areas of Biology and Biotechnology by establishing state-of-the-art teaching and research labs. One of the major objectives of the Centre is also to significantly increase the number of M.Sc., Ph.D. and Post-doctoral researchers over a period of 5 years.

**Prof. A.S. Raghavendra** is the **Principal Investigator** of UoH-DBT-CREBB and **Prof. S. Dayananda** is the **Co-PI**.

### 2. UGC-SAP Centre for Advanced Studies

The University Grants Commission has accorded the status of “**Centre for Advanced Studies**” to the School of Life Sciences for a period of 5 years from 2008. The thrust areas identified under this programme are Bioresources, Novel Biomolecules and Functional Genomics.

**Prof. A.S. Raghavendra** is the Programme Co-ordinator and Prof. Manjula Sritharan is the Dy. Coordinator.

3. The Department of Science and Technology has granted assistance under the FIST programme to Department of Biochemistry (Level-I), Department of Plant Sciences (Level – II) & Department of Animal Sciences (Level –I).

**Prof. M. Ramanadham**, Dept. of Biochemistry is the **Dean of the School**.

### Department of Biochemistry

**Programmes of Study:** The Department offers a 2-year (4-Semester) M.Sc in Biochemistry and a Ph.D programme in Biochemistry. In addition, the faculty participates in the teaching of the M.Sc. (5-year Integrated) programme in Systems Biology.

The **M.Sc. Programme** is envisaged and emphasized as the foundation and most important for understanding the various processes of living organisms or biological systems at the cellular and molecular level. The course is offered to students with a B.Sc. qualification with a minimum of 60% marks in the aggregate of Science subjects with Chemistry or Biochemistry as one of the subjects. As Biochemistry played a crucial role in developing methods that are important in medicine, agriculture and biotechnology, the course offers a good amount of training in experimental skills to students to eventually pursue a career in both basic and applied aspects of biology. The following courses are offered for the two year or four semester M.Sc programme in Biochemistry. All core courses are three credits (3 hrs/week) and electives are 2 credits in nature. **Semester I:** Biophysical Chemistry, Intermediary Metabolism I, Genetics, Microbiology, and two lab courses: Computational Biology (2 credits) and *Biochemical*

*Techniques* -I(4 credits). **Semester II:** Intermediary Metabolism II, Enzymology, Molecular Biology-I, Structural Biology and a lab course on *Biochemical Techniques* II (6 credits). **Semester III:** Basic immunology, Molecular Biology-II, Bioenergetics and Biomembranes, two electives (any from School of Life Sciences) and *Biochemical Techniques-III* (5 credits). **Semester IV:** Nutritional and Clinical Biochemistry, two electives (any from School of life sciences), lab course (3 credits) and a Project work of 8 credits. The following electives are offered by the Dept Biochemistry: Endocrine biochemistry, Immunochemistry, Epigenetics, Protein phosphorylation and signal transduction, and Protein-DNA interactions. The admission of students to the **M.Sc.** course is based on a written test consists of 100 objective type questions of B.Sc. standard. The questions are drawn from Biochemistry, Chemistry and other areas of Biology including Biophysics.

The admission of the students to the M.Sc. course is based on a written test consists of 100 objective type questions of B.Sc. standard. The questions are drawn from Biochemistry, Chemistry, and other areas of Biology including Biophysics.

The admission of students to the **Ph.D programme** is based on the performance in an interview conducted by the Department for those applicants who are qualified for a Junior Research Fellowship (JRF) at the National Level conducted by the CSIR, ICMR, UGC etc. At present, the Department carries out research in the areas of Gene Expression, DNA-repair, Telomere Biology, Cellular Signalling, Survival and Death; Immunology, Molecular Biophysics, Bioenergetics, Protein Biochemistry, Molecular Virology, Molecular Genetics, and Modelling.

**Funding, Research and Infrastructural Facilities:** The Departmental faculty is engaged in highly active and productive research in several frontier areas of modern biology. You may please visit the section of the faculty of Biochemistry and their specializations. The faculty conducts their research with support from several National and International funding agencies in the form of research grants. The Department has also been supported by a grant

from the Department of Science and Technology (DST), New-Delhi, to strengthen the postgraduate teaching and research in the Department under the 'FIST' programme for a period of 5-years (2008.-2013). In addition, the Department has been receiving grants from the Center For Advanced Studies – a status sanctioned to the combined School of Life Sciences (UGC-SAP-CAS-I) for a period of five years (2008-2013) by UGC, New-Delhi; infrastructure grant from the University of Hyderabad-DBT- Center for Research and Education in Biology and Biotechnology (UOH-DBT-CREBB) sanctioned by the Department of Biotechnology, New-Delhi, and a special PURSE grant given to the University of Hyderabad by the Department of Science and Technology, New-Delhi for a period of 5-years.

The faculty of the Department of Biochemistry have on an average of 4-5 years of post doctoral research experience in the most prestigious Universities and institutes from abroad such as Max Planck, MIT, NIH, University of Albany, University of Goettingen, Johns Hopkins, University of Pennsylvania, MD Anderson Cancer Center, Univ of Geneva and Washington, Harvard Medical School etc., prior to joining the Dept. The faculty have been publishing their work in long standing core journals of Biochemistry and Biophysics and also in other areas like Genetics, Cell Biology, and Glycobiology of International repute which include JBC, Biochemistry, BBRC, Genetics, Apoptosis, Arch Biochem Biophys, J. Bacteriology, Glycoconjugate, Mol Cell Biology and Science. The School in general and the Department in particular have many advanced facilities such as platforms for Proteomics, Metabolomics, and Genomics; high speed and ultra centrifuges, several deep freezers, CO<sub>2</sub> incubators, Fluorescence and Confocal microscopy, Bioplex, Spectrophotometers, HPLC and other facilities.

#### **Faculty:**

##### **Professors**

**T. Suryanarayana**, Ph.D. (BHU) FAS-AP: Ribosome structure and Function, Structural and Functional aspects of DNA-Protein Interactions.



**C. K. Mitra**, Ph.D. (TIFR): Electrochemistry of immobilized enzymes (Biosensors), Studies on proteins and nucleic acids (Bioinformatics) and Nanobiotechnology.

**M. Ramanadham**, Ph.D. (Osmania): Cellular immunology, Mechanism of B-lymphocyte activation, Studies on multiple myeloma and immunotoxicity of nanoparticles (**Dean of the School**).

**Kolluru. V. A. Ramaiah**, Ph.D (JNU) FNASc, FAS-AP: Gene Expression: Regulation of protein synthesis in eukaryotes, Cellular signalling mechanisms, ER (Endoplasmic reticulum) stress, Cell survival and death.

**O. H. Setty**, Ph.D. (Delhi Univ): Bioenergetics, Clinical Biochemistry, Role of free radicals in diseases and Anti-oxidant properties of plant extracts (**Head of the Department**).

**N. Sivakumar**, Ph.D. (Mysore) FAS-AP: Protein Biochemistry, Cell and Molecular Biology, Glycobiology, Structure and function of lectins, Evolution of Mannose 6-phosphate receptors and Lysosomal targeting proteins (**Coordinating of Indo-German Research Training Group (IRTG) on Molecular and Cellular Glycosciences**)

### Readers

**Mrinal Kanti Bhattacharyya**, Ph.D (TIFR): DNA-Repair, Recombination, Gene silencing, Telomere biology, Malarial parasite functional genomics and epigenomics.

**Naresh Babu V Sepuri**, Ph.D. (University of Hyderabad): Mitochondrial biogenesis in health and disease, Protein and tRNA import into mitochondria. Role of mitochondria in cancer cells.

**Krishnaveni Mishra**, Ph.D. (JNU): Functional organization of eukaryotic nucleus, Telomere biology, Epigenetics and Gene silencing.

**Sharmistha Banerjee**, Ph.D. (University of Hyderabad): Molecular Biology and Immunology, Molecular pathogenesis of *Mycobacterium tuberculosis* and HIV coinfections.

### Lecturers

**Bramanandam Manavathi**, Ph.D. (SKU): Signal Transduction and Molecular and cellular oncology/ Cancer Biology.

**Ravi K. Gutti, Ph.D. (IARI)** - Stem Cell Biology, Oncology, Signal transduction, Epigenetics, Gene regulatory mechanisms in reproduction, Apoptosis, Molecular and translational medicine

**Seema Misra**, Ph.D (JNU): Molecular Biology, Bioinformatics and Computational Biology.

**Mohd. Akif**, Ph.D. (Manipal University) – Structural Biology, X-ray Crystallography, Structural and functional characterization of biologically important proteins

### Department of Plant Sciences

The Department has been supported under UGC Centre for Advanced Studies in Life Sciences, the DST-Funds for Infrastructure in Science and Technology (FIST) Level-II and DBT under UoH-DBT-CREBB programme. The foundations for the rapid growth of the Department in the last fifteen years have been laid with its philosophy to provide a well-balanced training to the students in modern Plant Sciences & Microbiology to enable them to choose careers in both advanced teaching and high quality research. The Department offers two master's programmes i.e., Plant Biology & Biotechnology, and Molecular Microbiology, and an independent Ph.D. programme.

The Department has set up State-of-the-art laboratories for M.Sc. teaching with the DBT support. Under DST-FIST II, the Department procured Electrophoretic equipment for DGGE, French Press, Fermentor, Incubator Shaker, Advanced Gel Documentation System, real time-PCR, PAM Fluorimeter etc. to strengthen teaching and research activities of the Department, while few more are being added.

All national and international funding agencies like DBT, MNES, CSIR, DST, INSA, UGC, NATP-ICAR, DAE, DOD, IAR, MoES, AP-Netherlands Biotechnology Programme, Humboldt Foundation, International Atomic Energy Agency, Rockefeller Foundation, Volkswagen Foundation, USDA, Indo-French Centre for Promotion of Advanced Research, the European Union, Third World Academy of Sciences are supporting the research activities of the Department.

The individual research laboratories are well equipped, apart from the availability of major equipment in central facilities of the Department, sister Departments in the School, and also at Central Instrumentation Lab of the University. The Faculty from the Department of Plant Sciences have the track record of consciously publishing in journals of repute like Nature, Plant Physiology, Trends in

Plant Sciences, Plant Cell, Plant Cell and Environment, Molecular Breeding, Genes and development, TAG, MGG, Phytopathology, Molecular Plant Microbe Interactions, Plant Molecular Biology, Plant Cell Physiology, BBRC, Molecular Genetics and Genomics, International Journal of Systematic and Evolutionary Microbiology, Phytochemistry etc.

**The Department is supported by DST-FIST programme at level-II.**

### **Programmes of Study**

**1. M.Sc. Plant Biology & Biotechnology:** The course is a four semester programme that is evaluated based on credit system. A total of 11 core courses, four elective courses, three practical courses and a project have to be completed successfully by the students in the four semesters.

#### **Course Content**

Cell & Molecular Biology \* Macromolecular Structure & Function \* Genetics \* Microbiology \* Environmental Biotechnology \* Molecular Biology & Genetic Engineering \* Molecular Plant Pathology \* Plant Biochemistry \* *In vitro* Plant Biology \* Genomics & Proteomics \* Plant Physiology \* Plant Systematics \* Natural Plant Products \* Phytotechnologies \* Plant Developmental Biology \* Plant Biotechnology \* Biodiversity \* Medicinal Botany \* Phytomedicine \* Microbial Technology

**2. M.Sc. Molecular Microbiology:** The course is a four semester programme that is evaluated based on credit system. A total of 11 core courses, four elective courses, three practical courses and a project have to be completed successfully by the students in the four semesters.

#### **Course Content**

Cell & Molecular Biology \* Macromolecular Structure & Function \* Genetics \* Microbiology \* Molecular Biology & Genetic Engineering \* Molecular Plant Pathology \* Microbial Physiology & Biochemistry \* Enzymology \* Molecular Virology \* Genomics & Proteomics \* Bioprocess Engineering & Technology \* Viral Pathogenesis \* Microbial Genetics \* Basic Immunology \* Antibiotics & Chemotherapy \* Microbial Metabolomics \*

Microbial Ecology \* Microbial Technology \* Prokaryotic Systematics.

**3. Ph.D. Plant Sciences:** The Ph.D. programme requires a minimum of 2 years pursuance from the date of confirmation of admission. At the end of I semester, the Ph.D. students would take examination for three theory and one lab courses (Scientific Writing, Research Methodology, and Biostatistics Techniques) for a total of 16 credits. The requirement for the award of Ph.D. includes the submission of a thesis on an approved topic of research under the guidance of a Faculty member. The scholar presents the research work in a comprehensive seminar before the submission of the thesis and faces an oral examination in defence of the thesis. The average time required for Ph.D. is about 4 years.

### **Entrance Examination**

**4. M.Sc. Plant Biology & Biotechnology** entrance examination question paper consists of 100 objective type questions of B.Sc. standard and all are to be answered. Broadly, the question paper will consist of 40 questions in Botany, 20 questions each in Biochemistry/Chemistry, Microbiology and Genetics. **Negative marking is applicable for wrong answers.**

**5. M.Sc. Molecular Microbiology** entrance examination question paper consists of 100 objective type questions of B.Sc. standard and all are to be answered. Broadly, the question paper will consist of 25 questions each in Botany, Zoology, Biochemistry/Chemistry, and Genetics/Microbiology. **Negative marking is applicable for wrong answers.**

**6. Ph.D. Plant Sciences** admissions will be based on an entrance examination and an interview conducted by the Department. The question paper will consist of 75 objective type questions of M.Sc. standard and all to be answered. Broadly, the questions will be from the areas of Plant Biology, General Biology, Microbiology, Molecular Biology, Genetics and Biochemistry. Negative marking is applicable for wrong answers. The ICMR, DBT, ICAR, CSIR-UGC JRF candidates can directly appear for



interview without taking the entrance examination as per the guidelines of the University.

### Course work for Ph.D.

There will be course work for Ph.D. scholars that is mandatory. The course work will comprise of theory sessions in Research Methodology, Scientific Writing and Biostatistics offered by the four departments of the School of Life Sciences. In addition, the candidates will be evaluated for lab course on bioanalytical techniques.

### Infrastructural facilities

The Faculty and students of the Department have access to a range of sophisticated equipment dealing with diverse research topics. These include Ultra-centrifuge, High Speed Centrifuge, Infra-red gas analyzer, Atomic Absorption Spectrophotometer, HPLC, lyophilizer, PCR machine, UV-VIS-NIR spectrophotometer, Liquid scintillation counter, Laser scanner, Gel documentation system, Transilluminators, Inverted Microscope, electroporator, internet, green house and Amersham DNA sequencer (megabase), Fluorescence Microscope, Imaging system/Microarray reader etc. Further the facilities developed under UoH-DBT Centre for Teaching and Research in Biology and Biotechnology are also accessible. The Department is adding more infrastructural facilities under the newly granted FIST Level II programme.

University's Central facilities include Confocal Microscope, Scanning Electron Microscope, Peptide Sequencer etc. In addition, the individual Faculty members have their own well equipped laboratories, computers and access to internet.

### Faculty

#### Professors

**R.P. Sharma**, Ph.D. (JNU) – Plant Molecular Physiology and Developmental Biology

**A.S. Raghavendra**, Ph.D. (SVU), FNA, FASc, FNASc, FNAAS, FTWAS, JC Bose Fellow – Plant Biochemistry & Plant Molecular Physiology: Photosynthesis, Signal Transduction, Medicinal Plants

**M.N.V. Prasad**, Ph.D. (Lucknow), FLS (London), FNIE, D.Sc. (h.c.; Colombo) – Environmental Biotechnology, Plant Ecophysiology, Heavy Metal Stress in Plants, Bioresource Technology, Medicinal Plants

**P.B. Kirti**, Ph.D. (Andhra), FNAAS, FNASc, FAP-AS – Plant Molecular Biology, Plant Genetic Engineering

**Appa Rao Podile**, Ph.D. (SPU), FNASc, FNAMS, FAP-AS, FPSI– Molecular Plant Microbe Interactions

**Attipalli R. Reddy**, Ph.D. (SVU), FAP-AS – Climate Change and Photosynthesis, Biofuels (**Head of the Department**)

**Kottapalli Seshagirirao**, M. Phil. & Ph.D., F.R.A.S. – Plant Systematics, Biodiversity & Conservation, Protein Biochemistry, Glycobiology, Botanical Sanskrit, Telugu & Latin, Indian Medicine, Medicinal & Pharmaceutical Botany.

**Ch. Venkata Ramana**, Ph.D. (Osmania) – Bacterial systematics and Metabolomics

### Readers

**G. Padmaja**, Ph.D. (Osmania) – Plant Genetics, Plant Tissue Culture and Genetic transformation

**Sarada Devi, T.** Ph.D. (UH) – Molecular basis for Phytomedicine – Prevention of Human Cardio Vascular Inflammation

**Gopinath Kodetham**, Ph.D. (SVU) – Plant Molecular Virology, Trafficking & Viral Vectors

**Ragiba Makandar**, Ph.D. (IARI) – Plant Molecular Genetics, Host-Pathogen Interactions, Functional Genomics & Genetic Engineering

**S. Rajagopal**, Ph.D. (SVU) - Plant Biochemistry, Proteomics, Bioenergy, Protein-drug interactions and Molecular dynamics

### Lecturers

**Irfan A. Ghazi**, Ph.D. (Hamdard University) – Functional Genomics, Disease Resistance in Rice, Medicinal Plants

**Y. Sreelakshmi**, Ph.D. (UH) – Functional Genomics, Plant development

## Department of Animal Sciences

The Department of Animal Sciences, established in 1993 is under the umbrella of the School of Life Sciences for academic and administrative purposes. The Department offers **M.Sc.** in Animal Biotechnology and imparts, in addition to the structured four-semester theoretical courses, hands-on training for the students of the course in state-of-art laboratory facilities. The department has an active **Ph.D.** program with a current enrolment of 58 students.

The Department has a strong research program with infrastructural support from the Department of Science and Technology under Funds for Infrastructure in Science and Technology (FIST) program (awarded for the second time to the department) and under the UGC-CAS (Centre for