

**Maharaja Ranjit Singh State Technical University,
Dabwali Road Bathinda**

(Established by Govt. of Punjab vide Punjab Act No. 5 of 2015)

Ref. No : Notification/Reg/ 45

Dated : 15-12-2015

NOTIFICATION

Maharaja Ranjit Singh State Technical University, Bathinda Ph.D. Regulations-2015

Maharaja Ranjit Singh State Technical University, Bathinda has been established as an affiliating University vide Punjab Act No. 5 of 2015 notified through Punjab Government Gazette-Extraordinary (Regd. No. CHD/0092/2015-2017) notification No. 5-Leg./2015 dated 12th February 2015.

In pursuance of the Powers and Functions of the University vide section 4 (a), 4 (c) and 4 (d) of the above Act and as per the provisions contained in UGC (Minimum Standards and Procedures for Award of M.Phil./Ph.D. Degree) Regulations, 2009:

Consequent upon the Approval of Board of Governors of Maharaja Ranjit Singh State Technical University, Bathinda (MRSSTU) in its 3rd meeting held on 06-11-2015 vide agenda item no. 3.9, the University has framed the following Regulations, hereby known as:

'Maharaja Ranjit Singh State Technical University, Bathinda Ph.D. Regulations-2015' for the Academic Programme leading to award of Ph.D. Degree, through its Departments and its approved Research Centres installed in its Constituent/Affiliated Colleges and approved collaborative research units.



Ph.D. Regulations-2015

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PREAMBLE

MRSSTU, Bathinda offers academic programme leading to the award of Ph.D. degree through its Departments and approved research centers installed in its affiliated colleges and approved collaborative units. The award of Ph.D. degree shall be in recognition of high academic achievements, independent and original research, characterized either by the discovery of facts, or by fresh approach towards the interpretation and application of existing theories and facts, or development of innovative products, techniques, ideas, and technologies for its applications to the solution of technical and scientific problems in Engineering & Technology, Architecture & Planning, Science, Humanities & Social Science and Management. It shall evince the candidate's capacity and capability to critically examine and logically conclude, and shall represent significant contribution to the existing knowledge. The academic programme leading to the Ph.D. degree is broad-based to the extent of involving a mandatory course work, research work presentations, publications and research thesis. Interdisciplinary research areas are encouraged through Co-supervision mechanisms. All candidates are expected to undertake the honor code to conduct all activities – academic and research in a manner that shall only enhance the prestige of the University. The degree of doctor of philosophy (Ph.D.) of the Maharaja Ranjit Singh State Technical University, Bathinda shall be conferred on a candidate who successfully completes all the requirements specified in these Ph.D. regulations, which are approved by the competent authority.

OUTLINE

The academic programme leading to the Ph.D. degree is broad-based that involves successful completion of a mandatory course work, research work presentations, and a research thesis. To streamline this program, Ph.D. regulations are framed with an aim to produce quality research work from the University. Two major committees are proposed and their role and purpose outlined.

- University Research Board (URB) shall be the highest research body of the University for monitoring, modifying, interpreting and arbitrating on any kind of dispute pertaining to these Ph.D. regulations. In addition, this body shall be competent to propose and issue amendments/addendum to these regulations as per the need and to comply with UGC guidelines from time to time.
- Department Doctoral Research Committee (DDRC) shall be constituted for every Department to take care of various research activities pertaining to its doctoral candidates. It shall be responsible for Ph.D. admissions as per these Regulations and to conduct interviews to ascertain candidates' research area, interest, and preparedness before admitting them to the programme. DDRC shall examine the candidate's research proposal and capabilities before the Ph.D. registration process and to recommend measures for strengthening candidate's potential for carrying out the research work. DDRC shall be responsible for regularly tracking and providing feedback on the candidate's research progress to facilitate quality research work. In addition, before thesis submission, it shall critically examine the work done through open seminar presentation with the aim to maintain high standard of research, its innovativeness, originality and contributions. In addition, it shall facilitate impartial evaluation of the thesis submitted.

Ph.D. REGULATIONS-2015

1.0 ELIGIBILITY

- i) The Admission to Ph.D. academic-research program shall be made in the various disciplines of the Faculties of this University, through an open advertisement at any time during the academic year. The candidates with minimum 55% marks (50% marks for SC/ST) in Master's Degree (in Engineering/Technology/ Science/Architecture/ Management/Computer application /Pharmacy (or Form-D) /Humanities and in those other areas, in which University decides to undertake the curriculum) of MRSSTU, Bathinda or an equivalent degree of recognized Indian or Foreign University (recognized by UGC/AIU) in the subject concerned/allied subject/cognate subject shall be eligible.
- ii) Candidates already having Ph.D. in a particular faculty is eligible only for a different subject/stream in the same faculty or in a different faculty as per clause 1.0 (i) above.
- iii) Only Post Graduation in a subject is essential qualification to pursue Ph.D. degree and Undergraduate candidates (like B.Tech.) will not be allowed to register for Ph.D. degree.

2.0 ADMISSION

2.1 Ph.D. ENTRANCE TEST (PET):

Subjected to the availability of slots/seats in a particular Faculty and Discipline, aspirant students shall be required to appear in a written Ph.D. entrance test (PET) to be conducted by the University. PET shall be a test of 100 marks to examine the student's depth of knowledge in concerned discipline, research related aptitude, analytical capability and language skills. Candidates securing at least 40% marks or above shall be eligible for the interview. The test score shall remain valid for 01 year only.

Merit list for admission shall be prepared out of 200 marks (weightage of PET:100: UG score: 40, PG score: 40, regular Teaching/Research Experience:10 @2 per year, SCI Journal publications: 10 (@5 per publication as author/co-author).

Merely qualifying the PET will not entitle a student for admission to Ph.D..

2.2 TEST EXEMPTION:

- i) Candidates who have qualified UGC(NET)/UGC-CSIR(JRF) exam/GATE/GPAT/INSPIRE/Fellowship awardees (AICTE/UGC/ MHRD)

and those sponsored by Government (State/Union/ UT)/Public Enterprises/ DRDO/CSIR recognised research labs shall be exempted from PET.

- ii) Similarly, the M.Phil. degree holders from this University (with minimum 60% (55% in case of SC/ST/OBC students) or equivalent in grade or any other UGC approved/recognized University are exempted from the written test for the Ph.D. program.
- iii) Merit list for admission of such candidates exempted from PET as per clause 2.2 (i) and (ii) above shall be prepared out of 100 marks (Weightage: UG score: 40; PG score: 40; Fellowship awardee: 10; SCI Journal publications: 10 @5 per publication as author/co-author).
- iv) Candidates as per clause 2.2 (i) above shall be given preference over other categories.

However, all test exempted candidates need to appear for the subsequent interview.

2.3 INTERVIEW:

Successful shortlisted candidates (as per the Ph.D. Slots available) shall have to appear for an interview to be conducted by the Department Doctoral Research Committee (hereafter called DDRC) of the concerned Discipline to discuss their research interest/area and formally recommend their admission and supervisor, as applicable.

University can increase or decrease the number of seats depending upon the research facilities available.

2.4 SPONSORED/FELLOWSHIP AWARDEES:

The UGC/CSIR/INSPIRE/AICTE fellowship awardees or those sponsored by Government (State/Union/UT)/Public Enterprises/ CSIR/DRDO research labs or candidates who are awarded fellowships directly by their or any funding agencies for the purpose of pursuing Ph.D., can be registered any time during the session. NET/GATE/GPAT qualified project fellows appointed against financed projects of at least two years duration can also be registered for Ph.D. at any time during the session.

2.5 RESERVATION

National/State reservation policy shall be paid due attention in the process of Ph.D. admission. Candidates who have qualified UGC/CSIR/JRF/ INSPIRE/Fellowship

awardees/ and those sponsored by Government (State/Union/UT)/Public Enterprises/ recognised research labs will be admitted irrespective of reservation category.

The guidelines of the UGC and directions of the MHRD as applicable from time to time in regard to reservation for SC/ST/OBC/PWD in Ph.D. admissions shall be applicable automatically.

3.0 FELLOWSHIP/ SCHOLARSHIP

Ph.D. research scholars will be provided fellowship/scholarship as per the guidelines of the funding agencies from time to time.

4.0 SUPERVISOR:

4.1 ELIGIBILITY:

- i) All Regular Professors associated with the University/its affiliated PG colleges holding Ph.D. provided they are eligible to be appointed as Supervisor and are actively involved in research, and has at least two years to superannuation.
- ii) Regular Associate Professors or equivalent and Regular Assistant Professors or equivalent associated with the University/its affiliated PG colleges, who hold Ph.D. degree can supervise Ph.D. students. However, an Assistant Professor level faculty with Ph.D. must have cleared minimum 2 years of probation period successfully before supervising a Ph.D. candidate.
- iii) The Supervisor must also figure in the list approved by the University for the purpose.
- iv) Supervisor shall not be a relative such as wife/ husband, father/ mother, son/daughter, sister/ brother, wife's/husband's brother and sister, brother's/sister's son and daughter, first cousins, grand-son, grand-daughter, or such person as might be deemed a close relation of the candidate by the Vice-chancellor.

4.2 CO-SUPERVISOR:

- i) In addition to the supervisor, a candidate may be allocated a co-supervisor, in case research work is interdisciplinary in nature with full justification by the supervisor. Co-supervisor may be from the University or from the Institutions having MoU with the University, or from the Institutes of National importance (like IIT/IIT/IISER/IISc/NIT). In case of co-supervisor from outside the University, (s) he must fulfil the minimum norms of a research Supervisor.
- ii) Co-supervisor shall not be a relative such as wife/ husband, father/ mother, son/daughter, sister/ brother, wife's/husband's brother and sister,

brother's/sister's son and daughter, first cousins, grand-son, grand-daughter, or such person as might be deemed a close relation of the candidate by the Vice-chancellor.

4.3 CHANGE OF SUPERVISOR/CO-SUPERVISOR:

Normally change of supervisor/co-supervisor shall not be permitted, except under the circumstances mentioned below-

- i) In case the supervisor has left his affiliation with the university or by the mutual consent of the supervisor and the candidate. The earlier date of the Registration shall stand. DDRC shall have to recommend the same with justification.
- ii) In case of extreme hardship, where it becomes almost impossible for a candidate to work with the existing Supervisor and the VC has satisfied himself/herself. This clause is to be used sparingly under abnormal circumstances only.
- iii) In case a supervisor/co-supervisor retires or expires or leaves the affiliation of the University, during the course of the work, then as per the case need DDRC can recommend appointment of a full supervisor/co-supervisor/ caretaker cum administrative supervisor (to look after the administrative needs of the candidate's research work) depending upon the amount of work completed including publications.

4.4 SUPERVISOR ALLOCATION:

The DDRC shall recommend supervisor in a formal manner, depending on the number of students per faculty member, the available specialization/area among the faculty supervisors, research interest of the student and choice and consent of supervisor as indicated by student. The allotment/allocation of supervisor shall not be left to the individual student or teacher.

4.5 NUMBER OF SEATS UNDER A SUPERVISOR:

There shall not be more than **Eight** Ph.D. scholars under sole supervision (including full-time/part-time/sponsored research projects of this or any other university) at a time under a Professor, **Six** under an Associate Professor and **Four** under an Assistant Professor. However, if some of the candidates are under co-supervision as well, the upper limit on candidates for a Professor, Associate Professor and Assistant Professor

shall be **Ten, Eight, and Six** respectively. The candidature shall normally remain in force till the successful defence of viva-voce examination of the Thesis.

5.0 ADMISSION CATEGORIES:

Candidates shall be admitted under the following categories to this programme:

5.1 FULL-TIME:

- i) A person with scholarship/fellowship/study leave from an organization/or without fellowship who is neither employed nor is pursuing any other course of studies (shall submit a declaration in this concern) and whose supervisor is working in the jurisdiction of this university.
- ii) Candidates registered for full time programme in the university or in the approved centres of research in the jurisdiction of the university shall be available during the working hours for curricular, co-curricular and related activities.
- iii) Part-time candidates in employment, who want to pursue full-time studies may be allowed to convert as full time candidates during their research work subject to approval provided they are sponsored by their employer and should avail leave for the research period and should get formally relieved from their duty to join the research programme.
- iv) The full-time programme shall be undertaken in the departments of this university or in the approved university research centres. Full time Ph.D. scholars shall be required to be present in the university/centre. Candidates shall be marking their attendance daily and their presence shall be duly recorded and maintained in the concerned department/centre except on the days when s(he) is away from campus on duty/sanctioned leave.
- v) The full-time candidate shall not involve in any kind of remunerative academic work/duty outside the university premises without written permission from the supervisor and HoD concerned.
- vi) Full-time to Part-Time (External) conversion shall not be allowed normally and will be considered only on merit by DDRC for onward recommendation, but not before 15 months after confirmed registration.

5.2 PART-TIME (INTERNAL):

- i) Full time teachers of this university, shall be called ‘Part time (Internal)’ candidates under the guidance of supervisor in the university.
- ii) Candidates working in this University in projects undertaken from State/Central/Quasi Government and totally funded through the projects shall also be called ‘Part time (Internal)’ candidates.
- iii) The place of research for teachers of this University shall be the concerned Departments of this University.

5.3 PART-TIME (EXTERNAL):

- i) Candidates working in Colleges/R&D Departments/Research laboratories in Units of Government/Quasi-Government/Industrial units, and sponsored by the respective employer/Organization, shall be called ‘Part time (External)’ candidates.
- ii) The place of research for the external candidates shall be the respective institution or unit or organization as the case may be and institutions where the Supervisor is working and also the Department concerned in the University.
- iii) All part-time registered candidates shall spend minimum forty-five days (minimum 15-days per visit) per year for consultations and research in the department and to be certified by the concerned Supervisor.
- iv) **Full-Time candidates shall be given preference over Part-Time candidates by the University.**

Both Full-time/Part-time candidates need to undertake mandatory pre-Ph.D. registration course work as mentioned in clause 6.0 in a REGULAR manner.

6.0 COURSE WORK

The DDRC shall normally meet within three weeks from the date of pre-registration/enrolment of the candidate to prescribe/recommend course work for the research scholar as proposed by Supervisor(s) and keeping in view candidate’s area of research.

- i) Each Ph.D. student will have to undertake one mandatory course (**4 credits**) on Research Methodology (RM), which will include quantitative methods, computer applications and reviewing of latest published research work in the relevant field.
- ii) In addition, a Ph.D. candidate (having M.Phil./M.Tech./ M.Pharm. /M.Arch./MBA who has done course-work in PG) shall be required to undertake mandatory Regular course work in the relevant/cognate research area for minimum **six credits** (for example: 4-credit theory subject + 2-credit Practical work/ or two theory

subjects of 3-credit each) and a mandatory Seminar of **one credit** on her/his area of research as a part of pre-Ph.D. course-work. The Course work may or may not be from the parent department and shall be treated as pre-Ph.D. course work.

- iii) All other candidates, who have not done the relevant course work in their Post Graduation, shall be required to undertake minimum **ten credits** course work in one semester (for example 2 courses of 4-credit each / or 3 courses of 3-credits along with a 2-credit Practical work) and a mandatory Seminar of **one-credit** on her/his area of research in addition to **four credit** RM as a part of mandatory pre-Ph.D. course-work.
- iv) The candidate will have to clear courses within the first two semesters as per the programme of the Department.
- v) Direct fellowship awardees or candidates registered for Ph.D. during the middle of the semester will take up course work in the following semester.
- vi) The syllabus for Pre-Ph.D. course work, not covered in the ongoing PG curriculum, will be drawn by the Board of Studies or DDRC subject to the approval by BoS and highest academic body of the University.
- vii) An attendance less than the mandatory 75% (including 10% attendance benefit on medical grounds) in the course work shall attract cut in the scholarship/ fellowship.

7.0 COURSE COMPLETION CRITERION

- i) The candidate is required to score minimum 60% average marks in the prescribed course work (or equivalent CGPA).
- ii) The prescribed course work shall be completed within twelve months from the date of enrolment/pre-registration. In case a candidate fails, he/she may request another chance recommended by supervisor to complete the course work within six months with extra fee as applicable. After this any further chance may be granted by VC with extra fees as applicable.

8.0 RESEARCH PROPOSAL & Ph.D. REGISTRATION

On the successful completion of the prescribed course work, within 6 months, the candidate shall submit her/his research proposal/synopsis, giving problem statement, an outline of the research proposal, topic of research/thesis, review of literature, aims and objectives, methodology, plan of work, and bibliography. The submitted synopsis shall be subjected to scrutiny by DDRC within two-months. Candidate shall be required to give an open presentation of her/his research proposal before the DDRC, in which faculty of any other department may also be present.

In case,

- i) The presentation/research proposal is accepted without any modifications by DDRC, the candidate shall apply for Ph.D. registration on a *prescribed performa*, and shall be assumed to be registered from the date of his submission of registration fee and undertaking the University “Honour code”.
- ii) The presentation/research proposal is not approved/accepted, the candidate shall be resubmitting research synopsis afresh within six-months.
- iii) The committee desires some modifications in the submitted research proposal/Title for inclusion in the final thesis work, these shall be explicitly mentioned in the DDRC report with due intimation to candidate. Candidate shall submit this modified approved research proposal/synopsis within ten days and shall apply for Ph.D. registration on a *prescribed performa* and submit registration fees. A candidate shall be assumed to be registered for Ph.D. from the date of her/his submission of Ph.D. registration fee and undertaking the University “Honor Code”.

8.1 CANCELLATION OF ENROLLMENT/REGISTRATION:

The enrolment/registration of the student will be cancelled, if ,

- i) The candidate does not enroll for course work in the ongoing/immediately following semester (if admitted mid-semester) on her/his admission to Ph.D. without specifying any reason.
- ii) The candidate fails to obtain the required CGPA/marks in course work as per rules.
- iii. The progress of the candidate is found Unsatisfactory by the Supervisor and the DDRC as per clause 9.0 (iii)
- iv. The candidate does not pay the fee/dues in time and even in extended period with late fee, as applicable.
- v. The candidate commits to plagiarism or unethical practices in research.
- vi. The candidate indulges in activities of indiscipline, and remains absent from the Department without permission of the competent authority.

9.0 REVIEW OF PROGRESS

- i) The student registered for Ph.D. shall submit progress-report on the work done after every twelve months on *prescribed Performa* duly certified by Supervisor(s) and shall deliver open seminars after every twelve-months on the dates fixed by the concerned department before DDRC, to apprise them about the progress of her/his research and to consider the feedback received, if any.

- ii) The Ph.D. student will maintain a complete record of research data collected or generated during the course of work and draft of the thesis.
- iii) In cases of non-receipt of two consecutive progress reports or two consecutive unsatisfactory reports or unethical practices in research committed by the student or misconduct by the student, the doctoral committee with Dean R&D in the chair, can recommend any action including cancellation of registration.

10.0 Ph.D. DURATION

10.1 MINIMUM DURATION:

No candidate shall be permitted to submit the thesis for the Ph.D. degree, unless (s)he has pursued research in the University/approved research centre for not less than twenty-four months (**Two years**) from the date of Ph.D. registration for full-time and thirty months (**Two and a Half years**) for part-time candidates.

10.2 MAXIMUM DURATION:

The maximum period for the submission of Ph.D. thesis shall be sixty months (**Five years**) from the date of Ph.D. registration.

10.3 EXTENSION OF DURATION:

- i) Provided in exceptional circumstances, the DDRC may recommend to the Dean R&D extension of the registration of the candidate for a maximum period of twelve months with applicable extension fees. If the candidate fails to submit thesis within the extended period her/his registration shall lapse automatically.
- ii) Any further extension shall be subjected to the approval of the Vice-Chancellor.

11.0 ATTENDANCE AND LEAVE

- i) Full time Ph.D. scholars shall be required to be present in the University. Their presence shall be duly recorded and maintained in the Department/Centre concerned, except on the days when s(he) is away from campus on duty/sanctioned leave.
- ii) A Ph.D. scholar cannot avail more than one month leave in a year. (15 on incidental accounts +15 on medical grounds). Leave not availed shall not be accumulated at the lapse of the year (31st Dec) except on medical grounds.

12.0 PRE-THESIS SYNOPSIS

When the Supervisor(s) is of the opinion that thesis is in the final stage of completion, including mandatory publication requirement as in clause 13.0, the candidate shall apply on

prescribed performa for the pre-thesis synopsis seminar on his research findings, at- least three-months before the intended period of submission of thesis to the office of HoD through Supervisor, along with 10-copies of the final synopsis of the research work. The candidate shall be allowed to submit her/his thesis for the Ph.D. degree only when the DDRC is satisfied about the work.

12.1 SEMINAR PRESENTATION:

- i) The pre-thesis synopsis seminar shall be conducted within a month by the DDRC before an open audience. The attendance of all present shall be recorded. The seminar presentation will examine the candidate's research contribution and accomplishment of proposed research objectives. In case, DDRC makes certain comments/suggestions for improvement, the candidate needs to incorporate these suggestions in the thesis under the advice of the supervisor(s). The publications required as per clause 13.0 from the candidate shall be put before the DDRC for scrutiny. Topic of the Thesis, if need be, can be fine tuned and recorded formally within the broader perspective of the initially approved title and /or research proposal at this stage.
- ii) In case of successful pre-thesis seminar, Supervisor(s) shall also submit separately a panel of six reputed examiners, as per clause 14.0, from India (preferably from widely covered geographical areas/ different states) and six from outside India from reputed Indian Institutes and Foreign Universities respectively. Examiners' particulars in regards to research interests and experience shall also be put before the DDRC for consideration and recommendation keeping in view the thorough, impartial and unbiased evaluation of the work.
- iii) A formal report on a *prescribed performa* in this regard, along-with extended abstract of Thesis (soft copy (pdf format)+ 04 hard copies), proof of research publications/acceptance, and recommended panel of examiners shall be submitted to the office of Dean R&D in confidential. The gist of the extended abstract should match with the approved research proposal.

12.2 UNSATISFACTORY SEMINAR:

In case, DDRC is not satisfied with the contributions made towards approved research objectives, the candidate will have to appear again, with applicable re-submission fee, if any, for the pre-thesis synopsis seminar within a period of

twelve months at the most though keeping in view the maximum Ph.D. duration.

13.0 MANDATORY PUBLICATION

Before the submission of thesis, candidate shall have to publish at least **two** research papers in referred Journals of repute and shall produce evidence for the same or the reprint of the papers before the DDRC for adjudication at the time of pre-Thesis Seminar presentation. Out of these two, one research paper must be in peer reviewed International Journal included in SCI. However, for Ph.D. Thesis relevant to Social Sciences and Humanities SSCI/AHCI (Thomson Reuter) journals shall also be considered. The affiliation of the University is must on these publications.

14.0 EXAMINER'S ELIGIBILITY

Examiners need to be from the broad area of candidate's research work, and preferably whose work is referred by the candidate in her/his thesis. Research person working in the laboratory(s)/ Institution(s) where the research candidate or supervisor(s) from outside the institution, if any, is employed, cannot, however, appear in the panel of examiners. Any person related to the candidate or supervisor(s) should not appear in the panel of examiners (to be declared by the Supervisor(s) while submitting the panel before DDRC).

14.1 BOARD OF EXAMINERS:

On receipt of the recommendation of DDRC for successful pre-Thesis seminar along with extended abstract and panel of examiners, Dean R&D will get approval from VC to appoint three external examiners (two from within India and the third from abroad) out of which one must be from the panel submitted. VC shall be free to select the other examiners either from the list of the subject experts of the UGC or on her/his own initiative guided by the references or from the submitted panel. The Ph.D. thesis submitted by the candidate shall be examined by the three external examiners while the Supervisor(s) shall be the internal examiner(s). The consent of appointed external examiners shall be sought electronically by the office of Dean R&D on the basis of extended abstract submitted by the candidate.

15.0 SUBMISSION OF SOFT-BOUND THESIS FOR EVALUATION

Following the successful pre-thesis Seminar presentation as per clause 12.0, within three-months, the research candidate shall submit four-copies of the thesis (with both sides of a page printed) in a spiral bound form or with a soft cover (additional copies depending upon number of Co-supervisors), as per the University guidelines in regards to thesis format, and also a soft copy (pdf file) on a CD. One copy each is for office record, for foreign examiner, for Indian examiners and for Supervisor(s).

15.1 THESIS REQUIREMENTS:

- i) The Ph.D. thesis submitted by the candidate shall satisfy the requirement that it is a research work characterized by either the discovery of new facts or by fresh interpretation of facts or theories, or development of innovative technique, product, idea or technologies. It should reveal the candidate's capacity for critical examination, original thinking and critical judgment. Its literary presentation should also be satisfactory.
- ii) The thesis shall include a certificate from the Supervisor(s) and a declaration from the candidate that it incorporates the candidate's bonafide research work and it has not been submitted for award of any other degree to this or to any other University or any institute of learning. In addition, the work of other researchers wherever referred is properly cited and fully acknowledged.
- iii) Before submission of the Thesis, it shall have to pass through the anti-plagiarism software test available with the University at that time.
- iii) The application for the submission of the thesis shall be forwarded by the HoD to the office of Dean R&D, only after the satisfactory anti-plagiarism test report recommended by Supervisor is enclosed with it.

16.0 THESIS EVALUATION

Examiners in the approved board of examiners will examine the thesis individually with a view to judge the suitability of the thesis as a piece of research work worth awarding Ph.D. Each examiner will send detailed comments on the research work to the office of Dean R&D, along with a clear recommendation on the *prescribed Performa* stating one of the following:

- A. The thesis is **SATISFACTORY** and recommended for the award of Ph.D., or
- B. The thesis is **RECOMMENDED** for the award of Ph.D. Degree subject to **SATISFACTORY ORAL DEFENCE** if the candidate gives satisfactory answers to queries specifically mentioned in the report, or
- C. The thesis is recommended for the award of Ph.D. Degree subject to the candidate makes **REVISIONS** in the thesis as per suggestions made and these are **SATISFACTORILY PRESENTED DURING ORAL DEFENCE**, or
- D. The thesis needs **RESUBMISSION** in the **REVISED FORM**, as per suggestions made and the thesis be sent **FOR RE-EVALUATION**, or
- E. The thesis is **REJECTED**.

Reports received from all the examiners (Internal & External) shall be opened simultaneously by Dean R&D, and on the basis of the recommendations of the examiners will take one of the following actions:

16.1 DECISION ON EVALUATION REPORTS:

- i) In case, examiners are unanimous in recommending the award of the degree on the basis of the thesis without any modification (as per clause 16.0 (A) or (B) or (A) and (B)), their recommendation shall be accepted and the process for oral defence shall be initiated as per clause 17.0.
- ii) In case, reports received from the external examiners are contradictory, a Decision Proposing Committee (hereafter called DPC) comprising of Dean R&D, Supervisor(s), two senior Professor level faculties from allied areas (may or may not be from DDRRC) shall be constituted by the VC to recommend the further course of action.
- iii) In case DPC observes any ambiguity in recommendations made by the examiner(s), Dean R&D will approach the examiner(s) for a clear recommendation. In case, clear recommendation is not forthcoming, the matter may be referred to VC by the DPC proposing further course of action for decision. The decision of VC shall be final and binding.
- iv) In the event of any examiner making recommendation for the revision of the thesis (clause 16.0 (C) or (D)), then on the recommendation of DPC, student shall be free to defend her/his point of view forwarded by Supervisor, through Dean R&D within one-month from the date the communication. However, if the examiner is not satisfied with the student's defence, the student shall be required to carry out necessary revisions as finally suggested by the examiner within one year (subjected to clause 10.0) from date of communication to the candidate.
 - In case, examiner suggesting revision also states that the revised thesis need not be sent again (clause 16.0 (C)), the revised thesis will not be sent to the examiner. However, the Supervisor(s) shall certify that the comments have been incorporated, before the viva-voce examination.
 - In case, examiner suggesting revision states that the revised thesis be sent again (clause 16.0 (D)), the re-submitted thesis shall be sent again, on an additional payment of prescribed thesis resubmission fee, and will be examined by the same examiner who has recommended re-submission unless examiner is unable to do so or declines to do so.

- v) In the event of one/two of the examiners recommending award of the degree (clause 16.0 (A) or (B)) and the other examiner/s recommending rejection (clause 16.0(E)) of the thesis- then, on the recommendation of DPC, student shall be free to defend her/his point of view (forwarded by Supervisor) through Dean R&D within one-month from the date of communication. In case the deadlock continues to prevail, the DPC may propose further action to VC based upon its observations on the reports received. The recommendations of the VC shall be final. This procedure shall also be followed if the examiner who has suggested revision/modification rejects the revised thesis.
- (vi) In the case, all the external examiners reject the thesis, then on the recommendation of the DPC, the VC may permit submission of a revised thesis on an additional payment of the prescribed thesis resubmission fee, after a suitable time frame to be fixed by DPC (subjected to clause 10.0 of maximum Ph.D. duration). The observations and comments of the examiners, if any, may be copied and given to the candidate through supervisor on request. In no-case should a resubmission of the thesis without modification along the lines of criticism made by the earlier examiners will be allowed. The revised thesis shall be referred for assessment to the examiners selected from a new panel of experts recommended by the DDRRC. In case, majority of experts reject revised thesis again the thesis will stand rejected.

16.2 DISPUTE REDRESSAL:

Any doubt arising out of following the procedure laid down in this clause and otherwise shall be referred to VC for a decision. The decision of VC shall be final and binding.

16.3 TIME PERIOD FOR RESUBMISSION:

The candidate, who is required to re-submit the thesis, must do so within one-year from the date of receipt of the examiner's comments by the University,. Under no circumstances the total time period shall exceed the Ph.D. duration as per clause 10.0. Candidate shall have to pay the Thesis Re-submission fee as applicable.

17.0 ORAL THESIS DEFENCE

Once the reports of the examiners have been accepted as satisfactory, the case file of the candidate shall be put before the VC for deputing the external examiner for the Oral Defence Committee (ODC) that shall be comprising of Supervisor(s), one of the external examiners (normally from India) and the Head of Department. The candidate will have to defend the thesis before the ODC. The defense of the thesis shall be in the form of an **open viva-voce**

conducted in the University on a working day. The attendance shall have to be recorded. Viva-voce exam will be widely notified and coordinated by the HOD at least three working days in advance.

- i) In case of clause 16.0 (C) of thesis evaluation, the Supervisor(s) shall certify that the comments have been incorporated in the thesis, before the viva-voce examination.
- ii) In case, the external examiner is unable to conduct the viva-voce, a set of questions would be obtained from her/him by Dean(R&D) and viva-voce will be conducted by an examiner (within or outside the University having knowledge in the area of Thesis) to be appointed by the VC on the recommendation of Dean R&D.

17.1 NON-SATISFACTORY DEFENCE:

If the ODC is not satisfied with the defence, the candidate has to appear again before the board within the next three months. Further, if the ODC suggest certain modifications/alterations to be done in final thesis submission, it shall be duly recorded in the report and supervisor shall certify their incorporation before final thesis submission.

17.2 THESIS DEFENSE REPORT:

The report about the performance of the student in the viva-voce shall be recorded in the Performa by the Supervisor(s) and the external examiner only. Further, if the thesis is suitable for publication by the University in the form of a book, it will be explicitly mentioned in the report with suggested modifications, if any.

17.3 EXAMINERS' REMUNERATION:

Remuneration to examiners for Thesis evaluation and re-evaluation and viva-voce examination shall be paid as approved by BOG from time to time.

18.0 FINAL HARD-BOUND THESIS SUBMISSION

After the successful completion of oral defense, the candidate is required to make all the changes suggested by the examiners of ODC, if any.

- i) The final submission of thesis shall be in hard bound form with colour and format as specified by the University, with both sides of a page printed, incorporating all the changes in the thesis. The number of copies submitted shall be two more than the number of supervisor(s). One copy each is for University Central Library, Departmental Library and for Supervisor(s).
- ii) The candidate's declaration page as prescribed by University in the final thesis will have the signature of the candidate, Supervisor(s), Indian external examiner and HoD.

The Supervisor will take the signature of all the members of Oral Defence Committee on required number of sheets at the time of viva-voce examination to be placed in the final thesis.

- iii) Before signing the thesis in the hard bound form, the Supervisor(s) will certify that the candidate has made all the changes as suggested by the examiner(s).
- (iv) The candidate shall submit one copy of final thesis meant for Central Library, synopsis of the thesis, 'No Dues' certificate and a soft copy of final thesis (pdf file) on a CD through Supervisor(s) to HoD, who shall forward the same along with the ODC report recommending award of the Ph.D. degree to the office of Dean R&D for approval by the VC/ competent authority and to grant provisional degree and certification in regards to- Degree being awarded is as per the *UGC (Minimum Standards and Procedure for Award of M.Phil/Ph.D Degree) Regulation, 2009*, - by the concerned academic section.

19.0 AWARD OF Ph.D. DEGREE

The Degree of Ph.D. shall be awarded by the Highest Academic Body of the MRSSTU, provided that:

- i) The Oral Defence Committee so recommends;
- ii) The candidate produces a 'No dues Certificate' in the prescribed form.
- ii) The candidate has submitted one soft and two hard cover copies of the thesis; one for the Library of the Department/Centre and the other for the Central Library. The thesis should incorporate all necessary/ corrections/ modifications listed by the Oral Defence Committee (ODC).

20.0 DEPOSITORY WITH UGC

Following the successful completion of the evaluation process and announcements of the award of Ph.D., the University shall submit a soft copy of the Ph.D. thesis to the UGC within a period of thirty days, for hosting the same in INFLIBNET, accessible to all Institutions/ Universities.

This shall be mandatory for all research students.

21.0 INTERPRETATION

Any doubt or dispute about the interpretation of these Regulations shall be referred to the University Research Board (URB) with VC as Chairperson, whose decisions shall be final.

Note: This incorporates all the provisions contained in UGC (Minimum Standards and Procedure for Award of M.Phil/Ph.D Degree) Regulation, 2009.

Students admitted under the UGC (Minimum Standards and Procedure for Award of Ph.D. degree) regulations, 2009, shall be treated to be registered as per the amended rules as applicable from time to time.

ANNEXURE I

COMPOSITION and RESPONSIBILITIES OF Ph.D. RELATED COMMITTEES

A) UNIVERSITY RESEARCH BOARD (URB)

- University Research Board (URB) shall be the highest research body of the University for Monitoring, Modifying, Interpreting and Arbitrating on any kind of dispute pertaining to University Ph.D. regulations. In addition, this body shall be competent to propose and issue amendments/addendum to these regulations as per the need and to comply with UGC guidelines from time to time.

URB shall be the final decision making body-

- For any doubt or dispute about the interpretation of these Regulations
- For any other Research related issue referred to it by the competent authority.
- To modify/clarify/issue addendum to these regulations, if required at any time.

Composition of University Research Board (URB)		
a)	Vice-Chancellor	Chairperson
b)	Dean R&D	Member-Secretary
c)	Dean of various Faculties	Member
d)	Dean Academics	Member
e)	All other Professors from various Departments of University	Member
f)	Two Associate professors and two Assistant professors of the University by rotation according to seniority, provided they hold a Ph.D. degree	Member

g)	Two experts holding Ph.D. degree from the affiliated colleges of the university to be nominated by the Vice-Chancellor.	Member
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B) DEPARTMENT DOCTORAL RESEARCH COMMITTEE (DDRC)

Every department offering Ph.D. Programme shall have a DDRC to be approved by VC through Dean R&D to take care of all administrative and technical matters pertaining to Ph.D. program of candidates admitted in the Department for Research Programme leading to Ph.D. degree.

In the case of a discipline in which there is no teaching department of the University or there is no Professor level faculty, the DDRC shall be constituted by the Vice-Chancellor in consultation with the concerned Dean Faculty, Chairperson Board of Studies and Dean R&D, MRSSTU.

DDRC or its subcommittees, as applicable for a given purpose, shall be responsible-

- ii) For the evaluation of Ph.D. entrance test pertaining to concerned discipline, with the aim to shortlist candidates to appear for subsequent interview to fill up the available research slots in the respective Department.
- 2. For Ph.D. admissions in their respective Departments as per these Regulations and to conduct interviews to ascertain candidates' research area, interest, and preparedness before admitting them to the programme
- 3. For recommending Supervisor/ Co-supervisor and course-work in accordance with the approved procedure of Ph.D. admission of the University.
- 4. For critically scrutinizing the research proposal submitted by the candidate, after the successful completion of pre-Ph.D. course-work and open presentation made thereafter by the candidate, before recommending her/his name for confirmation of registration for Ph.D. thesis work. In addition, DDRC may also suggest list of suitable Journals for publication of the research work in the relevant area other than those specified in relevant SCI journals.
- 5. For scrutinizing the progress report submitted by the candidate and to monitor the candidate's research progress through open presentations after every 6-month and may recommend suggestive measures, if any, to improve the candidate's research work. A

formal report of such meetings shall be submitted to the office of Dean R&D and a copy shall be retained by Supervisor(s) and concerned HoD.

6. For scrutinizing and critically analyzing the pre-thesis synopsis, other mandatory requirements as per approved Ph.D. regulations, and shall conduct an open seminar of the candidate before recommending the Thesis submission process.
7. For recommending the names of the examiners proposed by Supervisor (s), for the purpose of getting the thesis evaluated in an impartial, unbiased and thorough manner.
8. for any other administrative matter pertaining to candidate's Ph.D. program as specified in Ph.D. regulations
9. for any other Ph.D. related work as assigned to it by the competent authority

Composition of the DDRC in each Department/School shall be as follows –

Composition of Department Doctoral Research Committee (DDRC)		
1)	Dean of concerned faculty / Chairperson BoS of concerned Discipline having Ph.D.	Chairperson (Ex-officio)
2)	One Faculty member having Ph.D. from outside the Department/ school of University to be nominated by VC	Member
3)	One nominee of Dean R&D in the cognate area from University	Member
4)	All Faculty members having Ph.D. in the concerned Department/Center/ School from University (to be treated as 1 member together)	Member
5)	Supervisor(s) (to be treated as 1 member together)	Member
6)	One outside expert * *(out of the three proposed by Supervisor/or from the approved panel of outside Ph.D. experts of concerned Department/School/ or recommended/ nominated by VC through Dean R&D)	Member

7)	Head of Department/centre/school in the University/centre/ or Ph.D. Coordinator of the Department, in case of Non-Ph.D., HoD	Convener
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* In case of non-availability of experts in the relevant area of specialization in the approved panel of outside experts, the Supervisor may submit an additional list of experts of relevant area through Head of the Department/School.

- In case of non-availability of members at level 2) or 3), expert out of the three proposed by Supervisor from the approved panel of outside experts of concerned Department/School to be nominated by VC through Dean R&D
- i) Out of the seven members of DDRC as listed above, **four** shall form the **quorum** including outside expert. Presence of outside expert is must at the time of initial research proposal presentation and Pre-Thesis synopsis presentation.
- ii) **Supervisor cannot be the Chairperson of the DDRC of her/his own candidate/s.**
- iii) **Chairperson of the DDRC shall not be below the rank of Professor.**
- iv) In the event of absence/non-availability of Chairperson, senior most faculty member may act as the Chairperson of DDRC, subject to such nomination by VC.
- v) Senior most Professor in the University/Department/Centre/School in the cognate area can be the Chairperson of the DDRC, subject to such nomination by VC.
- vi) Research Scholars are admitted to the academic Department/Centres/Schools of the University. Students can also be admitted to other R & D Centres/Schools/Institutes provided theses R & D Centres/Schools/Institutes/ Departments are approved by the University for carrying out doctoral level research work. However, their research program shall be monitored by the DDRC proposed by the Dean Faculty/Chairman BoS/Dean R&D with faculty from other Departments/Centres who are allied to the area of research of the Centre/school. The composition of the DDRC shall have to be approved by VC through the office of Dean R&D and reported to the Highest Academic Body.
- vii) DDRC meetings, at the time of initial research proposal, final pre-thesis synopsis presentation, and oral thesis defense shall normally be held at MRSSTU University campus.

Ph.D. Course Work

The Ph.D. course work will follow credit based system, the details of which are given below: While undertaking the course work, the following terms are defined:

“Course” means a semester course

“Credit” means weightage assigned to a course in terms of contact hours

(1 Credit theory = 1 contact hour per week/ 1 Credit practical or seminar or field work = 2 contact hours per week.)

“Grade” means a letter grade assigned to a student on a 10 point scale.

“Semester Grade Point Average” (SGPA) means weighted average of grades in a semester = $(\sum G_i * C_i) / \sum C_i$, where G_i is the grade in the i^{th} course, and C_i are the credits in the i^{th} course.

“Cumulative Grade Point Average” (CGPA) means total weighted average of grades in all semesters = $(\sum G_i * C_i) / \sum C_i$;

The grades shall be awarded as per the following table:

Credit Courses

Academic performance	Grade	Grade Points	% score in absolute marking system
Outstanding	A+	10	>80 to 100
Excellent	A	9	>75 to 80
Very Good	B+	8	>70 to 75
Good	B	7	>60 to 70
Average	C+	6	>50 to 60
Fair	C	5	>40 to 50
Marginal	D	4	>30 to 40
Deficient	E	2	>20 to 30
Very Poor	F	0	0 to 20

A Ph.D. student will be required to obtain at least “C+” grade in each course. A student getting “C” or lower grade in any course will have to opt another course in lieu of such a course with the approval of his/her supervisor, and will have to obtain at least “C+” grade in this course within one year of first taking up of that course, failing which his/her **pre-registration** to the Ph.D. programme will be cancelled.

A student will have to obtain a CGPA of 6.75 or above, in order to be eligible to confirm Ph.D. registration. The back conversion from SGPA/CGPA to Percent score will be multiplication of SGPA or CGPA by a factor of 8.9

Seminar:

Each student registered for Ph.D. will have to undertake at least one credit of seminar based on her research area after his/her enrolment/pre-registration. The Grade awarded for Seminar will be "S (Satisfactory)" or "U (Unsatisfactory)".

Thesis:

A student registered for Ph.D. will have to undertake thesis work spread over the entire period of registration of the Ph.D. The grade awarded for thesis work will be "S" or "U". A student will start working on the topic of his/her research right from the date of enrolment/pre-registration.

Fees:

The students registered for Ph.D. shall pay fees for course work as per the rules of the university.

Sd/-

Registrar

Endst. No. 6097

Dated: 15/12/15

A copy of the above is forwarded to the following for information & necessary action.

1. Dean, Academic affairs, MRSSTU, Bathinda.
2. Dean, Research & Development, MRSSTU, Bathinda for vide publicity in the constituent and affiliated colleges of MRSSTU.
3. ✓ Director, IT Enabled Services, MRSSTU, Bathinda for uploading on University website.

Shiv
15/12/15
Dy. Registrar (Admn.)