



विश्वजीवनामृतं ज्ञानम्

DOCTORAL (PHD) ORDINANCE 2023



DOCTOR OF PHILOSOPHY

ATAL BIHARI VAJPAYEE-
INDIAN INSTITUTE OF
INFORMATION TECHNOLOGY
AND MANAGEMENT GWALIOR



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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 (BoG), 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.

Disclaimer

Extreme care has been taken in the compilation of ordinances, course structures and syllabi of Ph.D. programme. In case of any disputes regarding the credits of any subjects, pre-requisites, rules/guidelines of the respective programme, the information available with Dean of Academic Affairs of ABV-IIITM Gwalior shall be final.

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



Approved by the Senate in its 31st meeting (04/2023) dated September 5, 2023 (Agenda item no. 31.13) and 54th BoG meeting (04/2023) dated 03-10-2023.

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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 Biahri 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.

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 to satisfy 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.

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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-IITM 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 recognized by the Institute with a minimum of 65% marks or CGPA of 7.00 on a 10-point scale in the qualifying degree. Additionally, the applicants must have qualified the GATE/NET exam.
- (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) M.Tech/M.E./M.D or equivalent with first division (minimum 60% marks) or 6.75 CGPA on a 10-point scale and possess GATE score or equivalent examination for medicine.
- (b) M.Sc./MBA/M.A./MBBS or equivalent with first division (minimum 60% marks) or 6.75 CGPA on a 10-point scale and National Level examination like CSIR/UGC NET or JRF/ICAR/ICMR/DST fellowship) or having valid CAT/GMAT/GRE score.
- (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 M.Sc./M.Tech./M.E. or any other equivalent qualification recognized by the institute with a minimum of 65% marks or CGPA of 7.00 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 (B.Sc./B.E./B.Tech.) level. Additionally, the applicants must have a valid GATE/NET score.
- (b) Applicants who do not have a master's degree are also eligible for Ph.D. admission subject to the 75% marks in B.Tech. Additionally, the applicants must have a valid GATE/NET 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.

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 a M.Tech. degree in engineering/Technology or any other equivalent qualification recognized by the institute with a minimum of 65% marks or CGPA of 7.00 on a 10-point scale in qualifying degree. Applicants who do not have M.Tech. degree are also eligible for the Ph.D. admission subject to 75% marks or CGPA 8.0 and above in B.Tech.
- (b) **For Management:**
 - 1. M.Tech./M.E./M.D. or equivalent with First division (minimum 60% marks) or 6.75 CGPA on a 10-point scale.
 - 2. M.Sc./MBA/M.A./ MBBS or equivalent with First division (minimum 60% marks) or 6.75 CGPA on a 10-point scale.
 - 3. B.E. or B.Tech equivalent with 75% marks or 8.0 CGPA on a 10-point scale.
- (c) **For Engineering Sciences:** Applicants must have M.Sc./M.Tech. /M.E. or any other equivalent qualification recognized by the institute with a minimum of 65% marks or CGPA of 7.00 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 (B.Sc./B.E./B.Tech) level.

Research areas in different disciplines – Annexure -1

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 high ranking valid GATE score / CAT.
- (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. Every student/candidate will be required to register every semester till the completion of PhD 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. Student can seek approval for the exemption of the registration after the submission of the thesis till defense. In this case, student will not get any financial assistant from the institute.
2. A candidate who has a B.E. / B.Tech. shall be required to be registered for the degree for a period of not less than three Calendar years / thirty-six (36) months from the date of his initial registration; in exceptional cases, the minimum period of registration may be reduced to two calendar years / twenty-four (24) months with the approval of the Senate. For a candidate who has an M.Tech. degree or its equivalent the minimum period of registration shall be not less than two calendar years / twenty-four (24) months.
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 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 part time Ph.D. students are not necessarily required to register for the regular courses offered during a semester as part of their course credit requirement. However, they may register for relevant MOOC subjects recommended by SRC at the start of the semesters equivalent to the prescribed credits for the Ph.D. programme. The guidelines for grading and evaluation of MOOC shall be in line with the Institute policy.
5. Full time Ph.D. candidates can register for up to TWO MOOC courses as part of their course credit requirement recommended by SRC.

R.8 COURSES & CREDITS

The courses offered for the Ph.D. programmes may be Lecture course, Laboratory courses, Design courses, Mini Project and Seminars.

Seminars shall satisfy the following conditions:

- a. Each seminar shall carry two credits.
- b. Seminar shall be treated as a course for the purpose of registration and evaluation.
- c. Seminar Co-ordinators shall be appointed by the SRC. They shall arrange the seminars and forward the grades awarded by the panels of examiners to the Examination Cell by the end of the semester.
- d. A student shall not take more than two seminars during the entire Ph.D. programme.

Table-1. Course credit requirements

S. No.	Candidate having	Range of Credit Requirements	Remarks
1	ME / M.Tech. / M.Phil. or equivalent Degree admitted to the discipline as applicable	12-15 credits	Course from the existing M.Tech. and/or pre-Ph.D. courses offered by own Dept./other Depts.
2.	BE / B.Tech. or equivalent admitted to the discipline as applicable	24-30 credits	Course from the existing PG level. and/or pre-Ph.D. courses offered by own Dept./other Depts.
3.	M.Sc or equivalent	12-16 credits	Course from the existing PG level. and/or pre-Ph.D. courses offered by own Dept./other Depts

e. 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.

f. **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.

g. **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.

4. 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.

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.

A semester is spread across 16 weeks, and student thesis evaluation measures how much a student has progressed in the specified period of a semester. How much work a student has performed may be expressed in terms of a “count,” which becomes a basis for performance measurement. It is proposed that the thesis of a student will be evaluated on four counts. Each count will be assessed in terms of satisfactory (S) or unsatisfactory (X). Regular, including project-supported, Ph.D. students normally take 12-16 credits a semester, whereas part-time Ph.D. students take half of that each semester. A student may get satisfactory, unsatisfactory, or a combination of these two as performance measures. For the purpose of illustration, if a student registers for 16 credits, which is equivalent to 4 courses of thesis work. A student may get 4S (with no X), 3S (with 1X), 2S (with 2 X), 1S (with 3X), and 4X (with no S).

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 thesis.

(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 two (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 Nine (9) 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 in time by not more than two months, i.e. the candidate may be allowed to submit his thesis within a period normally not exceeding eleven (11) months from the date of submission of synopsis.

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 approve 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 period as stipulated in **R.5.2, R 5.3** 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 except 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 viva-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 upto 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.

4. Residency requirement for part time Ph.D. scholars

For the part time Ph.D. scholars there is a minimum residency requirement of 30 days in an academic year which may be split into parts not less than 5 days per part. SRC may specify a higher residency requirement based on the courses recommended as well as the background.

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.

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 MED-UGC/AICTE. For students studying in foreign universities, a prior approval of director is required.
- 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. If DOAA and/or HOD is to be supervisor of such case, Director will nominate other dean and/or head. 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 debaring 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:**
- 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.
 - 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.
 - Plagiarism report format is attached as **Annexure – 6**
4. **Contingency expenditure amount provided to PhD students-**
Institute will provide contingency expenditure of Rs 1, 20,000/- (Rs. One lakh twenty thousand) to PhD students equally spanning over five years (10 semesters) of their tenure of Ph.D. programme who are getting financial support from the institute. As mentioned, the amount is equally spread as Rs 24, 000/- (Rs twenty-four thousand) in five years. This means students are not allowed to cross an upper limit of Rs 24, 000/- (Rs Twenty-four 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:

Particulars	Amount per academic year
Membership fee of professional bodies/societies	Rs. 3,000/-
Workshop/Conference/short term programme related to their Ph.D. (Registration Fee, TA/DA, Accommodation)	Rs. 10,000/-
Contingency: Stationery items, e.g., Papers, pen, pencil, files, covers, folders, bag, Xerox, posters, printing & binding etc. External Hard Disk upto 1TB (to be submitted to institute at the time of no dues), pen drive, cartridge and refilling (only for printer installed in department/lab of supervisor) Purchase for antivirus (one user licenses), PC/Laptop repairing, Key Board and Mouse	Rs. 6,000/-

Fee for over/extra pages in journals etc.	Rs. 5000/-
Total	Rs. 24,000/-

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.

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

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 Ph.D. 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 >8.0 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 Ph.D. programme.
- The student will be eligible for Ph.D. stipend only from the time he/she is approved for enrolment as a Ph.D. student and for duration as specified in ABV-IIITM Ph D ordinance. MTech duration will be counted in such calculation. Such a student, for Ph.D. credit requirement, may be treated as if he/she had joined the Ph.D. programme afresh following the rules and norms mentioned in ABV-IIITM Ph D ordinance.
- 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.
- A student converted for Ph.D. programme will be governed by ABV-IIITM Ph D ordinance amended and updated time to time.
- After conversion from MTech to Ph D programme, M.Tech degree will be awarded, if he submits thesis for MTech and PhD separately. No part of MTech thesis and PhD thesis will be common. The degree will be given at the same time but MTech thesis will be defended at least one year before the PhD thesis submission. If candidate is not completing the PhD degree, he may be awarded the MTech degree, subject to the refund of PhD fellowship.
- After conversion from MTech to PhD, the rules & regulation of PhD ordinance will apply.

R.27 Ph.D. ASSISTANTSHIP RULE

A student receiving financial assistance from the Institute is expected to devote up to eight hours per week toward the Teaching Assistant (TA) assigned to him/her. The PhD candidate will get the assistantship for a period of 4 years or eight semester whichever is earlier as per GoI norms. In case the candidate is not able to complete the work in eight semester, he/she may be paid 50% of the assistantship 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 requests for the full assistantship, he/she may be allowed but with TA assignment if a constituted committee recommends. In no case, the assistantship will be paid beyond 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.

R.28 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.

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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 FOR THE COURSES TO BE COMPLETED AND REQUEST FOR
CONSTITUTION OF STUDENT RESEARCH COMMITTEE**

- 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.....
- 5.** Status: Full-Time/Part-Time.....

B.1. Particulars of Proposed Supervisor(s).....

Name & Designation	Department /Centre	No. of Students Supervising excluding/ including this student		Signature of Supervisor
		Singly	Jointly	

C.1 Total Number of Credits to be completed

- (i) Credits are earned if he/she obtained 'C' or higher grade.

Please refer R.9(3)

2. Proposed Courses to be completed (in figure)..... words.....

Semester	Session	Course No & Title	Credits	Remarks

Certified that the courses as mentioned above have not been taken by me for my earlier degree / diploma

Dated:.....

(Signature of Student)

Following was discussed by SRC/DRC:

- Candidates educational back ground
- Research proposal in brief

c. Credits Requirements

Members of Student Research Committee in accordance with Ph.D. Regulation

- i.ii.
iii..... iv
v.vi.....
vii.viii.....

(Chairman SRC/DRC)

The SRC recommends that the candidate should complete the courses as per details mentioned overleaf.

Signature of the Supervisor(s)

1.
2.
3.

Name & Signature of Internal Member(s)

- 1.....
2.....
3.....

Name & Signature of Internal Member(s)

1.
2.
3.

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(Chairman SRC)

Dated:

(HEAD OF THE DEPARTMENT / CENTRE)

FOR USE OF PGS&R SECTION ONLY

Particulars of the Research Scholars have been verified, recommendations of the SRC is submitted for the approval of the Dean (Academic Affairs).

Dealing Assistant

DEAN (Academic Affairs)

DIRECTOR

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

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**

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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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 (Larning Resource Center): _____

(To be filled at the Plagiarism Prevention Desk)

Similarity Index of the thesis is _____.

Signature _____ Date _____

Librarian, (Larning Resource Center)

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).

Signature of supervisor(s) _____ Date _____

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The thesis may be submitted in its present form.

Signature _____ Date _____

Dean, Academic Affairs