

BIKANER TECHNICAL UNIVERSITY
BIKANER



ORDINANCES (2022)

Effective from July, 2022

DEGREE OF
DOCTOR OF PHILOSOPHY

BIKANER TECHNICAL UNIVERSITY,
BIKANER
ORDINANCES
DEGREE OF DOCTOR OF PHILOSOPHY

PREAMBLE

Bikaner Technical University, Bikaner offers postgraduate programs leading to the award of degree of Doctor of Philosophy through its Departments /Research Centers. The award of degree of Doctor of Philosophy is in recognition of high academic achievements, independent research and application of knowledge to the solution of technical and scientific problems in Engineering, Technology, Computer Applications, Applied Sciences, Management, Humanities and English. Creative and productive inquiry is the basic concept underlying the research work.

The academic programme leading to the degree of Doctor of Philosophy is broad-based and involves prescribed course requirement and research thesis. The University also encourages interdisciplinary areas through a system of co-supervision through its academic departments and research centers and provides excellent opportunities for such programs. The University undertakes sponsored research and development projects from industrial and other organizations in the public as well as private sector.

The degree of Doctor of Philosophy shall be abbreviated as Ph.D. The degree of Doctor of Philosophy is granted for research work in areas recognized by the Academic Departments/bodies of the University subject to the conditions and regulations contained here in after.

The research work shall be an original work characterized either by the discovery of facts, or by a fresh approach towards the interpretation and application of facts, or development of equipment making a distinct advance in instrument technology. It shall evince the research scholar's capacity for critical examination and sound judgment and shall represent original contribution to the existing knowledge.

The degree of Doctor of Philosophy (Ph.D.) of the Bikaner Technical University, Bikaner shall be conferred on a research scholar who fulfils all the requirements specified in these Ordinances and Regulations. The degree of Doctor of Philosophy will be awarded on the research work carried out by the research scholar.

DEFINITIONS

Note: 'He' and 'His' imply 'he'/'she' and 'his'/'her', respectively here in after.

- i. **“Applicant”** shall mean an individual who applies for admission to the Ph.D. programme of the Bikaner Technical University, Bikaner on a prescribed Application Form.
- ii. **“Caretaker Supervisor”** shall mean a member of the academic staff appointed to look after the research scholar's research interests in the absence of the supervisor and after the submission of the thesis.
- iii. **“Co-supervisor”** shall mean an additional supervisor approved by the Department Research Committee to help in the accomplishment of the research work of the research scholar.
- iv. **“Course Advisor”** shall mean a faculty member nominated by the Department/Research Centre to chalk-out the programme of study of a student registered for the Ph.D. and to advise him on the course to be taken by him. If a supervisor(s) has already been appointed, he shall be the Course Advisor for that student.
- v. **“Course Work”** shall mean courses of study prescribed in the Department/ Research Centre through the Course Advisor to be undertaken by a student registered for the Ph.D. degree.
- vi. **“CRC”** shall mean Centre Research Committee duly constituted at University's recognised Research Centre by the University.
- vii. **“Dean (Research)”** shall mean the Dean (Research) to be appointed by the Vice Chancellor. All the matters related to Ph.D. degree shall be routed through Dean (Research).
- viii. **“Dean of Faculty”** shall mean the Dean of the concerned faculty in which the scholar is registered for the PhD degree.
- ix. **“Degree”** shall mean the Degree of Doctor of Philosophy (Ph.D.) of the Bikaner Technical University, Bikaner.
- x. **“FRC”** shall mean Faculty Research Committee.
- xi. **“RAC”** shall mean Research Advisory Committee.
- xii. **“Educational Institution”** shall mean those colleges which offer Bachelor's or higher degree.
- xiii. **“Full-time Research Scholar”** shall mean person registered for the Ph.D. degree devoting full time for completing the degree requirements.
- xiv. **“Minimum Registration Period”** shall mean the minimum period for which a research scholar must be registered, prior to submission of the thesis.
- xv. **“ODEC”** shall mean Oral Defence Evaluation Committee.
- xvi. **“Part time Research Scholar”** shall mean a person who is registered for the Ph.D. degree and will devote part of his time towards this pursuit and devote part of time towards the discharge of his official obligations.
- xvii. **“BTU”** shall mean Bikaner Technical University, Bikaner.
- xviii. **“Registration Period”** shall mean the length of time span commencing with the date of initial registration at the University/ Research Centre on full-time basis.

- xvii. **“Research Board”** shall mean the Research Board of each faculty of the Bikaner Technical University, Bikaner.
- xviii. **“Research Centre”** shall mean Research Centre approved/ recognized by the University, where research work is permitted to be pursued.
- xix. **“Research Scholar”** shall mean a person registered for the Ph.D. degree programme.
- xx. **“Residential Requirement”** shall mean the minimum period for which a Research scholar must attend the University/ Research Centre on full time basis.
- xxi. **“Sponsored Research Scholar”** shall mean a full-time research scholar *who* receives complete financial support from the sponsoring organization i.e. his employer.
- xxii. **“Self-Sponsored Research Scholar”** shall mean a full-time research scholar *who* has no financial support.
- xxiii. **“Supervisor”** shall mean a regular faculty member of the University/ Affiliated Institute / College or any other person approved by the research board on the recommendation of Department Research Committee and scrutinize by a committee to supervise the research work of a research scholar.
- xxiv. **“University”** shall mean the Bikaner Technical University, Bikaner.

ORDINANCES

O.1 ELIGIBILITY FOR ADMISSION

O.1.1 Eligibility for full time research Scholar

A candidate possessing the qualifications in appropriate areas and fulfilling the eligibility criteria as prescribed below, shall be eligible for admission to Ph.D. programme in the respective disciplines of university:

- O.1.1.1** Master's degree in the appropriate discipline of any recognized University/Institute or equivalent, with a minimum of 55% marks in aggregate (of all the years/semesters) where marks are awarded or minimum equivalent Cumulative Grade Point Average (CGPA) as defined by AICTE.
- O.1.1.2** A relaxation of 5% or equivalent grade point in the minimum eligibility shall be applicable to the applicant belonging to the categories of SC/ST/OBC (Non Creamy Layer), Differently abled persons and those who had obtained their Master's Degree prior to 19th September, 1991 or categories decided by UGC from time to time.
- O.1.1.3** Candidates for full time research programme shall preferably be permitted having sponsorship/ assistantship/ fellowship/ any financial support from university/ state or national level agency, etc., however, candidates may also be admitted without any financial support as above, in self-sponsored category.

O.1.2 Eligibility for Part-time Research scholar

In addition to the educational qualifications mentioned at O.1.1.1 and O.1.1.2 the applicant shall prove the following to the satisfaction of the FRC (Faculty Research Committee):

- i. Permission of the employer in writing to the candidate, to pursue Ph.D. programme along with his regular duties in the organization he is employed.
- ii. Availability of all facilities for pursuing research at the candidate's parent organization/ place of work in the chosen field of research.
- iii. A one-semester relieving certificate issued by the employer is required to allow him to fulfill the residential requirement during course work and contact days with supervisor after completion of the course work as notified by University from time to time.
- iv. Any candidate who is employed in any organization/ institution/ industry situated within the 50km distance from the University may be relaxed for the relieving certificate/ residential requirements for the course work.

O.2 RESEARCH BOARD CONSTITUTION

- O.2.1** There shall be a Research Board of the University. The Research Board shall consist

of the following:

- i. Vice Chancellor (Chairperson)
- ii. Pro- Vice Chancellor
- iii. Dean (Research)
- iv. Dean of the Faculties
- v. One Professor by rotation in order of seniority of each University Teaching department/ Centre and where there is no Professor, Associate Professor (with Doctoral degree) by rotation in order of seniority for a term of three years.
- vi. Whenever there is a Ph.D. proposal from a department which does not have any University teaching department, an external subject expert may be nominated by the Vice Chancellor.

O.2.2 One-third of the members shall form the quorum. In the absence of the Vice Chancellor and the Pro-Vice Chancellor, the senior-most Professor in the University teaching departments present at the meeting will preside. The recommendation of the Research Board is to be reported to the Academic Council. The Research Board shall meet as often as required but at least once in every semester.

O.3 FACULTY RESEARCH COMMITTEE

O.3.1 There shall be a Faculty Research Committee (FRC) for each faculty of the University. The FRC shall consist of the following: -

- i. Dean of the faculty - Chairperson
- ii. Head of the concerned department (with Doctoral Degree) - Vice Chairperson
- iii. Supervisor and Co-supervisor or External Supervisor - Member
- iv. Two Professor (with Doctoral Degree) of the concerned Department - Member
- v. One Professor (with Doctoral Degree) of the allied Department - Member
- vi. Dean Research - Observer

In case where there is no Professor available in University Teaching Department, an Associate Professor (with Doctoral degree) may be taken as member. Similarly, if Head of the concerned department does not possess the doctoral degree, a Professor/ Associate Professor (with Doctoral degree) in order of seniority may act as Vice Chairperson in place of Head in the FRC meeting(s).

O.3.2 In order to conduct and monitor the doctoral research at University recognized Research Centres, a Centre Research Committee (CRC) shall be constituted similar to FRC. The CRC for each recognized Research Centre shall consist of the following: -

- i. Dean of the faculty or an eminent Professor nominated by Vice Chancellor - Chairperson
- ii. Head of the concerned Research Centre (with Doctoral Degree) - Vice Chairperson
- iii. Supervisor and Co-supervisor or External Supervisor - Member

- iv. Two Professor or Principal Scientist (with Doctoral Degree) - Member of the concerned Centre
- v. One Professor or Principal Scientist (with Doctoral Degree) of the University/Other Research Centre nominated by the Vice Chancellor - Member
- vi. Dean Research - Observer

In case where there is no Professor available in University Teaching Department, an Associate Professor (with Doctoral degree) may be taken as member. Similarly, if Head of the concerned Centre does not possess the doctoral degree, a Professor/ Associate Professor/Principal Scientist (with Doctoral degree) in order of seniority may act as Vice Chairperson in place of Head in the CRC meeting(s).

- O.3.3** If required additional members may be nominated by the Vice Chancellor for a particular specialization on the recommendation of FRC/ CRC.
- O.3.4** If a department does not exist in the University, or has less than requisite number of eligible faculty members on rolls, the Vice Chancellor on the recommendation of Dean (Research) may appoint external faculty members to fill in the shortage. Dean (Research) shall propose the names of external faculty members of the subject area. The FRC/CRC will consist of minimum five members including Vice Chancellor's nominee.
- O.3.5** The term of all the members including Chairperson shall be two years. In the absence of Chairperson, the next senior most member shall Chair the meeting.
- O.3.6** Each member except Industrial expert member of the FRC/CRC should qualify the minimum eligibility requirements of a research supervisor.
- O.3.7** Four members of FRC/CRC shall constitute the quorum for a meeting.

O.4 RECOGNITION OF RESEARCH CENTRE IN AFFILIATED COLLEGES

O.4.1 Approval for Research Centre

- O.4.1.1** Colleges may be considered eligible to offer Ph.D. program only if they satisfy the availability of eligible research supervisors, required infrastructure and research promotion facilities as per the regulations.
- O.4.1.2** Post graduate Department of Colleges, Research Laboratories of Government of India/State Government with at least two Ph.D. qualified teachers/ scientists/ other academic staff in the department concerned along with required infrastructure, supporting administrative and research promotion facilities as per UGC Regulations shall be considered eligible to offer Ph.D. programme. Colleges should additionally have the necessary recognition by the Institution under which they operate to offer Ph.D. programme.

O.4.1.3 Colleges with adequate facilities for research as mentioned below may offer Ph.D. program

- i. In case of science and technology disciplines, exclusive research laboratories with sophisticated equipment's as specified by the Institution concerned with provision for adequate space as per research scholar along with computer facilities and essential software and uninterrupted power and water supply.
- ii. Ear marked library/ e-contents/ learning resources including latest books, Indian and International journals, extended working hours for all discipline, adequate space for research scholars in the Department library for reading, writing and storing study and research materials. The institute/center should have the adequate facility of internet/wi-fi with good bandwidth. Authentic plagiarism tool should also be available with the institute/center.
- iii. College may also access the required facilities of the neighboring Institutions/Colleges or of those Institutions/ Colleges/ R&D Laboratories/ Organizations/ Industry which have required facilities.

O.4.1.4 Dean (Research) shall appoint a committee for carrying out preliminary scrutiny of the applications received. Based on the recommendations, Dean (Research) shall refer the matter to Dean (Academics) for inspection of college to ascertain the ground situation. The inspection report shall include videography of the infrastructural facilities including the laboratories, computational facilities, library/ learning resources and software details etc. Such inspection report shall be evaluated by Research Board before granting the approval.

O.4.2 Extension of Approval for Research Centre

The recognition as approved research Centre shall be given initially for a period of five years. The suitability shall again be assessed after every five years. If the research Centre does not satisfy the infrastructure and academic requirements, no further admission of Ph.D. student shall be permitted at the research Centre for at least next two years, after which a fresh application may be entertained for grant of approval of the Research Centre.

O.5 RESEARCH SUPERVISOR

O.5.1 All research work leading to the award of Ph.D. degree shall be carried out under the supervision of the registered research supervisor(s) of the University either in the University Department/ Institution/ College/Industry or at approved research centers of the University.

O.5.2 The Following persons will be eligible to act as research Supervisor:

- i. All faculty members who were recognized as Research supervisors by the respective Universities before the implementation of UGC Regulations-2016 for Ph.D. shall continue to act as Research Supervisors.

- ii. Any regular Professor of the University/ Institution/ Deemed to be University/ College with at least five research publications in SCI-indexed journals and any regular Associate/ Assistant Professor of the University/ Institution/ Deemed to be University/ College with a Ph.D. Degree and at least two research publications in SCI-indexed journals shall be recognized as Research Supervisor.

In areas/ disciplines where there are no or very limited number of SCI-indexed journals, the University may relax the above condition first time to recognize a person as Provisional Research Supervisor with reasons recorded in writing. The Research Supervisor recognized under this category needs to comply the requirement with in two years of time.

- iii. Only a full-time regular teacher of concerned University/ Institution, Deemed to be University/ College can act as a supervisor. The external Supervisors are not allowed. However, Co-Supervisors can be allowed in interdisciplinary areas with the proper justification from the department of the same institute or other related institutions with approval of Research Board. The No-Objection Certificate (NOC)/ consent is required from the parent institute for the Co-supervision provided the external Co-supervisor fulfill the minimum eligibly criterions of the University for the registration of the supervisor.
- iv. In case of topics that are of inter- or multi- disciplinary nature where the department concerned feels that the expertise in the department has to be supplemented from outside, Department may appoint a Research Supervisor from the Department itself, who shall be known as Research Supervisor and a Co- Supervisor from outside the Department/ Faculty/ College/ Institution on such terms and conditions as may be specified and agreed upon by the consenting Institution/ College.

O.5.3 A faculty member willing to act as research supervisor shall have to apply for registration as research supervisor to the office of the Dean (research) in prescribed format. Subsequently, the scrutiny of the received applications shall be made by the committee approved by the Vice Chancellor on the recommendation of the Dean (Research). The report of the scrutiny committee shall be put up in the Research Board. After the due approval of the Research Board, the Dean (Research) shall notify the approved research supervisors of the University.

O.5.4 The joint supervisor from same department/ discipline may be permissible in special cases provided a valid justification is established by the FRC/CRC.

O.5.5 In special circumstances, full-time research may be permitted to carry out his research outside the University/ Research Center subject to the approval by the Research Board on the recommendations of FRC/CRC. In such cases one co-supervisor is a must from the approved work place.

O.5.6 No Person shall be allowed to supervise one's close relatives. The term close relation includes spouse, children, sister, brother, grandchildren, nephew, niece, grandniece, grandnephew, uncle, aunt, first cousin, son-in-law, daughter-in-law and nephew, niece,

grandniece, supervisor's wife's brother and nephew of supervisor's wife.

O.5.7 Appointment of Supervisors and Caretaker Supervisor

A faculty member appointed as a Research Supervisor is normally expected to be available to a research scholar in the Institution/ University till the thesis is submitted. However, under unavoidable circumstances, such as: long leave for more than twelve months, resignation; retirement; or death; a supervisor may not be available to the research scholar. In such special case, appointment of new supervisor(s) will be regulated as under:

O.5.7.1 Supervisor proceeding on long leave for more than twelve months

- i. Where more than one supervisor exists, the supervisor proceeding on long leave for more than twelve months can continue to be a supervisor, provided the supervisor existed for more than eighteen months.
- ii. Where only one supervisor exists, another supervisor may be recommended to be appointed by the FRC/CRC in cases where a student has not yet submitted his synopsis.
- iii. If the synopsis of the thesis has been submitted before the supervisor proceeds on leave, he will continue to be the supervisor and only a caretaker supervisor will be appointed.
- iv. If the thesis has been submitted before the supervisor proceeds on leave, he will continue to be the supervisor and only a caretaker supervisor will be appointed.
- v. Further, if a major revision becomes necessary, and the sole supervisor is on leave, he should be asked to specifically state whether he would effectively help the student carrying out the major revisions within a reasonable period. In case the sole supervisor expresses his inability due to one reason or the other, the caretaker supervisor, if he provides the required help in carrying out the major revision, will automatically be treated as a co-supervisor of that research scholar.

O.5.7.2 If a supervisor proceeds on leave for a period less than 12 months initially, but later extends his leave beyond 12 months, the procedure as per O.5.7.1 shall be followed.

O.5.7.3 Retirement:

A faculty member who is due to retire within the next two years may be appointed as a co-supervisor and can continue to be the co-supervisor even after his retirement provided the FRC/CRC is convinced of his availability / continued guidance to the student. In other cases, a faculty member on retirement may continue as a supervisor / co-supervisor, if reemployed or appointed as Emeritus Fellow; or, Honorary Professor; or, if the synopsis of the thesis has been submitted. Appointment of another supervisor, if necessary, shall be as per the guidelines, as the case may be.

O.5.7.4 Resignation:

A new supervisor shall be appointed, as per the guidelines at point O.5.7.1.

O.5.7.5 A Supervisor dies

A new Supervisor will be appointed, if necessary, by Research Board on the

recommendation of FRC/CRC.

O.5.7.6 Limit for supervising Research scholars by Supervisors

The maximum limit for supervising Ph.D. students at a time shall be governed by the Regulations.

O.6 ADMISSION PROCEDURE

- O.6.1** Applications for admission to the Ph.D. programme shall be invited during an academic year for the available vacancies. The admission to the Ph.D. programme shall be made through BTU Doctoral Admission Test (BTU-DAT) as per procedure laid down in the Regulations.
- O.6.2** FRC and all supervisors of the department will interview qualified applicants in order of merit of BTU-DAT and allot the supervisor(s) on the basis of specialization of supervisors, interest area of the applicant and mutual consent of supervisor(s) and the applicant till all the vacancies are filled as per the Regulations.
- O.6.3** Every successful applicant shall be required to register for the Ph.D. programme, as research scholar. A research scholar will be required to renew the registration every semester, till the submission of the thesis as per the Regulations.
- O.6.4** Those applicants who fail to get admission to a Ph.D. programme, after qualifying the BTU-DAT, due to any reason in an academic session, shall be required to reappear and qualify BTU-DAT again.

O.7 COURSE WORK

A research scholar shall be required to undertake and successfully complete the course work and carry out his research work at the University/ Research Centre, under the guidance of approved supervisor(s) as per the Regulations.

O.8 COMPREHENSIVE EXAMINATION

- O.8.1** The comprehensive examination will consist of only oral examination as the prescribed courses are already evaluated by external examiners in end-term examination by the University. This oral examination will be conducted along with the evaluation of the research proposal by the same committee constituted for the evaluation of the research proposal.
- O.8.2** Research scholar registered in the Ph.D. programme must pass a comprehensive examination designed to test the overall comprehensiveness of the research scholar in the various subjects of his intended area of research as specified by supervisor. This examination is meant to test the student's comprehensive knowledge both in breadth across the general field of study and in depth within the area of specialization. A research scholar can appear in the comprehensive examination only after he has

successfully completed the course work requirements laid down in R.6.

- O.8.3** Research Scholar may appear in the comprehensive examination earliest at the end of the first semester, but must pass it before the end of fourth semester after their initial registration. For this purpose, the Research Scholar shall apply in the prescribed form to concern supervisor. It is the onus of the Research Scholar to apply and also pass the comprehensive examination well within the above said time frame. Only in an extraordinary circumstance the permission to conduct the comprehensive examination beyond the fourth semester and before the end of fifth semester may be granted by the Vice-Chancellor on the recommendation of the FRC/CRC. For this purpose, the supervisor needs to apply for the extension in the time limit to conduct Comprehensive Examination citing the appropriate reasons for the delay, to the FRC/CRC chairperson.
- O.8.4** The research proposal evaluation will be conducted only after the research scholar clears the comprehensive oral examination. When a Research Scholar fails to clear the comprehensive oral examination in his/her first attempt, a second comprehensive examination may be conducted after one month by the same board unless otherwise specifically recommended by the FRC/CRC for the change of board on the request of the supervisor.
- O.8.5** The oral examination shall be conducted at the University Campus in offline or through online mode. The honorarium and TA/DA of the subject expert as per rules shall be borne by the university. However, the TA/DA for the supervisor shall be borne by the parent institute. No TA/DA shall be admissible to the Research Scholar.

O.9 RESEARCH PROPOSAL EVALUATION

- O.9.1** Subsequent upon successful completion of course work each research scholar shall submit his research proposal as approved by the allotted supervisor(s) to Head of the Department/Centre concerned for consideration of the FRC/CRC.
- O.9.2** The external subject expert/examiner for conducting the comprehensive oral examination along with the evaluation of Research Proposal of research scholar should be of the rank of Professor, in case Professor is not available, Associate Professor may be considered from the recognized institutions like IITs/CSIR Laboratories/ Central universities/ DRDO/ NITs/ IIMs/ IITMs/ IITs or eminent experts in the subject areas of the research scholar's thesis with proven record. It is expected that FRC/CRC in consultation with the concern supervisor will suggest 5 (five) names of subject experts for the comprehensive examination/ research proposal/ synopsis examination. Further, the list of additional experts/ examiners may also be taken from the office of the Dean Research and the compiled list of experts/examiners will be presented to Hon'ble Vice-Chancellor for his approval. The office of the Dean Research shall notify the approved expert/ examiner for further process.

A Research Scholar must complete his Research Proposal before the end of 4th semester of his initial registration. Further, if he/she fails to present within time due to any

genuine reason, an extension of six months may be given by approval of the Vice-Chancellor on the recommendation of FRC/CRC.

- O.9.3** The committee shall examine the research proposal and suggest suitable modification / alterations if any. The student shall incorporate suggested changes and resubmit the revised research proposal to the satisfaction of the FRC/CRC.
- O.9.4** The FRC/CRC shall submit the research proposal to the Research Board for its approval, through Dean Research.
- O.9.5** If at any stage, the student wishes to modify the research plan and/or change the title of the thesis approved earlier, supervisor shall arrange the proposal to be put before the committee and the student shall make a presentation before it with the details of the proposed modifications and its justifications. The committee shall make appropriate recommendations for approval of Research Board.

O.10 PERFORMANCE MONITORING

- O.10.1** Progress of the research work of all research scholars in the department shall be reviewed at the end of each semester by respective FRC/CRC. The FRC/CRC may constitute a Research Advisory Committee (RAC) consisting of the supervisor(s) and minimum two subject experts from amongst the panel suggested by supervisor(s), if so required in special circumstances.
- O.10.2** Each research scholar shall appear before the FRC/CRC/RAC once in six months to make a presentation of the progress of his work for evaluation and further guidance. Six monthly progress reports shall be submitted by the research scholar duly endorsed by the Supervisor(s) to the FRC/CRC/RAC. The FRC/CRC shall evaluate and maintain evaluation report in the prescribed form along with all the records and progress reports of each Research Scholar registered in the Faculty/Centre, till the thesis is submitted. The FRC/CRC shall send the evaluation report to the Dean Research for appraisal with anyone of the following recommendations.
 - i. Allowed to enroll in the next semester and continue research;
 - ii. Allowed to enroll and continue research but with suggestions for improvement;
 - iii. Advised to discontinue as the performance is very poor. In that case the matter shall be referred to the Research Board for final decision.

O.11 DURATION OF RESEARCH WORK

- O.11.1** Ph.D. programme shall be for a minimum period of 3 years (six semesters) including course work and maximum of 6 years (twelve semesters) for full time research scholars and 4 years (eight semesters) including course work and maximum of 7 years (fourteen semesters) for part time research scholars. The date of initial registration shall be the date on which the applicant formally registers as research scholar for the first time in the beginning of a semester for the Ph.D. programme, which shall also be the date of

his joining the programme for all intents and purposes.

- O.11.2** Under extraordinary circumstances, the extension beyond the above limits may be permitted by the Honorable Vice-Chancellor on the recommendation of the FRC/CRC on consultation with the report of supervisor and Research Scholar.
- O.11.3** Women candidates and persons with disability (more than 40% disability) may be allowed a relaxation of two years in maximum period. In addition, the women candidates may be provided maternity leave / child care leave once in entire duration for up to 240 days.

O.12 FULL TIME Ph.D. TO PART TIME Ph.D. CONVERSION

- O.12.1** A full-time research scholar, after completion of the course work may be permitted to convert his status to a part time research scholar on the recommendation of supervisor and FRC/CRC and subject to approval of the Research Board.

O.13 EVALUATION OF RESEARCH WORK BEFORE THESIS SUBMISSION/ PANEL OF EXAMINERS

O.13.1 Pre-Synopsis Seminar

- i. On the request of research scholar through supervisor, FRC/CRC shall assess the work through a pre-synopsis seminar. The research scholar can submit the synopsis only if the FRC/CRC is satisfied about the quality of the work for submission as a Ph.D. thesis. FRC/CRC shall evaluate the journal publications of the scholar first from his/her Ph.D. work. The expert who has evaluated the research proposal of the scholar shall be preferably invited for the same. If the expert is not available due to any reason, a new expert shall be appointed on the recommendation of the supervisor through FRC/CRC by the Honorable Vice-Chancellor.
- ii. The pre-synopsis seminar shall be adequately notified by FRC/CRC Chairman so as to enable interested faculty members and students to attend it.
- iii. FRC/CRC shall forward recommendations after successful presentation of the pre-synopsis seminar to the Dean Research and further forward to the Research Board.

O.13.2 Synopsis

The research scholar shall submit three copies in spiral bind and one soft copy in pdf format of the synopsis after the successful presentation of Pre-Thesis Seminar.

O.13.3 Panel of Examiners

- i. University shall prepare an exhaustive panel of experts in various subject areas through the respective FRC/CRC.

- ii. A panel of eight experts in the area of the Ph.D. thesis shall be suggested by the Supervisor(s) while forwarding the title and synopsis of the thesis in a confidential cover to the Dean (Research) through FRC/CRC. The panel so recommended shall include at least 50% of the examiners from abroad / premier institutions like IITs/CSIR Laboratories/ Central universities/ DRDO/ NITs/ IIMs/ IITMs/ State Universities or eminent experts from outside the state not below the rank of Associate Professor. The examiner should be eminent experts in the subject areas of the research scholar's thesis with proven record.
- iii. Vice Chancellor shall be authorized to send the thesis to an appropriate expert out of the list prepared at Para O.13.3 (ii). However, he shall be authorized to add more experts and send thesis for evaluation.
- iv. No close relations of candidate shall be permitted to act as examiner(s).

O.13.4. PLAGIARISM

While submission of the thesis and synopsis the Supervisor(s) shall send a signed report to the University that they have obtained plagiarism report through a standard software (Turnitin or iThenticate or other) assuring that the report certifies that the similarity/plagiarism must not be more than 10% as prescribed by UGC in UGC regulations 2016 or prescribed time to time. However, not more than 5% from single source of others' work. This may further be checked by the University through its own software if needed. The self-plagiarism out of paper published from the thesis work may be deducted from total similarity/plagiarism. Plagiarism report should also be attached with the thesis. The student will be held responsible for academic insanity, if thesis is found with plagiarism.

O.14 THESIS SUBMISSION

The thesis should bear evidence of the research scholar's capacity for analysis and judgment as well as his ability to carry out independent investigation, design or development. No part of the thesis or supplementary published work shall have been submitted for the award of any other degree or diploma.

- O.14.1** A research scholar is allowed to submit his thesis only if he/she has at least one paper in SCI/SCIE indexed journals/patents and one peer reviewed International Journal and one IEEE (or society applicable to subject)/ International Conference paper, which has been presented by the student in the area of research work and only the papers published with names of candidate and guide/co-guide will be considered as papers published out of thesis work. Other papers with outside multiple authors will not be counted.
- O.14.2** The thesis shall be written in English in the specific format and shall contain a critical account of the research work carried out by the research scholar. It should be characterized by discovery of facts or fresh approach towards interpretation of facts and theories or significant contribution to knowledge or development or a combination

of these. Its format, front page/cover format and colour codes of the binding and copyright certificate shall be as specified by the University from time to time.

O.14.3

- i. Initially the research scholar is required to submit three copies of the thesis in soft binding/spiral binding for evaluation of the thesis.
- ii. The research scholar shall also submit the data/software etc. used for analysis and deriving the results along with the thesis.

O.15 BOARD OF EXAMINERS FOR THESIS EVALUATION

On receipt of the title and synopsis of the thesis, the Dean (Research) shall submit the panel of examiners suggested by the FRC/CRC, for each research scholar, to the Vice Chancellor for constituting Board of Examiners (BOE). The BOE shall consist of three examiners as:

- i. One internal examiner i.e., supervisor (category I)
- ii. One external examiner from the approved panel (Category II)
- iii. One external examiner from the approved panel who shall be from abroad/premier institutions as laid down in O.13.3 (ii) (Category III)

A person working in the organization/ institution where research scholar is employed cannot be appointed as an external examiner.

O.16 THESIS EVALUATION

O.16.1 The thesis shall be evaluated by Board of three examiners (as per O.15)

O.16.2 The entire process of evaluation of Ph.D. thesis shall be completed within a period of three months from the date of submission of thesis.

O.16.3 Each examiner will be requested to submit a detailed assessment report and his recommendations on the prescribed form to the Dean (Research) within two months of the date of receiving the thesis.

O.16.4 In the event of the thesis assessment report not being received from an examiner within a period of two months, a reminder shall be sent to the examiner and further if he/she does not respond, the Dean (Research) may seek approval of Vice Chancellor for appointment of another examiner.

O.16.5 (i) Examiners will examine the thesis individually with a view to judge whether the thesis is a piece of research work characterized by;

- a. The discovery of facts, and/or
- b. A fresh approach towards interpretation and application of facts or theories, and/or
- c. Distinct advancement in technology/ science/ techniques etc.

(ii) The examiner will be required to give his opinion about research scholar's capacity

for critical examination and sound judgment. All examiners will submit the reports on the prescribed form clearly indicating one of the following four definite recommendations:

- a. The thesis is recommended for the award of Ph.D., or
- b. The thesis is recommended for the award of Ph.D. Degree subject to the research scholar giving satisfactory answers to queries, specifically mentioned in the report, at the time of Viva-voce examination, or
- c. The research scholar be allowed to resubmit his thesis in the revised form, or
- d. The thesis is rejected.

O.16.6 The University shall take a decision on the basis of recommendations of the examiners according to Table given below:

S. No.	Recommendation of Examiners			Decision
	1	2	3	
1.	Accept	Accept	Accept	Thesis Accepted
2.	Reject	Reject	Reject	Thesis Rejected
3.	Accept	Accept	Reject	*A
4.	Accept	Reject	Reject	*B
5.	Accept	Revise	Reject	*C
6.	Accept	Revise	Revise	*C
7.	Revise	Revise	Revise	*C
8.	Revise	Revise	Reject	*C
9.	Revise	Reject	Reject	Thesis Rejected
10.	Accept	Accept	Revise	*C

*A If the thesis is recommended to be rejected by one of the three examiners, fourth examiner (from the same category as laid down in) shall be appointed from the approved panel of examiners. In case the fourth examiner, after evaluation, recommends:

- (i) Rejection, the thesis would be rejected
- (ii) Acceptance, the thesis would be accepted after the viva-voce is conducted.
- (iii) Revision, the thesis would be suitably revised with in a period of one year and resubmitted to the same examiner for revaluation, till acceptance/ rejection, and thereafter Table as above shall apply accordingly.

*B If the thesis is recommended to be rejected by two of the three examiners, the thesis shall not be accepted. However, the research scholar may be allowed to resubmit the thesis normally within one year, provided the title of the thesis remains unchanged.

Then after normal procedure will be followed for the thesis evaluation.

*C The thesis would be suitably revised, with in a period of one year, for re-evaluation by the examiner(s) (who has or have recommended revision) till acceptance/ rejection, and thereafter Table as above shall apply accordingly.

O.16.7 In case of ambiguous recommendations by the examiner, Dean (Research) will approach the examiner for a clear recommendation. In case clear recommendation is not forthcoming, the matter may be referred to the Vice Chancellor for his decision.

O.16.8 Any doubt, arising out of following the procedure laid down in 15 above, shall be referred to the Vice Chancellor for the decision.

O.16.9 Thesis after successful completion should be uploaded on website as per UGC norms.

O.17 RESUBMISSION

O.17.1 In case of resubmission of the thesis, examination fee shall be paid again by the research scholar.

O.17.2 The revised thesis may be submitted within one years from the date of such intimation.

O.18 ORAL DEFENCE EXAMINATION

O.18.1 If the thesis is recommended for the award of degree, the research scholar shall be required to defend his work/thesis orally (viva-voce examination) before a duly constituted committee, ODEC. Details of the viva-voce shall be adequately notified so as to enable interested staff members and students to attend it.

O.18.2 The ODEC shall consist of supervisor(s) (internal examiners), and one external examiner. The internal examiner(s) shall arrange the viva voce examination of the research scholar.

O.18.3

- i. In case of non-availability of the External Examiner(s) for three months in conducting the viva-voce examination, the Vice Chancellor may appoint another examiner to conduct the viva-voce examination from the existing panel. If need be, the supervisor may suggest a fresh panel of examiners.
- ii. The ODEC shall be provided with the comments made by the examiners (thesis evaluators) before the viva-voce examination, if any.
- iii. If there is difference of opinion among the viva-voce examiners, the recommendations of the ODEC will be referred to the Vice Chancellor for final decision.
- iv. Internal examiner(s) shall arrange for the viva-voce examination of the research scholar as early as possible after receiving the notification from Dean (Research).
- v. In case of the inability of the internal examiner(s) to have the viva voce examination conducted due to any reason whatsoever, the Vice Chancellor may appoint another Internal Examiner(s) from amongst the faculty of the department concerned who

belongs to the particular field in consultation with Dean (Research) and Head of the Department concerned to conduct the viva-voce examination. In such cases also, the Ph.D. work will be deemed to have been carried out under the guidance of the supervisor(s) only.

- vi. Any other matter not explicitly provided herein or of an exceptional nature, may be referred to the Vice Chancellor for decision.

O.18.4 On the completion of all stage of the examination, the ODEC shall submit evaluation report in prescribed form and shall recommended to the Dean (Research), on the following courses of action:

- i. That the degree be awarded;
- ii. That the research scholar be re-examined at a later specified time in a specified manner;
- iii. That the degree shall not be awarded. The thesis will be rejected on the conclusion the thesis in not genuinely the work of the research scholar.

In case of (i) and (ii), the ODEC shall also provide to the research scholar a list of all corrections and modifications in the thesis (if required) including suggestions made by the examiners during the thesis evaluation. The second viva-voce examination, if required, may be held normally after a period of three months.

O.19 AWARD OF Ph.D. DEGREE

O.19.1 The degree shall be awarded by the University provided that:

- i. The ODEC recommends so;
- ii. The research scholar produces a 'No Dues Certificate' in the prescribed format in the case of students who undertook research at the University premises.
- iii. The research scholar has to submit four hard cover copies of the thesis; one each for the Departmental Library, University Library, supervisor(s) after incorporating all necessary amendments/ corrections/ modifications suggested during thesis evaluation at the time of viva-voce examination, if any.
- iv. The research scholar has to submit soft copies of thesis and synopsis in pdf format in CD/USB drive to the office of the Dean Research along with a copyright certificate in the prescribed format.

O.19.2 The award of the Ph.D. to an eligible research scholar shall be made in accordance with the Regulations of the University.

O.20 WITHDRAWAL FROM Ph.D. PROGRAMME

If a research scholar withdraws from his Ph.D. programme or his registration is terminated, his research scholar status ceases. If such a research scholar is re-admitted within a period of six years, he/she may be given weightage to the credits acquired during the previous registration on the recommendation of FRC/CRC, except in the

case of termination on disciplinary grounds.

O.21 GENERAL

- O.21.1** The supervisor, department / Research Centre and University shall not be responsible for failure of the student in completing any of the requirements for award of Ph.D. degree to the research scholar.
- O.21.2** Any doubt or dispute about the interpretation of these Ordinances shall be referred to the Vice-Chancellor, whose decisions shall be final and binding.
- O.21.3** Notwithstanding anything contained in these Ordinances, all categories of the research scholars shall be governed by the rules and procedures framed by the Academic Council in this regard, and in force from time to time.

O.22 INCENTIVES TO RESEARCH SUPERVISORS

- O.22.1** Each Research Supervisor shall be credited a load of 2 periods/ week to his/ her teaching load irrespective of number of candidates working under him.

O.23 IMPROVEMENT IN QUALITY OF RESEARCH AND INDUSTRIAL INTRACTION

- O.23.1** The efforts for research should lead to benefit of society directly/ indirectly.
- O.23.2** Departments shall identify research areas and form research groups consisting of faculty members having common specializations and research interests.
- O.23.3** Departments shall interact with industries to take inputs to define research problems. Outcome of such type of research efforts may lead to Technology Transfer to industries for improving processes or production of new products/ new innovation.
- O.23.4** The research activities shall lead to internal revenue generation through consultancy and testing, technology transfer/ transfer of resources outcome, IPR etc. which may be utilized for further development of department and the institute.
- O.23.5** The research activities should emphasis to file patents at national and / or international level. Interdisciplinary nature of the research should be encouraged.

O.24 INCENTIVES TO RESEARCH SCHOLARS

- O.24.1** Full time scholars may be provided teaching assistantship as per the AICTE / UGC norms.
- O.24.2** Admission in part-time category may be granted to in-service candidates having a minimum professional experience of one year after his PG degree from among faculty members working in any Engineering College/ Polytechnic / University / Deemed to be university (recognized/ accredited by appropriate bodies in India) or staff of public/ private organizations.

- O.24.3** Ph.D. programme in subject areas of inter-disciplinary nature may be allowed.
- O.24.4** The following category of candidates may be exempted from appearing in the admission test.
- i. Faculty members under QIP (Quality Improvement Programme)/ FIP (Faculty Improvement Programme).
 - ii. Candidates qualified in UGC-CSIR/ JRF/ GATE/ADF. The candidate should have qualified GATE/NET during the last 5 years.
- O.24.5** Tuition fee may be waived off to needy students as per the norms decided by the university.
- O.24.6** University may set up research center in the institutes under their jurisdiction where research guide and research facilities are available.
- O.24.7** The research scholar must have at least 75% attendance in his/her course work and the University should explore the induction of online courses such as NPTEL/ SWAYAM/ any other AICTE/ UGC approved courses.
- O.24.8** Minimum number of contact period is 240 days in an academic year.
- O.24.9** All full time Research Scholars shall be eligible for 30 days leave in an academic year. They shall not be entitled for vacations in the institution/ University.

O.25 ADDITIONAL PROVISIONS

- O.25.1** Universities may add provisions, necessary for their respective university, not covered above. University will form all such ordinances and bodies necessary for smooth running of Ph.D. programme such as Faculty Research Committee (FRC), Research Board etc. The composition, tenure and eligibility of members for FRC/ Research Board/ any other body, shall be approved Academic Council of the respective university.
- O.25.2** The specific condition(s) laid down by the statutory bodies like AICTE (All India Council for Technical education), MCI (Medical Council of India), VCI (Veterinary Council of India), ICAR (Indian Council of Agriculture Research), COA (Council of Architecture) or any such body, may be incorporated by the respective universities.

O.26 DEPOSITORY WITH INFLIBNET

- O.26.1** Following the successful completion of the evaluation process and after the award of PDC, the Ph.D. thesis should be deposited with the INFLIBNET for hosting to accessible to all Institutions / Colleges.
- O.26.2** Prior to the actual award of the degree, the degree-awarding Institution shall issue a provisional Certificate to the effect that the Degree has been awarded in accordance with the provisions of the UGC Regulations, 2016.

O.27 SPECIFIC PROVISION

O. 27.1 If any provision is not covered or if any question arises regarding the interpretation of any provisions of these regulations, Vice Chancellor shall be authorized to take final decision.

Registrar

Bikaner Technical University, Bikaner

Vice Chancellor

Bikaner Technical University, Bikaner

BIKANER TECHNICAL UNIVERSITY
BIKANER



REGULATIONS (2022)
Effective from July, 2022

DEGREE OF
DOCTOR OF PHILOSOPHY

REGULATIONS

The following Regulations shall apply to all categories of research scholars pursuing courses of study and research leading to the Doctor of Philosophy degree:

DEFINITIONS

Note: 'He' and 'His' imply 'he'/'she' and 'his'/'her', respectively here in after.

- i. **“Applicant”** shall mean an individual who applies for admission to the Ph.D. programme of the Bikaner Technical University, Bikaner on a prescribed Application Form.
- ii. **“Caretaker Supervisor”** shall mean a member of the academic staff appointed to look after the research scholar’s research interests in the absence of the supervisor and after the submission of the thesis.
- iii. **“Co-supervisor”** shall mean an additional supervisor approved by the Department Research Committee to help in the accomplishment of the research work of the research scholar.
- iv. **“Course Advisor”** shall mean a faculty member nominated by the Department/Research Centre to chalk-out the programme of study of a student registered for the Ph.D. and to advise him on the course to be taken by him. If a supervisor(s) has already been appointed, he shall be the Course Advisor for that student.
- v. **“Course Work”** shall mean courses of study prescribed in the Department/ Research Centre through the Course Advisor to be undertaken by a student registered for the Ph.D. degree.
- vi. **“CRC”** shall mean Centre Research Committee duly constituted at University’s recognised Research Centre by the University.
- vii. **“Dean (Research)”** shall mean the Dean (Research) to be appointed by the Vice Chancellor. All the matters related to Ph.D. degree shall be routed through Dean (Research).
- viii. **“Dean of Faculty”** shall mean the Dean of the concerned faculty in which the scholar is registered for the PhD degree.
- ix. **“Degree”** shall mean the Degree of Doctor of Philosophy (Ph.D.) of the Bikaner Technical University, Bikaner.
- x. **“FRC”** shall mean Faculty Research Committee.
- xi. **“RAC”** shall mean Research Advisory Committee.
- xii. **“Educational Institution”** shall mean those colleges which offer Bachelor’s or higher degree.
- xiii. **“Full –time Research Scholar”** shall mean person registered for the Ph.D. degree devoting full time for completing the degree requirements.
- xiv. **“Minimum Registration Period”** shall mean the minimum period for which a research scholar must be registered, prior to submission of the thesis.
- xv. **“ODEC”** shall mean Oral Defense Evaluation Committee.
- xvi. **“Part time Research Scholar”** shall mean a person who is registered for the Ph.D.

degree and will devote part of his time towards this pursuit and devote part of time towards the discharge of his official obligations.

- xvii. “**BTU**” shall mean Bikaner Technical University, Bikaner.
- xviii. “**Registration Period**” shall mean the length of time span commencing with the date of initial registration at the University/ Research Centre on full-time basis.
- xix. “**Research Board**” shall mean the Research Board of each faculty of the Bikaner Technical University, Bikaner.
- xx. “**Research Centre**” shall mean Research Centre approved/ recognized by the University, where research work is permitted to be pursued.
- xxi. “**Research Scholar**” shall mean a person registered for the Ph.D. degree programme.
- xxii. “**Residential Requirement**” shall mean the minimum period for which a Research scholar must attend the University/ Research Centre on full time basis.
- xxiii. “**Sponsored Research Scholar**” shall mean a full-time research scholar except that he receives complete financial support from the sponsoring organization i.e. his employer.
- xxiv. “**Supervisor**” shall mean a faculty member of the University/ Affiliated Institute / College or any other person approved by the research board on the recommendation of Department Research Committee to supervise the research work of a research scholar.
- xxv. “**University**” shall mean the Bikaner Technical University, Bikaner.

R.1 CLASSIFICATIONS

The Full-time research scholar and Part time research scholar shall be further categorized as under on the recommendation of FRC/CRC:

R.1.1 Full time Research Scholar

a. With fellowship

This include research scholar getting the University fellowship/ assistantship and research scholar who receive their fellowship and contingency grants from organizations such as Council for Scientific and Industrial Research (CSIR), University Grants Commission (UGC), Quality Improvement Programme (QIP), Department of Atomic Energy (DAE), Department of Science and Technology (DST), Department of Biotechnology (DBT), Indian Council of Medical Research (ICMR), DRDO, AICTE, ICAR and other similar organizations.

b. Sponsored

An Employee of a Public Sector Undertaking, a Government Department, a Research & Development organization, or an Educational Institution, or a private Industry, with a minimum relevant working experience of two years may be considered for admission as a sponsored full-time research scholar. Sponsored applicants shall be eligible for admission provided that they are treated by their employers as on duty with their normal salary and allowances and are fully relieved for a minimum period of three years. He/ She shall produce sponsorship certificate from the parent organization along with the application for admission.

c. Self-Sponsored

This category refers to persons who are relieved from governmental or educational institutions on study leave for a period of not less than two years for pursuing Ph.D. programme or a research scholar who has no financial support.

d. Students from Abroad

These students are admitted through Embassy/High Commission of the respective Government after getting approval from the Ministry of External affairs and No Objection Certificate (NOC) from the Government of India or admitted under a Memorandum of Understanding (MOU). He/ She shall produce sponsorship certificate from the sponsoring organization along with the application for admission.

R.1.2 Part-time Research Scholar

a. University Faculty/ Staff

This category refers to persons who are employees of the University with more than three years of service and are admitted to the Ph.D. programme. They are expected to work for their Ph.D. programme after fulfilling their normal duties. A faculty

member/staff who has opted for supervisor(s) outside his department shall have to register in the main supervisor's department.

b. Project Staff

This category refers to persons working on different research projects at university. They may be admitted to the Ph.D. programme subject to the consent of the Principal Investigator/Coordinator of the project. They are expected to work for their Ph.D. programme after fulfilling their normal duties.

c. Self – Financed

An employee of a Public Sector Undertaking, a Government Department, a research & Development organization, a private industry (approved by the concerned FRC), an educational institution or a defense organization with a minimum relevant working experience of three years may be considered for admission as a part-time research scholar.

R.2 ELIGIBILITY FOR UNIVERSITY FELLOWSHIPS

R.2.1 The University fellowship/ teaching assistantship and contingency grant are admissible to full-time Research scholars (Indian nationals only) as per the University norms provided they are not receiving financial assistance from any other agency. A separate office order shall be issued by the competent authority of the University in this regard. Fellowship awardees shall not be permitted to undertake any employment during that period.

R.2.2 The fellowship/contingency shall be granted initially for three years and it can be extended for subsequent years subject to the satisfactory performance of the student evaluated by Research Advisory Committee (RAC). The RAC shall submit its recommendation through the concerned FRC/CRC for the approval of the Research Board. The fellowship may be given for maximum duration of five years or up to the thesis submission whichever is earlier.

R.2.3 The University reserves the right to terminate the fellowship/contingency of any research scholar at any stage, if the progress of research work is not satisfactory.

R.2.4 The research scholar getting University fellowship shall be required to give eight hours of teaching assistance per week or as modified from time to time by the University.

R.3 RESEARCH SUPERVISOR

R.3.1 In case a research supervisor is transferred to a college outside the jurisdiction of the University, he/ she shall not remain eligible for fresh registration of research scholar as a main supervisor, till he/ she joins back in the college under jurisdiction of this University. However, the supervisor concerned shall continue to supervise the already

registered research scholars.

R.3.2 No teacher shall be allowed to register a research scholar independently two years prior to his superannuation. The research scholars who are registered with him prior to superannuation shall continue. No retired teachers of any university or affiliated college shall be allowed to register a research scholar independently.

However, Emeritus/ Adjunct/ Visiting Professor having major research projects from national/international funding agencies shall be allowed to register number of research scholars in joint supervision, equivalent to the regular faculty member.

R.3.3 Limit for supervising Research Scholars by Supervisors

At any given point of time the Research Supervisor / Co-supervisor shall not be allowed to guide research scholar more than the number as specified below:

(i) Professor-08 (ii) Associate professor -06 (iii) Assistant Professor-04

R.3.4 The allocation of Research Supervisor for a selected research scholar shall be decided by the FRC/CRC concerned depending upon the number of scholars per supervisor, the available specialization among the supervisors and research interest of the research scholar indicated at the time of interview/viva-voce. In normal condition, maximum two scholar shall be allotted to single supervisor in one academic year for uniform distribution, efficient guidance and supervision. However, In exceptional cases, this limit may be increased with the approval of Research Board on the recommendation of the concerned FRC/CRC with proper justification.

R.3.5 In case of relocation of Ph.D. scholar due to marriage or otherwise, the research date shall be allowed to transferred to the University to which the scholar intends to relocate, provided all the other conditions in these regulations / guidelines are followed in letter and spirit and the research work does not pertain to project secured by the parent institution / supervisor from any funding agency. The scholar shall however give due credit to the parent guide and institution for the part of research already done.

R.3.6 University shall make appropriate provision so that eligible research supervisors do not refuse to guide research scholars.

R.4 ADMISSION PROCEDURE TO THE Ph.D. PROGRAMME

R.4.1 Notification and Procedures for Ph.D. admission

Applications for admission to the Ph.D. programme shall be invited once in an academic year. BTU DAT Coordinator shall be appointed by the University for admission to the Ph.D. programme. All applicants seeking admission to a Ph.D. programme through BTU Doctoral Admission Test (BTU-DAT) shall have to apply in prescribed application form.

- i. University shall conduct an annual entrance test at pre-notified date for admission to Ph.D. programme.

- ii. University shall decide the number of Ph.D. scholars to be admitted depending upon the number of available supervisors and other academic and physical facilities available.
- iii. University shall notify well in advance in at least two (2) newspapers having wide publicity of which one at national level and one in the regional language. The detailed advertisement and the information brochure containing the number of seats for admission/subjects/discipline-wise distribution of available seats, criteria for admission, procedure, examination centers for entrance test and other relevant information for the benefit of the candidates.
- iv. University shall adhere to the State Reservation Policy. The concern center shall prepare the roster and communicate it to the BTU-DAT coordinator for display on BTU-DAT web portal. The FRC/CRC need to follow the reservation roster while preparing the final list of the selected candidates for the admission.
- v. The entrance examination BTU-DAT shall be of two-and-a-half-hour duration consisting of 100 objective type multiple choice questions of one mark each in which a set of 50 questions will be based on for Research Methodology and another set of 50 questions for Specialization paper. The candidates who obtain at least 50% marks in the entrance examination (i.e. 50 marks out of the maximum total marks 100 in both the components of the entrance exam taken together) will be declared as qualified for the interview. Provided that a relaxation of 5 % of marks (from 50% to 45%) shall be allowed for the candidates belonging to "SC/ST/OBC (Non-Creamy layers)/MBC (Non Creamy layers)/Differently-abled category/ EWS" in the BTU-DAT examination to qualify for the interview (i.e. 45 marks out of the Maximum total marks 100 in both the components of the entrance exam taken together)." It will be modified from time to time as per the UGC guidelines.
- vi. Qualified candidates, shall be called for interview/viva voce before the Department Research Committee to discuss their research interest/ area and give a presentation on the same.
- vii. All candidates who qualify UGC-NET (including JRF/ UGC-CSIR NET/ GATE/ ADF/ SLET/ Teachers Fellowship holders) may be exempted from Ph.D. entrance test and will be called for interview. Priority shall be given to the candidates who belongs to the above categories.
- viii. The interview/viva voce shall also consider the following aspects-
 1. The candidate possesses the competence for proposed research work
 2. The research work can be suitably undertaken at the institution/ college/ research centre.
 3. The proposed research work is contributing to new/ innovative idea.
 4. The allotment of the supervisor and topic shall be done on the merit-cum-choice of

the candidate. However, recommendation of FRC shall be final.

- ix. The University reserves the right to increase or decrease the number of vacancies or not to fill any of the vacancies during the admission process at any time without the prior notice.

R.4.2 Final Selection of the candidates:

- i. If the number of seats is equal to or more than the qualified candidates, the FRC may recommend all or less number of candidates depending upon the criteria specified at R.4.1(viii).
- ii. If the number of seats is less than the number of qualified candidates, final selection shall be made on the basis of merit in the qualifying test and viva-voce/ interview. The merit will be prepared by giving 70% weightage for the entrance test and 30% for the performance in the interview/ viva-voce. The distribution of the 30% marks of the interview/ viva-voce shall be as below:
 - 10 marks of candidate's competence in the proposed research area viz. familiarities with the necessary software/ lab equipments/ analytical etc and research aptitude.
 - 10 marks contribution of the proposed research work to new/ innovative idea.
 - 10 marks for candidates technical/scientific knowledge in the proposed research area.
- iii. All admissions shall be final subjected to the approval of Research Board of University.
- iv. University shall maintain the list of all Ph.D. registered students on its website on year wise basis. The list shall include all information including Aadhar Number as stipulated by UGC in the Performa informed vide letter dated 9th March 2017.

R.5 RENEWAL OF REGISTRATION

Every research scholar shall be required to renew the registration every semester till the submission of the thesis. The renewal of registration every semester shall be subject to the satisfactory progress in his research work as recommended by FRC/CRC through RAC.

R.6 COURSE WORK

- R.6.1** Each research scholar admitted to the Ph.D. programme shall be required to undertake and successfully complete the prescribed course-work as per the UGC guidelines in one/ two semester duration. If a candidate fails in any course, then he/she may be given one more chance to clear the course work examination conducted by the University on deposition of the prescribed fee/ registration fee as per the University rules. However, attendance shall not be compulsory for reappearing in the course work examination. In such a situation, the duration of the course work shall be increased to three semesters. If a candidate fails to clear course work examination in three semesters, his/her

admission shall be treated as cancelled. The course work shall include minimum five papers (four papers of three hours per week and one paper on "Research and Publication Ethics" of two hours per week). The course work shall be treated as pre-Ph.D. preparations.

The papers of the course work should be studied along with the M.Tech./MCA/MBA/Others students. Students may also be motivated and allowed to take the MOOC/NPTEL/SWAYAM courses. The end-term examination will be conducted by the university and the examination fee will be borne by the research scholar notified by university from time to time.

- R.6.2** The first paper shall be on Research Methodology, which may include quantitative methods, research aptitude, computer applications as suitable to the Ph.D. programme.
- R.6.3** The second and third paper as per requirement of the area of research and the same shall be designed/ proposed by the supervisor and approved by FRC/CRC through RAC and further informed to the University.
- R.6.4** Each course work shall be of 100 marks, out of which 40 marks shall be based on Mid-term evaluation. Remaining 60 marks shall be based on end term examination.
- R.6.5** The fourth course of 100 marks shall involve reviewing of published research work in the relevant field under supervision of the assigned supervisor. The evaluation shall be in the form of report submission (40 Marks) and presentation (60 Marks). The evaluation shall be done by the RAC. The fifth course work shall be on "Research and Publication Ethics (RPE)" and shall be of 100 marks with Mid-term assessment of 40 marks and End term assessment of 60 marks.
- R.6.6** The candidate must get minimum 55% marks or equivalent grade point in each course to pass the course work. The candidate must score minimum 50% marks both in mid-term and end-term examination of every course separately.
- R.6.7** The student shall be permitted to pursue his course work requirement only at the University premises/recognized research centers.
- R.6.8** A Ph.D. student irrespective of the category (R.1), while pursuing course work, must have at least 75% attendance in each course in which he is registered. If the student does not have the required minimum percentage of attendance in any subject, they shall be detained in those subjects, and shall have to reappear for respective course work again, as and when they are offered and shall maintain the attendance required and then appear for the examination.

R.7 WITHDRAWAL FROM SEMESTER/COURSES

- R.7.1** A research scholar may be permitted by the Dean (research) on the recommendation of FRC/CRC to withdraw from all the courses registered by him for the entire semester, on medical grounds supported by a medical certificate from the University Medical Officer *or* on any other genuine reasons. The medical certificate issued by a registered Medical Practitioner shall also be acceptable in those cases where the research scholar has valid

reasons for his absence from the University/Institute/Centre.

- R.7.2** Research scholar should present the medical certificate in support of his absence on health reasons within two days of his rejoining the institute, if not produced already. Withdrawal shall not be granted retrospectively.
- R.7.3** Withdrawal may also be granted by the Research Board on the recommendation of the FRC/CRC and the Dean (research) provided it is established that the research scholar cannot pursue his Ph.D. studies for the reasons beyond his control.
- R.7.4** The period of authorized absence in the semester should not be less than eight weeks of contact period for semester withdrawal to be granted. Regularity in attending the classes and satisfactory performance in the mid-term examinations, if any, held prior to the date of application for withdrawal are the factors which would be taken into account while recommending/granting withdrawal.
- R.7.5** Any semester withdrawal shall count towards the maximum limit of twelve/sixteen semester as stipulated in the ordinance.

R.8 CANCELLATION OF REGISTRATION

Registration of a research scholar shall be cancelled in any one of the following eventualities, after due approval of Dean (Research):

- R.8.1** If he/she absent himself for a continuous period of four weeks without prior intimation/sanction of leave.
- R.8.2** If he resigns from the Ph.D. programme and the resignation is duly recommended by the Supervisor.
- R.8.3** If his progress is found unsatisfactory in two consecutive semesters.
- R.8.4** If he is found involved in an act of misconduct and/or indiscipline and termination has been recommended by the disciplinary committee.

R.9 PERFORMANCE MONITORING

- R.9.1** Progress of the research work of all research scholars in the department shall be reviewed at the end of each semester by respective FRC.
- R.9.2** Each research scholar shall appear before the Research Advisory Committee once in six months to make a presentation of the progress of his work for evaluation and further guidance. Six monthly progress report shall be submitted by the Research Advisory Committee to the Dean (Research) and copy to the Research Scholar, till the thesis is submitted. The RAC shall evaluate and send the evaluation report in the prescribed form to the FRC/CRC Chairperson for appraisal with anyone of the following recommendations and further submitted to the Dean Research office of the University.
- i. Allowed to enroll in next semester and continue research;
 - ii. Allowed to enroll and continue research but with suggestions for improvement;

- iii. Advised to discontinue as the performance is very poor. In that case the matter shall be referred to the Research Board for final decision.

R.10 SYNOPSIS

- R.10.1** The research scholar shall submit the synopsis of his work at least two months prior to submission of the thesis.
- R.10.2** The FRC/CRC may relax specified period of submission of synopsis on the recommendation of the supervisor by assigning the reasons for the same.

R.11 THESIS SUBMISSION

- R.11.1** The Ph.D. thesis must contain a copyright certificate in the beginning of the thesis, on a separate page on in the prescribed format.
- R.11.2** The research scholar for the degree shall submit four copies of the thesis (Hard and soft) with a soft cover. In case of co-supervision, five copies of thesis shall have to be submitted by the research scholar.

R.12 TUITION FEE WAIVER

The following categories of research scholars may be given 50% tuition fee waivers:

- R.12.1** Up to 50% fee waiver can be given on case-to-case basis, the maximum number of such waivers being restricted to 50% of the University research scholars on roll. For grant of additional 25% fee waiver to the full-time University research scholars, the respective FRC/CRC shall assess the performance & economic background for considering the cases of the deserving scholars and shall submit the name(s) of the concerned research scholars to the Dean (Research) for approval of Research Board.
- R.12.2** The office of Dean (Research) may invite applications from Research Scholar once every year.
- R.12.3** For the University staff pursuing Ph.D. at the University including those getting assistantship from projects, the tuition fee is waived up to 75%.

R.13 LEAVE AND ATTENDANCE

- R.13.1** A research scholar shall be entitled to avail leave as per leave Rules/Attendance Rules formulated and amended from time to time by the University.
- R.13.2** A full-time Ph.D. research scholar, during his stay at the University/Centre shall be entitled to leave for 30 days, including leave on medical grounds, in an academic year. He shall not be entitled to mid-semester breaks, summer and winter vacation at the end of the first semester.
- R.13.3** Leave beyond 30 days in an academic year may be granted (without fellowship) to a research scholar in exceptional case, by the Head of the Department on the

recommendation of his supervisor concerned, subject to the following conditions:

- i. The leave beyond 30days shall be without Assistantship/Scholarship; and
- ii. Such an extension of leave up to additional 30 days or a part there of shall be granted only once during the programme of the scholar.
- iii. The leave may be subject to the approval of the Head of Department concerned; and a proper leave account of each research scholar shall be maintained by the Department concerned.

R.13.4 The women research scholar shall be eligible for maternity leave with fellowship for a period not exceeding period specified by the state government during the tenure of the award.

R.14 GENERAL

R.14.1 Research scholar is required to route all his applications through his supervisor only.

R.14.2 Any doubt or dispute about the interpretation of these Regulations shall be referred to the Vice Chancellor, whose decisions shall be final and binding.

R.14.3 Notwithstanding anything contained in these Regulations, all categories of the research scholars shall be governed by the rules and procedures framed by the Academic Council in this behalf, and on force from time to time.

Registrar

Bikaner Technical University, Bikaner

Vice Chancellor

Bikaner Technical University, Bikaner