

## POST GRADUATE MANUAL

### Doctor of Philosophy

#### Document Revision Table

Version Number	Date	Change Description	Version Status
1.0	March 2008	Initial baseline	Created from printed version dated March 2008
1.1	July-15-2009	a) Inclusion of new curriculum structure. b) Corrections to some sections.	Approved by the Senate in its 19th meeting held on 25th June 2010.
2.0	October-08-2014	a) DAC and other recommendations made by the RDP Committee b) Corrections to some sections based on M.Tech. manual. c) Change in minimum academic requirements as recommended by the faculty.	Presented before the Senate in its 42nd meeting held on 8th October 2014.
3.0	June-12-2020	a) Changes in Comprehensive exam and DAC formation	Approved by the senate in its 72nd meeting held on 19th February 2020.
4.0	January 2021	a) Regular Registration	Reporting to the 78th senate meeting (17th February 2021).
5.0	March 2025	Updates to manual due to: a) Semester-end progress review for students by DAC to be reported  b) Introduction of Integrated PhD programme, c) Introduction of Exit policy for PhD & Integrated PhD programmes, and d) Changes in criteria for academic probation e) Inclusion of academic requirements and milestone details for Integrated PhD	Made mandatory in the 92nd Senate Meeting (17 July 2023).  Approved at the 101th Senate meeting (19 March 2025).

## 1 INTRODUCTION

The goal of post graduate programmes at IITB is to develop professionals of the high quality to cater to the needs of industry and academia. Such education will be based on a broad grasp of the fundamental principles of the sciences and scientific methods, a deep understanding of specific area of specialization, an ability to solve new problems, and a capacity to learn continually and interact with multidisciplinary groups. Above all, IITB aims at developing in its students a capacity for free and objective enquiry, courage and integrity, and awareness and sensitivity to the needs and aspirations of society.

The postgraduate programmes are designed with the above goals in view. They include courses of study, seminars, project work, internships, and research leading to a thesis.

The procedures documented in this manual embody the philosophy of the postgraduate education and ensure a high standard of performance at the Institute. Within this general framework, and subject to the approval of the Academic Senate, hereinafter called the Senate, additional requirements may be stipulated.

The Institute offers the following post graduate programmes:

1. Master of Technology
2. Integrated Master of Technology
3. Master of Science (Research)
4. Doctor of Philosophy
  - i. Integrated PhD
  - ii. PhD
5. Other programmes as may be approved by the Senate from time to time.

Hereafter, the degree programmes Master of Technology, Master of Science (Research) and Doctor of Philosophy will be referred to as MT, MSR, and PHD /iPHD in the rest of the document.

This manual provides details about the Doctor of Philosophy degree programme.

## 2 ADMISSIONS

### 2.1 Academic Session

The academic session of the Institute is divided into three parts: two regular semesters and a summer term. The first semester (Term I) shall normally commence in the first week of August every year, and the second (Term II) in the first week of January. The Summer term shall run from May to July.

### 2.2 Calendar

1. The Calendar for admissions for a particular year shall be notified by the Institute at the beginning of the previous academic year.
2. Admissions to the programme shall be made in either or both of the two regular semesters. Students shall be admitted at the beginning of the semesters as per the defined procedure.

### 2.3 Eligibility for Admission

1. The eligibility conditions shall be approved by the Chairman, Senate.
2. Currently for admission to the Ph.D. programme, a masters degree in engineering (an M.S. by Research/ M.Sc.(Research), or M. Tech., M.E., or equivalent) is the minimal requirement.
3. Currently for admission to the Integrated Ph.D. programme, a 4-year (8-semester) Undergraduate Degree in an appropriate field with 75% marks or equivalent and a valid GATE score is the minimal requirement.
4. The requirements may change for some of the research domains and in cases of exceptional applicants, for which the Senate shall deliberate on specific processes.

## **2.4 Admission Procedure**

1. The admissions procedure for the programme shall be based on previous academic record, research statement, prior research experience, recommendation letters, written tests as required by the chosen research domain and interviews of the candidates by interview panel at the Institute.
2. The interview panel shall be drawn from Members of the Senate, Expert Members from the Industry, and Distinguished Academicians.

## **2.5 Admission to Part-Time Programmes**

1. The Institute also offers part-time registrations for the degree programmes for professionally employed personnel such as working engineers, scientists and teachers who can, while being employed, attend the classes, discussions etc, as per schedule of the Institute.
2. The applicant must be an employee of a recognized organization with at the time of admission.
3. The research work shall be carried out by the student under the supervision of a faculty member of the Institute, at the Institute or at such locations as specified by the supervising faculty.

## **2.6 Admission to External Registration Programme for Ph.D.**

1. A candidate working in an establishment equipped with the necessary research and library facilities may be considered for admission to the Ph.D. programme under this scheme. The employer shall explicitly undertake to sponsor the candidate and relieve him/her to stay on the campus to enable the candidate to complete his/her residence requirement.
2. A candidate applying for admission to the external registration programme shall provide detailed information about the research facilities available at his/her organization and a certificate that these would be available to him/her for carrying out research. He/she shall also provide the bio-data of the prospective co-supervisor who would co-supervise the candidate's work at his/her organization, in consultation with the thesis supervisor appointed by the Senate.
3. Upon admission, the Senate will appoint a member from the faculty of the Institute as the thesis supervisor.

## **2.7 Admission of Sponsored Candidates to PhD Programme**

1. A candidate sponsored by his/her employer, fulfilling the academic requirements may be admitted through a separate selection committee appointed specifically for the purpose.
2. A sponsored candidate must have been in service of the sponsoring organization for at least two years at the time of admission. The sponsoring organization must specifically undertake to relieve him/her to enable satisfying residence requirements and provide facilities for carrying out his/her research in his establishment.
  - a. Sponsorship is interpreted to mean that the sponsoring organization is willing to bear the full cost of education of the candidate.
3. Upon admission, the Senate will appoint a member from the faculty of the Institute as the thesis supervisor.

# **3 REGISTRATION**

## **3.1 Regular Registration**

1. Every student shall register each semester till student submits the thesis.  
The registration process involves:
  - a. Signing the registration roll for zero or nonzero credits and,
  - b. Payment of fees for that semester and clearance of any outstanding dues
2. Zero-credit registration without fees will be approved only under the following conditions:
  - a. Thesis submitted to office for examination

- b. Maternity leave
- c. Medical leave (with proper documentation)
- d. A student who is likely to submit his/her thesis within two weeks from the commencement of classes. This period shall not be extended in any case.

For full time students, stipend will be payable only for leave applied under (a) and (b) categories above subject to the limit specified for stipend payout for respective programs.

- 3. Students who have submitted their thesis and are waiting to take the oral examination shall register for zero units. They may, however, apply for leave from the Institute with permission to take the oral examination while on leave.
- 4. In special cases, students who have completed all work related to thesis and are on authorized full semester leave may be allowed to submit their thesis during the leave period.
- 5. Full time student who wants to pursue Internship for whole semester shall register as a part time student for a nonzero research credits and pay the fees for that semester.

### **3.2 Provisional Registration**

- 1. A new entrant to the programme who is awaiting the results of the qualifying examination may be allowed to register "provisionally". Provisional candidates shall complete all the requirements for graduation to the qualifying degree no later than the end of the first semester, failing which their admission shall be cancelled.
  - a. However, for provisional candidates entering through special admission after submission of MSR thesis at the Institute, the period for provisional admission may be extended upto the beginning of the third semester for completion of all requirements for graduation to the qualifying degree, failing which their admission shall be cancelled.

### **3.3 Late Registration**

- 1. If for any compelling reason like illness, a student is unable to register on the day of registration, he/she shall be allowed to register on the day of late registration specified in the academic calendar (which is one week from the date of registration). Any student registering late shall pay the specified late registration fee. No late registration shall be permitted for the summer term.
- 2. In exceptional cases, the Senate may consider registration beyond the date of late registration.

#### **3.3.1 Deferred Admission**

- 1. For candidates who are professionally employed at the time of admission and are unable to be obtain permission from their respective organization, to pursue the degree programme at the Institute, by the day of late registration, the admission may be deferred to the next term, i.e., a regular semester or the summer term, with permission from the Chairman, Senate, prior to the last date of registration for the semester the student has been admitted for.
  - a. Deferring admissions to the summer term may be considered only for students whose fellowships come from sponsored research projects or those on part-time registration.
  - b. Admission may be deferred to the subsequent regular term for students on institutional fellowships
  - c. The deferment shall not be extended for any further period.
- 2. The student shall make an application for the same.

### **3.4 Academic Advising**

- 1. A student registering for thesis units shall have a thesis supervisor assigned to him/her.
- 2. The student may optionally have a thesis co-supervisor assigned to him/her. Hereafter thesis supervisor(s) may be interpreted as thesis supervisor and co-supervisor, if any.
- 3. A doctoral advisory committee (DAC) shall be assigned to each student after he/she completes the course requirements.

- a. The DAC shall be recommended by the thesis supervisor and shall be forwarded to the Coordinator for the Ph.D. programme and the Dean-Academics.
- b. A Doctoral Advisory Committee (DAC) is to be constituted by the supervisor, including two other faculty members from the institute, before the comprehensive examination. Supervisor is by default, a member of DAC. If needed, supervisor can suggest faculty from other institutions or researchers from industry labs as members of DAC, but, at least one faculty member from the institute, apart from the supervisor, has to be a member of the DAC.
- c. The DAC shall communicate to the Chairman, Senate the committee's observations on the student's progress in the programme which include semester-wise reports and performance reports of the student at his/her State of the Art and Open Seminars.

### **3.5 Semester Load Requirements**

1. For a full time student a semester load is 16 units. However the Senate may permit a student to register for a maximum of 20 units or a minimum of 12 units.
2. A part time student may register for a minimum of 8 units.

### **3.6 Summer Term Registration**

1. Students may register in the summer term for up to a maximum of 9 units.

### **3.7 Adding/Dropping of Courses and Withdrawing from Courses**

1. Adding and dropping of courses after pre-registration is permitted no later than the day of late registration. No adding or dropping of courses shall be permitted in the summer term.
2. A student may be required to drop a course at any stage if it is determined that he/she does not fulfill the prerequisites for the course, or if a timetable clash exists which does not permit him/her to attend all the meetings of the course, or any rule in this manual which forbids him/her to take the course(s) that he/she has registered for.

## **4 LEAVE RULES**

1. Students may be granted leave on application as per the Senate approved leave rules.

## **5 PERMISSION TO PROCEED FOR WORK OUTSIDE IIITB**

### **5.1 Permission to Proceed To Other Academic Institutions as Non-Degree Students**

1. In order to help students broaden their horizons and enrich their cultural and academic experience, provision to proceed to other academic and research institutions in India or abroad as non degree students is available. Rules and procedures to be followed for availing this provision are as follows:
  - a. A student enrolled in the programme who satisfies the minimum conditions as laid down may proceed to another academic institution in India or abroad with prior permission of the thesis supervisor and the Chairman, Senate.
  - b. The student shall get fellowship during this period from the organization or institute that is financially supporting this activity.

### **5.2 Permission to Proceed for Internship**

Internship is defined in the present context as working in a professional academic or industrial research organization during (1) vacation period or (2) for a semester with a view to gain valuable professional experience. The work done during this period does not form a part of the academic program of the student.

1. If the internship is during vacation period, the student proceeds with due permission. He/she shall not be eligible to receive scholarship during this period. He/she shall not register for any academic credits during this period. He/she may accept stipend from the organization where he/she is an intern.

2. If the internship spans over a semester, the student shall be formally on leave from the Institute for the period. He/she shall not register for any academic credits during this period. He/she shall not be eligible to receive scholarship during this period. He/she may accept stipend from the organization where he/she is an intern.
3. The student shall apply for permission to accept internship with award letter and supervisor's recommendation, in both cases, and formally get approval from the Institute before proceeding for internship.

## 6 ACADEMIC REQUIREMENTS

### 6.1 Normal Minimum Duration, Normal Maximum Duration and Academic Requirements

1. The following table lists the normal minimum and the normal maximum duration allowed in the programme and credit requirements for graduation:
  - a. "Course work" includes only postgraduate course units unless otherwise stated. "Research units" includes course units towards thesis preparation. To satisfy the "Normal Minimum Duration" requirements, registration must be over consecutive semesters; exception will be made only if the student is on authorized leave. "Normal Maximum Duration" is counted from the student's first registration date. SGPA (Semester Grade Point Average) / CGPA (Cumulative Grade Point Average) will be calculated on the basis of all courses taken by the student.

Program	Minimum Units Requirement			Normal Minimum Duration	Normal Maximum Duration
	Course work	Research units	Total units		
Int.PhD	32	80	128	4 years	8 years
PhD	16	64	96	3 years	7 years

2. In special cases, where the research work may be completed before the normal minimum duration or may exceed beyond the normal maximum duration, the student in consultation with the thesis supervisor may request the Senate to consider the early completion of or extension to the programme, respectively.
3. All Ph.D. students, irrespective of being a full time or a part time registration, shall complete two semesters of teaching assistantship at the Institute, at the direction of the Institute, as a part of their academic requirement. The quantum of work expected in each semester shall be equal to/equivalent to teaching assistantship for one compulsory/core course in the integrated or the regular M.Tech. curricula.

### 6.2 Grades, Semester and Cumulative Performance Index

1. The Institute follows a 4-point system. A student shall be awarded a letter grade in each course he/she is registered for, indicating his/her overall performance in that course. There are twelve letter grades: A, A-, B+, B, B-, C+, C, D, F, S, X and I. The correspondence between grades and points (on a 4-point scale) is given below:

Letter Grade	A	A-	B+	B	B-	C+	C	D	F
Grade Point	4.0	3.7	3.4	3.0	2.7	2.4	2.0	1.0	0.0
Description								Poor	Failure

#### S: Satisfactory; X: Unsatisfactory; I: Incomplete

- a. However, an instructor need not use all the available letter grades while grading and may choose a subset of letter grades. (Explanation: For example an instructor may choose to use only A,B,C,D and F, and not make use of A-, B+, B-, C+).
2. If a student does not complete all the requirements for a course for a genuine reason, the instructor may award the grade I (Incomplete). An I grade shall be converted by the instructor to a regular letter

- grade by the last date for such conversion specified in the academic calendar, failing which it shall be automatically converted to an F grade.
3. A course with an F grade shall either be repeated or substituted with another course as suggested by the Senate.
  4. Grade Improvement Process:
    - a. Students who, at any point of time during their study at IIITB, have obtained CGPA less than 2.40 and thus determined to be deficient may be allowed to improve their CGPA, if they apply in writing within one week of the announcement of grades for the previous semester, in the following manner.
    - b. The students may improve their grades in courses where they have obtained C or D. The course instructor shall determine the assignments, examinations, laboratory work, projects or research papers that they have to undertake and the time period over which the deficient student have to complete the tasks as assigned by the course instructor. Based on the work and performance of the student in a scheduled examination, the course instructor shall assign him/her a letter grade at the end of the study period. If the grade thus obtained by the student is better than the grade obtained earlier, the grade obtained shall be substituted and the new CGPA calculated. The earlier grade obtained shall be indicated in the grade sheet/academic transcript, with a remark that this course has been repeated and the grade has been improved.
    - c. In case the grade obtained is same or lower than the grade obtained earlier, the earlier grade shall stand.
    - d. In case the course instructor is not available, the programme coordinator, upon a specific written application from the student, shall allow the student, with the concurrence of the new course instructor to undertake new courses from the list of courses approved by the Senate, provided, where applicable, the new course shall be from the student's chosen area of specialization ("Area Elective"). The course instructor shall determine the assignments, examinations, laboratory work, projects or research papers that they have to undertake and the time period over which the deficient student have to complete the tasks as assigned by the course instructor. Based on the work and performance of the student in a scheduled examination the course instructor shall assign him/her a letter grade at the end of the study period. If the grade thus obtained by the student is better than the grade obtained in the earlier course, the course shall be substituted and grade obtained shall be indicated and the new CGPA calculated. The earlier course and the grade obtained shall be indicated in the grade sheet/academic transcript, with a remark that this course has been substituted with another course and the grade has been improved. The courses declared as core or mandatory to the programme shall not be considered for substitution.
    - e. This facility for improving grades shall be available only to those students whose CGPA is less than 2.40 at any point in time during their study, and may be availed for a maximum of four courses in all and for no more than two courses in any one semester.
    - f. The deficient students, who have improved their grades in the aforesaid manner, will not be considered for award of any medal, or honour from the Institute.
  5. Research units shall be graded as satisfactory (S) or unsatisfactory (X) and shall carry zero units for credit.
  6. PhD scholars must meet the DAC at the end of every semester to report the progress in their research. The grade awarded for their research credits in a given term will be contingent upon the progress update meeting with the DAC at the end of every term of registration. This process would be mandatory once the PhD scholar crosses the Comprehensive Examination milestone. It is to be noted that this term-end meeting with the DAC is not a formal examination or assessment by the DAC. The final grade of "Satisfactory/Unsatisfactory" for the research credit is assigned only by the Supervisor.

### 6.2.1 Course Types

1. **Course name: Reading Elective**
  - a. Course Code: XX 902

- b. Course Description: Students can register for reading for carrying out focused reading on a given topic under the supervision of a faculty member.
- c. Grading Scheme: 4-point scale (A, A-, B+, B, B-, C+, C, D, F)
- d. Credits: 4 units during Term I and II; 3 units during Summer.
- e. Remarks:
  - i. Students may take not more than ONE supervised reading course per semester within the permissible semester load requirements.
  - ii. Depending upon the subject on which the reading is prescribed, XX to be replaced with one of (BS, CS, DS, ESD, GEN, NC, ITS, SE). A prefix of IT may be used if the reading does not fit into any of the existing areas of specialization as determined by the faculty supervisor.

## 2. Course name: Thesis

- a. Course Code: IT 979 (MT) / IT 989 (MSR) / IT 999 (PHD)
- b. Course Description: This course is intended for MT students pursuing thesis in third semester, as well as for MSR and PHD students who have to earn the requisite number of research units in addition to course work. Students need not have begun writing their thesis for registering in this course.
- c. Grading Scheme: S (Satisfactory) or X (Unsatisfactory)  
A single letter grade for the entire set of registered units for a term.
- d. Credits: Multiples of 4 units during Term I and II; multiples of 3 units during Summer.
- e. Remarks: Semester load requirements determine the number of units a student can register for in a given term.

### 6.2.2 Computation of the Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA)

1. The SGPA is an indicator of the overall academic performance of a student in all the courses he/she has registered in during a given semester. It is computed as follows: If the grade points awarded to a student are  $G_1, G_2, \dots, G_n$  in courses with corresponding units  $U_1, U_2, \dots, U_n$ , respectively, for  $n$  courses, the SGPA is given by:  $SGPA = (U_1G_1 + U_2G_2 + \dots + U_nG_n) / (U_1 + U_2 + \dots + U_n)$ .
2. In the above computation, courses with S and X grades are ignored.
3. Similarly, the CGPA indicates the cumulative academic performance in all the courses taken up to the time of computation.

### 6.3 Academic Performance Requirement

1. A student shall enter into academic probation if any of the following criteria are satisfied:
  - a. His/her SGPA in the first semester is below 2.0.
  - b. His/her CGPA after the first semester is below 2.4.
  - c. He/she has obtained either D or F in two courses.
  - d. He/she has accumulated Xs in a semester towards research units/thesis grades.
2. Upon receiving a D or F in a course or an X in a semester, a warning shall be issued to the student at the beginning of the subsequent semester about declining performance.
3. Upon satisfying the aforementioned criteria for academic probation, the student shall be notified at the beginning of the semester that he/she is on academic probation.
4. Academic probation lasts for a semester. The student shall be on an underload of not more than 12 credits. During this period the student shall mandatorily register for coursework or research units to improve CGPA where there was deficiency in performance. This implies that he/she shall mandatorily register for the courses with deficient performance under the grade improvement scheme and/or for research credits where unsatisfactory performance was shown, for the purpose of obtaining satisfactory performance. During this time the student shall not undertake any successive academic milestones required for the completion of the programme.
5. By the end of the academic probation, the Chairman, Senate may make the decision on if the student will be allowed to continue in the programme depending on:



- a. his/her academic performance while in academic probation, and
  - b. the concerned thesis supervisor's recommendation in the matter.
6. Academic probation can be applied to a student only once. During or after probation, if the student gets D or F in a course or an X in a semester, the student shall not be allowed to continue on the programme.

## **7 ACADEMIC MILESTONES**

### **7.1 Comprehensive Examination**

1. A student registered in the programme shall pass a comprehensive examination designed to test his/her overall comprehension in the various subjects related to his/her broad area of specialization. A student can appear in the comprehensive examination only after he/she has completed the course requirements and satisfied the minimum specified CGPA requirement.
2. Comprehensive examination can be conducted by DAC earliest at the end of first semester after registration and not later than end of the fourth semester for students in the Ph.D. program. For students in the Integrated Ph.D. program, the Comprehensive examination by the DAC can be conducted earliest at the end of the second semester, and not later than the end of the sixth semester. Any further extension needs to be approved by the Senate. The above time limits are exclusive of the period of sanctioned leave, if any.
3. Comprehensive examination will involve a written test along with an oral examination. Total marks/grade awarded for the comprehensive examination involves a combination of the written test and the oral examination, with a 50:50 weightage.
4. In addition to the written test, comprehensive examination involves an oral examination and/or a presentation by the research scholar will be in the subjects related to his/her research problem. Criteria for passing the oral examination is decided by the DAC and the same needs to be informed to the research scholar before the examination.
5. A question paper and the candidate's answer sheet should be submitted for filing in the research scholar's academic record file as evidence of having appeared for and passing the written examination. Criteria for passing is decided by the DAC and scholar needs to be informed regarding the criteria before the examination.
6. The examination shall be a closed one, restricted to the examinee and the examiners.
7. If a research scholar fails the comprehensive examination in his/her first attempt, a second comprehensive examination shall be conducted by the DAC as per the rules above. A research scholar shall not be allowed to appear in the comprehensive examination more than twice, including the first failed attempt. If a student fails in both the attempts, he/she can continue in the Ph. D. programme only after approval of Chairman (Senate).
8. The student's DAC at its time of constitution shall provide the student with reading list upon consultation with the thesis supervisor(s) and the student.

#### **Recommended Guidelines**

1. The oral and written components of comprehensive exam should be administered with at most one week's gap between them. The goal of written test is to examine a research scholar's knowledge in the fundamentals required in his/her research area and is meant to test the breadth of knowledge that the research scholar has in his/her research area. Syllabus for the written test is prepared by DAC and given to the research scholar, in advance.
2. The oral examination is meant for testing a candidate's depth of knowledge specific to the chosen area, and also identify the papers to study in detail towards state of the art seminar, the next milestone in the Ph. D. programme. The learning/outcomes from reading electives and research units taken by the research scholar can be inputs to the oral presentation.

### **7.2 Advancement to Candidacy in the Programme**

1. A student enrolled in the programme shall be formally advanced to candidacy in the programme after he/she completes the course requirements for the degree with at least the

minimum required CGPA, and passes the comprehensive examination. Only such students who are admitted to the candidacy shall be allowed to submit their theses in accordance with the guidelines laid down.

### **7.3 State of the Art Seminar with Research Proposal**

1. Every student advanced to the candidacy in the programme shall give a general seminar in the Institute covering the State of Art of the area of his/her research.
2. This seminar shall be given within six months of passing the comprehensive examination.
3. This seminar shall also include description of the research problem the student is seeking to work on and/or the research proposal for the same.
4. The DAC shall send the report of the student's performance in the seminar to the Chairman, Senate.

### **7.4 Open Seminar**

1. Before proceeding to finalize the thesis, each student, who has advanced to candidacy in the programme, shall present his/her research work to the faculty and students to obtain comments and suggestions. A thesis shall be submitted only after the satisfactory fulfilment of this requirement.
2. The DAC shall send the report of the student's performance in the seminar to the Chairman, Senate.

### **7.5 Thesis, Thesis Examination & Oral Examination**

#### *7.5.1 Appointment of Thesis Supervisors*

1. A student enrolled in the programme shall not normally have more than one co-supervisor at any given time.
2. Thesis supervisor(s) of a student shall normally be appointed from amongst the faculty members at the Institute.
3. Under exceptional circumstances, experts from outside can be appointed as co-supervisors of the student with the approval of the Senate. One such co-supervisor can be appointed to only one student at a time.
4. If a student's supervisor proceeds on long leave, the Senate shall appoint a supervisor or a co-supervisor in consultation with the supervisor and the student. In this case the number of supervisors may be more than two if an external supervisor already exists.
5. If all research work and related analysis is complete except writing of the thesis, and the supervisor proposes to go on leave, the Senate may appoint a stand-in supervisor.
6. In case a supervisor resigns/retires or otherwise ceases to be a faculty member of the Institute the Senate shall appoint a new supervisor or co-supervisor.

#### *7.5.2 Constitution of Board for Thesis & Oral Examinations*

##### **7.5.2.1 Thesis Examination Board**

1. The thesis shall be examined by an examination board recommended by the thesis supervisor(s)/ programme coordinator, forwarded by the Dean-Academics, and approved by Chairman, Senate.
2. The board shall consist of two members in addition to the thesis supervisor(s) approved by the Chairman, Senate. Unless some special circumstances make it impractical, these two members of the thesis examination board (other than the supervisor(s)) must be from outside the Institute and at least one of these two shall be from within the country.
3. The thesis supervisor shall act as the Convener of the Committee.

### 7.5.2.2 Oral Examination Board

1. The oral board shall consist of two members in addition to the thesis supervisor(s). Of the two, one shall be from among the faculty members of the Institute and one shall be from among the members of the thesis examination board from outside the Institute.
2. Under special circumstances, if both the external members from the thesis board are not available to serve on the oral board, the Chairman, Senate, shall appoint an expert in the area of the thesis, and outside the Institute, as a member of the oral examination board.

### 7.5.3 Submission of Thesis

1. The thesis shall be submitted only after the thesis examination board has been duly approved and the intimation of the satisfactory completion of the open seminar has been received.
2. After the thesis examination board has been constituted, unbound copies of the thesis, one for each examiner of the board, shall be prepared according to the format prescribed in the pamphlet entitled: Specification and Information Regarding the Preparation of Thesis, and shall be submitted within a month of the constitution of the board. Two copies of the synopsis or abstract of the thesis (approximately 250 words) shall also be submitted before or along with the thesis report.
2. Examination of thesis: Members of the thesis examination board shall be requested to indicate in writing whether they:
  - (a) approve the thesis without modification.
  - (b) approve the thesis if modified as indicated in the evaluation report and resent to them for verification.
  - (c) approve the thesis if modified as indicated in the evaluation report, but need not be resent to them.
  - (d) reject the thesis
2. On receipt of reports from all the examiners, the Office of Dean-Academics shall decide the next actions. The Registrar/ Staff Officer in the Office of Dean-Academics, shall provide all the evaluation reports (after suitably hiding the identity of the examiner) to the thesis supervisor. The thesis supervisor shall get the response of the student in writing to all observations and a modified thesis in case any of the examiners has indicated (b) or (c). In case there is a difference of opinion between the thesis supervisor and the evaluator(s), the matter shall be referred to the Senate for a decision. In case any examiner has chosen (b), the modified thesis and the response of the student to the evaluation report shall be sent back to all the examiners for their examination. If at the end of second examination, no consensus could be arrived at, the matter shall be referred to the Senate for their decision.
2. In case of (d), the student shall work on the thesis according to the advice of the thesis supervisor(s) and resubmit the thesis to the thesis examination board.

### 7.5.4 Oral Examination

1. Oral examination shall be conducted within one month from the date of receipt of final evaluation reports and response of the student. If extenuating circumstances do not permit holding the exam in a reasonable period of time, say, 6 months, then the matter shall be presented to the Senate for its decision in the matter.
2. The Office of Dean-Academics shall intimate the date of the oral examination.
3. The oral examination board shall be provided with unbound copies of thesis, evaluation report of the thesis examiners and the student's response. The board shall evaluate the thesis, conduct the oral examination and send a report of the examination to the Dean-Academics, who shall forward the same to the Chairman of Senate.

- (a) The oral examination board may provide feedback to the student for minor revision of the thesis.
4. A thesis shall be considered to have been accepted if all members of the oral examination committee recommend its acceptance. If no consensus could be reached, verdict of individual examiners shall be forwarded to the Senate for the final decision.
  5. If a thesis is rejected along with a recommendation for resubmission after incorporating any modification/correction suggested by the oral examination committee, oral examination of the re-submitted thesis shall be conducted by the original committee unless a different committee may be forwarded to the Dean-Academics and subsequently approved by the Chairman, Senate. If the re-submitted thesis is rejected, the matter shall be reported to the Senate for appropriate action.
  6. The oral examination consists of two parts, namely, a presentation open to the public and viva voce restricted to the examinee and the examiners.
  7. The student shall make a minor revision of the accepted thesis using the feedback from the oral examination board and make a final submission of the thesis to the Registrar/ Staff Officer in the Office of Dean-Academics and the Institute Library.
  8. Upon final submission of the thesis, the acceptance of thesis shall be reported to the Senate for recommendation of award of degree.

## **8 GRADUATION REQUIREMENTS**

1. A student shall be deemed to have completed the graduation requirements if the student has:
  - a. passed all the prescribed courses,
  - b. attained the minimum required CGPA,
  - c. satisfied the minimum academic and residence requirements,
  - d. the thesis has been approved by the thesis examination board and by the oral board,
  - e. satisfied all the requirements specified by the Senate and the Ordinances.
2. In addition, the student should have paid all the dues to the Institute and, should have no pending case of indiscipline.

## **9 EXIT POLICY**

An exit option from the Ph. D. and Integrated Ph. D. programmes is also made available. A student admitted to the doctoral programmes may be given an option to exit the PhD / Integrated PhD programmes with MS by Research degree subject to such a recommendation from the Supervisor (and the Doctoral Advisory Committee in the event of the student having written the Comprehensive Examination) and satisfying the following conditions:

1. Academic requirements are completed with a CGPA of at least 2.4
2. At least 16 credits of coursework and 48 credits of research hours are completed, with a minimum total of 75 credits
3. Completion of Thesis requirements as per the norms of MS by Research

## **10 POWER TO REMOVE DIFFICULTIES**

1. If any difficulty arises in giving effect to the provisions of this manual, the Chairman, Senate may, by an order, make such provisions, not inconsistent with the provisions of this manual, as appear to it to be necessary or expedient for removing the difficulty.
2. Every order made under sub-section (1.) shall be laid, as soon as may be after it is made, before the Senate for ratification.