



**Ph.D. REGULATIONS 2016
(Amended upto July 2017)**

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1.0 DEFINITIONS AND NOMENCLATURE

In these Regulations, unless the context otherwise requires,

- i) **“Programme”** means Doctoral Programme leading to award of Ph.D. in Engineering / Technology / Science / Social Sciences & Humanities / Management Studies etc. both Full Time and Part Time modes.
- ii) **“Course”** means a theory or practical subject that may be prescribed by the Doctoral Committee for the candidate to undergo as a part of the programme requirement.
- iii) **“Institution”** means B.S. Abdur Rahman Crescent Institute of Science and Technology, Chennai 600 048.
- iv) **“Research Board”** means the Board duly constituted by the Vice Chancellor to oversee the research activities of the Institution.
- v) **“School”** means the Schools of Mechanical Sciences / Electrical and Communication Sciences / Computer, Information & Mathematical Sciences / Infrastructure / Architecture / Physical and Chemical Sciences / Social Science and Humanities / Life Sciences / Islamic Studies and such other schools that may be constituted by the Board of Management of the Institution from time to time.
- vi) **“Supervisor”** means any faculty member of this Institution who satisfies the requirement specified and recognised by the Institution as supervisor to guide the research scholars.
- vii) **“Scholar”** means any candidate admitted by the Institution either under Full Time mode or Part Time mode for pursuing Doctoral Programme for the award of Ph.D. degree of the Institution.

viii) “**Doctoral Committee**” means a committee constituted by the Institute for each research scholar to monitor the progress of his / her research work.

2.0 ELIGIBILITY CRITERIA

Two modes of research programmes are available: Full Time mode and Part Time mode. Candidates who satisfy the following criteria are eligible to apply for Ph.D. Programme.

2.1 Relevant master's degree of any Institute recognized by statutory bodies like UGC / AICTE etc., or any other master's degree recognized as equivalent thereto by this Institute. Specific educational qualifications are given below.

	Programme	Qualification for Admission
(i)	Ph.D. Degree in Engineering / Technology	M.E. / M.Tech. or M.Tech. (by Research) in the relevant branch of Engineering or Technology
(ii)	Ph.D. Degree in Science / Social Sciences & Humanities	M.Sc. / M.A. / M.Tech. (by Research) in the relevant branch of Science and Social Sciences & Humanities / MCA.
(iii)	Ph.D. Degree in Management Sciences	MBA / Post Graduate Diploma in Business Management or Administration awarded by Indian Institute of Managements (IIMs) / M.Tech. (by Research) in Management Sciences / MMS / 2 year PG Diploma in Management recognized by AICTE

(or)

2.2 Bachelor's Degree in Engineering / Technology of this Institution or any other qualification recognized as equivalent thereto in the field of study with a minimum of 10 years of R & D Experience in National Research Laboratories / Public Sector Undertakings along with a minimum of three publications in refereed journals / two approved patents.

3.0 OTHER REQUIREMENTS OF THE PROGRAMME

3.1 Full Time Ph.D. Programme

3.1.1 Candidates under Full Time mode shall do research work in this Institution and shall be available during the working hours for Research activities.

3.1.2 Candidates in employment, who want to pursue Full Time should be sponsored / deputed by their employer & should avail leave for the research period and should get formally relieved from their duty to join in the research programme.

3.1.3 Candidates who are sponsored by the AICTE under Quality Improvement Programme (QIP) for teachers of Engineering Colleges and Faculty Improvement Programme (FIP) for teachers of Arts & Science colleges and who satisfy the eligibility conditions shall be eligible for Full Time only, in the disciplines as notified in AICTE/ UGC guidelines.

3.1.4 Candidates who are selected under Fellowship programmes of National or any recognized bodies and who satisfy the eligibility conditions as per the regulations are eligible for Full Time studies in the respective disciplines.

3.1.5 Foreign Nationals sponsored by Government of India on any exchange programme and who satisfy the eligibility conditions as per the regulations, are eligible for Full Time study of our Institution.

3.2. Part Time Ph.D. Programme

The categories of candidates who are eligible to apply for Part Time mode is given below.

3.2.1 Full time teachers of this Institution

3.2.2 Candidates working in the projects undertaken from State / Central / Quasi Government and totally funded through the projects in this Institution. The principal coordinator of such projects shall be the supervisor if he / she is recognised. The candidate should be employed in the project for the minimum period of research programme (Clause 10). Part employments in different spells or in different projects are not permitted.

3.2.3 Candidates working in Industries / R & D Establishments / Labs / Units of Government / Quasi Government or any other research laboratories and sponsored by the respective employer / Organization.

3.2.4 Candidates working in any Government / Aided / Unaided / Self Financing Institution or College or Polytechnic College, sponsored / deputed, by the respective employer.

3.3 Conversion of Full Time to Part Time and Part Time to Full Time

The conversion of Ph.D. registration from Full Time to Part Time and Part Time to Full Time shall be permitted, provided the scholar's supervisor and the Head of the Department recommend the same for valid reasons and if the candidate fulfills the other required norms.

4.0 PLACE OF RESEARCH

The place or places of research in respect of Full Time and Part Time programme are as under:

4.1 Full Time programme

The Full Time programme shall be undertaken normally in the Department of the Institution.

4.2. Part Time programme

- 4.2.1** The place of research for the project candidates mentioned in clause 3.2.2 shall be the Department where the project is undertaken.
- 4.2.2** The place of research in the case of candidates working in industries etc., mentioned in clause 3.2.3 shall be the place where the supervisor is working. The facilities in the industry shall also be availed for research.
- 4.2.3** The place of research in the case of candidates working in Government / Aided / Unaided / Self Financing College or Polytechnic College mentioned in clause 3.2.4 shall be the College where the supervisor is working. The facilities in colleges where the candidate is working may also be availed for research.

5.0 MODE OF SELECTION

- 5.1** The candidates desirous of registering for the Ph.D. programme shall apply in the prescribed application form through proper channel wherever applicable before the due date as indicated in the notification, issued from time to time. Normally the Institute will issue notification for Ph.D. admission twice a year (May & Nov.).
- 5.2** The applications of the candidates shall be processed by Department Selection committees constituted by the Dean (Academic Research) for the purpose of selection. The composition of such committees shall be decided taking into account the number and nature of the applications received.
- 5.3** Such committees shall screen the applications as per the eligibility norms and be responsible for the conduct of test and interview for the eligible candidates. The candidate should submit a Research proposal along with the application form and present it when called for interview. Based on the performance in the Entrance test and interview, the successful candidates shall be short listed by the above committees.

- 5.4** For such short listed candidates, the committees shall also assist in finalizing the supervisors from among the supervisors, recognized by the Institute, taking into consideration of the preference of the candidates and the field of specialization of the supervisors eligible to guide and forward to the Dean (Academic Research).
- 5.5** Candidates with National Research Fellowship such as UGC / CSIR / DST / DRDO etc., are exempted from appearing the entrance examination. However, they have to appear before the Department Selection Committee for interview, which will enable the committee, to allocate supervisors by identifying the areas of research and their availability.

6.0 ADMISSION

- 6.1** The Research Board shall determine the suitability of such candidates and recommend to the Vice Chancellor for the admission of these candidates in the appropriate fields, after giving due consideration to the inter disciplinary fields of research, if any.
- 6.2** With the approval of the Vice Chancellor, the selection of such candidates for provisional registration for the Ph.D. programme shall be communicated to the HOD of concerned Department, supervisor, the candidate and the sponsoring institution, if any.
- 6.3** The date of registration shall normally be the first working day of the month of July and January of the academic year in which the candidate is admitted.

7.0 RECOGNITION OF SUPERVISOR

- 7.1** The applicant for recognition as supervisor shall satisfy the following
- (i) Shall be a full time regular faculty member of this Institution,

(ii) Shall possess a valid Ph.D. Degree

(iii) Shall have at least five research publications to his / her credit in refereed journals, if the applicant is a regular professor.

(or)

Shall have at least two research publications to his / her credit in refereed journals, if the applicant is a regular Associate / Assistant Professor.

7.2 Recognition as supervisor for guiding research work shall be accorded by the Vice Chancellor on the recommendation of the Research Board.

7.3 The recognized supervisors working in industrial organizations (as in clause 3.2.3.) shall function as Joint supervisors only, provided the respective industry / organization is a "Recognized Research Centre" of this Institution.

7.4 Joint Supervisor shall be recommended by the respective Department Selection Committee wherever absolutely necessary, for research area that requires more than one expert.

8.0 CHANGE OF SUPERVISOR

8.1 Under normal circumstances, change of supervisor is not encouraged. However, under extraordinary circumstances like superannuation, leaving the service, supervisor away on other assignments etc, the change is permitted.

8.2 When a supervisor of a research scholar happens to be away from the Institution on any other assignment for more than six months, a joint supervisor shall be nominated by the Dean (Academic Research) in consultation with the concerned HOD of the research scholar.

8.3 When a supervisor retires from service on superannuation or leaves service, an alternate supervisor will be allocated by the respective HOD in consultation with the Department Selection Committee.

9.0 NUMBER OF CANDIDATES PER SUPERVISOR

- 9.1** A Research Supervisor who is a Professor, at any given point of time, can guide a maximum of eight Ph.D. scholars (both Full Time and Part Time put together).
- 9.2** A Research Supervisor who is an Associate Professor can guide up to a maximum of six Ph.D. scholars (both Full Time and Part Time put together).
- 9.3** A Research Supervisor who is an Assistant Professor can guide up to a maximum of four Ph.D. scholars (both Full Time and Part Time put together).

10.0 DURATION OF PROGRAMME

- 10.1** The duration of the programme and the time for submission of thesis are counted from the date of registration vide clause 6.3. The minimum and maximum period for submission of thesis and the duration of the programme shall be as under:
- (i) The minimum duration of the programme in Engineering & Technology, for Full Time and Part Time shall be three years. However, a Full Time scholar can submit thesis after completion of two years of registration, provided all other requirements are satisfied.
 - (ii) The minimum duration of the programme in Science / Social Sciences & Humanities for Full Time / Part Time shall be three / four years respectively.
- 10.2** The minimum duration of the programme in Management Science for Full Time / Part Time shall be as in clauses 10.1(i) and 10.1(ii) for scholars with Engineering and Science / Social Sciences & Humanities background respectively.
- 10.3** The maximum duration for all the above programmes shall be six years.
- 10.4** However, a relaxation up to a maximum of two additional years shall be provided for (i) Women Research Scholars and (ii) Male and Female research scholars with more than 40% Disability.

11.0 EXTENSION OF MAXIMUM DURATION

- 11.1** In exceptional circumstances, if the Doctoral Committee recommends a maximum grace period upto four years beyond the normal maximum period of six years may be granted, by the Dean (Ac R) to enable the research scholar to submit the thesis.
- 11.2** If the research scholar fails to submit the thesis within the extendable period of four years, the registration shall be cancelled.
- 11.3** Break of study to research scholars shall be granted up to a maximum period of two years in spells of six months at a time. Such period shall be accounted for the counting of duration of the programme (clause 10). The research scholar should remit the programme fee during the break of period.
- 11.4** The Dean (Academic Research) shall permit, if deemed fit, reasons for break of study of the research scholar and in extraordinary circumstances like medical grounds, and other compelling reasons which warrants his / her absence to the programme.
- 11.5** Woman Research Scholar may avail Maternity Leave / Child Care Leave, once in the entire duration of Ph. D, for a maximum period of 240 days. This period of leave shall not be accounted in the duration of the program.

12.0 RESEARCH OUTSIDE INSTITUTION

- 12.1** During the course of the Ph.D. Programme, for reasons approved by the Doctoral Committee, a research scholar shall be permitted by the Dean (Academic Research) to spend maximum of one year in an institution or on a project approved for the purpose, outside the Institution for carrying out research in areas related to the subject of investigation.

12.2 Research scholar shall be permitted to do research outside Institution on related fellowship programmes.

13.0 DOCTORAL COMMITTEE

There shall be a Doctoral Committee for each scholar to monitor the progress of research.

13.1 The supervisor shall furnish for every candidate a panel of names of four experts, preferably with doctoral qualifications in the field of proposed research, two from the Institution and two from other organizations, from which two will be recommended by the Dean (Academic Research), as members. Of these two, one will be a faculty member from other Department of the Institution and one outside expert.

13.2 The supervisor of the research scholar is the convener of the Doctoral Committee.

13.3 The joint supervisor, if any, shall also be a member.

13.4 The Head of the department of the research scholar shall be an Ex-Officio member of the Doctoral Committee.

13.5 This Doctoral Committee shall have the following responsibilities:

13.5.1 To review the research proposal and finalize the topic of research.

13.5.2 To guide the research scholar to develop the study design and methodology of research and identify the courses that he/she may have to do.

13.5.3 To periodically review and assist in the progress of the research work of the research scholar.

14.0 COURSE WORK

- 14.1** The Doctoral Committee of a research scholar shall meet within three weeks from the date of communication of provisional registration of the candidate to prescribe course work for the research scholar.
- 14.2** As a part of the Research work, the Scholar needs to pursue PG Level Courses and a minimum of 10 credits and a maximum of 16 credits need to be earned, including a course on Research Methodology. The other courses shall be relevant to the area of Research and advanced level courses preparing the students for Ph.D. Degree as recommended by the respective Doctoral Committee.
- 14.3** If any course specific to the area of research has to be newly designed, then such course shall be formulated as a special elective, which is to be covered in not less than 45 contact periods of instruction and the course syllabus shall be designed by the Doctoral Committee and approved by the Chairman, Board of Studies. These courses shall be of PG level and shall be limited to one.
- 14.4** If at all, the courses prescribed by the Doctoral Committee including the Directed Study courses are either not available or not offered by the Department, under such circumstances, the Scholar may be permitted to pursue the unavailable Courses either from NPTEL or from any other OCW which conducts the required examination and issue a certificate for the credits earned by candidate. Such courses shall be limited to One.
- 14.5** The prescribed course work shall normally be completed within three semesters from the date of provisional registration in the case of Full Time research scholar and four semesters in the case of Part Time research scholar excluding the Break of study period if any.
- 14.6** All the course work of the scholar are to be undertaken as per the academic norms and shall be evaluated by the norms of this Institution.
- 14.7** No change in the course work prescribed shall be made without the approval of the Doctoral Committee.
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- 14.8** Only courses taken after the date of provisional registration shall count towards this requirement. Any courses already passed by the candidate prior to the registration shall not be counted for this purpose.
- 14.9** Candidates with M. Phil. degree related to the proposed Ph.D. field of research, the number of course works can be reduced, if duly recommended by the respective Doctoral Committee.
- 14.10** A Ph.D. scholar has to obtain a minimum of **6.5 CGPA** or its equivalent grade in the allocated course works in order to be eligible to continue in the programme and submit the thesis

15.0 COMPREHENSIVE EXAMINATION

- 15.1** On the successful completion of the prescribed course work, as evidenced by the Grade Sheet of the research scholar issued by the Controller of Examinations, the Doctoral Committee shall conduct for every research scholar a comprehensive (written and oral) examination to test the knowledge of the research scholar in the broad area of specialization and the course work undergone. Based on the result of this examination, the Doctoral Committee shall report to the Dean (Academic Research) within two months of the date of the examination held, the suitability of the research scholar to confirm the provisional registration and to proceed further with his / her Ph.D. work.
- 15.2** If, based on the results of the comprehensive examination a research scholar is not approved by the Doctoral Committee, then a grace period of a maximum of one year shall be given, at the end of which the research scholar shall be re-examined. If found fit, the research scholar shall be permitted to proceed with doctoral work. Otherwise, the research scholar's provisional registration shall be cancelled.

16.0 MONITORING PROGRESS OF CANDIDATES

- 16.1** Every six months commencing from the date of provisional registration, the candidate shall submit progress report in the prescribed format to the supervisor who shall forward it, to the Dean (Academic Research) for information and documentation through HOD.
- 16.2** In addition, a research scholar shall appear before the Progress Review Committee with an internal member of Doctoral Committee once in six months to make a presentation of the progress of his / her work for evaluation and further guidance.
- 16.3** The minutes of the meeting shall be submitted by the Doctoral Committee to the Dean (Academic Research), with a copy to the research scholar.
- 16.4** In case the progress of the research scholar is unsatisfactory, the Doctoral Committee shall record the reasons for the same and suggest corrective measures. If the research scholar fails to implement these corrective measures, the Doctoral Committee may recommend with specific reasons for cancellation of the registration of the research scholar.

17.0 CANCELLATION OF REGISTRATION

- 17.1** The Registration of a research scholar, who has exceeded the maximum period stipulated for the Ph.D. programme as in clause 11.1 and also because of disciplinary action shall stand cancelled automatically.
- 17.2** The Registration is liable for cancellation administratively by the Dean (Academic Research) if
- i. The research scholar has not paid the semester fees within the stipulated time with / without fine.
 - ii. The two consecutive six monthly progress reports are not submitted or not satisfactory.
 - iii. The performance is not satisfactory to the Doctoral Committee and accordingly recommended for cancellation.
 - iii. The research scholar withdraws the course and wishes to cancel his / her registration.

18.0 SYNOPSIS OF THESIS

- 18.1** The research scholar shall be permitted to submit the synopsis only after obtaining the confirmation of registration.
- 18.2** The synopsis shall be accepted only when the Research Scholar has at least one research paper, either published or accepted for publication in Peer Reviewed, Refereed Journals and Indexed by SCOPUS / Web of Science. However, more than one Journal publication is advisable.
- 18.3** In addition, the scholar is expected to make at least two Conference and Seminar presentations and produce documental evidence for the same.
- 18.4** Before convening the DC meeting for synopsis submission, the scholar shall present his entire work, along with specific research contribution before a “**Pre Synopsis Review committee**”, constituted for this purpose. The committee upon reviewing the work done by the scholar and assessing the technical aspects of the research work done, the quantum of work required to earn a degree, quality aspects of the research work, publications requirements etc., shall recommend to convene the DC meeting for Synopsis submission.
- 18.5** The research scholar shall submit to the Doctoral Committee through the supervisor, six copies of the synopsis of the Ph.D. work carried out.
- 18.6** Research scholar who carried out research outside this Institution shall submit the synopsis only after a minimum of three months on his / her return.
- 18.7** If the Doctoral Committee approves the research work reported in the synopsis, it shall forward the six copies of the approved synopsis to the Dean (Academic Research) along with a panel of at least six examiners, three from India and three from Abroad.
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19.0 SUBMISSION OF THESIS

- 19.1** The thesis shall report, in an organized and scholarly fashion, an account of original research work of the research scholar leading to the discovery of new facts or techniques or correlation of facts already known (analytical, experimental, hardware oriented etc.) and demonstrating a quality as to make a definite contribution to the advancement of knowledge.
- 19.2** Three copies of thesis shall be prepared in accordance with the format and specifications prescribed. These shall be submitted within three months from the date of approval of the synopsis by the Doctoral Committee along with three copies of the abstract of the thesis in about 400 words. Under no circumstances, the thesis submission can be delayed except under extraordinary special circumstances, where an extension of three months may be permissible on the recommendation of the supervisor and with the approval of Dean (Academic Research).
- 19.3** The thesis shall include a certificate of the supervisor from the Institution as prescribed, to the effect that the thesis is a record of bonafide research work carried out by the research scholar under his / her supervision and guidance and that the work reported in the thesis has not been submitted elsewhere for a degree or diploma.
- 19.4** The Thesis shall be subjected to Plagiarism check using appropriate tools and if the similarity index is unacceptable, it shall be returned to the research scholar for rectification.
- 19.5** The thesis shall be scrutinized by a Scrutiny Committee constituted by the Vice Chancellor to assess the overall layout, contents and the quality of presentation of the thesis. The deviation, if any from the format and specification prescribed, shall be rectified by the research scholar in consultation with the supervisor and approved by the Dean (Academic Research).
- 19.6** Fees shall be paid by the research scholars for every semester till the submission of the thesis.
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20.0 THESIS EVALUATION

- 20.1** The Thesis shall be referred to two examiners (one from India and another from Abroad) nominated by the Vice Chancellor from the panel of examiners recommended by the Doctoral Committee. The Vice Chancellor may also nominate the examiners from outside the panel.
- 20.2** The examiners are expected to send their reports in the format prescribed within two months from the date of receipt of the thesis.
- 20.3** The Dean (Academic Research) shall take necessary steps to receive the reports from the examiners as quickly as possible.
- 20.4** The examiner shall include in his / her report an overall assessment placing the thesis in one of the following categories.
- i. Recommended for the award of the degree of Doctor of Philosophy (Commended / Highly Commended)
 - ii. Revision required.
 - iii. Rejected.

The examiner shall enclose a report in 200 to 300 words, indicating

- the standard attained in the case of (i),
- the nature of revision in the case of (ii), and
- the reasons in the case of (iii).

- 20.5** If both the examiners recommended the award of the degree, thesis shall be provisionally accepted. Any minor revision, modification etc., suggested by the examiners shall be carried out before the oral examination.
- 20.6** If both examiners recommended rejection, the thesis shall be rejected and the registration of the research scholar shall stand cancelled.
- 20.7** If one examiner recommends the award of the degree while the other recommends rejection, then the thesis

shall be referred to a third examiner to be nominated by the Vice Chancellor as in clause 20.1. If two of the three examiners recommended the award, the thesis shall be provisionally accepted. If two of the examiners recommend rejection, the thesis shall be rejected and the registration of the research scholar shall stand cancelled.

20.8 If any examiner recommends correction / revision of the thesis the candidate shall be permitted only once to revise and resubmit the thesis within six months. The Doctoral Committee shall study the report of the examiners to ascertain whether the corrections / revisions carried out in the thesis is as suggested by the examiners and then recommend panel for constitution of an Oral Examination Board, within a period of three months from the receipt of the reports by the supervisor.

21.0 ORAL EXAMINATION

21.1 The Doctoral Committee shall recommend a panel of three examiners from recognized institutions within India for constitution of an Oral Examination Board.

21.2 The Oral Examination Board shall be constituted by the Vice Chancellor as follows:

i	Examiner of the thesis in India or a specialist in the subject from the panel (in the absence of the former)	Member
ii	A specialist from a recognized institution from the panel	Member
iii	Supervisor of the candidate in the Institution	Member

The Vice Chancellor, if he deems it necessary may nominate the members from outside the panel and the Joint Supervisor as an additional member.

- 21.3** The oral examination shall be conducted as "Open Defence Type" examination.
- 21.4** If the performance of the research scholar at the oral examination is reported by the Oral Examination Board to be not satisfactory, the research scholar may opt to reappear for the oral examination at a later date (not later than 6 months from the date of the first oral examination). On the second occasion, the Oral Examination Board shall include one more examiner nominated by the Vice Chancellor.
- 21.5** If the performance of the candidate at the oral examination on the second occasion also is reported to be not satisfactory, the registration of the candidate shall stand cancelled.
- 21.6** On satisfactory completion of viva-voce examination, the candidate shall submit three copies of the thesis in A5 size along with three copies of the thesis in CD-ROM duly certified by the supervisor that all the corrections have been duly carried out as suggested by the examiners if any, for Institute Library, Department Library and UGC.

22.0 AWARD OF Ph.D. DEGREE

If the report of the Oral Examination Board is satisfactory, the candidate shall be awarded the Ph.D. Degree with the approval of the Board of Management.

23.0 PUBLICATION OF THESIS

Papers arising out of the thesis may be published by the research scholar. However, the thesis as a whole shall not be published by the candidate without the specific approval from this Institution.

24.0 THE ACT OF PLAGIARISM

- 24.1** In the case of research scholars who have committed the act of plagiarism his / her thesis / degree shall be forfeited and his / her research registration shall be terminated in this Institute and also he / she shall be

debarred to register for any other programme in this Institution.

- 24.2** For the abetment of above such action, the recognition of his / her supervisor shall be withdrawn for a period of five years and he / she shall be debarred from guiding the research scholars for any research programme in this Institution till such period.

25.0 Repository with INFLIBNET

- 25.1** Following the successful completion of the evaluation process and before the announcement of the award of the Ph.D. degree, this Institution will submit an electronic copy of the Ph. D. thesis to the INFLIBNET, for hosting the same, so as to make it accessible to all Institutions / public.

- 25.2** Prior to the actual award of the degree, the Controller of Examination will issue a Provisional Certificate to the effect that the Degree has been awarded in accordance with the provisions of the UGC Regulations, 2016.

26.0 POWER TO MODIFY

Notwithstanding all that has been stated above, the Academic Council of the Institution has the right to modify any of the above regulation from time to time.

- 27.0** More information is available in the Institution website www.bsauniv.ac.in

- 28.0** For further queries, scholars are encouraged to contact the office of Dean (Academic Research), B.S. Abdur Rahman Crescent Institute of Science and Technology in person or through email: dean.academicresearch@bsauniv.ac.in

