



# ORDINANCES & REGULATIONS

*For the Degree of*

## DOCTOR OF PHILOSOPHY 2026



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**ABV- INDIAN INSTITUTE OF INFORMATION  
TECHNOLOGY & MANAGEMENT GWALIOR  
GWALIOR – 474015**



The provisions in these ordinances govern the policies and procedures on the admission of students, instructing course instructions, conducting examinations, and evaluating and certifying students' performance. These ordinances, on approval by the Board of Governors, shall supersede all the earlier set of ordinances of the Institute, with all the amendments thereto, and shall be binding on all students. However, the effect of year-to-year (periodic) refinements in the Academic Regulations & Curriculum on the students admitted in earlier years shall be dealt with appropriately and carefully to ensure that those students are not subjected to any unfair situation whatsoever, although they are required to conform to these revised set of ordinances. Chairman, Senate has the authority to approve any further requests for changes to an ordinance. Chairman, Senate interpretation of any section shall be considered final.

### **DISCLAIMER**

Extreme care has been taken in the compilation of ordinances, course structures, and syllabi of different Postgraduate programmes, in Case of any dispute regarding the credits of any subjects, prerequisite subjects given in the course structure, the prerequisite subjects, and credits shown in the syllabi of respective subjects. As available with the Dean of Academic Affairs office of the Institute will be final.

Therefore, ABV – Indian Institute of Information Technology and Management Gwalior is not responsible for any typographical errors in the publication.

*Approved by the Senate till in its 44<sup>th</sup> meeting (02/2026)*

*For 2026 batch onwards*



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**ORDINANCES & REGULATIONS  
FOR THE  
DEGREE OF DOCTOR OF PHILOSOPHY**

**VISION, MISSION, AND QUALITY POLICY**

**VISION**

GLOBAL EXCELLENCE IN KNOWLEDGE ECONOMY

**MISSION**

- Creating a learning environment with focus on research for emerging technologies and business processes for High-Tech solutions in Low-Tech environment.
- Integrating IT technologies and management concepts in cross cultural environments.
- Shaping students to be Innovative, Entrepreneurial, Supportive, Assured, and International.

**QUALITY POLICY**

ABV-IIITM is committed at offering quality education, training, research, competency development and consultancy to the satisfaction of all its stakeholders. This institute through its innovative teaching methods and research aims at improving effectiveness of IT and management practices on a continuous basis. All along ABV-IIITM works towards creating a knowledge-networked environment. We achieve this through:

- Proper understanding of quality policy and its effective communication across all levels.
- Adherence to this policy on a routine basis.
- Periodical audits on quality procedures.

**PREAMBLE**

Atal Bihari Vajpayee - Indian Institute of Information Technology & Management Gwalior (ABV-IIITM Gwalior) offers postgraduate programmes leading to the award of Ph.D. degree through its Department/Centre. The award of Ph.D. degree is in recognition of high academic achievements, independent research and application of knowledge to the solution of technical and scientific problems in Science, Technology and Management; creative and productive inquiry is the basic concept underlying the research work.

The academic programme leading to the Ph.D. degree is broad – based and involves a minimum course credit requirement and a research thesis. The institute also encourages interdisciplinary areas through a system of Co-supervision and provides excellent opportunities for such programmes. The institute undertakes sponsored research and development projects from industrial and other organizations in the public as well as private sector.

The degree of Doctor of Philosophy shall be abbreviated as Ph.D. The degree of Doctor of Philosophy is granted for research work in areas recognized by the academic Department/Centre of the institute subject to the conditions and regulations contained hereinafter.

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



The degree of Doctor of Philosophy (Ph.D.) of the Atal Bihari Vajpayee -Indian Institute of Information Technology & Management Gwalior shall be conferred on a candidate who fulfills all the requirements specified in these Ordinances and Regulations.

## **ORDINANCES FOR THE DEGREE OF DOCTOR OF PHILOSOPHY**

### **1. Definitions**

- (i) **DRC:** - shall mean Research Committee of the Department/Centre, which shall consist of senior faculty members of the Department/ Centre.
- (ii) **Applicant:** - shall mean an individual who applies for admission to the Ph.D. programme of the Atal Bihari Vajpayee - Indian Institute of Information Technology & Management Gwalior on a prescribed Application Form.
- (iii) **Candidate:** - shall mean a person registered for the Ph.D. degree and who has successfully completed the course requirement, the comprehensive examination and has submitted an approved research plan as per **R.9** of the Regulations.
- (iv) **Programme Coordinator:** shall mean a member of the academic staff appointed to look after the candidate's research interests in the absence of the Supervisor and/or after the submission of the thesis.
- (v) **Joint-supervisor:** - shall mean an additional supervisor approved by the PG Board on the recommendation of Department/Centre to help in the accomplishment of the research work of the student/candidate, as per **R.6** of the Regulations.
- (vi) **Course Advisor:** - shall mean a faculty member nominated by the Department/Centre to chalk-out the programme of study of a student registered for the Ph.D. and to advise him/her on the courses to be taken by him/her. If a supervisor (s) has already been appointed, he/she shall be the Courses Advisor for that student.
- (vii) **Course work:** - shall mean courses of study prescribed in the Department/Centre through the course Advisor to be undertaken by a student registered for the Ph.D. Degree.
- (viii) **Dean (Academic Affairs):** - shall mean the Dean, Academic Affairs of the Institute.
- (ix) **Degree:** - shall mean the Degree of Doctor of Philosophy (Ph.D.) of the Atal Bihari Vajpayee - Indian Institute of Information Technology and Management Gwalior.
- (x) **Educational Institution:** - shall mean those colleges which offer Bachelor's Degree or higher.
- (xi) **Full-time Research Student/Candidate:** - shall mean a person registered for the Ph.D. Degree devoting full time for completing the degree requirements.
- (xii) **Institute:** - shall mean the Atal Bihari Vajpayee - Indian Institute of Information Technology and Management Gwalior.
- (xiii) **Institute Research Board:** - shall mean the Institute Research Board of the Atal Bihari Vajpayee - Indian Institute of Information Technology and Management, Gwalior.



- (xiv) **Institute Research Student/Candidate (Research Scholar):** - shall mean a person registered for the Institute Ph.D. Degree.
- (xv) **Minimum Registration Period:** - shall mean the minimum period for which a candidate must be registered, including the time spent as student before becoming a candidate, prior to submission of the thesis.
- (xvi) **ODC:** - shall mean Oral Defense Committee.
- (xvii) **Part-time Research Student/Candidate:** - a person who is registered for the Ph.D. degree and will devote part of his/her time towards this pursuit.
- (xviii) **Registration Period:** - shall mean the length of time span commencing with the date of initial registration at the institute on full-time basis.
- (xix) **Residency:** - shall mean the minimum period for which a student /candidate must attend the institute on full-time basis.
- (xx) **SRC (Student Research Committee)** consists of HoD of the concerned department who will act as the chairman of SRC. Supervisor (s) will also be the members of SRC. There will be two additional members in the SRC, one from the same department and the other from the different department. In cases where HoD of the department will act as a supervisor/co-supervisor, one senior member of the department will be appointed as chairman of the SRC.
- (xxi) **Sponsored Research Student/Candidate:** - shall mean a full time research student/candidate except that he/she receives complete financial support from the sponsoring organization/his (her) employer.
- (xxii) **Student:** - shall mean a person registered for the Ph.D. degree prior to becoming a candidate.
- (xxiii) **Supervisor:** - shall mean a member of the academic staff of the Institute approved by DRC to supervise the research /academic work of the student/candidate.
- (xxiv) **Summer Term:** - shall mean a period in between the odd and even semester of approximately two and half months

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

2. For a student to become a candidate for the degree, he shall have to satisfy the requirements as laid down in the Regulations and be accepted by the SRC.
3. A candidate registered for the Ph.D. programme shall require satisfying a minimum Registration period requirement, as laid down in the Regulations **(R.5)**.
4. A student/candidate shall be required to earn prescribed minimum credits through courses and carry out his research work at the Institute, under the guidance of approved supervisor(s). In special circumstances, a full-time student/candidate may be permitted by the Institute Research Board (IRB) on the recommendations of DRC to carry out his research outside the Institute.
5. A candidate needs to complete all the requirements for the award of the degree within a period specified in the regulations.
6. The date of initial registration shall normally be the date on which the student formally registers for the first time in the beginning of a Semester for the Ph.D. programme, which shall also be the date of his joining the programme for all the intents and purposes.



7. However, for the purpose of minimum residential requirement in the case of change of status from full-time to part time, the time spent as full time will be taken into account.
8. If a student/candidate withdraws from his Ph.D. programme or his registration is terminated, his student/candidate status ceases. If such a candidate is re-admitted, he may be given weightage to the credits acquired during the previous registration on the recommendation of DRC except in the case of termination on disciplinary grounds.
9. The award of the Ph.D. to an eligible candidate shall be made in accordance with the Regulations of the Institute.



## REGULATIONS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY

The following Regulations shall apply to all categories of students/candidates pursuing courses of study and research leading to the Ph.D. degree:

### R. 1 CLASSIFICATIONS

1. Students enrolled in the Ph.D. programme shall be categorized under any one of the following categories which will be decided and recommended by SRC/DRC.

#### (I) Full-time Research Student/Candidate:

##### (a) Institute Research Student/Candidate

Institute Research Student /Candidate will get the institute Fellowship.

##### (b) Govt. / Semi Govt. Fellowship Awardee (QIP, CSIR, DAE, DST, etc.)

These research scholars receive their fellowship and contingency grants from sponsoring organizations such as Council for Scientific and Industrial Research (CSIR), University Grants Commission (UGC), Quality Improvement Programme (QIP), DRDO, AICTE and other similar organizations.

##### (c) Sponsored Students/Candidates

(i) An employee of a Public Sector Undertaking, a Government Department/ Centre, Defence organization, a Research & Development Organization, or a private industry (approved by the concerned faculty/Institute Research Board) or an Educational Institution, sponsored by his/her employee with their normal salary and allowances and are relieved for the period of not less than two years for pursuing Ph.D. programme. In case, the sponsorship is withdrawn, the candidate can continue his Ph.D., provided he/she has passed the comprehensive examination. Such candidate should have work experience of at least two years in the relevant field.

(ii) **For Sponsored Project Employee:** Any project employee working under the sponsored project at ABV-IIITM Gwalior

##### (d) Self-financed (Indian/Foreign)/Study Leave/College Teacher

**Indian:** This category refers to persons with experience and with good track record to join the doctoral programme.

**Foreign:** These students are admitted through the Embassy of the respective Govt. after getting approval from the Ministry of External Affairs and no objection certificate from the Ministry of Human Resources Development, Department / Centre of Education, Govt. of India or admitted under an MOU with ABV-IIITMG.

**Casual:** External candidate wishes to avail research facilities at ABV-IIITM Gwalior, will register as casual student for a period not exceeding six months.

#### (II) Part-time Research Student/Candidate:

##### (a) Institute Faculty/Staff

This category refers to persons who are permanent employees of the institute.

##### (b) External Candidates (Sponsored)



This category refers to the persons who are working in other organizations recognized by ABV-IIITM Gwalior for research purposes.

## **R.2 ADMISSION ELIGIBILITY**

An applicant possessing the following qualifications in appropriate areas shall be eligible to apply for admission for Ph.D. programme of the institute.

### **1. Eligibility Criteria for Full-Time Ph.D. Programme (Engineering)**

- (a) An applicant having a master's degree in engineering/technology/electronics/ mechatronics or any other equivalent qualification (*MSc/MCA/MS in relevant field/branch and 10+2 with mathematics*) recognized by the Institute with a minimum of 60% marks or CGPA of 6.5 on a 10-point scale in the qualifying degree. Additionally, the applicants must have qualified for the GATE/NET examination.
- (b) Applicants, who have only B.Tech. degree, are also eligible for the Ph.D. admission subject to 75% marks or 8.0 CGPA in B.Tech. with a valid GATE Score.
- (c) The requirement for GATE can be exempted for the applicants having B.Tech. or Equivalent degree from Centrally Funded Technical Institutions (CFTIs) with CGPA 8.0 or above at B.Tech. level.

### **2. Eligibility Criteria for Full-Time Ph.D. Programme (Management)**

- (a) MTech/ME/MD or any other equivalent qualification recognized by the Institute with a minimum of 60% marks or 6.5 CGPA on a 10-point scale and possess a qualified GATE examination or equivalent examination for medicine discipline.
- (b) MSc/MBA/MA/MBBS or any other equivalent qualification recognized by the Institute with a minimum of 60% marks or 6.5 CGPA on a 10-point scale and National Level examination like CSIR/UGC-NET or JRF/ICAR/ICMR/ DST fellowship.
- (c) B.E. or B.Tech equivalent with 75% marks or 8.0 CGPA on a 10-point scale and possess valid GATE score. GATE requirement is waived for candidates from CFTI with 8.0 CGPA

### **3. Eligibility Criteria for Full-Time Ph.D. Programme (Engineering Sciences)**

- (a) Applicants must have an MSc/MTech/ME or any other equivalent qualification recognized by the institute with a minimum of 60% marks or CGPA of 6.5 on a 10-point scale in a qualifying degree in Physics /Applied Physics / Engineering Physics / Nanoscience & Technology / Materials Science / Quantum Computing / Mathematics / Applied Mathematics / Engineering Mathematics / Industrial Mathematics or any other branch related to Physics / Mathematics with first division at undergraduate (BSc / BE / BTech) level. Additionally, the applicants must have a qualified GATE/NET examination.
- (b) Applicants who do not possess a master's degree are also eligible for PhD admission subject to 75% marks or 8.0 CGPA on a 10-point scale in BTech. Additionally, the applicants must have a qualified GATE/NET examination.
- (c) The requirement for GATE can be exempted for the applicants having B.Tech. or Equivalent degree from Centrally Funded Technical Institutions (CFTIs) with CGPA 8.0 or above at B.Tech. level.



**4. Eligibility Criteria for Part-Time Ph.D. Programme**

Institute invites applications from professionals working in Industries, Academic Institutions, Research and Development (R&D) Section for admission to Part-Time Ph.D. programme. Applicants working in emerging industry related research in connection to the research areas of the institute are encouraged to apply. However, applicants must have a minimum of two (02) years of experience in a relevant area after his/her PG degree. The minimum PG qualification would be relaxed to UG qualification (only for B.E/B.Tech background) for applicants having a minimum of five (05) years of experience in total from Industry/Academic Institutions/Research & Development (R&D). The other eligibility criteria for admission to Part-Time Ph.D. programme are as follows:

(a) **For Engineering:** Applicants must have an MTech degree in Engineering/Technology, or any other equivalent qualification recognized by the institute with a minimum of 60% marks or a CGPA of 6.5 on a 10-point scale in qualifying degree. Applicants who do not have an MTech degree are also eligible for the Ph.D. admission subject to 75% marks or CGPA 8.0 and above in BTech.

**(b) For Management:**

1. MTech/ME/MD or equivalent with First division (minimum 60% marks) or a CGPA of 6.5 on a 10-point scale.
2. MSc/MBA/MA/MBBS or equivalent with First division (minimum 60% marks) or a CGPA of 6.5 on a 10-point scale.
3. BE or BTech equivalent with 75% marks or 8.0 CGPA on a 10-point scale.

(c) **For Engineering Sciences:** Applicants must have MSc/MTech/ME or any other equivalent qualification recognized by the institute with a minimum of 60% marks or CGPA of 6.5 on a 10-point scale in qualifying degree in Physics / Applied Physics / Engineering Physics / Nano Science & Technology / Materials Science / Quantum Computing / Mathematics / Applied Mathematics / Engineering Mathematics / Industrial Mathematics or any other branch related to Physics / Mathematics with first division at undergraduate (BSc/BE/BTech) level.

**5. Admission of Faculty/Staff of the Institute**

- (a) A faculty member or non-academic staff of the institute who satisfies eligibility qualifications may be considered for admission to the Ph.D. programme as a part time student provided, he/she has been given administrative clearance by the Director of the institute. Those with B.Tech/B.E. qualification and with three years of relevant working experience must have a high-ranking, valid GATE / CAT score.
- (b) Permanent academic staff of the institute may be given administrative clearance to seek registration on part-time basis after satisfactory completion of the period of probation subject to the recommendation of the concerned Head of the Department / Centre and approval by the Director.
- (c) It should be noted that qualification specified in the relevant section for Engineering, Engineering Sciences and Management as mentioned in R.2(4) will also be exactly applied for admission of Faculty/Staff of the Institute.

## **6. For Sponsored Project Employee**

Any employee working under the sponsored project at ABV-IIITM Gwalior may also apply for the Ph.D. programme under the supervision of corresponding project investigator(s) subjected to the availability of funding for approximately two years after the date of selection. The candidate(s) fulfilling the eligibility criteria for Ph.D. admission and recommended by the concerned PI can apply for the Ph.D. programme at any time, the selection will be done by a committee duly constituted by competent authority. The selected candidate(s) will not get any financial support from the institute during the entire Ph.D. programme. In case of the project completion, the candidate may continue his/her research work under the same supervisor. However, the supervisor may support the candidate from other project funding or candidate may continue the programme as self-sponsored or request to convert his/her Ph.D. from full time to part time programme. It should be noted that qualification specified in the relevant section for Engineering, Engineering Sciences and Management will also be exactly applied for admission for Sponsored Project Employee.

7. Selection of the candidates will only be done on the availability of expertise in terms of availability of supervisor in the specified area of research. In case, research area expertise is not available to supervise the research, the Director can take any appropriate action accordingly.

## **R.3 RESERVATION/RELAXATION**

Reservation / Relaxation for SC/ST/PwD/EWS and OBC will be given as per the norms of Government of India (GoI).

## **R.4 SELECTION PROCEDURE**

The DRC of the concerned department may set the short listing criteria, if considered necessary, higher than the minimum eligibility defined above, and will conduct test and/or interview for admission to Ph.D Programme with the approval from Director (Chairman, IRB). These criteria can change in every cycle.

## **R.5 REGISTRATION**

**1.**

- a) Every student will be required to register every semester till the completion of the Ph.D. program. The registration shall be subject to the completion of specified number of credits/ courses and/or satisfactory progress in his research work as recommended by SRC. A student can seek approval for the exemption from registration after the submission of the thesis until the defence. In this case, the student will not get any financial assistance from the institute.
- b) All PhD students should register for a minimum of 12 credits per semester (including the thesis credits) until the submission of the Ph.D. thesis, for the full-time Ph.D. programme and 06 credits per semester (including the thesis credits) until the submission of the Ph.D. thesis, for the part-time Ph.D. programme. Moreover, the candidate may register for 03 extra course/thesis credits over and above the minimum required credits in the semester.
- c) A candidate may register for the thesis in multiples of 03 credits.
- d) Part time Ph.D. students can also register for a maximum of 06 thesis credits (equivalent to two thesis credit modules/courses) in the summer term after paying the extra registration fee for the summer term as per the prevailing semester institute rules. The summer term thesis credit evaluation will be

conducted by the Ph.D. student's SRC in July for the respective academic sessions.

2. A candidate who has a B.E. / B.Tech. (UG Degree) only shall be required to be registered for the Ph.D. degree for a period of not less than three Calendar years / thirty-six (36) months from the date of his initial registration (excluding any semester withdrawal). For a candidate who has an ME / M.Tech. / M.Phil. /M.Sc./MCA degree or its equivalent (PG Degree), the minimum period of registration shall not be less than two and a half calendar years / thirty (30) months (excluding any semester withdrawal). In exceptional cases, the minimum period of registration may be reduced with the approval of the Senate.

A candidate shall be required to register for a period of not less than three and a half Calendar years / forty-two (42) months from the date of his initial registration (excluding any semester withdrawal) for the completion of the dual degree (M.Tech and PhD) programme as given in Table below.

Candidates having	PhD Degree (Full time and Part-time)		Dual Degree MTech+PhD
	Duration	Minimum Credit	Minimum Credit and duration
ME / M.Tech. / M.Phil. /M.Sc./MCA or equivalent Degree admitted to the discipline as applicable	Two and a half calendar years / thirty (30) months (without any semester withdrawal)	60 credits	---
BE / B.Tech. or equivalent only admitted to the discipline as applicable	Three Calendar years/ thirty-six (36) months (without any semester withdrawal).	72 credits	84 Credit and Three and a half calendar years / thirty (42) months (without any semester withdrawal)

*\*Calendar year for a Scholar shall start from July/January, the first semester of his/her registration*

3. The candidates of all categories shall normally submit their thesis within a period of five years from the date of their initial registration for the Ph.D. programme. However, as a special case, this limit may be extended to a maximum of seven years on the recommendation by SRC and approval by Director, after which the registration shall stand cancelled automatically.

#### **R.6 THESIS SUPERVISOR(S)**

1. Every admitted student shall choose a Research Supervisor(s) by the Department / Centre as per preference of the student, subject to the approval of Director. For this purpose, a formality will be completed and processed during first semester of the student's joining (**See Annexure2**).
2. A Supervisor(s) can be any full-time faculty member of the Institute with a Ph.D. degree.
3. On the recommendations of the SRC, and Dean (Academic Affairs), Director, may appoint more than one supervisor(s) not exceeding a total of three to supervise the student/candidate. These may be from inside or outside the Institute and normally, there should not be more than two supervisors from within the Institute. Appointment of any other supervisor(s) would not be made normally after the lapse of thirty-six (**36**) calendar months from the date of initial registration of the student/candidate. However, if appointed, he will be designated as co-supervisor. After adding co-supervisor candidate cannot submit thesis within six months.
4. **Number of Scholars Under of a Faculty**

The maximum of scholars supervised by a faculty member at any time shall not be more than Eight (8) jointly or Five (5) singly or a combination of both, the aggregate not exceeding eight (including internal/outside scholars) as per table given below:

### Students under supervision

	Singly	Jointly
a)	5	0
b)	4	2
c)	3	4
d)	2	6
e)	1	7
f)	0	8

Joint supervision of a Ph.D. scholar will be treated as 0.5 per faculty member. However, Senate chairman can assign, if required, more than above limits as a special case.

#### 5. Appointment of Supervisors and caretaker Supervisor for Ph.D. students

A faculty member appointed as a Ph.D. supervisor is normally expected to be available to a research student/candidate in the Institute till the thesis is evaluated. However, under unavoidable circumstances, such as: long leave of more than six (6) months; resignation; retirement; or death; a supervisor may not be available to the student/scholar. In such special cases, appointment of supervisor(s)/caretaker supervisor will be regulated and recommended by SRC.

#### 6. Administrative Supervisor/Program Coordinator

Institute may allot an administrative supervisor/ programme coordinator as and when needed.

### R.7 COURSE CREDIT/THESIS CREDIT REQUIREMENTS

1. Each student will be required to take some courses of credit requirements (Table1) as prescribed by the supervisor and approved by the SRC. Students earn credits for a course only if he/she obtains a minimum of 'C' Grade in each course and minimum CGPA requirements as 7.0 for successfully completing the course work.
2. SRC may recommend additional course(s) as Audit course(s), if required, in a particular case. Student earns credit for Audit course(s) if he/she obtains a minimum of 'NP' Grade for successfully completing the course.
3. The pre-Ph.D. courses including Audit course are to be completed successfully in the three/four semesters (counted from the date of registration) by full time/ part time students respectively.
4. The minimum thesis credit requirement to submit the thesis will be 48 for all types of PhD degrees.

### R.8 COURSES & CREDITS

The courses offered for the Ph.D. programmes may be Lecture course, Laboratory courses, MOOC/Online courses, etc.

**Table-1. COURSE CREDIT REQUIREMENTS**

S. No.	Candidate having	Range of Credit Requirements	Remarks
1	ME / M.Tech. / M.Phil. /M.Sc./MCA	12-14 credits	Course from the existing M.Tech.

	or equivalent Degree admitted to the discipline as applicable		and/or pre-Ph.D. courses offered by the own Dept./other Depts.
2.	BE / B.Tech. or equivalent, admitted to the discipline as applicable	24-28 credits	Course from the existing PG level. and/or pre-Ph.D. Courses offered by the own Dept./other Depts.

The course credit requirement for the MTech+PhD dual degree should be as defined in the respective M.Tech+PhD dual degree curriculum.

**a. Award of Grades**

The grade awarded to a student in a course, other than lab course, for which he/she is registered, will be based on his/her performance in quizzes, tutorials, laboratory work, workshop, and industry and home assignments, as applicable; in addition to a minimum of one minor test and one major test. The distribution of weightage is to be decided and announced by the course instructor. For laboratory courses, the course coordinator will evolve a method of evaluation and announce it in the first laboratory class. The grades that can be awarded, and their equivalent numerical points, are listed in Table.

Grade	Grade Points	Description of Performance
A	10	Outstanding
A(-)	9	Excellent
B	8	Very Good
B(-)	7	Good
C	6	Above Average
C(-)	5	Average
D	4	Below Average
F	0	Very Poor
I	-	Incomplete
NP	-	Audit Pass
NF	-	Audit Fail
S	-	Satisfactory
X	-	Unsatisfactory

\* I grade is normally awarded to a student who does not either possess the minimum attendance requirement for a course or doesn't appear for minor/major examination and the respective make-up examinations. This is applicable to all theses and projects.

**b. Grade Sheet and Transcript**

The Academic Section will compile the marks and a letter grade will be awarded to the student for each course. Grade cards are issued year-wise. The Grade card contains the credits gained by a student in different courses in the semester with his/her performance indicators, SGPA and

CGPA. Transcripts are issued on request.

### ***C. Performance Indices***

The Semester Grade Point Average (SGPA) of a student is an indicator of her/his overall academic performance in all the courses she/he registers for during the semester.

$$SGPA = \frac{\sum_{i=1}^n c_i p_i}{\sum_{i=1}^n c_i}$$

where  $c_i$  is the number of credits offered in the  $i$ th subject of a semester for which SGPA is to be calculated,  $p_i$  is the corresponding grade point earned in the  $i$ th subject, where  $i = 1, 2, \dots, n$ , are the number of subjects in that semester.

The Cumulative Grade Point Average (CGPA) indicates the cumulative academic performance of a student in all the courses taken including those taken in the previous semesters. It is computed as.

$$CGPA = \frac{\sum_{j=1}^m C_j P_j}{\sum_{j=1}^m C_j}$$

Where  $C_j$  is the number of total credits offered, where  $j = 1, 2, \dots, m$ , are the all courses till end of calculation period.  $P_j$  are the corresponding grade point of subject  $j$ .

- Whenever, a student is permitted to repeat or substitute a course, the new letter grade is used in the computation of CGPA, but old grades appear in her/his Grade Report. For the purpose of calculation of SGPA or CGPA, only those courses (including minors and majors projects) will be taken into account in which the student has been awarded one of the grades (as mentioned in above Table) having grade points.
- If a candidate clears a backlog subject in the subsequent semester, then the failed subject's grade will be replaced with the fresh grade obtained while calculating the CGPA.

## **R.9 COMPREHENSIVE EXAMINATION**

1. Soon after successfully completing the pre-Ph.D. course requirements, each student will be required to take a comprehensive examination and qualify it. It will test students' comprehension of his broad field of research and his academic preparation and potential to carry out the proposed research plan.

### **2. Eligibility criteria for Comprehensive Examination**

Students who have completed the stipulated quantum of course work with specified Cumulative Grade Point Average (CGPA) requirements. In addition, the student should not be under any disciplinary action.

### **3. Timelines for the Comprehensive Examination**

The student is expected to complete his/her comprehensive examination as per the following timeline.

- PhD students admitted directly with a B. Tech. degree: Within five semesters (05) after admission in the PhD programme.
- PhD students after completing M. Tech. / MBA / M.Sc.: Within three (03) semesters after admission in the PhD programme.
- PhD students migrating from M. Tech.: Within three (03) semesters from the date of joining the PhD programme.

The comprehensive examination will be conducted by the student research committee (SRC) of the student and for this purpose SRC may be termed as comprehensive examination board.

### 1. Process of Comprehensive Examination

The assessment process of a student in the comprehensive examination will consist of 100 marks and may involve the following components.

1. Performance in course work. (30% component)
2. Written test to assess proficiency in fundamental and advanced concepts in the chosen area of work as well as broad area of their discipline.
3. Oral discussion-based examination after a student's presentation to demonstrate preliminary understating of literature and methodological approaches/existing tools and techniques in the chosen area of work.

Operationalization of these components will be as follows.

Component	Component Description	Share	Minimum Marks to Pass
Component 1	Performance in course work	30 marks	7 CGPA in course work (possible marks range: 21-30)
Component 2	Written test to assess proficiency in area of work	30 marks	15 marks
Component 3	Oral examination after student's presentation	40 marks	20 marks
		100	To pass the comprehensive, a student must pass each component separately and obtain at least 60 marks in total.

#### Question paper for the written examination

Head of respective departments will set the question paper for written test of comprehensive examination. If the head of department has conflict of interest, then he/she may assign and get question paper from a senior teacher in the department.

#### Duration of written examination

The written component of comprehensive examination may be of one/two hours duration. Appropriate duration of examination may be decided by the SRC of the student. Test questions may be of multiple-choice type, essay-type and problems/computational type.

#### Description of evaluation components

A student's CGPA in the course work may be directly converted into percentage by multiplying 10. Thirty percent of the score so derived will constitute 30% of the component of the comprehensive examination.

Students will be assessed for their understanding of fundamental and advanced concepts in the broad area of their discipline that will be relevant for their future research.

Students will be assessed for their understanding of research problem formulation, experiment design and

knowledge about various methodological approaches. Students are also expected to have some preliminary understanding of literature in their discipline.

Outcome: Student will pass the comprehensive examination if he/she obtains at least 60% percent marks in the comprehensive examination. Students will be provided with two (02) attempts to clear the comprehensive examination. A student will be provided with a second attempt if he/she could not clear the examination in the first attempt. A student may appear for second attempt anytime within three (03) months of time from the date of first attempt examination.

SRC of the student will notify the result of the comprehensive examination in the specified format to the Dean of Academic Affairs.

After clearing the comprehensive examination, a student will be eligible for “State-of-the-art Seminar”. A student needs to present and clear the state-of-the-art Seminar within six months from the date when he/she has cleared the comprehensive examination. The outcome of the state-of-the-art Seminar may be satisfactory or unsatisfactory. SRC of the student will notify satisfactory performance in the State- of-the-Art Seminar in the specified format to the Dean of Academic Affairs. In the case of unsatisfactory performance, the student will be asked to improvise and appear for the state-of-the-art Seminar again within three months (03) of time from the date of the first seminar.

*\* Comprehensive examination evaluation sheet is presented as Annexure 5.*

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

1. The student shall make a request for the candidacy for the Ph.D. degree through SRC, after having passed the comprehensive examination. He/She shall be evaluated for candidacy for Ph.D. degree programme.
2. A student shall be formally registered as a candidate for the Ph. D. degree after he/she complied with the following:
  - a. has completed his course work;
  - b. has passed the comprehensive examination; and
  - c. has submitted a research plan duly recommended and approved by SRC.
3. Minimum duration and number of credits to Ph.D. degree for both full-time and part-time students:
  - i. For students who were admitted with PG degree shall be minimum five semesters (two and half calendar years) from the date of initial registration (excluding any semester withdrawal) and minimum credit shall be 60.
  - ii. For students who were admitted after UG degree only shall be minimum six semesters (three calendar years) from the date of initial registration (excluding any semester withdrawal) and minimum credit shall be 72.
4. Minimum duration for dual degree (M.Tech and Ph.D.) shall be Seven semesters (three and half calendar years) from the date of initial registration (excluding any semester withdrawal) and minimum number of credits shall be 84.

## **R.11 PERFORMANCE MONITORING AND EVALUATION**

Students in Ph.D. programmes pursue their education across two semesters spread over an academic year. For semester thesis work evaluation, the students are assessed for progress in their research work in that semester. Progress in research may involve efforts to develop a broader understanding of their discipline, literature review, experiment design, data collection, data analysis, preparation, submission, and publication of journal articles, thesis chapter writing, and preparation of the entire body of the thesis.

1. Thesis credits will be evaluated in the form of Satisfactory (S) /Unsatisfactory(X). A candidate will either earn (S)/(X) for each 03 credits thesis credit module.
2. In the case of a full-time Ph.D. student, an end-semester progress seminar evaluation is mandatory for those students who have registered for thesis credits.
3. In the case of part-time Ph.D. students, the End-semester progress seminar evaluation is mandatory for all. If the student is not registered for the thesis credit in that semester, the evaluation committee will give satisfactory / unsatisfactory remarks only (No S or X in this case).
4. The evaluation of MTech+PhD dual degree will be as per rule.

The proposed system aims to quantify performance in terms of four counts. Combining these four counts is a way to quantify the degree of satisfactory and unsatisfactory performance of a Ph.D. student. A student whose performance is not improving will be dealt with in the following manner:

The performance Monitoring and Evaluation of each student will be monitored by SRC/DRC and submission of progress report should continue till the submission of the thesis. However, if a student submits the thesis within 90 days of pre-synopsis presentation, student is not required to appear in the performance evaluation of the semester.

(a) Regular Ph.D. Students (Both Institute Fellowship or project employee)

#	Degree of poor performance	Implication for student	Implication on student's fellowship
1	Accumulation of three (03) X	First warning	No reduction in institute fellowship
2	Obtains three (03) OR more X at a time in a given semester		For institute fellowship students, discontinuation of institute fellowship for the next semester and full fellowship will resume only if the student obtains three (03) S or more at a time in the immediate next semester.
3	Accumulation of five (05) X	Second warning	For institute fellowship students, a 50 % reduction in fellowship for the remaining part of the programme
4	Accumulation of Six (06) X	Third warning	For institute fellowship students, Full fellowship will be stopped. However, the candidate can continue in the programme without any fellowship.
5	Accumulation of eight (08) OR (more than 50% of registered credit of the semester) X at a time in any two semesters	Final action	Termination from the Ph.D. programme

(b) Part-time Ph.D. Students

#	Degree of poor performance	Implication for student	Implication on student's fellowship
1	Accumulation of three (03) X	First warning	
2	Accumulation of five (05) X	Second warning	
3	Accumulation of Six (06) X	Third warning	
4	Accumulation of eight (08) OR (more than 50% of registered credit) X at a time in any two semesters.	Final action	Termination from the Ph.D. programme

## R.12 SEMINAR AND SYNOPSIS

### 1 Seminar

- a) SRC shall assess work through the pre-synopsis seminar. The student can submit the synopsis only if the SRC is satisfied about the quality of the work for submission as a Ph.D thesis.
- b) Details of the pre-synopsis seminar shall be adequately notified so as to enable interested staff members and students to attend it.

### 2. Synopsis

- a) The synopsis should be submitted normally within two (2) months after the presentation of pre-synopsis seminar. In case the synopsis is not submitted in the specified period, the student may be asked to present another pre-synopsis seminar.
- b) On completion of the research work the candidate shall submit to SRC through supervisor(s), One (01) hard copy and one soft copy in PDF format of the synopsis. The SRC will forward the synopsis with its recommendations to the Dean (Academic Affairs) for approval by the Director.
- c) The candidate shall be required to submit fresh synopsis if he fails to submit his thesis within six (6) months of submission of earlier synopsis.  
However, in case a candidate fails to submit his thesis within the stipulated time and has suitable justification for the same, the Director, may on recommendations made by the SRC and on individual merits of each case grant him extension each time by not more than two months.

## R.13 PANEL OF EXAMINERS

A panel of at least ten (10) experts in the area of the Ph.D. thesis would be suggested by Supervisor(s) and recommended by the SRC while forwarding the title and synopsis of the thesis. The panel so recommended would include at least 50% of the examiners from outside India.

## R.14. BOARD OF EXAMINERS

On receipt of the title and synopsis of the thesis and panel of examiner by SRC, the Dean (Academic Affairs) will recommend the board of examiners for each candidate to the Director for approval. The board will consist of internal examiners, normally the supervisor(s), and at least three external examiners: at least one from within India and at least one from abroad, who shall be expert in the subject of the thesis. These external examiners shall be chosen normally from panel of examiners recommended by the SRC as aforesaid. However, director can approved the external examiners from the panel or from outside of panel. A person working in the same Laboratory(ies) Institution(s) where research candidate is employed can not, however, be appointed as External Examiner for evaluating the Thesis of that

Research Candidate. Further no person can be appointed as external examiner from Laboratory/Institution to which the Co-Supervisor(s) of the Research Candidate belongs.

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

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

1. The thesis shall be written in English in the specific format and shall contain critical account of the candidate's research. It should be characterized by discovery of facts or fresh approach towards interpretation of facts and theories or significant contribution to knowledge or development or a combination of these. It should bear evidence of the candidate's capacity for analysis and judgment as well as his ability to carry out independent investigation, design or development.
2. A candidate may submit his thesis within the time as stipulated in **R.5.2, R5.3** provided that student:
  - a) has completed the minimum period of registration as provided in **R.5.3**.
  - b) has become a candidate for the award of Ph.D degree as provided in **R 9.2** and
  - c) should have at least two (02) journal papers in SCI/SCIE/SSCI/ESCI/*SCImago* before his/her pre-synopsis seminar. Management students should have at least two (02) journal papers in SCI/SCIE/SSCI/ESCI/*SCImago*/ABDC (B and above) before his/her pre-synopsis seminar.

The Ph.D thesis must contain the following copyright certificate in the beginning of the thesis on a separate page on the left side:

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MANAGEMENT, GWALIOR, 2023  
ALL RIGHTS RESERVED**

3. The thesis cover page should be as per the format given in Annexure -3, The Candidate's Declaration should be as per the format given in Annexure-4.
4. The candidate for the degree shall submit three/four copies of thesis with a soft cover. A plagiarism report as given in Annexure 6 is to be submitted by the candidate for consideration of thesis evaluation.

### **R.16 THESIS EVALUATION**

1. Each examiner will be requested to submit to the Dean (Academic Affairs) a detailed assessment report and his recommendations on the prescribed proforma within **six** weeks of the date of receiving the thesis.
2. In the event of the report not being received from an examiner within a period of three months, the Dean (Academic Affairs) may appoint from the examiner's approved in order of preference with the approval from the Director another examiner in his place for evaluating the thesis.
3.
  - a) Examiners will examine the thesis individually with a view to judge that the thesis is a piece of research work characterized by;
    - (i) The discovery of facts, or
    - (ii) A fresh approach towards interpretation and application of facts or theories, or
    - (iii) A distinct advancement in instrument technology.

- b) The examiner will be required to give his opinion about candidate's capacity for critical examination and sound judgment. The internal examiners shall be submitting one report. All examiners will submit the reports on the prescribed form clearly stating that;
- (i) The thesis is recommended for the award of Ph.D, or
  - (ii) The thesis is recommended for the award of Ph.D Degree subject to the candidate giving satisfactory answers to queries specifically mentioned in the report at the time of viva-voce examination, or
  - (iii) The candidate will be allowed to resubmit the thesis in the revised form, or
  - (iv) The thesis be rejected.
- c) (i) If all the three examiners recommend acceptance (b(i) & b(ii)) of the thesis, there recommendations shall be accepted. Out of three external examiners, at least one examiner should be a foreign examiner preferably.
- (a) In case where two reports are received by the Ph.D. section indicating acceptance of the thesis and the report is not obtained from the third examiner in six months after accepting the synopsis, (or acceptance of the synopsis is not being done in the defined process of sending it for evaluation) Director may allow to conduct the viva exam appropriately.
  - (ii) If two of the three examiners recommend rejection, their decision would be accepted. The candidate may, however, be allowed to resubmit the thesis normally after one year. Normal process will be followed for the evaluation of the thesis.
  - (iii) If one of the examiners recommends rejection, the candidate's replies to the comments made by the examiners shall be sent to the examiners and his clear verdict sought. The examiner may then recommend acceptance, rejection or revision of the thesis. In case the thesis is accepted, sub-clause c(i) above will be applicable. In case of recommendation for revision, sub-clause (iv) below will apply. However, if the examiner still recommends rejection, a fourth examiner would be appointed from the panel of the examiners already approved by the Director. In such cases sub-clause (v) will apply.
  - (iv) In case one examiner recommends revision of the thesis, the thesis would be revised normally with in one year, if the candidate so desires. The revised version of the thesis would be sent to all the examiners for their recommendations. If the candidate does not agree for revision he may ask for appointment of the fourth examiner under sub-clause (v) below:
  - (v) The new examiner if appointed, shall be Indian or Foreign depending on whether the thesis was rejected by an Indian or a foreign examiner in the first instance. The reports of all the examiners will be sent to him/her without revealing the identity of the examiner, along with the response of the candidate, if any, to these. The thesis shall be deemed to be acceptable if three out of four examiners recommend acceptance. If the fourth examiner recommends revision, the thesis would be suitably revised and resubmitted normally after three (3) months and sent for examination to all the examiners accept to the one in whose place the fourth examiner was appointed. In case the fourth examiner recommends rejection or his recommendations for revision is not accepted by the candidate, the thesis would be rejected. The candidate will be allowed to resubmit the thesis after one year.
  - (vi) If two of three examiners recommend revision of the thesis the candidate may revise the thesis accordingly and resubmit it normally with in a period of one year for the evaluation by the same set of examiners.
  - (vii) The correspondence regarding above will be done by the Dean (Academic Affairs) office.
  - (viii) If one examiner recommends rejection and other examiner recommends revision of the thesis, the candidates should revise the thesis and resubmit it normally within a period of one year, for evaluation by the same set of examiners.

- d) Any doubt arising out of following the procedure laid down in **R.16.3(c)** above shall be referred to the Director for a decision.
- e) In case of ambiguous recommendations by the examiner, Dean (Academic Affairs) approach the examiner for a clear recommendation. In case clear recommendation is not forthcoming, the matter may be referred to the Director for his decision.
- f) As a general rule, in case where acceptance of the synopsis is not received by the Ph.D. section, a reminder may be sent after one week. After sending three reminders, synopsis may be sent to the next examiner from the panel of examiners.
- g) Once examiner accepts the synopsis and starts evaluating the thesis, Ph.D. section is advised to wait for four weeks. A reminder to complete the evaluation may be sent after four weeks, subsequently reminder may be sent after every two weeks.

#### **R.17 RE-SUBMISSION**

- 1. In case of resubmission of thesis, the student will have to submit the semester fees till he re-submits the thesis.
- 2. The revised thesis may be submitted with in one year from the date of such intimation.
- 3. No candidate shall be allowed to resubmit the same thesis more than once.

#### **R.18 VIVA-VOCE EXAMINATION**

- 1. If the thesis is recommended for the award of degree, the candidate shall be required to defend his work/thesis orally (viva-voce examination) before a duly constituted committee hereinafter referred to as the Oral Defense Committee (ODC)
- 2. The ODC shall consist Supervisor(s) (internal examiners), and at least one Indian external examiner, and SRC. The internal examiner shall arrange the viva-voce examination of candidate.
- 3. a) In case of non-availability of the Indian External Examiner in conducting the viva-voce examination, the Director may appoint another examiner to conduct the via-voce examination from the existing panel.  
If need be, the SRC may suggest a fresh panel of examiners.
- b) The viva-voce examiners shall be provided with the comments made by the examiners before the viva-voce examination.
- c) If there is a difference of opinion among the viva-voce examiners, the recommendations of the viva-voce Board will be put up to the Director for a decision who may either direct that a fresh viva be held or recommend acceptance or otherwise to the Senate.
- d) Internal Examiner(s) shall arrange for the viva-voce examination of the candidate as early as possible and normally with in two months from the date of communication to the Internal Examiner for holding the viva-voce examination.
- e) In case of the inability of the internal examiner(s) to have the viva-voce examination conducted due to any reason whatsoever, the Director may appoint another Internal Examiner(s) from amongst faculty of the Department / Centre concerned who belongs to the particular field in consultation with Dean (Academic Affairs), and Head of the Department / Centre concerned to conduct the viva-voce examination. In such cases also, the Ph.D work will be deemed to have been carried out under the guidance of the supervisor(s) only.
- f) Any other matter not explicitly provided herein or of an exceptional nature may be referred to the Director for his decision.

#### **R.19 AWARD OF Ph.D. DEGREE**

1. On the completion of all stages of the examination, the Oral Defence Committee shall recommend to the Dean (Academic Affairs), one of the following courses of action:
  - a) That the degree be awarded;
  - b) That the candidate be re-examined at a later specified time in a specified manner;
  - c) That the degree shall not be awarded. The thesis will be rejected on the conclusion that the thesis is not genuinely the work of candidate.

In case of (a) and (b), the Oral Defense Committee shall also provide to the candidate a list of all correction and modifications in the thesis evaluation.

The second viva-voce examination may be held normally after a period of three (3) months.

2. The degree shall be awarded by the Senate, provided that:
  - a) The Oral Defense Committee so recommends;
  - b) The candidate produces a 'No dues Certificate' in prescribed form.
  - c) The candidate has submitted two hard cover copies of the thesis; one for the Department / Centre's Library and one for Central Library A soft copy should also be submitted to the library. The thesis should incorporate all necessary / corrections / modifications.

## **R.20 LEAVE AND ATTENDANCE**

A student /candidate will be entitled to avail leave as per leave Rules/Attendance Rules formulated and amended from time to time by the Institute. Presently these are as under:

### **1. During Course work**

A full-time Ph.D. student, during his/her stay at the institution will be entitled to leave for thirty (30) days including leave on medical grounds, per academic year. He/she will not be entitled to mid semester breaks, summer and winter vacation at the end of the first semester.

Leave beyond thirty (30) days in an academic year may be granted to Research scholar in exceptional case, by Head of the Department / Centre concerned, subject to the following conditions:

- a) The leave beyond thirty (30) days will be without Assistantship / Scholarship / Fellowship; and
- b) Such an extension of leave up to additional thirty (30) days will be granted only once during the programme of the scholar.
- c) The leave may be subjected to the approval of the Head of the Department / Centre / Programme Coordinator concerned on the recommendation of the Supervisor; and a proper leave account of each student/candidate shall be maintained by the Department / Centre/ Programme Coordinator concerned.

### **2. After completing the course work**

A full-time Ph.D student/candidate during his/her stay at the Institute will be entitled to leave for thirty (30) days per academic year. He/she will not be entitled to mid-semester breaks, summer and winter vacations. In addition, a Ph.D student/candidate who has completed his/her course work may be granted leave on medical ground up to ten (10) days per academic year.

The women research student/candidate will be eligible for Maternity Leave with fellowship for a period not exceeding One hundred thirty-five (135) days once during the tenure of the award.

### **3. Duty Leave**

Duty leave up to 15 days in an academic year may be granted for the following purposes:

- (a) Attending Conference and Workshop, for data collection or any other research work related to Ph.D thesis.

The duration of leave should be such as may be considered necessary by the sanctioning authority on each occasion.

## **ATTENDANCE**

A Ph.D. student irrespective of source of research assistantship including self financing student not drawing any fellowship and sponsored student, while pursuing course work, must have at least 75% attendance in each course in which he/she is registered. In case his/her attendance falls below 75% in any course during a month he/she will not be paid fellowship for that month. Further, if his/her attendance again falls short of 75% in any course in any subsequent month in that semester his/her studentship and fellowship will be terminated. A student falling short of 75% attendance in a course shall not be permitted to appear in the examination of that course.

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

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

1. A student/candidate may be permitted to withdraw from all the courses/thesis credit registered by him or the entire semester, on medical grounds supported by a medical certificate from the Institute Medical Officer. The medical certificate issued by a registered Medical Practitioner will also be accepted in those cases where the student/candidate has valid reasons for his absence from the institute. Withdrawal may also be granted by the Director provided he is convinced that the student/candidate cannot pursue his studies for the reason beyond his control.
2. Under no circumstances will a request for withdrawal be entertained after the major tests have begun. Student/Candidate should present the medical certificate in support of his absence on health reasons within two days of his rejoining the institute, if not produced already. Withdrawal will not be granted retrospectively.
3. The period of authorized absence in the semester should not be less than eight weeks of contact period for Semester withdrawal to be granted. Regularity in attending the classes and satisfactory performance in the mid-term examinations, if any, held prior to the date of application for withdrawal are the factors which would be taken into account while recommending/granting withdrawal.
4. Any semester withdrawal will count towards the maximum limit of **seven years** as stipulated above.

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

Registration of a student/candidate shall be cancelled in any one of the following eventualities, after due approval of Director.

- a. If student absents himself for a continuous period of four weeks without prior intimation/sanction of leave.
- b. If student withdraws from the Ph.D Programme and the registration is duly recommended by the Supervisor.
- c. If student fails to renew his registration in any semester subject to the provision contained in these Ordinances & Regulations.
- d. If his/her academic progress is found unsatisfactory as R.11.
- e. If all the prescribed Pre-Ph.D Courses including Audit course(s) are not successfully

completed within the stipulated time frame of three/four semesters for full time/ part time Ph.D scholar respectively from initial registration.

- f. If student does not clear the comprehensive examination as stipulated.
- g. If student is found involved in an act of misconduct and/or indiscipline and termination has been recommended by a competent authority.
- h. If student does not submit the academic report of work done of the semesters.
- i. If student fails to appear in the end term evaluation for the Ph.D. programme without proper reasons and approval of competent authority, this will also lead to indiscipline and termination from the programme. Students are required to present a written application and subsequent approval in this regard.

### **R.23 SUPERVISION OF Ph.D STUDENTS OF OTHER INSTITUTES/ UNIVERSITIES**

An ABV-IIITM Gwalior faculty may supervise & guide Ph.D students of other institutes/ universities subject to the following conditions.

- a. The host institute/University is recognized by MHRD-UGC/AICTE.
- b. The total number of such externally enrolled Ph.D students under any faculty of ABV-IIITM Gwalior, should not be more than two (2) at any point of time. This number is to be included in the maximum number of Ph.D students that a faculty of (ABV-IIITM) may supervise as per R 6.4.
- c. Due to extension of this facility to the host institute, the work of the ABV-IIITM Gwalior should not suffer.
- d. If the concerned faculty of ABV-IIITM Gwalior, as co-guide is required to visit the Institute/Outside, he/she shall seek specific approval for the visit on Casual Leave/leave as due, by the competent authority and shall not be on duty for the visit. Further, all expenses, facilities etc. in this regard shall be borne by the host Institution.
- e. If the external candidate wishes to avail the facilities at ABV-IIITM, he/she shall register as casual student for a period not exceeding six months as per rules and regulations.
- f. A Standing committee of Dean (Academic Affairs) and the concerned Head of Department is constituted to consider such requests from the supervisor/student of other institute/universities. Committee will send the report to Director for approving.

### **R.24 GENERAL**

1. Notwithstanding anything contained in these Ordinances & Regulations, all categories of the students/candidates shall be governed by the rules and procedures framed by the Senate in this behalf, and in force from time to time.
2. Disciplinary action may involve debarring a student from academic activities for a specified period. Disciplinary action is initiated if a student is involved in ragging, sexual harassment, and any other violation of law. Students are also expected to respect and maintain social decorum and good citizenship behavior. Disciplinary issues pertaining to a student may span evading any rules and include issues such as cheating in examination, copy and pasting in assignments, submitting assignment that is not a student's original work, plagiarism, harassment of fellow students, staff, or faculty members, etc. These violations will be addressed as per existing regulations of the Institute.
3. **Unfair means and Plagiarism:**
  - a. In cases a student is found adopting or suspected of adopting unfair means before, during and after the examination, the UFM rule of the Institute will apply. If a student is lifting

of some other's works(s) and inserting it in his/her project, seminar and dissertation etc. without proper acknowledge, credit and reference or plagiarizing the dissertation/project report etc. such panel action shall be taken by the Institute as may be necessary to up hold the sanctity and integrity of the examination system and the creditability of the Institute.

- b. All such cases may be taken suo-moto cognizance of by the Institute Research Board (IRB) appointed by the Senate for this purpose. Such cases may also be reported by examiners/invigilators to Dean (Academic Affairs) and or the IRB for consideration. After giving an opportunity to the concerned student(s) to explain the conduct/defend the charge, the Chairman, Senate on the recommendation of IRB shall take action including imposition of appropriate penalty including award of 'F' Grade.
- c. Plagiarism report format is attached as **Annexure – 6**

**4. Contingency expenditure amount provided to PhD students-**

Institute will provide contingency expenditure of Rs 75,000/- (Rs. Seventy-Five Thousand to PhD students equally spanning over five years (10 semesters) of their tenure of PhD programme with scholarship. As mentioned, the amount is equally spread as Rs 15,000/- (Rs. Fifteen Thousand) in five years. This means students are not allowed to cross an upper limit of Rs 15,000/- (Rs. Fifteen Thousand) in an academic year. Carry over of fund allotted for one academic year is not allowed.

**Details of item(s) indented to purchase under contingency fund in an academic year:**

<b>Particular</b>	<b>Amount per academic year</b>
Contingency including the Membership fee of professional bodies/societies	Rs. 5,000/-
Workshop/Conference/short term programme related to their Ph.D. (Registration Fee, TA/DA, Accommodation) in India	Rs. 10,000/-
<b>Total</b>	<b>Rs. 15,000/-</b>

The above limits can be changed by Senate Chairman for any student, if required. Contingency head can be clubbed with any other head. The details of items indented to purchase under the contingency fund in the academic year will be the same as mentioned in the above table and as per the fund allocated by the funding agency for full time research student/Govt/Semi-government fellowship awardee.

**5. Norms for Partial Travel Support for to the Research Scholars (Full-Time) for Presenting Paper in The International Conferences Held Outside India**

The following modalities for PhD scholars (institute funded) will be used.

1. A total number of 10-12% travel grants per year can be offered for Senior Research Fellow (SRF) subject to availability of funds during an academic year.
2. Students can attend conferences in India using their yearly contingency grant (conference head).
3. The international travel grants (including registration fee, visa fee, medical insurance etc.) are to be awarded to full-time institute funded PhD students (SRF) and priority is provided to those students who are in their final stages of study.
4. Support for international conference held outside India can be provided to a PhD student subject to satisfying the laid down criteria. The support for attending conference for presentation outside India is limited to:

- i. A maximum of 90% of the actual cost or 1 lakh whichever is less is supported for North/South American/Europe/Australia/New Zealand continents
  - ii. A maximum of 90% of the actual cost or Rs. 60000.00 or actual whichever is less for Asia/Middle East/Africa.
5. The grant is purely partial financial support with the stipulation that the applicant will arrange the rest from other sources. Students are encouraged to apply for external funding from agencies such as CSIR/DST, etc. including the conference organizers. Preference shall be given to students who obtain funds/letter of commitment for funding from outside agencies.
  6. Institute may put in place robust evaluation criteria for selecting suitable candidates for the award. The SRF must have established research credentials based on quality publication(s) in journals. At most two persons per conference is permitted. In case of multiple applications for the same conference, credentials with respect to the year (xth conference)/quality (h index etc.)/ CORE Computer Science Conference Ranking <https://portal.core.edu.au/conf-ranks/>/ OXFORD University Department of Computer Science (<https://www.cs.ox.ac.uk/people/michael.wooldridge/conferences.html>) etc. will be used by a designated committee for evaluation. Also, there should not be any academic deficiency/unsatisfactory/repeat of comprehensive examination, etc. The application must be submitted to the respective DPGC convener duly forwarded by the Thesis supervisor.
  7. The forwarded and recommended application of the scholar from the department will be sent to the DoAA. The office of DoAA shall verify the credential of the scholars, maintain a record of the scholar such as number of grants received by him/her. Verified application with recommendation of committee, if any, should be forwarded to the Director for approval and subsequently issuance of a sanction letter by the DoAA to the concerned scholar indicating the sanctioned grant. A copy of this sanction letter must be sent to the Thesis Supervisor/Department and DR (F&A).
  8. No financial support will be extended to those scholars who are only participating in the conference and are not making any oral or poster presentation.
  9. The SRF seeking financial support should be the first author of the accepted paper for the presentation, and the work should have been carried out at ABV-IIIITM Gwalior, and the other authors shall express support favoring the participating author.
  10. Due to any reason, if the first author is unable to present the paper, the co-author (student) may present the paper subject to the guideline applicable for the maximum number permissible grants for attending international conference under the said scheme.
  11. No financial support will be extended to those scholars who are only participating in the conference and are not making any oral or poster presentations.
  12. Only one author can be supported for presenting a paper; if the thesis supervisor is supported by the Institute or other sources for presenting the same paper in the same conference, the student will not be supported.
  13. The financial support once approved can be claimed as reimbursement upon submission of all the relevant documents in original along with a copy of the certificate of participation and presentation in the conference and a report at the DoAA office. The claim will be reimbursed through the Institute accounts section.
  14. Former students at the Institute are not eligible for financial support even if the paper to be presented is based on work done while they were students at the Institute. A student is said to be a former student once the thesis viva-voice has been conducted.

15. The period of the conference should be within the defense of PhD program.
16. The student will be given support if he/she is presenting at an international conference. The support cannot be used for attending summer or winter school, courses, competitions, or other events. No support will be given if students present the paper on-line. However, he may use his contingency grant for the same.

**6. Travel support to part time Ph.D. scholars for paper presentation in India.**

A fund of Rs 8000/- (to be modified from time to time) may be utilized in registration of paper presentation in the conference(s) and shall be given for a maximum of two times to each Institute's part time Ph.D scholar in the entire program duration provided the concerned scholar takes prior approval for the same.

**R.25 CONVERSION OF REGULAR Ph.D. TO PART-TIME OR EXTERNAL PhD**

There are several cases where the student gets a job and leaves the Ph.D. mid-way through the programme. It is also seen that due to the stoppage of scholarship before completion of the Ph.D. programme, the student leaves due to financial conditions and joins the job somewhere. Therefore, it is proposed that any regular student (institute or other sponsorship or project funded) who has cleared the comprehensive examination can opt for conversion to part-time students or external students subject to the recommendation of SRC and approval of the Chairman, Senate. For external students, it is mandatory to have one supervisor from the parent organization where he/she is working/going to work. Both part-time and external students should physically register for the semester and appear in the semester evaluations. Part-time or external students will not get any financial assistance.

**R.26 CONVERSION OF M.Tech. 2-YEAR PROGRAMME TO PhD PROGRAMME**

- Students who have been admitted in Two-year MTech programme through GATE and having 75% marks or equivalent CGPA/CPI at BTech/BE degree are eligible for conversion to PhD program. Other requirements/conditions are-  
Only students with CGPA > 6.5 on a 10-point scale with no pending backlogs and who have completed a minimum of 2 semesters and required credits in M. Tech. programme will be eligible to apply for the change to the PhD programme. The student must apply before starting of 3<sup>rd</sup> semester for conversion to PhD program.
- <sup>6</sup>The other provisions will be the same as per the Dual Degree M. Tech. and PhD program.
- A formal application must be made by the student for converting to PhD programme. Recommendation of thesis supervisor is mandatory. Student cannot change the supervisor at the time of conversion.

**R.27 PhD ASSISTANTSHIP RULE**

A student receiving financial assistance from the Institute is expected to devote up to eight hours per week toward the Teaching Assistantship (TA) assigned to him/her.

The assistantship for full-time research scholars with TA/Fellowship/Financial Support routed through the Institute who submit their thesis till the end of the 8<sup>th</sup> semester may continue to avail of their financial support until the date of their Ph.D. Viva Voce Examination or the end of the 8<sup>th</sup> semester, whichever is earlier.

In case the candidate is not able to complete the work in eight semesters, he/she may be paid 50% of the assistance without any TA Assignment for the next two semesters based on the recommendation of a committee duly constituted for the purpose. However, if a candidate request for the full assistantship, he/she may be allowed with TA assignment, if constitute committee recommends. In no case, the assistantship will be given after 10 semesters.

Candidate if leaves the programme in between, after joining the Ph.D programme, he/she has to return the scholarship availed during his/her stay at the programme. In case of not return of scholarship, an appropriate action will be initiated by the institute.

27.1 Two years after receiving the JRF stipend, the students may receive SRF stipend, provided they meet all the required criteria for SRF stipend. The conversion of stipend from JRF to SRF shall require recommendation of SRC and approval of the Chairperson, Senate.

A. The following rules shall apply to the institute research scholars who are paid research assistance ship from the institute.

**B. Eligibility condition for conversion of JRF to SRF**

1. The scholar must have successfully completed comprehensive examination.
2. The scholar must have successfully completed State of the Art Seminar.
3. The scholar must have completed two years excluding long leave/semester break etc. since his admission as a research scholar.

**C. Procedure for conversion of JRF to SRF**

1. The scholar must apply to the concerned HoD for conversion of JFR to SRF. However, the application must be recommended by the supervisor(s).
2. The SRC chair will notify a date for oral examination of the candidate in front of the SRC. This oral examination along with a print report shall present a statement of account for the scholar's two years of research work.
3. In case of long leave of any SRC member, their temporary substitute must be approved by the Chairman Senate.
4. If satisfied by the scholar's oral examination, the SRC shall favourably recommend the conversion of JRF to SRF.
5. The abovementioned SRC recommendation must reach the DoAA and be approved by the Senate Chairman.
6. In the event of an adverse recommendation of JRF to SRF by the SRC, the next attempt at conversion can take place only after three months.

**D. Payment terms**

1. **First attempt of conversion of JRF to SRF:** If the recommendation of SRC is approved within two months from the date of eligibility of the scholar for conversion of JRF to SRF, the SRF will be released from the date of eligibility of the scholar; otherwise, the SRF will be released from the date of approval of the SRC recommendation by the Chairman Senate.
2. **Successive attempts of conversion of JRF to SRF:** The SRF will be released from the date of approval of the SRC recommendation by the Chairman Senate.

**R.28 RULES AND REGULATIONS FOR THE DUAL DEGREE PROGRAM – M. TECH. AND PHD**

**28.1 Eligibility criteria:**

Eligibility criteria for dual degree (M. Tech. + PhD) are the same as the 2-year M. Tech. degree program, which is as follows.

- (a) Candidates should have a minimum of 60% marks (or CGPA 6.5 on a 10-point scale) for Gen/EWS/OBC-NCL, whereas 55% marks (or CGPA 6.0 on a 10-point scale) for SC/ST/PwD in the qualifying degree aggregate of all semesters/years.
- (b) Candidates should have passed Mathematics at 10+2 level.
- (c) Candidate should have a valid GATE score. Candidates with 8.0 CGPA or more from the Centrally Funded Technical Institutes (CFTIs) are exempted from the requirement of a GATE score.
- (d) If a qualifying degree result is awaited, the candidate should have a minimum of 60% marks (or CGPA 6.5/10) till the pre-final semester and NO existing backlog papers.

### **28.2 Admission Procedure:**

- (1) The admission procedure is the same as the admission to 2-year M. Tech. program, which is as follows.
  - (a) Admission to all the M. Tech. programs is as per the guidelines framed by the Senate/Ministry of Education (MoE), Government of India, from time to time.
- (2) However, additional seats are sanctioned for this program.
- (3) A provision exists for regular 2-year M. Tech. students to convert it to PhD. For such students, if a conflict arises between the provisions contained herein and the provisions exist in the M. Tech. ordinance, the provisions of the M. Tech. ordinance shall prevail.

### **28.3 Degrees and CGPA**

- (1) The student shall be provided two separate degrees – one for M. Tech. and other for PhD at the completion of the program.
- (2) Both degrees shall have a different set of course and dissertation requirements. The CGPA of M. Tech. shall be calculated based only on the courses that are identified as a part of the M. Tech. program. The CGPA for the coursework in PhD shall be calculated based only on the courses that are identified as a part of the PhD program.
- (3) In general, the student shall be governed by the M. Tech. ordinance for the first three semesters and by the PhD ordinance for the fourth semester onwards unless it is specifically specified otherwise.

### **28.4 Coursework**

- (1) The students will take the coursework prescribed to the 2-year M. Tech. program of the department for the first 2 semesters.
- (2) The students will be allocated supervisor(s) as per the existing M. Tech. rules at the end of the 1<sup>st</sup> semester, after the approval of the competent authority. The same supervisor(s) will continue for the PhD also. A SRC will be formed by the Chairperson Senate in consultation with the supervisor(s).
- (3) The SRC will suggest the electives to be taken from the 2<sup>nd</sup> semester onwards out of the available electives. From the 2<sup>nd</sup> semester onwards, the registration of the student will be based on the signed approval of the courses by the SRC.
- (4) The thesis work in the 3<sup>rd</sup> semester shall be considered a part of the M. Tech. program. However, other courses (i.e., credits) in the 3<sup>rd</sup> semester shall be considered part of the PhD program. Nevertheless, these courses (i.e., credits) shall be translated into M. Tech. credits, if a student, for any reason, drops out/get terminated from the PhD program.
- (5) Letter grades shall be awarded to all the courses including thesis work in the 3<sup>rd</sup> semester.
- (6) Notionally, the student is deemed to be pursuing an M. Tech. till the 3<sup>rd</sup> semester.
- (7) Provided that the student (i) has no active backlog in any prescribed course in the first 2 semesters and has at least 6.5 CGPA, (ii) maintains a CGPA greater than or equal to 7.0 in

the PhD coursework with no active backlog, and (iii) has a satisfactory performance in the most recent evaluation of the SRC progress presentation, s/he will be promoted to the PhD program. If the student cannot be promoted to the PhD program, s/he is deemed to be pursuing M. Tech. till s/he becomes eligible to be promoted to PhD program. The candidate can take additional courses recommended by the SRC to secure a CGPA more than the prescribed CGPA for both M. Tech. and PhD.

- (8) 4<sup>th</sup> semester onwards, the students will take flexible research credits. The students will be awarded S/X grades as per the PhD ordinance. At the time of the final M. Tech. and PhD theses submission, the students shall define M. Tech. and PhD components of research work. Thus, the students are considered working in parallel to the M. Tech. and PhD theses. The proportion of efforts toward the M. Tech. and PhD components need not be declared.
- (9) This program also provides research credit exemption in the PhD component. It is possible that students get M. Tech. and PhD degrees with cumulative research credits less than the minimal research credits for the 2-year M. Tech. and PhD programs.
- (10) The students are required to submit both M. Tech. and PhD theses simultaneously at the end of research work. Both theses can be related (PhD building over the gaps remaining in the M. Tech.), but the contents **cannot** be the same. No single research hypothesis / methodology / result can be shown simultaneously in both the theses, M. Tech. and PhD. The PhD thesis may cite / refer to the M. Tech. work in the literature review / background study. The SRC will ensure adherence to it.
- (11) The evaluation of the M. Tech. and PhD theses shall take place as per the respective ordinances. Typically, the M. Tech. thesis is likely to get a quicker outcome. On approval of M. Tech., the M. Tech. degree will be awarded at the next convocation. The PhD degree will be awarded at the convocation held next to the successful PhD defense.
- (12) The CGPA of M. Tech. shall be computed based on (a) all the M. Tech. courses, (b) M. Tech. thesis in the 3<sup>rd</sup> semester, and (c) the M. Tech. thesis viva-voce at the end of the program (evaluated in the letter grade for credits equivalent to the M. Tech. thesis).
- (13) The CGPA of the PhD coursework shall be computed based on all the courses (i.e., credits) taken minus the courses (i.e., credits) considered as part of the M. Tech. program. Any extra course(s) (i.e., credit(s)) taken shall be counted in the CGPA of the PhD coursework.
- (14) The students cannot register for cumulated credits more than the maximum cumulated credits allowed in a semester. Summer semester is not counted for research credits.

### 28.5 Comprehensive and grade restrictions

- (1) Provided that the student has been promoted to the PhD (4<sup>th</sup> semester), the comprehensive examination is required to be completed before the end of the fourth semester. Otherwise, special permission is required from the Chairperson, Senate.
- (2) The assessment process of a student in the comprehensive examination will consist of 100 marks and may involve the following components.
  - Performance in course work considering only fresh 3<sup>rd</sup> semester courses. (30% component)
  - Written test to assess proficiency in fundamental and advanced concepts in the chosen area of work as well as broad area of their discipline.
  - Oral discussion-based examination after a student's presentation to demonstrate preliminary understating of literature and methodological approaches/existing tools and techniques in the chosen area of work.
- (3) Operationalization of these components will be as follows.

Component	Component Description	Share	Minimum Marks to Pass
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Component 1	Performance in course work	30 marks	7.0 CGPA in course work considering PhD courses (possible marks range: 21-30)
Component 2	Written test to assess proficiency in area of work	30 marks	15 marks
Component 3	Oral examination after student's presentation	40 marks	20 marks
		100 marks	To pass the comprehensive, a student must pass each component separately and obtain at least 60 marks in total.

- (4) The state-of-the-art seminar is required to be completed (i.e., passed) within six months from the date of completion of the comprehensive examination
- (5) The other rules for the PhD component shall remain the same as per the existing PhD ordinance.

### 28.6 Stipends

- (1) The students will be provided with the stipend admissible to the M. Tech. students for the first three semesters provided they fulfil the requirements for stipend.
- (2) If the candidate is promoted to PhD, that is if all the courses (i.e., credits) prescribed for the PhD component are passed (i.e., no backlogs), the CGPA is more than or equal to 7.0, and the SRC has awarded satisfactory in the most recent progress presentation; and there is an eligibility to draw JRF stipend, the students will get JRF stipend from the start of the PhD program onwards. However, the M. Tech. stipend may continue till the start of the JRF stipend.
- (3) Two years after receiving the JRF stipend, the students may receive SRF stipend provided they meet all the required criteria for the SRF stipend. The conversion of stipend from JRF to SRF shall require recommendation of SRC after a presentation of work till the date of eligibility and approved of the Chairperson, Senate.
- (4) The total M. Tech. stipend cannot exceed for a period of more than 2 years. The combined stipend for M. Tech., JRF and SRF cannot exceed for a period of more than 5 years. An additional 6<sup>th</sup> year of stipend as per eligibility may be provided subject to the approval of the Chairperson, Senate.

### 28.7 Planned Exit

- (1) The students may express their willingness to exit the PhD component of the program and convert it into a single degree program, i.e., M. Tech., in the same discipline.
- (2) If the expression to exit is received before the start of the fourth semester, it is called as planned exit. In this case, students will undergo and complete the course structure prescribed to the 2-year M. Tech. All the courses (i.e., credits) will be counted for M. Tech. even if these courses were part of the PhD program at the time of registration, and the CGPA shall be computed considering all the courses. The student may graduate with additional credits compared to 2-year M. Tech. students.
- (3) If eligible, the student will be paid M. Tech. stipend till the duration of the program.

### 28.8 Abrupt Exit (cases other than the planned exit)

- (1) The students may express their willingness to exit the program any time during the program.

- (2) Certificates, if any, may be awarded based on eligibility rules defined for a 2-year M. Tech. program.
- (3) If students wish to exit any time fourth semester onwards, they should submit the M. Tech. thesis and get evaluated as per the M. Tech. ordinance. In such a case, they may be awarded an M. Tech. degree, provided,
  - (a) There is no active backlog in the M. Tech. courses and PhD courses converted into M. Tech. to meet the credit requirements of M. Tech.
  - (b) The prescribed credit requirements, including the thesis work, for the M. Tech. degree are completed and the M. Tech. thesis is successfully defended.
  - (c) The CGPA computation of M. Tech. degree shall incorporate all the courses (i.e., credits) including PhD coursework that are awarded letter grades. There is a possibility that students may have extra courses (i.e., credits) compared to 2-year M. Tech. students.
  - (d) The M. Tech. thesis credits will, however, be fixed to that of a 2-year M. Tech. course irrespective of the number of semesters spent.
- (4) The students are required to return the PhD scholarship received in excess of what is applicable to M. Tech. degree. The M. Tech. degree be awarded only after the settlement is done.

### 28.9 Program Duration

- (1) Minimum duration: 4 years
- (2) Maximum duration:
  - (a) 6 years provided with the M. Tech. coursework is passed within 4 years.
  - (b) May be extended up to 8 years on recommendation of SRC and approval of Chairperson, Senate.

### 28.10 Interpretation

- (1) Any doubt or dispute about the interpretation of these Ordinances and Regulations shall be referred to the Chairman, Senate whose decisions shall be final. However, student can appeal to BoG chairman.
- (2) Any other matter not covered in the ordinances & Regulations or conflicting, it shall be referred to Chairman, senate and his discission will be final.
- (3) The Senate has power to change the regulation from time to time and students have to follow the same.

### 28.11 Course Curriculum

Semester – I					
SN	Subject Code	Course Title	Component	L-T-P	Credits
		All courses as per the 1 <sup>st</sup> semester of the M. Tech. program	M. Tech.		
				Credits	

Note:

- Supervisor allocation and formation of SRC

Semester – II					
SN	Subject Code	Course Title	Component	L-T-P	Credits

		All courses as per the 2 <sup>nd</sup> semester of the M. Tech. program	M. Tech.		
				Credits	

Note:

- Exit option for Post Graduate Diploma

Semester – III					
SN	Subject Code	Course Title	Component	L-T-P	Credits
1		M. Tech. Elective/MOOC	PhD*	3-0-0	3
2		Elective/MOOC as per PhD ordinance	PhD*	3-0-0	3
3		M. Tech. Research Credits/Ph.D. Thesis Credits	M. Tech. /Ph.D.		15 / 6
				Credits	21 / 12

Note:

- Students with a planned exit follow the M. Tech. course structure from the next semester onwards.
- \*Convertible to M.Tech. in case of an exit without PhD.

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Semester – IV					
SN	Subject Code	Course Title	Component	L-T-P	Credits
1		M. Tech. Research Credits/Ph.D. Thesis Credits	M. Tech. /Ph.D.		18 / 12
				Credits	18 / 12

Note:

- Students with an abrupt exit can convert PhD Research Credits into M. Tech. research credits, re-defend PhD Research Credits as M. Tech. Research Credits with a letter grade and exit as an M. Tech.

Semester V and onwards					
S.No.	Subject Code	Course Title	Component	L-T-P	Credits
1		Research Credits	Ph.D.		As per PhD Ordinance

Note:

- Students with abrupt exit can convert PhD Research Credits into M. Tech. research credits, re-defend PhD Research Credits as M. Tech. Research Credits with a letter grade and exit as an M. Tech.

## R.29 INTERPRETATION

1. Any doubt or dispute about the interpretation of these Ordinances and Regulations shall be referred to the Chairman, Senate whose decisions shall be final. However, student can appeal to BoG chairman.
2. Research area in different disciplines for PhD is summarized in **Annexure-1**. This may be reviewed from time to time by the concerning Department / Centre and approved by the Senate.
3. Any other matter not covered in the ordinances & Regulations or conflicting, it shall be referred to Chairman, senate and his discussion will be final.
4. Senate has power to change the regulation from time to time and students have to follow the same.

**Research areas in different disciplines:**

- **Engineering:** Microelectronics/VLSI/Embedded Systems, Computer Architecture, Computer Vision, Algorithms, Image Processing, Robotics, Communication, Networks, Wireless Sensor Networks, IoT, Cyber Physical Systems, Mobile Computing, Grid Computing, Information Security, Soft Computing, Data Mining, Machine Learning, Database/WEB/Multimedia Technologies, Distributed Computing, Analytics, etc.
- **Management:** Operations, Marketing, Finance, Information Systems Management, Human Resource Management/Organization Behaviour, Business Economics, e-Governance, Environment Management, Technology Management, Management of Informal Sector, Project Management, Entrepreneurship, International Business, System Dynamics, Business Analytics, etc.
- **Engineering Sciences:** Theoretical Condensed Matter Physics/Applied Physics/Materials Science / Nanoscience & technology / Computational Physics /Nanoelectronics / Device Modeling/Engineering Physics/Solid State Physics/ Quantum Computing/ Biophysics/Energy-Storage materials/Nano-bio technology/ Mathematics/Applied Mathematics/Industrial Mathematics/Operations Research/Engineering Mathematics/ Reliability/ Applied Statistics/ Soft Computing Applications/ Fuzzy Optimization. Cryptography/Modelling and Simulation/Computational Mathematics/ Mathematical Biology/ Dynamical Systems/ Functional Analysis/Wavelets Analysis/Fuzzy Mathematics.

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## APPLICATION FORM FOR THE APPROVAL OF SUPERVISOR(S) & STUDENT RESEARCH COMMITTEE (SRC)

- A.1. Name of the Research Scholar (English).....  
(Hindi).....
2. Department / Centre.....
3. Tentative Area of Research/Title in English.....  
(limited to 80 characters).....
4. Date of Registration..... Full-Time/Part-Time.....
5. Particulars of Proposed Supervisor(s): .....
6. Proposed Courses to be completed (in figure)..... words.....

Semester	Session	Course No & Title	Credits	Remarks

### B. Members of Student Research Committee (SRC):

Date & Signature of Student

Chairman Senate or his nominee:.....

Expert in the field from the Same Department:.....

Expert from other Departments:.....  
(To be decided by Director/Chairman Senate)

Supervisor (s):.....

Date & Signature of the SRC Members:

(Chairman Senate Nominee)    (Faculty from Same Department)    (Faculty from Other Department)    (Supervisor(s))

Director / Chairman Senate

**TITLE OF THE THESIS** (Font Size 24)

**A THESIS** (Font size 14)

Submitted in fulfillment of the  
requirements for the award of the degree  
of  
**DOCTOR OF PHILOSOPHY**  
In  
Discipline name

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By

**CANDIDATE NAME** (Font Size 14)



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**DEPARTMENT NAME**

**ATAL BIHARI VAJPAYEE INDIAN INSTITUTE OF INFORMATION TECHNOLOGY AND  
MANAGEMENT GWALIOR  
GWALIOR – 474010 (M.P) INDIA**

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**MONTH YEAR**

**Candidate's Declaration**

I hereby certify that the work, which is being presented in the thesis, entitled “.....” in fulfillment of the requirement of the award of the Degree of Doctor of Philosophy and submitted in the Department of *Department Name* of the Institute is an authentic record of my own work carried out during a period from *Month-Year* to *Month-Year* under the supervision of *Supervisor (s) name*.

The matter presented in this thesis has not been submitted by me for the award of any other degree of this or any other Institute.

Date:

Signature of the Candidate

This is to certify that the above statement made by the candidate is correct to the best of my knowledge.

Date :

Signature of the Research Supervisor

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**Evaluation Sheet of Comprehensive Exam for Ph.D programme**

**Date of the Comprehensive Exam:** .....

Serial Number	Name and Roll Number of the student Date of Registration	<b>Component 1: Performance in Course Work</b> Maximum Marks: 30 Minimum Marks to Pass: 7 CGPA On the basis of the formula <b>(CGPA x 10 x 0.3)</b> minimum marks range is 21-30	<b>Component 2: Written Test</b> Maximum Marks: 30 Minimum Marks to Pass: 20	<b>Component 3: Oral Examination</b> Maximum Marks:- 40 Minimum Marks to Pass: 15	<b>Final Result</b> (Minimum Marks to pass the comprehensive exam is at least 60)

Candidate has **passed / failed** the Comprehensive Exam

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Signatures .....

Chairperson SRC

Member

Member

Member

**Plagiarism Prevention Desk Processing Form**

Name of the Student: \_\_\_\_\_ Roll No: \_\_\_\_\_ Email: \_\_\_\_\_  
Department: \_\_\_\_\_ Programme: PhD Phone: \_\_\_\_\_  
Thesis Supervisor: \_\_\_\_\_ Email: \_\_\_\_\_  
Title of the Thesis: \_\_\_\_\_

Date of Submission to PPD (Learning Resource Center): \_\_\_\_\_

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(To be filled at the Plagiarism Prevention Desk)

Similarity Index of the thesis is \_\_\_\_\_.

Signature \_\_\_\_\_ Date \_\_\_\_\_

Librarian, (Learning Resource Center)  
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**Declaration by the Student**

I have checked the Similarity Report and am satisfied with the content of the thesis (Enclosure: Report generated from Plagiarism Prevention Desk).

Signature of the student \_\_\_\_\_ Date \_\_\_\_\_

**Endorsement by the Supervisor**

I have checked the Similarity Report and the similarity is at acceptable levels.

**In case the Similarity Index could not be brought down to the required 10% after removing the various sources and remains above 10%, the reasons may please be specified below (Enclosure, if required).**

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Signature of supervisor(s) \_\_\_\_\_ Date \_\_\_\_\_

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The thesis may be submitted in its present form.

Signature \_\_\_\_\_ Date \_\_\_\_\_

**Dean, Academic Affairs**