

# Delhi Technological University

(Formerly Delhi College of Engineering)

Bawana Road, Shahbad Daulatpur, Delhi-110042

## ORDINANCES & REGULATIONS GOVERNING PROGRAMS LEADING TO DEGREE OF DOCTOR OF PHILOSOPHY

The ordinances and regulations shall apply to all programs leading to Degree of Doctor of Philosophy of Delhi Technological University.

### ORDINANCES

#### 1. DEFINITIONS:

- (i) "Applicant" shall mean an individual who applies for admission to the PhD programme of the Delhi Technological University on a prescribed Application Form.
- (ii) "Approved Research Centre" shall mean a research laboratory/research centre/R&D organization/Academic Institute/School of Studies/Centre for Advanced Studies and Research/Industry/Government Department/Public Sector Undertakings approved as a research centre by the University for carrying out wholly/partly research work leading to the degree of Doctor of Philosophy of the University.
- (iii) "Candidate" shall mean a person registered for the PhD Degree and who has successfully completed the course requirement, the comprehensive examination and submitted an approved research plan; as per R.10 of the Regulations.
- (iv) "Caretaker Supervisor" shall mean a member of the academic staff appointed to look after the candidate's research interests in the absence of the Supervisor and after the submission of thesis.
- (v) "Course Work" shall mean courses of study prescribed by the Department through the Course Advisor to be undertaken by a student registered for the PhD Degree.
- (vi) "D-IRD" shall mean the Dean, Industry Relations, Research & Development.
- (vii) "Degree" shall mean the Degree of Doctor of Philosophy (PhD) of the Delhi Technological University.
- (viii) "DRC" shall mean Departmental Research Committee. The constitution of DRC shall be as per R.8.1 of Regulations.
- (ix) "Educational Institution" shall mean those colleges which offer Bachelor's Degree or higher.
- (x) "Full-time Research Student/Candidate" shall mean a person registered for the PhD Degree devoting full time for completing the degree requirements.

"Full-time Sponsored Research Student/Candidate" shall mean a person Sponsored by Govt. or Pvt. R&D organization and Educational Institution of repute registered for the PhD Degree devoting full time for completing the degree requirements. Such candidate shall receive his salary and allowances as admissible from the sponsoring organization/employer.

"Joint Supervisor" shall mean an additional supervisor approved by the University Research Council on the recommendation of DRC to help the supervisor in the accomplishment of the research work of the student/candidate, as per R.7 of the Regulations.

"Minimum Registration Period" shall mean the minimum period for which a candidate must be registered, including the time spent as student before becoming a candidate, prior to submission of the thesis.

- (iv) "Part-time Research Student/Candidate" shall mean a person who is registered for the PhD degree and will devote part of his time towards this pursuit and devote part of his time towards the discharge of his official obligations.
- (v) "PhD Coordinator" shall mean a member of academic staff of the Delhi Technological University appointed by Vice Chancellor, to supervise the admission procedure, register the research students and monitor their performances through performance report of DRCs of different department/school of studies.
- (xvi) "Registration Period" shall mean the length of time span commencing with the date of initial registration at the University till the completion of the programme.
- (xvii) "Residency" shall mean the minimum period for which a student/candidate must attend the University on full-time basis.
- (xviii) "SRC" shall mean Student Research Committee. The constitution of SRC shall be as per R.8.2 of Regulations.
- (xix) "Student" shall mean a person registered for the PhD degree prior to becoming a candidate.
- (xx) "Supervisor" shall mean a member of the academic staff of the Delhi Technological University approved by Academic Council as per R7.2 on the recommendation of DRC to guide/supervise the research/academic work of the student/candidate.
- (xxi) "University" shall mean Delhi Technological University, Delhi.
- (xxii) "University Student/Candidate" shall mean a person registered for the Delhi Technological University's PhD Degree as a full-time research student/candidate and is in receipt of PhD stipend/fellowship.

Note : 'He' & 'His' imply 'he'/'she' and 'his'/'her' respectively.

## ORDINANCES FOR PHD DEGREE PROGRAM

The program leading to degree of Doctor of Philosophy shall be conducted through the Department/School of studies of the University.

(a) The minimum entry qualifications for admission to the PhD programme shall be a Master's degree in Engineering/Technology/Science/Humanities/Management and Social Sciences of the Delhi Technological University or any other equivalent qualification recognised by the University. In exceptional cases candidates with B.E./B.Tech degree with a minimum of 75% marks in aggregate or equivalent CGPA will also be considered for admission to PhD program.

The minimum percent marks/cumulative grade point average (CGPA); are laid down in the Regulations. (R.1).

(b) A candidate registered for the PhD programme shall be required to satisfy a minimum registration period requirement, as laid-down in the Regulations (R.12).

(c) A student/candidate shall be required to earn prescribed minimum credits through relevant courses with at least 60% marks and/or carry out his research work at the Delhi Technological University, under the guidance of approved supervisor(s). In special circumstances, a full-time or part-time student/candidate may be permitted by the Academic Council of the University to carry out part of his research outside the Delhi Technological University in a reputed Educational Institution/Organization provided adequate research facilities are available and are upto the entire satisfaction of the University.

(d) A candidate will be required to complete all requirements for the award of the degree within a period specified in the Regulations.

(e) The date of initial registration shall normally be the date on which the DRC recommends the registration of a student for PhD candidacy after successful completion of course work, comprehensive examination and approval of research plan. It will be mandatory for student to register in each semester after obtaining recommendation from DRC based on his performance in the previous semester. This date of his joining the programme will be referred for all intents and purposes. However, in exceptional cases, the date of registration may be advanced by a maximum of six calendar months by the Academic Council if it is convinced that the student/candidate has spent adequate amount of time on relevant research earlier.

(f) For a student to become a candidate of the degree, he shall have to satisfy the requirement laid down in the Regulations and be accepted by the Academic Council on the recommendation of the respective DRC.

(g) A full-time candidate may be allowed by D-IRD on recommendations of respective DRC to convert his registration into part-time registration from initial registration or after submission of synopsis as per following conditions:

Full-time PhD scholars with M.Tech./M.Phil qualification can be permitted to convert their registration from full-time to part-time after one year or after completion of course work and comprehensive examination whichever is later, if they get employed in the meantime for which he/she has informed the D-IRD and DRC through Supervisor.

Full-time PhD Scholars in the Science Departments with M.Sc. qualifications can be permitted to convert their registration from full-time to part time after two years or after completion of course work and comprehensive examination, whichever is later, if they get employed in the meantime for which he/she has informed the D-IRD and DRC through Supervisor.

Full-time PhD scholars with MBA/ Masters degree in Arts/Humanities qualification can be permitted to convert their registration from full-time to part-time after two year or after completion of course work and comprehensive examination whichever is later, if they get employed in the meantime for which he/she has informed the D-IRD and DRC through Supervisor.

(h) If a student/candidate withdraws from his PhD programme or his registration is terminated, his student/candidate status shall cease. If such a candidate is re-admitted, he may be given weightage to the credits acquired during the previous registration on the recommendation of the DRC except in the case of termination on disciplinary grounds.

(i) The award of the PhD Degree to a successful candidate shall be made in accordance with the Regulations of the Delhi Technological University.

## REGULATIONS

The following Regulations shall apply to all categories of students/candidates pursuing course of study and research leading to the PhD degree :

### R.1. ADMISSION ELIGIBILITY :

R.1.1 An applicant possessing a Masters degree in Engineering/Technology/ Sciences/Management/Humanities in respective discipline or equivalent with a minimum 60% marks in aggregate (of all the years/semesters) or equivalent Cumulative Grade Point Average (CGPA) as determined by the Delhi Technological University and at least 60% marks in aggregate (of all the years/semesters) or equivalent CGPA at Bachelor's degree level shall be eligible to apply for admission to a PhD programme of the University provided he should not have attained an age of 50 yrs. The relaxation in age limit may be done by Academic Council on case to case basis. In exceptional cases applicant with Bachelors' degree in Engineering & Technology having a minimum of 75% marks in aggregate (of all semesters) or equivalent CGPA may also be considered eligible.

R.1.2 An employee of a Government Department/Government Undertaking, a Research/Development Organisation, a Public Sector Undertaking, an Educational Institution or a reputed private industry in Engineering & Technological manufacturing/ R&D/Services with a minimum relevant working experience of two years may be considered for admission as a sponsored (full-time)/part-time Research scholar. Sponsored applicants will be eligible for admission provided they are treated by their employers as on duty with their normal salary and allowances and are fully relieved for the period of study.

R.1.3 Part-time applicants will be eligible under three categories (i) Candidates from organizations which have MoU with Delhi Technological University (ii) Organizations with R&D Labs of national repute (iii) Regular faculty/Teaching

Research Fellow or Scientists from Educational Institutions, R&D Institutions, and Govt. Department/Govt. Undertaking provided that:

the applicant possesses the minimum entry qualifications for the degree as given in R 1.1;

the applicant is having at least two years experience in regular capacity.

the applicant proves to the satisfaction of the University that his official duties permit him to devote sufficient time to research:

- facilities for research are available at the applicant's place of work in the chosen field of research or the applicant can spare sufficient time to pursue research in the Department of the Delhi Technological University on daily basis, residing in the vicinity of the University; and
- he/she will be permitted to reside at the Delhi Technological University for a period of not less than 6 months during his/her registration for the degree. (*This condition of minimum residence will be automatically waived for candidates who are working in National Capital Region (NCR) of Delhi or in organisations/institutions located within a distance of 50 km from the Delhi Technological University.*)

If the number of courses prescribed by the DRC is more than 12, then the residency requirement for part time PhD students working in Educational Institutes/Organisation outside NCR of Delhi will be 1 Year.

R.1.4 Project staff under sponsored projects, sponsored by DST/UGC/any government agency, Industry or centres established from grant-in-aid from government or international agencies at Delhi Technological University for not less than 2 year duration may be given administrative clearance to seek admission on part-time basis at any time after completing two years of service in the University subject to recommendations of the concerned Principal Investigator of the said project/ centre and approval of the Vice Chancellor.

R.1.5 Permanent academic staff of the Delhi Technological University (*including the academic staff of erstwhile Delhi College of Engineering*) may be given administrative clearance to seek registration on part-time basis after satisfactory completion of the period of probation subject to recommendations of the concerned head of the Department and approval of the Vice Chancellor.

## R.2 RESERVATION/RELAXATION

R.2.1 Reservation of seats for applicants in each of the categories of the Research Scholars shall be in accordance with the policies of Govt. of NCT of Delhi. A total of three percent seats over and above the sanctioned strength will be reserved for physically handicapped applicants in all the PhD programmes of the University put together.

R.2.2 Physically handicapped applicants may be permitted 5% marks or equivalent CGPA relaxation in eligibility requirement of or equivalent in line with the policies of Govt. of NCT of Delhi. They will not be allowed any other relaxation beyond this limit even if they belong to SC/ST category.

### R.3 SELECTION PROCEDURE and TIME of ADMISSION

- R.3.1(a) The shortlisting of applications for the purpose of screening test & interview will be done by the PhD coordinator nominated by the Vice-Chancellor in consultation with the respective departments.
- (b) The DRC of the concerned department will set the question paper for the screening test in the concerned areas of research.
- (c) The screening test shall be conducted by PhD coordinator. The DRC of the concerned department shall decide the cut off for the screening test for shortlisting the candidates for the interview.
- (d) The DRC of the concerned Department may set the shortlisting criteria higher, if considered necessary, based on the screening test or the minimum eligibility defined above.
- (e) The screening test shall be waived for academic staff of the University (*including the academic staff of erstwhile Delhi College of Engineering*), sponsored applicants from organization having MOU with the University, UGC/CSIR JRF fellowship holders, foreign students who apply through Ministry of Human Resource Development or foreign students under a Cultural Exchange Scholarship Programme of government of India.
- (f) The interview shall be conducted by a committee comprising of Vice-Chancellor, Chairman, Pro Vice-Chancellor, D-IRD and PhD coordinator as common members along with the members of respective DRCs.
- (g) Admissions will be made in each semester. Accordingly, registration shall be made at the beginning of each semester.

### R.4 CLASSIFICATIONS

- R.4.1 The applicants for admission to the PhD programme shall be classified under any one of the following categories:
- (a) University Research student/candidate (Full Time with Scholarship)
- (b) Sponsored Research student/candidate fully financed by the Govt./Semi-Government Organizations like CSIR, UGC, Research Schemes, Govt./Privately funded Research/Development Organisation, Public Sector Undertaking, Educational Institution or a reputed industry etc. (Full-time).
- (c) Sponsored Research student/candidate nominated by organization with MOU with the University, foreign students who apply through Ministry of Human Resource Development or under a Cultural Exchange Scholarship Programme by Government of India (Full-time).
- (d) Part-time Research student/candidate (with residency requirement).

## R.5 REGISTRATION

R.5.1 Every student/candidate will be required to renew the registration every semester till the submission of the thesis. The renewal of registration every semester shall be subject to completion of specified number of credits/courses and/or satisfactory progress in his research work as recommended by Department Research Committee.

R.5.2 A student/candidate who fails to register or renew his registration as the case may be, will cease to be a student/candidate with immediate effect.

## R.6 COURSE WORK

R.6.1 Each student will be required to take course work as prescribed by the DRC and approved by the D-IRD.

R.6.2 A student having M.Sc./M.B.A. or equivalent post graduate degree with bachelors degree of 2/3 years duration shall be required to complete a minimum of 4 courses of 3 credits each while the student with M.Tech./MBA or equivalent post graduate degree with bachelors degree of 4 years or more shall be required to complete a minimum of 2 courses of 3 credits each as course work. Out of the prescribed course work, one course on research methodology may be prescribed, which may include quantitative methods and computer applications and may have some weightage for reviewing of literature. Other courses may be prescribed from the existing M.Tech./ MSc./ MBA and/or courses framed by the DRC for PhD students approved by the Academic Council of the University. It is expected that full-time and part-time students will complete their course requirement in two and three semesters respectively. It is further expected that they will qualify the comprehensive examinations (R.9) soon after completing the course requirement but in no case beyond the time stipulated in R.9.4.

R.6.3 A requirement of minimum 60% of marks or equivalent CGPA would be mandatory for admission to the candidacy of PhD Degree. If the % of marks obtained by any student after the prescribed course work by DRC is below 60% or equivalent CGPA the student has to take up additional courses on the recommendation of DRC to bring up the aggregate % of marks equal to or above 60% or equivalent CGPA subject to the condition that this should be achieved within one semester. In addition to this, if the % of marks of any student falls below 60% or equivalent CGPA at the end of any one academic year after initial registration, his registration will be terminated forthwith.

R.6.4 In case of re-registration for PhD program, the Academic Council may consider giving credit to the courses already completed/passed by a candidate at this University as a part of his any earlier PhD registration, except in cases where the candidate has changed his area of research/ change his department.

## R.7 THESIS SUPERVISOR(S)

R.7.1 Every admitted student shall be assigned a Research Supervisor(s) by the D-IRD based on the recommendations of concerned DRC and taking into consideration the preference of the student and area of the research the

student has applied for and of the prospective supervisor. The allocation of supervisor shall not be decided by an individual student or faculty member. However, if the student has some published research work with a particular faculty member and the student wishes to continue in the same research area under supervision of same faculty member, the particular faculty member in this case may be allocated as supervisor to the student, subject to condition that total number of student/candidates registered under a Supervisor do not exceed four(full time) or eight(part time/candidates under joint supervision). Two part time candidates/ candidates under joint supervision shall be counted as one full time candidate for the purpose of counting the number of candidates registered with a supervisor. For this purpose, *Form-A* given in *Annexure-1* will be completed and processed during first semester of the students' joining.

R.7.2 A Supervisor shall be any full-time academic staff of the University(*including the academic staff of erstwhile Delhi College of Engineering*) including Scientific/Design staff of the University with a PhD degree. No person who himself is registered for PhD degree at this University or any other Educational Institution, would qualify to act as supervisor. The mandatory eligibility condition for supervisor(s) will be:

- (a) a valid PhD degree from a recognised Educational Institution.
- (b) he/they have been actively engaged in research and has published some research papers in refereed international journal of the concerned subject area during last three years.
- (c) he has less than four(full time) or eight(part time/ candidates under joint supervision) registered research student/candidate in the University.

R.7.3 The Supervisor(s) shall be appointed during the first semester.

R.7.4 The D-IRD, on the recommendations of the DRC, may appoint joint Supervisor(s) not exceeding a total of three supervisors to supervise a student/candidate. These may be from inside or outside the University and normally, there should not be more than two supervisors from within the University. The eligibility for appointment of joint supervisor(s) shall also meet the mandatory requirement listed in R.7.2(a)-(c). Appointment of any Joint Supervisor(s) would not be made after a lapse of 18 calendar months from the date of initial registration of the student/candidate except when none of the supervisors is in the University for a period of a year or more at a stretch.

R.7.5 Appointment of Supervisors/Joint-Supervisors and Caretaker-Supervisor for PhD students

An academic staff appointed as a PhD supervisor is normally expected to be available to a research scholar in the University till the oral defence of his doctoral thesis work. However, under unavoidable circumstances, such as: long leave of more than 12 months; resignation; retirement; or death; a supervisor may not be available to the scholar. In such special cases, appointment of supervisor(s) will be regulated as under :

I. A supervisor proceeding on leave or on lien of more than 12 months

- (a) (i) Where joint-supervisor exists, the supervisor proceeding on long leave for more than 12 months can continue to be a Joint-supervisor provided the DRC is convinced of effective supervision by the Joint-Supervisor.



- (ii) Where a Joint-Supervisor does not exist, a Joint-Supervisor may be appointed by the DRC in cases where a student has not yet submitted his synopsis.
- (b) (i) Provided, 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.
- (ii) 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.
- (iii) 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 time. 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 Joint-Supervisor of that candidate.
- (c) Provided further, if a supervisor proceeds on leave for a period less than 12 months initially, but later extends his leave beyond 12 months, the above procedure will be followed. The extension granting authority will inform the Academic Section of the University accordingly.

## II. A Supervisor retires

A faculty member who is due to retire within the next two years can be appointed only as a Joint-Supervisor and can continue to be the Joint-Supervisor even after his retirement provided the DRC is convinced of his availability/continued guidance to the student. In other cases, a faculty member on retirement may continue as

- (a) a Supervisor, if his term is extended or he is reemployed or appointed or he is appointed as Emeritus Fellow;
- (b) a Supervisor, if the synopsis of the thesis or thesis has been submitted. Appointment of Joint Supervisor, if necessary, will be as per R.7.5 I(a); and caretaker Supervisor as per R.7.5 I(b).
- (c) a Supervisor, if the synopsis of the thesis or thesis is submitted within 12 months of his retirement. Appointment of Joint Supervisor, if necessary, will be as per R.7.5 I(a); and caretaker Supervisor as per R.7.5 I(b).

## III. A Supervisor resigns

A faculty member who resigns from the services of the University may continue as

- (a) a Supervisor, if the synopsis of the thesis or thesis has been submitted. Appointment of Joint Supervisor, if necessary, will be as per R.7.5 I(a); and caretaker Supervisor as per R.7.5 I(b).
- (b) a Supervisor, if the synopsis of the thesis or thesis is submitted within 12 months of his resignation. Appointment of Joint Supervisor, if necessary, will be as per R.7.5 I(a); and caretaker Supervisor as per R.7.5 I(b).

- (c) a Joint-Supervisor and can continue to be the Joint-Supervisor till the DRC is convinced of his availability/continued guidance to the student.

In other cases, a new Supervisor will be appointed, if necessary, as per R.7.5 I(a); and caretaker Supervisor as per R.7.5 I(b).

#### IV. A Supervisor expires

A new Supervisor will be appointed, if necessary, on the recommendation of DRC.

### R.8 COMPOSITION OF DRC and SRC

R.8.1 The minimum number in any DRC will be five, including at least two academic staff at the level of Professors. In case the any department fails to have the required number, or the number of professors is less than two, a joint DRC shall be instead be constituted by the Vice-Chancellor with other department having closest academic affiliation. The composition of DRC will be as follows :

- (a) Head of the Department, Chairman;
- (b) All Professors of the concerned Department.
- (c) Two Associate Professors satisfying the eligibility requirements as per R.7.2, appointed by the Vice-Chancellor for a tenure of two years;
- (d) Two outside expert nominated by Vice-Chancellor in consultation with the D-IRD from the panel approved by Academic Council;
- (e) Supervisor(s) only in the cases where the progress report of the concerned candidates shall be discussed.

R.8.2 The composition of SRC will be as follows :

- (a) Chairman, DRC or his nominee;
- (b) Two outside expert in the related area to be nominated by Vice-Chancellor from the panel approved by Academic Council in consultation with D-IRD and;
- (c) One University faculty expert, preferably in the concerned area, from within the Department appointed by Vice-Chancellor in consultation with D-IRD;
- (d) One University faculty expert, from outside the Department appointed by Vice-Chancellor in consultation with D-IRD;
- (e) Supervisor(s).

### R.9 COMPREHENSIVE EXAMINATION

R.9.1 Each student will be required to take a comprehensive examination which will test students' comprehension of his broad field of research and his academic preparation and potential to carry out the proposed research plan. The comprehensive examination should be a combination of written and oral examination and should be separately conducted before evaluation of the research proposal. The examination will be conducted by SRC.

R.9.1. The following procedures to be uniformly followed by all the Departments in conducting the comprehensive examination for research students :

- (a) A student should first clear the requisite PhD course work.
- (b) The written examination should then be conducted by the SRC of the student within the guidelines laid down by respective DRC.
- (c) The result of the written examination should be declared within two weeks.
- (d) After the student has passed the written examination, the oral examination should be conducted by the SRC of the student within the broad guidelines laid down by the respective DRC.
- (e) This should be followed by evaluation of the research proposal by DRC.

R.9.2 The SRC on the basis of the performance of the student in the examination will make one of the following recommendations :

- (a) (i) Passed  
(ii) To reappear in the examination after a defined period of time specified by the SRC and after taking additional courses.  
(iii) To re-submit the research plan keeping in view suggestions of the Committee and to be evaluated after a defined period of time.  
(iv) Failed
- (b) Research Plan  
(i) Recommended for Approval  
(ii) Not Recommended for Approval

R.9.3 A student will be provided a maximum of two attempts to pass the comprehensive examination.

R.9.4 Full-time and part-time students must complete the comprehensive examination within

- 12 and 18 months (*for students with M.E./M.Tech degree*)
  - 18 and 24 months (*for students with B.Tech/B.E./M.Sc./M.B.A. degree*)
- respectively from the date of joining the programme, failing which their registration will be cancelled.

## R.10. ELIGIBILITY FOR THE CANDIDACY FOR THE DEGREE

R.10.1 Application for the candidacy for the PhD Degree shall be made by the full time student to the D-IRD on the Form B (*Annexure-II*) duly approved by the SRC and DRC soon after having passed the comprehensive examination and approval of research plan.

R.10.2 Application for the candidacy for the PhD Degree shall be made by the part time student to the D-IRD on the Form B (*Annexure-II*) duly approved by the SRC and DRC soon after having passed the comprehensive examination, approval of research plan and publication of a research paper in reputed refereed national/ international conference/journal considered appropriate by the DRC.

R.10.3 A student shall be formally registered as a candidate for the PhD Degree after he has complied with the following :

- (a) has completed his course work with a minimum 60% or equivalent CGPA;
- (b) has passed the comprehensive examination; and
- (c) has submitted a research plan duly recommended by SRC, and approved by DRC.

## R.11 PERFORMANCE MONITORING

- R.11.1 The academic/research progress of each student/candidate will be monitored either by DRC or by its sub-committee. For this purpose, each candidate will be asked to submit a progress report at the end of each semester to his supervisor(s). On receipt of the progress report, the supervisor(s) shall arrange with DRC or its sub-committee for a review.
- R.11.2 The PhD Coordinator will coordinate the collection of progress reports duly filled and signed by the scholars and approved by the supervisors and DRC every semester.
- R.11.3 The DRC will evaluate the progress report of the student every semester.
- R.11.4 A satisfactory report is to be awarded during that semester if the progress is 'satisfactory'.
- R.11.5 If the progress is 'unsatisfactory', the report must indicate 'Unsatisfactory Progress' and must include appropriate action taken in this regard. For the first appearance of 'Unsatisfactory Progress' report, a warning would be issued to the candidate. Subsequently, the fellowship (in case of regular scholar) of the candidate would be stopped.
- R.11.6 If there are two consecutive 'Unsatisfactory Progress' report, the registration will stand terminated.
- R.11.7 Submission of progress report should continue till submission of thesis.
- R.11.8 The DRC shall send copy of the progress reports to PhD coordinator and to Academic section for all the candidates. The PhD coordinator shall report those cases to D-IRD where the progress is 'Unsatisfactory'. Appropriate action would be taken by D-IRD for Unsatisfactory reports.
- R.11.9 The academic calendar will include the following dates for the submission of progress reports.
  - I semester: 15<sup>th</sup> December
  - II semester: 15<sup>th</sup> JuneIn exceptional cases the D-IRD with the approval of the Vice Chancellor may condone the delay in submission of the progress report upto 2 weeks.

## R.12 MINIMUM and MAXIMUM REGISTRATION REQUIREMENT

- R.12.1 A candidate who has a B.E./B.Tech/M.Sc./M.B.A. degree or its equivalent shall be required to be registered for the degree for a period of not less than three calendar years (36 months) from the date of his initial registration. In exceptional cases, the minimum period of registration may

be reduced to two calendar years (24 months) with the approval of the Academic Council. For a candidate who has an M.Tech. or M.Phil degree or its equivalent the minimum period of registration shall be two calendar years (24 months).

R.12.2 The candidates of all categories shall normally submit their thesis within a period of four years from the date of their initial registration for the PhD Programme. However, as a special case, this limit may be extended to a maximum of seven years by the Vice Chancellor on the recommendation of D-IRD and DRC after which the registration shall stand cancelled automatically.

### R.13 SYNOPSIS

R.13.1 Holding of Pre-PhD seminar before the DRC is an essential requirement before the PhD candidate submits his synopsis. On completion of the research work, the candidate shall submit to DRC through supervisor(s), 8 copies of the synopsis. The DRC will forward the synopsis with its recommendations to the Academic Section. A panel of at least eight experts in the area would be suggested by the Supervisor(s) and recommended by DRC while forwarding the title and synopsis of the thesis. The panel so recommended would include at least four examiners from outside India.

R.13.2 The candidate shall be required to submit fresh synopsis if he fails to submit his thesis within 6 months of the submission of the earlier synopsis. However, in case a candidate fails to submit his thesis within the stipulated time and has suitable justification for the same, the D-IRD, may on recommendations made by the DRC and on individual merits of each case grant him extension in time by not more than one month i.e. the candidate may be allowed to submit his thesis within a period not exceeding 10 months from the date of the submission of the synopsis.

R.13.3 There is no bar to the inclusion of name of guide/list of publications arising out of research in the synopsis.

### R.14 PANEL OF EXAMINERS

On receipt of the title and synopsis of the thesis, the D-IRD on the recommendations of DRC will recommend a Panel of Examiners for each candidate to Vice Chancellor who in turn shall appoint the examiners for the PhD thesis. The Panel will consist of internal examiners, normally the Supervisor(s), and two external examiners; one from within India and the other from abroad who shall be experts in the subject of the thesis. These external examiners shall be chosen normally from the panel of examiners recommended by the DRC as aforesaid. A person working in the same laboratory(ies)/Institution(s) where Research Scholar is employed cannot, however, be appointed as External Examiner for evaluating the Thesis of that Research Scholar. Further no person can be appointed as External Examiner from Laboratory/Institution to which the Joint supervisor(s) of the Research Scholar belongs. The reports from the examiners will provide

evidence of the candidate's capacity for analysis as well as his investigations, design or development.

## R. 15 THESIS SUBMISSION

R.15.1 The thesis shall be written in English in the specific format (*Annexure-III*) and shall contain a critical account of the candidate's research. It should be characterised by discovery of facts or fresh approach towards interpretation of facts and theories or significant original contribution to knowledge of development or a combination of these. It should bear evidence of the candidate's capacity for analysis and judgement as well as his ability to carry out independent investigation, design or development. A thesis may be supplemented by published work, if necessary. No part of the thesis or supplementary published work shall be submitted for the award of any other degree. A certificate to this effect should be provided by the Candidate and his Supervisor(s).

R.15.2 A candidate may submit his thesis within the time period as stipulated in R 12.2 provided that:

- (i) he has completed the minimum period of registration as provided in R 12.1. and,
- (ii) he has become a candidate for the award of PhD degree as provided in R.10.3 and,
- (iii) he has published two research papers in a refereed international journal of repute or produce the evidence in the form of acceptance letter Only those publications will be counted, where the authors of the papers are the candidate and their supervisor(s), and,
- (iii) he has successfully defended his research work in a pre-PhD seminar open to all faculty members and research students, and suitably incorporated the suggestions made, and
- (iv) he has obtained recommendation of the DRC for submission of thesis, and
- (iii) he has submitted the title and synopsis of the thesis atleast two months prior to the submission of the thesis.

R.15.3 The candidate for the degree shall submit five copies of the thesis with a soft cover for evaluation. In case of joint supervision six/seven copies of thesis shall be submitted by the candidate.

R.15.4 After receiving the satisfactory evaluation reports a candidate shall be required to appear in the viva-voce examination before the examiners approved by the Vice Chancellor (as in R.14) on the recommendations of the D-IRD and respective DRC, which shall also be openly defended.

## R.16 THESIS EVALUATION

R.16.1 Each examiner will be requested to submit to the D-IRD a detailed assessment report and his recommendations on the prescribed performa within six weeks of the date of receiving the thesis. A clear mandate regarding (i) discovery of new facts, (ii) a fresh approach towards interpretation of facts or theories, or (iii) a distinct advancement in the subject will be solicited from the examiner.

R.16.2 In the event that the thesis report is not received from an examiner within a period of three months, the Vice-Chancellor may appoint another examiner (Inland/Abroad) from the panel of examiners (as in R.14) in his place for evaluating the thesis.

R.16.3 In the event of disagreement between the external examiners the matter may be referred to the Vice Chancellor. The Vice-Chancellor as a special case, may appoint another external examiner (Inland/Abroad), if the merit of the case so demands. The report of the so appointed examiner shall be final.

R.16.4 In the event of the candidate being required to submit a revised thesis, he shall in the normal circumstances, re-submit the same after incorporating the revision prescribed, within a period of six months from date of communication in this regard from the D-IRD. However, in exceptional circumstances this period may be extended by the Vice-Chancellor by another six month, the total revisions will not exceed a period of one year. The thesis once submitted cannot be re-submitted unless otherwise the examiner has prescribed the major revision.

#### R.17 AWARD OF PHD DEGREE

R.17.1 On receipt of satisfactory evaluation report by the examiners the D-IRD in consultation with the Vice Chancellor will finalize the date of viva-voce which shall be openly defended. The inland examiner appointed as in R.14 shall conduct the viva-voce along with supervisor(s) and shall recommend to the D-IRD, one of the following courses of action:

- (a) that the degree be awarded;
- (b) that the candidate be re-examined at a later specified time in a specified manner;
- (c) that the degree shall not be awarded;

In case of (a) and (b), the examiners shall also provide to the candidate a list of all corrections and modifications in the thesis (if required) including suggestions made by the examiners during the thesis evaluation.

R.17.2 The Degree shall be awarded by the University, provided that :

- (a) The examiners appointed for viva-voce as in R.17.1(a) so recommends;
- (b) the candidate produces a 'No Dues Certificate' in the prescribed form, and
- (c) the candidate has submitted two hard cover copies of the thesis; one for the Department's Library and one for the Central Library after incorporation of all necessary/corrections/modifications.
- (d) the candidate has submitted one copy of the thesis in soft form written on CD/DVD or other media after incorporation of all necessary/corrections/ modifications.
- (d) The hard bound copies of the PhD thesis, submitted after the viva-voce examination, must contain the following copyright certificate in the beginning of the thesis, on a separate page on the left side:

#### R.18 FINANCIAL ASSISTANCE

- R.18.1 The number of University Research fellowship/University Teaching cum Research fellowship instituted by University will be decided by the Board of Management of the University. These fellowship shall be distributed in each department by Pro Vice Chancellor in consultation with the Vice Chancellor.
- R.18.2 Subject to availability of fellowships, the PhD candidates, who are admitted as full time research scholar through entrance test and interview and selected against available slot of fellowship in the department may be provided with University Research fellowship/University Teaching cum Research fellowship of amount decided by the University in accordance with UGC/AICTE/MHRD/ Government of India from time to time. In addition to the University Research fellowship/University Teaching cum Research fellowship, such candidate shall also be entitled for contingency grant decided by the University from time to time. The award of fellowship shall be reviewed every semester based on the performance report provided by respective DRC.
- R.18.3 The Teaching cum Research Assistantship will be available to the eligible students with two years of experience in regular capacity. The selection of the students with Research Assistantship and with Teaching cum Research Assistantship shall be done separately.
- R.18.4 The maximum duration of which assistantship can be awarded to any PhD student is 4 years or till the end of the semester in which thesis is submitted, whichever is earlier. Continuation of the Assistantship is contingent on satisfactory academic performance and satisfactory performance in the discharge of responsibilities assigned under the scheme.

It is to be noted that admission to the Programmes and award of Assistantship are not linked. Admission to any programme does not guarantee the award of assistantship. Those who are not awarded Assistantship can continue with the programme as self-financing student.

#### R.19 TUITION FEE

Tuition fees will be decided by University and shall be notified in the University prospectus on yearly basis. Unless stated full fee shall be charged from student/candidate on annual basis till the candidate submits his thesis for evaluation as per R.15.

Following categories of research scholars are eligible for tuition fee waivers as specified below:

- (i) The academic staff of the Delhi Technological University (*including the academic staff of erstwhile Delhi College of Engineering*) – Full waiver.



- (ii) Project staff pursuing PhD, as in R.1.4 at the University including only those getting assistantship from projects provided the amount of fellowship coming from the project is equal or higher than University fellowship –Full waiver.
- (iii) Self financed student/candidates from DST, CSIR, NPL and other government Organisations/ Govt. Institutions/ Public sector undertakings- 50% waiver.
- (iv) Self financed student/candidates admitted to PhD programme from Pvt. organization/R&D laboratories under M.o.U with the University.- 25% waiver.
- (v) Self-financed regular faculty members of the Pvt. educational institutes.- 25% waiver.

Additional 25% fee waiver can also be given on case to case basis with the approval of the Vice Chancellor for outstanding research demonstrated by publication in refereed research papers.

## R.20 LEAVE & ATTENDANCE

A student/candidate will be entitled to avail leave as per Leave Rules/Attendance Rules formulated and amended from time to time by the Academic Council:

### R.20.1 LEAVE

#### (a) During Course work:

A full-time PhD student, during his/her stay at the University will be entitled to leave for 30 days including leave on medical grounds, per academic year. He/she will not be entitled to summer and winter vacation.

Leave beyond 30 days in an academic year may be granted to a Research Scholar in exceptional cases, by the Head of the Department concerned, subject to the following conditions:

- (i) the leave beyond 30 days will be without Assistantship/Scholarship; and
- (ii) such an extension of upto additional 30 days will 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 on the recommendation of the Supervisor; and a proper leave account of each scholar shall be maintained by the Department concerned.

#### (b) After Completing the Course Work

A full-time PhD scholar during his/her stay at the Institute, will be entitled to leave for 30 days per academic year. He/she will not be entitled to summer and winter vacations. In addition, a PhD scholar who has completed his/her course work may be granted leave on medical grounds up to 10 days per academic year.

The research scholars will be eligible for Paternity/Maternity Leave with Assistantship as per rules and regulation prescribed by Government of NCT of Delhi.

#### **R.20.2 ATTENDANCE**

A PhD student irrespective of the source of research assistantship including self financing, student/candidate not drawing any Assistantship and sponsored student/candidate, while pursuing course work, must attend at least 75% of classes in each course in which he/she is registered. In case his/her attendance falls below 75% in any course during a month he/she will not be paid Assistantship for that month.

Further, if his/her attendance again falls short of 75% in any course in any subsequent month in that semester his/her studentship and assistantship will be terminated.

A research scholar after having completed the course work must attend to his/her research work on all the working days and mark attendance except when he/she is on duly sanctioned leave. The requirement of 75% attendance will apply as above on daily attendance except in the cases where longer leave has been duly sanctioned within the leave entitlement of the student.

For the above purpose, if 75% works out to be a number which is not a whole number, the immediate lower whole number will be treated as the required 75% attendance.

#### **R.21 WITHDRAWAL FROM SEMESTER/COURSES**

R.21.1 A student/candidate may be permitted to withdraw by the D-IRD from all the courses registered by him or the entire semester, on medical grounds supported by a medical certificate from the Medical Officer of the Govt. hospital. Withdrawal may also be granted by the D-IRD on the recommendation of respective Head of the Department provided he is convinced that the scholar cannot pursue his studies for the reasons beyond his control.

R.21.2 Under no circumstances will a request for withdrawal is entertained after the end-semester tests have begun. Student/Candidate should present the medical certificate in support of his absence on health reasons within two days of his rejoining the University, if not produced already. Withdrawal will not be granted retrospectively.

R.21.3 Any semester withdrawal will count towards the maximum limit of seven years as stipulated in R.12.2.

#### **R.22 CANCELLATION OF REGISTRATION**

R.22.1 Registration of a student/candidate shall be cancelled in any one of the following eventualities, after due approval of the Vice-Chancellor.

- (i) if he absents himself for a continuous period of four weeks without prior intimation/sanction of leave.
- (ii) if he resigns from the PhD Programme and the resignation is duly recommended by the DRC.
- (iii) if he fails to renew his registration in any semester subject to the provisions contained in these Ordinances & Regulations.

- (iv) if he fails to clear mandatory course work requirement with a minimum of 60% in aggregate or equivalent CGPA.
- (v) if he does not clear the comprehensive examination as stipulated in R.9.
- (vi) if his academic progress is found unsatisfactory in terms of R.11.6.
- (vii) if he is found involved in an act of misconduct and/or indiscipline and termination is recommended by a competent authority.

### R.23 GENERAL

Notwithstanding anything contained in these Ordinances & Regulations, all categories of the students/candidates shall be governed by the rules and procedures framed by the Board of Management of the University in this behalf, and in force from time to time.

### R.24 INTERPRETATION

Any doubt or dispute arising about the interpretation of these Ordinances and Regulations shall be referred to the Chairman, Academic Council whose decisions shall be final.