# Indira Gandhi Delhi Technical University for Women (Established by Govt. of Delhi vide Act 9 of 2012) ISO 9001:2015 Certified University



Revised Ph.D Regulations-2022 For Engineering, Applied Sciences & Humanities (Effective from Academic Year 2022-2023)

Research Wing Indira Gandhi Delhi Technical University for Women Kashmere Gate, Delhi-110006

# TABLE OF CONTENTS

	TABLE OF CONTENTS				
S. No.	Description	Page no.			
1	Definitions	1-3			
2	R.1 Classification of Applicants and Admission Eligibility	3-7			
3	R.2 Reservation/Relaxation	7-8			
4	R.3 Shortlisting and Selection Process	8-9			
5	R.4 Financial Assistance	9-10			
6	R.5 Registration	10-11			
7	R.6 Cancellation of Registration	11			
8	R.7 Course Work	11-13			
9	R.8 Research Plan (Submission and Approval)	13			
10	R.9 Allocation of Thesis Supervisor(s)/Co-Supervisors	14-17			
11	R.10 Composition of DRC and URB	17-18			
12	R.11 Eligibility for the Candidacy for the degree	18			
13	R.12 Performance Monitoring	18-21			
14	R.13Minimum Registration Requirement for Thesis Submission	21			
15	R.14 Pre-Ph.D Seminar and Synopsis Submission	21-22			
16	R.15 Thesis Submission	23-25			
17	R.16 Appointment of Examiners	25			
18	R.17 Thesis Evaluation	25-28			
19	R.18 Award of Ph.D Degree	28-29			
20	R.19 General	29			
21	R.20 Interpretation	29			



# REVISED REGULATIONS FOR THE PROGRAM LEADINGTO DEGREE OF DOCTOR OF PHILOSOPHY (2022)

#### **Short Title and Commencement:**

- (a) These regulations may be called as "Indira Gandhi Delhi Technical University for Women (IGDTUW) Ph.D Regulations for the degree of Doctor of Philosophy (Ph.D) 2022"
- **(b)** These Regulations have been approved in the 16<sup>th</sup>Academic Council dt. 20<sup>th</sup> May, 2022and 18<sup>th</sup>BOM dt. 3<sup>rd</sup> August, 2022 shall be applicable to all students admitted to the Ph.D Programme at IGDTUW from the year 2022onwards.

#### **DEFINITIONS:**

- (i) "Applicant" shall mean a female who applies for admission to the Ph.D. Programme of the Indira Gandhi Delhi Technical University for Women (IGDTUW) on a prescribed Application Form.
- (ii) "Academic Year" is a period of nearly twelve months devoted to completion of requirements specified in the Scheme of Teaching and the related examination.
- (iii) "Candidate" shall mean a person registered for the Ph.D. Degree and who has successfully completed the course work and submitted an approved research plan as per R.11 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.
- (v) "COE" shall mean the Controller of Examinations of Indira Gandhi Delhi Technical University for Women.
- **(vi) "Coordinator DRC"** shall mean a member of DRC of a particular Department of the Indira Gandhi Delhi Technological University appointed by Vice Chancellor, to coordinate and convene the DRC meetings.
- **(vii)** "Course Work" shall mean courses of study prescribed by the DRC through the Supervisor to be undertaken by a student registered for the Ph.D. Degree.

- (viii) "Dean (Examinations)" shall mean the Dean of Examination Division of Indira Gandhi Delhi Technical University for Women.
- (ix) "Dean (R&C) shall mean the Dean, Research & Collaboration.
- (x) "Degree" shall mean the Degree of Doctor of Philosophy (Ph.D.) of IGDTUW.
- (xi) "DRC" shall mean Department Research Committee.
- (xii) "Examination" shall mean examination conducted by Indira Gandhi Delhi Technical University for Women.
- (xiii)"Full-time Research scholar" shall mean a person registered for the Ph.D Degree devoting Full-Time for completing the degree requirements.
- (xiv) "Co-Supervisor" shall mean an additional Supervisor approved by the URB on the recommendation of DRC to help the Supervisor in the accomplishment of the research work of the student/candidate.
- (xv) "Minimum Registration Period" shall mean the minimum period from date of final registration to submission of the thesis.
- (xvi) "Part-time Research Scholar" shall mean a person who is registered for the Ph.D. degree and will devote part of her time towards their pursuit and devote part of her time towards the discharge of her official obligations.
- (xvii) "Ph.D Coordinator" shall mean a member of academic staff of the Indira Gandhi Delhi Technological University appointed by Vice Chancellor, to supervise the admission procedure, register the research students and monitor their performances through DRCs of different departments
- (xviii) "Registration Period" shall mean the length of time span commencing with the date of provisional registration at the University till the completion of the programme.
- (xix) "Residency" shall mean the minimum period for which a student must attend the University on full-time basis.
- (xx) "Selection Committee" shall mean a committee duly constituted by the Vice Chancellor for conducting interview for selection of students to the Ph.D Programme.

- (xxi)"Semester" An Academic year is divided into two semesters of six months duration each.
- **(xxii)** "**Student**" shall mean a person provisionally registered for the Ph.D. degree prior to becoming a candidate.
- (xxiii) "Supervisor" shall mean a member of the academic staff of the University approved by URB on the recommendation of Department to guide/supervise the research/ academic work of the student/candidate.
- (xxiv) "University" shall mean Indira Gandhi Delhi Technical University for Women (IGDTUW).
- (xxv) "URB" shall mean University Research Board.

#### R.1 CLASSIFICATION OF APPLICANTS AND ADMISSION ELIGIBILITY

#### R.1.1 Classification of Applicants

The applicants for admission to the Ph.D. programme shall be classified under any one of the following categories:

## R.1.1.1 Full-Time Research Scholar (Abbreviated as FT)

A person registered for the Ph.D Degree devoting Full-Time for completing the degree requirements, with financial assistance and satisfying the admission eligibility as defined in R1.2.1.

The persons receiving financial assistance from any sources can further be classified into the following categories:

- i. Full time applicant eligible for monthly stipend instituted by IGDTUW.
- ii. Junior Research Fellow (JRF)/Senior Research Fellow (SRF) financed by IGDTUW.
- iii. Financed by other sources like Sponsored Research Projects or various Fellowship Schemes.

## R.1.1.2 Part-Time Research Scholars (Abbreviated as PT)

A person who is registered for the Ph.D degree and will devote part of her time towards their pursuit and devote part of her time towards the discharge of her official obligations and satisfying the admission eligibility as defined in R1.2.2.

#### R.1.2 ADMISSION ELIGIBILITY

# R.1.2.1The minimum entry qualifications for Full-Time/Part-Time Research Scholars are as follows:

- (i) **For Engineering**: Degree in M.E. / M.Tech or equivalent from a recognized University/ Institution in the relevant discipline with minimum of 60% marks in aggregate or its equivalent CGPA in the point scale and B.E./B.Tech. or equivalent with minimum of 60% marks in aggregate or equivalent CGPA.
- (ii) **For Computer Application**s: MCA from a recognized University/ Institution with minimum of 60% marks in aggregate or its equivalent CGPA in the point scale and Graduation Degree (with Sciences and Mathematics) with minimum of 60% marks in aggregate or equivalent CGPA.
- (iii) **For Sciences**: Master Degree in the relevant discipline from a recognized University/Institution with 60% marks in aggregate or its equivalent CGPA in the point scale and undergraduate degree in the relevant discipline with 60% marks in aggregate or equivalent CGPA.
- (iv) **For Humanities**: Master Degree in the relevant discipline from a recognized University/Institution with 55% marks in aggregate or its equivalent CGPA in the point scale and undergraduate degree in the relevant discipline with 55% marks in aggregate or equivalent CGPA.
- (v) For Management: Master's degree in Management/ Engineering/ Technology/ Commerce/Economics and other behavioral Sciences and allied relevant disciplines, or equivalent, with a minimum 55% marks in aggregate or equivalent CGPA. Diploma courses considered equivalent to Master degree recognized by AICTE/UGC only shall be considered in determining the eligibility. In such cases candidates would be required to produce the necessary certificate(s) from the Competent Authority.

# R.1.2.1.1 Direct Ph.D Program (Full Time) after 4-year Bachelor's Degree/1st year Master Degree.

- A. The candidates who have completed their final year (eighth semester) of their Bachelor's degree program (or result awaited) and have a minimum CGPA of 7.5/10 or equivalent percentage shall be eligible to apply for direct Ph.D. admission. Please refer to the eligibility criteria given in Table-I below.
- B. For admission after 1st year/2-semester Master's degree program (after a 4-year undergraduate degree) candidate must have at least 55% marks in aggregate or its equivalent grade 'B' in the UGC 10-point scale (or an equivalent grade in a point scale wherever grading system is followed) in Master's program in relevant discipline. Also, the candidate should have secured at least 60% marks in aggregate or equivalent CGPA in Bachelor's Degree.
- C. SC/ST/OBC (non-creamy layer)/EWS/Differently Abled applicants shall be given a relaxation of 0.5 score i.e; CGPA of 7/10 or an equivalent relaxation of grade in minimum eligibility marks.
- D. Candidate must have minimum 01 Scopus conference/journal publication (published/accepted).

Table-I: Eligibility criteria for Admission to Direct Ph.D. Program after 4-years Bachelor's degree

S.	Name of the	Minimum Eligibility
No	Course	
1	Ph.D. CSE/ Artificial Intelligence & Data Science	Minimum CGPA of 7.5/10 or equivalent percentage in the qualifying exam as under: B.Tech/B.E. Degree in Computer Science/Computer Engineering/ Computer Science & Engineering/Information technology/Electronics & Communication Engineering/Software Engineering or equivalent from a recognized University.
2	Ph.D. IT	Minimum CGPA of 7.5/10 or equivalent percentage in the qualifying exam as under: B.Tech/B.E. Degree in Computer Science/Computer Engineering/ Computer Science & Engineering/Information technology/Electronics & Communication Engineering/Software Engineering/Electrical Engineering/Electronics & Instrumentation Engineering/Electronics & Telecommunication Engineering or equivalent from a recognized University

3	Ph.D. ECE	Minimum CGPA of 7.5/10 or equivalent
		percentage in the qualifying exam as under:
		B.Tech/B.E. Degree in Electronics &
		Communication Engineering/Electrical
		Engineering/Electronics & Instrumentation
		Engineering/Electronics & Telecommunication
		Engineering/Computer Science Engineering/
		Information Technology/Information Science
		Engineering or equivalent from a recognized
		University.

Kindly refer to the Guidelines for Direct Ph.D. Program (Full Time) after 4-years Bachelor's degree/1<sup>st</sup> year Master's Degree:

https://igdtuw.ac.in/pdfs/Guidelines%20for%20Direct%20Ph.D.%20Program%20after%20B.Tech.M.Tech-Exit%20option-feb.%202023%20(1).pdf

# R.1.2.2 An applicant is eligible for Part-Time Research Scholar /Full-Time Research Scholar (Sponsored), provided she fulfils the following conditions:

- (i) The Applicant possesses the minimum entry qualifications for the degree as mentioned in R.1.2.1.
- (ii) The applicant is presently employed under the following categories:
  - a. Applicants working in organizations which have MOU with IGDTUW.
  - b. Applicants working on Full-Time basis (regular/adhoc/contract) in a National Level R&D Lab/ a reputed organization/ recognised educational institution / university/ PSU/ Corporate/ Industry registered under Company's Act organization.
  - c. Applicants working in projects (JRS/SRF/Project Assistant/Research Assistant etc.) in National-Level R&D Institutions.
- (iii) The Applicant possesses at least two years of relevant work experience in the above categories, as at (ii) b. However for (ii) c. work experience is not mandatory.
- (iv) The applicant gets an NOC from her employer, at the time of provisional registration.

# R.1.2.3 An applicant shall be eligible for Junior Research Fellowship instituted by IGDTUW provided she fulfils the following conditions:

- i. She possesses the minimum entry qualifications as in R1.2.1.
- ii. The University may provide financial assistance to few deserving Research Scholars and appoint them as Junior Research Fellowship (JRF). Scholar shall be eligible for the fellowship after completion of course work with CGPA≥ 7.5, attendance ≥ 75%. and successful approval of the Research Plan in the Departmental Research Committee. Kindly refer to the Guidelines for Revised IGDTUW Research Fellowship Scheme (JRF/SRF)2022: <a href="https://igdtuw.ac.in/pdfs/Revised%20%20Research%20Fellowship">https://igdtuw.ac.in/pdfs/Revised%20%20Research%20Fellowship</a> %20Scheme%20%20JRF%20SRF%202022%20(5).pdf
- iii. She is not receiving any financial assistance from any other sources.
- **R.1.2.4** A person, who has already initiated her fellowship in some other Institution/Organization and is interested to have her fellowship transferred to IGDTUW, may be allowed provided she clears the Selection Process for admission to Ph.D Programme as per R.3.
- **R 1.2.5-** A student/candidate registered at IGDTUW as Full-Time Research Scholar may be considered for Junior Research Fellowship/Senior Research Fellowship /any other fellowship provided.
  - (i) She fulfils all the eligibility conditions to avail the fellowship and her case is recommended by the DRC and approved by the Vice Chancellor.
  - (ii) The selected JRF/SRF shall not avail any other fellowship/financial assistance.
  - (iii) The maximum duration of fellowship will be five years from the date of award. However, the fellowship shall terminate on completion of Ph.D tenure (as per R 13.2) OR submission of Ph.D thesis, whichever is earlier.

## **R.2 RESERVATION/RELAXATION**

**R.2.1** Reservation of seats for Scheduled Caste, Scheduled Tribe, Other Backward Classes, Differently-abled and EWS candidates will be as per government rules.

**R.2.2** Candidates belonging to Scheduled Caste, Scheduled Tribe, OBC (Non-Creamy Layer), Differently-abled and EWS categories will be given 5% relaxation in the minimum entry qualifications as given in R.1.2.

#### **R.3 SHORTLISTING AND SELECTION PROCESS**

#### R.3.1

- (i) Admission to the Ph.D Programme may be done on the basis of Research Aptitude Test (RAT) Examination or an interview or both.
- (ii) The RAT Examination shall be qualifying with qualifying marks as 50%. A relaxation of 5% marks (from 50% to 45%) shall be allowed for SC/ST/OBC/Differently-abled and EWS category in the RAT Exam.
- (iii)The syllabus of the RAT examination shall consist of 50% of Research Methodology and 50% subject specific.
- **R.3.2**Depending upon the requirement, the University may advertise for Ph.D admission twice in a year.
- **R.3.3**Applications for joining the Ph.D. programme shall be submitted on a prescribed Form as per the guidelines in the Admission Notification of the university.

#### R.3.4WAIVER FROM RAT EXAMINATION

The RAT examination shall be waived off for the following applicants subject to the fulfilment of eligibility for entry qualifications as in R 1.2 and such applicants shall be allowed to appear in the interview directly:

- i. Full-Time female teaching staff of IGDTUW.
- ii. Sponsored applicants from organizations having MOU with the University.
- iii. Applicants who have qualified UGC-CSIR-JRF/NET Or have valid GATE score and successfully completed the degree as in R1.2.
- iv. Foreign students who apply through Ministry of Human Resource Development or foreign students under a Cultural Exchange Scholarship Programme of Government of India
- v. RAT examination shall be conducted even if adequate number of applications from exempted categories candidates are received.

- **R.3.5** The University's Examination Division shall conduct the RAT Examination, do the evaluation and forward the result to Dean (R&C).
- **R.3.6** A duly constituted committee approved by VC shall prepare the list of the Shortlisted candidates to be called for interview on the University Website.
- **R.3.7** The interview for selection of the students shall be conducted department wise by Selection Committees each comprising of at least 5 members including The Vice Chancellor/ VC nominee, Dean(R&C)/HOD of the concerned department, all university approved Supervisors of the concerned department, External Expert (if required). The applicants shortlisted for interview are required to discuss their research interest/ area during the interview. The interview shall also consider the following aspects viz. whether:
  - The person possess the competence for the proposed research
  - The research work can be suitably undertaken at the university.
  - The proposed area of research can contribute to new/additional knowledge
- **R.3.8** A person selected by the aforesaid Selection Committee shall be allowed Provisional Registration to the Ph.D Programme from the date of payment of prescribed fees to the University with the allocated approved Supervisor(s). The registration shall be confirmed only after satisfactory completion of the course work and approval of research plan by the respective DRC.
- **R.3.9** The Ph.D Coordinator shall coordinate with various departments for conduct of admissions and DRCs.

# **R.4.1 FINANCIAL ASSISTANCE**

a. A stipend of Rs 10,000/- per month will be given to all Full-time Research Scholars for a maximum period of five years or till completion of their Ph.D., whichever is less. The Research Scholars would also assist in Academic/Administrative works in their respective Departments apart from their Research work. The scheme shall be introduced from Academic Year 2021-22.

- b. The University may provide financial assistance to few Full-Time Research Scholars with good teaching skills and appoint them as Junior Research Fellow (JRF) / Senior Research Fellow (SRF).
  - i. These fellowships shall be distributed on the basis of need across all departments by Dean (R&C) in consultation with the Vice Chancellor.
  - ii. The Terms and Conditions of the fellowship may be decided by the Academic Council and may be amended from time to time.
  - iii. All provisions of the prevailing Ph.D. Ordinance of the University shall be applicable on the JRF/SRF and allocated Supervisor(s).

#### **R.4.2 TUITION FEE**

Tuition fees will be decided by University and shall be notified in the University Admission Brochure on yearly basis. Unless stated, full fee shall be charged from student/candidate on annual basis till the candidate submits her thesis for evaluation as per R.17. Full-Time Permanent Teaching Faculty of IGDTUW are eligible for a 50 % waiver in the tuition fees.

#### **R.5 REGISTRATION**

- **R.5.1** Every student/candidate will be required to renew the registration every year till the submission of the thesis. The renewal of registration every year shall be subject to completion of specified number of credits/courses and/or satisfactory progress of research work as recommended by DRC.
- **R.5.2** A student/candidate, who fails to register or renew her registration, may be allowed to renew her registration after obtaining approval from the Vice Chancellor.

#### **R.5.3 CONVERSION OF REGISTRATION**

- i. A Full-Time Research Scholar who gets an employment in any organization during her Ph.D Program may be eligible to convert to Part-Time Research Scholar with due recommendation of her Supervisor(s) and approval by DRC.
- ii. In case of a genuine reason, a Full-Time Research Scholar may be eligible to convert to Part-Time Research scholar after completion of minimum period of atleast one year after her Final Registration with recommendation her Supervisor(s) and approval by DRC.

iii. A Part-Time research scholar may be allowed to convert to Full-Time research scholar with due recommendation of her Supervisor(s) and approval by DRC.

#### **R.6 CANCELLATION OF REGISTRATION**

- **R.6.1** Registration of a student/candidate may be cancelled in any one of the following cases, after due recommendation of DRC.
  - (i) If she absents herself for a continuous period of four weeks without sanction of leave.
  - (ii) If she withdraws from the Ph.D. Programme voluntarily and the withdrawal is duly recommended by the DRC.
  - (iii) If she fails to renew her registration every year subject to the provisions contained in these Ordinances & Regulations.
  - (iv) If her academic progress is found unsatisfactory and approved for cancellation of registration as per R 12.1 g
  - (v) If she is unable to pass the Course Work successfully as per R7.6.
  - (vi) If she does not submit approved research plan as in R.8
  - (vii) If she fails to appear for 2 consecutive progress reviews as per R 12.1b without seeking prior approval of the Dean (R&C).
  - (viii) If a Part-Time student/candidate fails to get another employment within six months and submit NOC from the new employer.
  - (ix) If she is found involved in an act of misconduct and/or indiscipline and cancellation of registration is recommended by a competent authority.

#### R.7 COURSE WORK

- **R.7.1** Each student will be required to take Course Work as recommended by the Supervisor(s) and approved by the DRC/Academic Council. The Course Work shall comprise of:
  - (i) Two Compulsory Courses viz. "Research Methodology" and "Research and Publication Ethics.
  - (ii) Directed Courses related to the broad research area of the student recommended by the Supervisor.

#### R.7.2

- (i) Students, who are provisionally registered for the Ph.D. degree, shall be required to take minimum four courses (two Compulsory Courses and two Directed Courses) equivalent to a minimum 12 credits as per the recommendations by the concerned DRC.
- (ii) The student with MCA degree shall be required to take minimum six courses (two Compulsory Courses and four Directed Courses) equivalent to a minimum of 18 credits.
- (iii) Each course shall be of minimum three credits with three hours instructions/studies per week.
- (iv) The Directed courses shall be recommended by the Supervisor preferably from the existing M.Tech courses running at IGDTUW / List of electives for Ph.D Course Work as approved by the DRC/ Academic Council.
- **R.7.3** The Course Work shall be done within the first two Semesters and the student shall be evaluated at the end of each semester. However, the minimum duration to complete the course work could be one semester after which the student shall be eligible to present her Research Plan before the DRC. The University shall conduct the examination for all the courses.
- **R.7.4** In case a student has successfully completed her course work from any other recognized University / Institute and wishes to migrate to IGDTUW under an approved Supervisor of IGDTUW, she shall be required to clear the Selection Process as prescribed in **R.3**. The transfer of course credits may be allowed, on the recommendation of the DRC after due verification of her Marksheet/ Credits earned. The time span between completion of earlier course work and when the candidate has applied for Course work exemption at IGDTUW should not be more than five years for transfer of course credits.
- **R.7.5** The minimum passing marks for each course is 55% marks in aggregate or its equivalent CGPA in the point scale, failing which student may be allowed to give Supplementary Examination in that course.
- **R.7.6** A student shall earn minimum 12 credits (minimum18 credits for MCA students) including the Compulsory Courses for successful completion of Course Work. In case a student is not able to earn

the requisite number of credits for successful completion of course work within one Academic Year from the date of her Provisional Registration, she shall be eligible for an extension of Provisional Registration to the Ph.D. Programme by six months or a maximum period of one year and she may be allowed to give Supplementary Examination in the courses in which she has failed as per the examination rules of the University. The Supplementary Examination for Ph.D shall be conducted once a year within three months of result declaration of the even semester.

**R.7.7** It is mandatory for the Student to successfully complete the Course Work with minimum credits requirements as per R.7.6 within a period of maximum two years from the date of her provisional registration to be eligible for being a Candidate failing which the registration of the Student shall stand cancelled.

# R.8 RESEARCH PLAN (SUBMISSION AND APPROVAL)

- **R.8.1**Each student who has a provisional registration, and has successfully completed the Course Work shall be eligible to present her Research Plan before the DRC and the DRC shall evaluate her broad field of research, academic preparation and potential to carry out the proposed research.
- **R.8.2** On the basis of the content of the Research Plan, the DRC may either recommend the case for approval of Research Plan for Final Registration as a candidate to the URB or may direct the student to revise the Research Plan.
- **R.8.3** For approval of the Research Plana student will be provided a maximum of two consecutive attempts immediately after the completion of her Course Work before the DRC. If DRC does not approve the Research Plan in maximum two attempts after completion of course work, the provisional registration of the student may be cancelled.

# R.9 ALLOCATION OF THESIS SUPERVISOR(S)/CO-SUPERVISORS

- **R.9.1**Supervisor(s) can be any full-time faculty member of the University with a Ph.D degree who has been actively engaged in research and has published (or accepted for publication) at least five research papers in refereed indexed journals out of which either two publications should be in SCI/SCIE/SSCI indexed journals or three publications should be in SCOPUS/ESCI/AHCI indexed journals pertaining to the area of specialization. A faculty member of the University having patent(s) granted with at least two papers in refereed indexed international journals pertaining to the area of specialization is also eligible to be a Supervisor.
- **R.9.2** Every admitted student shall be allocated a Research Supervisor(s) by the Ph.D Selection Committee depending on research interest of the student and the availability of the vacant slot with the prospective Supervisor.

#### R.9.3

- (i) In case of interdisciplinary or collaborative work, a Co-Supervisor either from the university or any other recognized institution /industry/research organization may be allocated to the student by DRC.
- (ii) A Ph.D student may be allowed to have only one Supervisor and one Co-Supervisor at any time during her research.
- (iii)A Co-Supervisor from outside IGDTUW should possess a Ph.D Degree and have minimum five publications after completion of his/her Ph.D, out of which at least four publications should be in SCI/SCIE/SSCI indexed journals. Patents/ Book Chapters may be desirable. A Co-Supervisor from outside IGDTUW shall submit the Performa form for Co-Supervisor, his/her consent to be a Co-Supervisor along with necessary documents for being approved as a Co-Supervisor for a student.
- (iv) For allocation of a Co-Supervisor, a student should give a write up to justify the role and contribution of the Co-Supervisor leading to provision of facilities and value addition to her research work. The write up shall by duly justified by both the Supervisor and the proposed Co-Supervisor.

(v) Allocation of Co-Supervisor should be permitted by DRC only upto one year after date of final registration of the student in the PhD Programme. However, this time frame for allocation of Co-Supervisor may be relaxed by the DRC in Special cases when Supervisor goes on deputation / long leave due to any reasons /death / retires.

#### R. 9.4

- a. The number of maximum permissible seats for Ph.D registration (including inside and outside the university) at any given point of time shall be: Professor— 08 PhD Scholars, Associate Professor— 06 PhD Scholars, and Assistant Prof.— 04 PhD Scholars.
- b. Each University approved Supervisor may be allowed to fill upto a maximum of half of the permissible seats at a time.

# R. 9.5 Counting of Seats for a Supervisor

- A full time/part time student shall be counted against one seat for the purpose of filling the prescribed number of seats registered with a Supervisor.
- ii. A student under Co-supervision shall be counted against half seat for the purpose of filling the prescribed number of seats registered with a Supervisor/Co-Supervisor.
- iii. The seat under a Supervisor shall fall vacant after thesis submission of a candidate.

# R.9.6 Allocation of Supervisors/Co-Supervisor in Special Cases

A faculty member appointed as a Ph.D. Supervisor is normally expected to be available to a research scholar in the University till the thesis oral defence. However, in special cases, if a Supervisor is not available to the student/candidate due to unavoidable circumstances such as: long leave of more than 12 months; resignation; retirement; or death appointment of Supervisor(s) will be regulated as under:

## i. A Supervisor proceeding on long leave of more than 12 months

- (a) Where Co-Supervisor exists, the Supervisor proceeding on long leave for more than 12 months can continue to be a Supervisor provided the URB/DRC is convinced of effective supervision by the Co-Supervisor. Where a Co-Supervisor does not exist, the DRC shall appoint a Co-Supervisor from the University in cases where a student has not yet submitted her thesis.
- (b) Provided further, if a Supervisor proceeds on leave for a period less than 12 months initially, but later extends his/her leave beyond 12 months, the same procedure as per R9.6 i(a) will be followed.
- (c) Provided, if the synopsis of the thesis has been submitted before the Supervisor proceeds on leave, he/she will continue to be the Supervisor till the student submits her thesis. Further, if a major revision becomes necessary, and the sole Supervisor is on leave, the sole Supervisor should be asked to state specifically whether he/ she would effectively help the student carry out the major revisions within a reasonable time. In case the sole Supervisor expresses his/her inability due to any reasons, a new Supervisor will be appointed by the DRC and the candidate may be allowed to submit the thesis under the newly appointed Supervisor.

# ii. Supervisor retires

A faculty member who is due to retire within the next two years can be appointed as a Co-Supervisor and can continue to be the Co-Supervisor even after his/her retirement provided

- a. The DRC is convinced of his/her availability/continued guidance to the student.
- b. If the Supervisor is re-employed or appointed as Emeritus Fellow.
- c. If the synopsis of the thesis has been submitted under his/her supervision. Appointment of another Supervisor, if necessary, will be as per R 9.6 i(a).

## iii. Supervisor resigns

A new Supervisor will be appointed, if necessary and the existing Supervisor could be a Co-Supervisor, as per R 9.6 i(a).

# iv. Supervisor expires

A new Supervisor will be appointed, if necessary, on the recommendation of DRC and approval by Vice Chancellor.

#### R.10 COMPOSITION OF DRC and URB

#### R.10.1 Composition of URB

The composition of URB will be as follows:

- i. Vice-Chancellor or VC's Nominee.
- ii. Dean, Research and Collaboration,
- iii. Chairpersons of DRCs / Deans of faculties / HODs of departments.

# R.10.2 Composition of DRC

The DRC shall be constituted for a period of two years. The minimum number of members in any DRC will be **seven**, including at least two academic staff at the level of Professors. The composition of DRC will be as follows:

- i. Dean of faculty/Head of the Department/Eminent Academician/Eminent Scientist : Chairperson;
- ii. Two outside expert nominated by Vice-Chancellor;
- iii. All Professors of the concerned Department.
- iv. HOD of the concerned department
- v. Two Associate Professors satisfying the eligibility requirements as per R.9.1, appointed by the Vice-Chancellor for a tenure of two years;
- vi. Two Assistant Professors satisfying the eligibility requirements as per R.9.1 appointed by the Vice-Chancellor for a tenure of two years
- vii. Coordinator, DRC

Supervisor / Co-Supervisors shall be called as invitees during the presentation of the Research Plan and discussion of the Progress Report of their students/candidates.

**R.10.3** In case, any department fails to have the required minimum number of seven members in DRC as per R 10.2, or if the number of professors is less than two, a joint DRC with other department having closest academic affiliation shall be constituted by the Vice-Chancellor.

#### R.11. ELIGIBILITY FOR THE CANDIDACY FOR THE DEGREE

A student shall be eligible for Final Registration as a candidate for the Ph.D. Degree after she has completed the following:

- (i) She has successfully completed her Course Work with requisite credit requirements as per R 7.6.
- (ii) She has presented her Research Plan before the DRC and her research plan is approved by the DRC and URB.

#### R.12PERFORMANCE MONITORING

# **R.12.1 Progress Evaluation**

- a. The terms for the research work will be as follows: **I Term**: July to December; **II Term**: January to June every year.
- b. The academic/research progress of each student/candidate shall be monitored by DRC at the end of each Term.
- c. The DRC shall notify the schedule for submission and evaluation of progress report to the candidates. The candidate shall submit a progress report at the end of each term duly forwarded by her Supervisor(s) to the DRC.
- d. The DRC shall evaluate the progress report of the candidate after every term.
- e. 'S' grade is to be awarded during that term if the progress is 'satisfactory'.
- f. If the progress is 'unsatisfactory', 'U' grade is to be awarded and appropriate action be taken. For the first appearance of 'U' grade, a warning would be issued to the candidate and in case a

- student/candidate is availing any fellowship, her fellowship shall be withheld.
- g. If there are two consecutive 'U' in the progress reports and the scholar still fails to make progress to the satisfaction of the DRC, the registration of the scholar may be terminated on recommendation of DRC and approval of the Vice Chancellor.
- h. The DRC having considered the progress report of each scholar shall recommend one of the following:
  - (i) Continuation of Registration.
  - (ii) Continuation of Registration and issuance of a written warning to the student/candidate and making recommendation in consultation with the Supervisor(s), would be issued by DRC Coordinator to improve her performance.
  - (iii) Termination of Registration.
- i. The Progress Reports of the candidates and minutes of the DRCs shall be submitted to the Dean (R&C).
- j. The recommendation of DRC for special cases such as title change, Unsatisfactory Progress report/Research Plan/Pre-Ph.D Synopsis submission, etc should be communicated to the candidate by the DRC Coordinator.
- k. Submission and review of progress report shall continue till submission of thesis.
- 1. The Research Scholars shall have to maintain 75% attendance to appear in the DRC.

#### R.12.2 Attendance Rules

- a. All Full Time/Part-Time students including sponsored students must attend at least 75% of classes in each course in which they are registered while pursuing Course Work.
- b. The Supervisor/course instructor shall report the shortage of attendance cases to the Ph.D Coordinator. In case, attendance of the student falls below 75% in any course during a month, she will not be paid fellowship/financial assistance for that month.

- c. Further, if her attendance again falls short of 75% in any course in any subsequent month in that semester her fellowship will be terminated for the remaining semester.
- d. A Full-Time Research Scholar after having completed the Course Work must attend to her research work on all the working days and mark attendance in the department except when she is on duly sanctioned leave.
- e. 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.

# R.12.3 Leave Rules For Full-Time Ph.D Students /Candidates

- a. A proper leave account of each scholar shall be maintained by the Supervisor.
- b. A full-time Ph.D. student will be entitled to avail leave for 30 days per academic year including medical leave. She will not be entitled to summer and winter vacations.
- c. Leave beyond the stipulated period in an academic year may be granted in exceptional cases, by the DRC for additional 30 days, on recommendation of Supervisor. However, such an extension shall be granted only once during the entire programme of the Scholar.
- d. The research scholars will be eligible for Maternity Leave prescribed by Govt. of NCT of Delhi.
- e. The leave period shall be counted in the total period required for submission of the thesis stipulated in **R 13.1.** However, the Maternity leave period shall be excluded from the total period required for submission of the thesis.

#### R.12.4 Semester Break

A student/candidate may be permitted to take a semester break on medical grounds with due recommendation of the Supervisor and approval from the DRC. However, such a student shall complete the minimum credit requirements for successful completion of Course Work within the maximum period of two years from her Provisional Registration. The leave period shall be counted in the total period required for submission of the thesis stipulated in **R 13.1**.

# R.13 MINIMUM REGISTRATION REQUIREMENT FOR THESIS SUBMISSION

- **R.13.1**The minimum period after which a candidate can submit her thesis shall be two years for a Full-Time research scholar and three years for a Part-Time research Scholar with effect from the date of Final Registration as a candidate. In the cases, where conversion from Part-Time to Full-Time or vice-versa has taken place, the minimum period of submission shall not be less than three years from the date of Final Registration.
- **R.13.2** The maximum period within which a candidate can submit her thesis shall be five years for both Full-time and Part-time research scholars with effect from the date of Final Registration as a candidate.
- **R.13.3** An extension of one year beyond the maximum period for submission of thesis at 13.2 may be granted on recommendation of the DRC and approval by the Vice Chancellor.

#### R.14. PRE-PH.D. SEMINAR AND SYNOPSIS SUBMISSION

- **R.14.1** On completion of research work, the candidate shall submit through the Supervisor(s), Five copies of the synopsis of her Ph.D thesis including the title of the thesis and reprints of all published research work done towards fulfilment of doctoral degree to the Chairperson, DRC/HOD of the concerned department for consideration /presentation in forthcoming DRC.
- **R.14.2** Presenting a Pre-Ph.D. seminar before the DRC and recommendation of the DRC is an essential requirement for consideration of title of thesis and submission of the thesis by the candidate. It may be attended by other faculty members and research scholars. Their feedback and comments may be suitably incorporated in the Ph.D thesis, in consultation with the Supervisor.

- **R.14.3** (i) A Ph.D candidate shall publish at least three publications in the refereed journals of repute out of which atleast two publications must be in SCI/SCIE/SSCI indexed journals.
  - (ii) Candidate would publish atleast two first author research papers.
  - (iii) An Indian/US/UK patent granted shall be considered equivalent to one SCI/SCIE/SSCI indexed journal publication.
  - (iv) Candidate should also have the evidence of presentation of two research papers based on her Ph.D work in the national/international conferences before submission of the synopsis and produce evidence for the same in the form of an acceptance letter/ a reprint/paper presentation certificate.
- **R.14.4** The Supervisor may propose a panel of at least eight experts in the subject area of the research work of the thesis along with full contact details of the examiners to the DRC. The panel shall include atleast two experts from Foreign Institutions and two institutions India-like IITs/IISC experts from premier of Bangalore/ISM Dhanbad /NITs /IIITs Central /State Universities/State and Central R&D laboratories etc. The DRC may add or delete any of the name(s) of the examiners proposed by the Supervisor(s).
- **R.14.5** The candidate is required to submit her thesis prepared strictly as per the PhD Thesis Preparation Guidelines within 3 months from the date of approval of her Pre Ph.D Seminar and submission of synopsis. In case, the candidate fails to submit her thesis within 3 months of the approval of her Pre Ph.D Seminar, the candidate shall be required to submit fresh synopsis. However, in a special case when a candidate fails to submit her thesis within the stipulated time due to some unavoidable circumstances and has suitable justification for the same, the DRC/Vice Chancellor may grant extension of not more than three months to the candidate on recommendation of the Supervisor i. e. the candidate may be allowed to submit her thesis within a period not exceeding 6 months from the date of the submission of the synopsis.
- **R.14.6**In case of issues related to intellectual property rights, the Supervisor and the candidate shall take the necessary measures to ensure to follow the university Plagiarism Policy.

#### **R.15 THESIS SUBMISSION**

- **R.15.1** A candidate may submit her thesis within the time period as stipulated in **R.14.5** provided that:
  - (i) She has completed the minimum period of Registration as provided in **R.13.1**
  - (ii) She has become a candidate for the award of Ph.D degree as provided in **R.11**
  - (iii) She has presented her Pre-Ph.D seminar before DRC open to all faculty members and research students, and suitably incorporated the suggestions made
  - (iv) She has obtained recommendation of the DRC for submission of thesis
  - (v) She has submitted the title and synopsis of the thesis along with reprints of all published research work done towards fulfilment of doctoral degree.
- R.15.2 The thesis shall be written in English in the specific format as per the Thesis Preparation Guidelines and shall contain a critical account of the candidate's research. The thesis should well represent the discovery of facts or fresh approach towards interpretation of facts and theories or significant contribution of knowledge to development or a combination of these. It should bear evidence of the candidate's capacity for analysis and judgment as well as her ability to carry out independent investigations, design or development. The thesis may be supplemented by published work. No part of the thesis or supplementary published work shall have been submitted for the award of any other degree.
- **R.15.3** (i) The candidate shall certify that the work is free of any form of data falsification, fabrication and plagiarism and shall be solely responsible for any such dispute, or plagiarism issue arising out of the doctoral work. The certificate for such a declaration by the candidate will be available on the university website.

(ii) Regarding Self Plagiarism or cases where published work of the student is shown as Plagiarism in the check, a certificate (Plagiarism Self Exclusion Certificate, available on the university website) has to be issued by the Supervisor specifying and attaching the articles that have been published by the student from thesis work. Only these articles should be excluded from the check. No other article of the Supervisor or the student should be excluded from the check. Similarity in the Ph.D thesis up to 15% may be permitted.

The exclusion at the time of performing the check should be limited to the following:

- A. Quotes
- B. Bibliography
- C. Phrases
- D. Small matches upto 14 words
- E. Small similarity less than 1%
- F. Mathematical Formula
- G. Name of Institutions, Departments etc
- H. Own published work
- **R.15.4** The scholar will also be required to submit a certificate (available on the university website) duly signed by the Candidate and countersigned by the Supervisor(s) in the prescribed format that the work embodied in the thesis is original and has been carried out by the author and that it has not been submitted in full or in part for any other Diploma or Degree of this or any other University.
- **R.15.5** The scholar shall also attach a Student Approval Form in the format obtained from the UGC for the grant of non-exclusive worldwide license for hosting and distributing their thesis in digital format in, "Shodhganga" or any other database designated for this purpose by the UGC.
- **R.15.6** The DRC Coordinator shall forward 05 copies of synopsis and the Panel of Examiners as approved by the DRC along with three copies of hard bound thesis with one copy on Electronic media in MS word /PDF format to Dean (R&C).
- **R.15.7** The candidate shall also submit a No Dues Certificate as prescribed by the university at the time of submission of the thesis.

- **R.15.8** The candidate shall also submit "Checklist of all the documents" (as available on the university website) at the time of submission of the thesis.
- **R.15.9** The Dean (R&C) shall send05 copies of synopsis and the Panel of Examiners as approved by the DRC along with three copies of hard bound thesis with one copy on Electronic media in MS word /PDF format to the Controller of Examinations (COE)/Dean (Examinations).

#### R.16 APPOINTMENT OF EXAMINERS

- **R.16.1** The COE/Dean (Examinations) shall get the examiners appointed by the Vice Chancellor from the Panel of examiners recommended by DRC for evaluation of the thesis.
- **R.16.2** The thesis shall be evaluated by atleast two external examiners independently and anonymously. The Vice Chancellor shall choose the two external examiners from the panel of examiners. A copy of the thesis shall also be sent to the Supervisor / Co-Supervisor for evaluation. However the Supervisor shall not be the examiner of the thesis.
- **R.16.3** An external examiner cannot be from the same laboratory/institution where the scholar is employed, or from the laboratory/institution/approved research centre to which the Supervisor and/or Co-Supervisor of the scholar belongs. Further, a collaborator or co-author of the scholar or his/her Supervisor or Co-Supervisor during the tenure of the concerned Ph.D scholar cannot be an external examiner.

#### **R.17 THESIS EVALUATION**

**R.17.1** The Examination Division will contact the examiners appointed by the Vice Chancellor and take their consent for examining the thesis at the earliest. If the examination branch does not receive the consent from the appointed examiner within one month, approval of Vice Chancellor may be taken for appointment of another examiner from the panel. In case one or more examiners so appointed declines to examine the thesis, another examiner shall

be appointed by the Vice Chancellor out of the approved panel. In case the panel gets exhausted, the Dean (R&C) in consultation with DRC shall recommend additional names.

- **R.17.2** The Examination Division may send all communications to the examiners, viz. request for consent, as well as subsequent sending of Ph.D thesis for evaluation and receiving report, electronically through email/fax and/or through post as appropriate and follow-up telephonically. The examination branch shall make all efforts for speedy evaluation of the Ph.D thesis. Each examiner will be requested to submit to the COE/Dean (Examinations), a detailed Assessment Report and his/her recommendations on the prescribed Performa within six weeks of the date of receiving the thesis.
- **R.17.3** In the case, that the Thesis Evaluation Report is not received from an examiner within a period of four months, the Controller of Examinations/Dean (Examinations) should get another examiner appointed by the Vice Chancellor from the Panel of Examiner in R 16, in his/her place for evaluation of the thesis.
- **R.17.4** The examiners shall be required to state categorically whether in their individual opinion, the thesis should be:
  - a) Accepted for the award of Ph.D degree (subject to oral defence), or
  - b) Referred to the candidate for resubmission in the revised form, or
  - c) Rejected,
  - In cases b and c, the examiner shall state the reasons for recommending resubmission/rejection of the thesis. If resubmission is recommended, the examiner shall specifically indicate the modifications that need to be made in the thesis by the scholar. The COE / Dean (Examinations) shall communicate the suggested revisions to the Supervisor.
- **R.17.5** In case both the external examiners unanimously recommend award of degree, the same shall be done after a satisfactory open viva voce test (Oral Defence) as per R 18.2
- **R.17.6** In case the external examiner(s) recommends minor corrections in the thesis, the candidate may incorporate them in consultation with the Supervisor before the viva-voce examination. The

Supervisor shall certify that the corrections have been made in the thesis. This may be included with the reports of the Ph.D thesis to be sent to the Vice Chancellor for appointment of the Oral Defence Committee as in R 18.2.

- R.17.7 In case the corrections are major and resubmission/re-evaluation has been recommended by the external examiners; the candidate may resubmit the revised version in consultation with the Supervisor, within a period of one year from the date of communication in this regard from the COE/ Dean (Examinations). The revised thesis shall be sent for assessment to the same external examiners who recommended revision. In the event of any of them declining to examine the revised thesis, an additional external examiner may be appointed from the approved panel, and provided with the comments of the previous examiner(s) to facilitate the evaluation of the revised thesis.
- **R.17.8** In case both the external examiners reject the thesis, the thesis shall be rejected and registration of the candidate shall be terminated.
- **R.17.9** In case that if one of the two external examiners recommend the award of degree and the second external examiner recommends rejection, the thesis shall be referred to a new external examiner to be selected by the Vice Chancellor from the original panel of examiners. If the new external examiner recommends acceptance (may be with revision) the case may be processed as per the procedure in R 17.5 to 17.7. However, if the thesis is rejected by the new external examiner, it shall not be resubmitted or marked to any further examiner and the registration of the student shall be terminated.
- **R.17.10** In case if one external examiner accepts and one suggests major revisions, then the candidate shall incorporate the revisions as prescribed in R17.7 above, and the thesis shall be sent to the external examiner who recommended revision. In case this external examiner recommends acceptance (may be with minor revisions), the case may be processed as per the procedure in R 17.5 to 17.7.In the event of disagreement between the external examiners, the Controller of Examinations/ Dean (Examinations) as a special

case, shall get another external examiner appointed by the Vice Chancellor from the panel of examiners in R.16, if the merit of the case so demands. The report of this examiner shall be final and the acceptance or rejection of the thesis shall be based on this report.

**R.17.11** After receiving the satisfactory evaluation reports from the Supervisor and both the external examiners, the Controller of Examinations / Dean (Examinations) shall arrange for Viva Voce Examination of the candidate before a duly constituted committee hereinafter referred to as Oral Defence Committee as per R18.2.

#### R.18 AWARD OF Ph.D. DEGREE

- **R.18.1** A candidate who has been recommended for viva-voce examination on the basis of thesis evaluation shall be required to defend her work/thesis orally before a duly constituted Oral Defence Committee (ODC) during working hours of the University.
- **R.18.2** The ODC shall consist of three members: (i) VC Nominee, (ii) Supervisor/Co-Supervisor, (iii) One external examiner selected from the two external examiners as in R.16.2. If none of the external examiners is available for the conduct of the oral defence, an alternative external examiner shall be appointed by the Vice Chancellor for this purpose only.
- **R.18.3** On the completion of all stages of examination, the Oral Defence Committee shall recommend to the Controller of Examinations / Dean (Examinations) one of the following courses of action:
  - (a) That the degree be awarded;
  - (b) That the candidate be re-examined.

    The Oral Defence Committee 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. The candidate shall incorporate all changes as suggested by examiners and submit the hard copy of the final thesis.
- **R.18.4** The Degree shall be awarded by the University provided that:
  - (a) The Oral Defence Committee recommends the award of the degree to the candidate;

- (b) The candidate produces a 'No Dues Certificate' in the prescribed form forwarded by the Supervisor and HOD of the concerned department.
- (c) The candidate has submitted a soft copy and two hard cover copies of the thesis: one for the Department Library and one for the Central Library. The thesis should incorporate all necessary/corrections/modifications.
- (d) The hard bound copies of the Ph.D. thesis, submitted after the viva-voce examination, must contain the copyright certificate in the beginning of the thesis: ©Indira Gandhi Delhi Technical University for Women, Kashmere Gate, New Delhi-110006. All rights reserved
- **R.18.5** Following the successful completion of the evaluation process and announcement of the award of the Ph.D, the university may submit a soft copy of the thesis to Shodhganga/Inflibnet.
- **R.18.6** The Examination Division of the University may issue a Provisional Certificate of the completion of Ph.D to the candidate upon successful viva-voce examination followed by award of the final degree at the time of Convocation, along with a certificate to the effect that the Degree has been awarded in accordance with the provisions of the UGC regulations 2016.

#### R.19 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 Academic Council on their behalf, and in force from time to time.

#### **R.20 INTERPRETATION**

Any case of doubt or dispute arising about the interpretation of these Ordinances and Regulations or anything not contained in the ordinance, shall be referred to the Vice Chancellor whose decision shall be final.

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