# **REGULATION LEADING TO THE DEGREE OF MASTER OF TECHNOLOGY (M.TECH)**

**4- SEMESTER POSTGRADUATE PROGRAMME** 

(Senate Resolution No.13.B.A.2 and 24.A.B.2)

(Updated in October 2019 with incorporation of Senate amendments)



# भारतीय प्रौद्योगिकी संस्थान भुवनेश्वर

INDIAN INSTITUTE OF TECHNOLOGY BHUBANESWAR

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# RULES RELATING TO 4-SEMESTER POSTGRADUATE PROGRAMME LEADING TO THE DEGREE OF MASTER OF TECHNOLOGY

(Senate Res. No. 13.B.A.2 and 24.A.B.2)

#### 1. Introduction:

- **1.1** Provisions of these regulations shall come into force with immediate effect and shall be applicable to all Postgraduate courses leading to the degrees of Master of Technology (M.Tech.)
- **1.2** The Schools as listed in **Appendix-I** shall offer the Master's degree of the M.Tech. programmes under these regulations in such areas or specializations as the Senate may decide from time-to-time

#### 2. Duration and Academic Calendar:

2.1 The Master's degree of the M.Tech. programs shall be of 24 months duration spread over four semesters as mentioned below, and the schedule of events in the semesters, i.e., the date of commencement, semester examinations etc., shall be laid down by the Senate every year in the Academic calendar:

First (Autumn) Semester - July to December Page Second (Spring) Semester- January to May

Third Semester - May to December

Fourth Semester - January to May

2.2 A student admitted to the program will normally be required to complete successfully the four semesters at a stretch. However, sponsored students and regular students may be permitted to complete the program as per provisions given in para 9.6 under special circumstances

#### 3. Admission:

#### 3.1 Students with Assistantship:

Admission to the Postgraduate program will be granted in the Autumn Semester of each year on the basis of the performance at

- (I) a common all-India competitive test known as Graduate Aptitude Test in Engineering (GATE) or
- (II) Students from IITs with 8 CGPA and above will be admitted directly with assistantship in their respective disciplines
- (III) Spot Selection: Spot selection to M.Tech. Programme will be offered to fill the vacant seats, if any, only from the waiting list after the admission through regular selection process is over. (Senate Res. No. 29.A. B.1)

#### 3.2 Sponsored Students:

Candidates who are employed in recognized organizations shall be eligible for admission as sponsored students to any of the Master's degree of the M.Tech. Programme. The conditions and requirements for admission as a sponsored candidate are laid down separately in **Appendix-II (Sponsored Students)**.

## 3.3 Foreign Nationals:

Eligible foreign nationals who have either

(i) been selected for award of Government assistantship/fellowship, or

(ii) been permitted by the Government of India to undergo studies as self-financing foreign student may also be admitted to any of the courses subject to acceptance of the academic standard of the applicants by the Institute. However,

However those foreign nationals/ non-resident Indians who passed the qualifying degree examination (B.Tech., M.Sc. or an equivalent degree, as the case may be) from an Indian University/Institute and are desirous of admission to any of the courses either with Government of India assistantship/fellowship or as a self-financing foreign student shall be required to qualify in GATE/NET

- **3.4** The Institute reserves the right to cancel the admission of any student and ask him/her to discontinue the studies at any stage of the program either due to unsatisfactory academic performance or unsatisfactory attendance in classes or indecent behaviour or any other reason, as the case may be
- **3.5** If the number of students admitted in a session to any particular course is less than the minimum number fixed by the Senate, the course will not be offered in that session. The students admitted thereto will be required to change over to another course offered by the Institute for which they may be otherwise eligible. In such circumstances, however, the candidates may withdraw their candidature and will be entitled to a full refund of fees paid.

#### 3.6 Submission of result of qualifying examination:

Students shall have to submit mark sheet/grade card or provisional certificate as evidence for having passed the qualifying examination latest by the time of registration for the second semester, failing which their admission will be deemed to have been cancelled.

- **3.7** The admission of any student will be treated as cancelled and void, if at any stage it is detected that he/she has obtained admission based on false information or had by malafide submitted fake mark sheet/degree, caste/PwD certificate, etc., or suppressed some material information of academic nature or otherwise required for his/her admission in the Institute.
- **3.8** The Senate may either appoint a Committee to examine any specific case or review rules regarding admission from time-to-time.
- 3.9 Modality of admission into M.Tech. Programme are detailed in Appendix-II

#### 4. Residence:

- **4.1** The Institute is fully residential and all students are required to reside in and be a member of the Halls of Residence to which they are assigned at the time of admission.
- **4.2** Detailed rules regarding residential requirements are given in **Appendix-III.**

#### 5. Attendance:

- **5.1** Attendance in all classes of the subjects registered for (Lectures, Laboratories/Practicals, Workshop, Design, Seminar etc.) is compulsory. If the attendance of any student in any subject(s) is considered to be unsatisfactory, the student's registration in the concerned subject(s) shall be cancelled and the student may be asked to discontinue.
- **5.2** A student shall be entitled to the following types of leave during the academic year counted from the date of commencement of the session concerned as prescribed in the Academic Calendar of the Institute

Nature of Leave	Maximum number of Days	Sanctioning Authority
Casual leave	12	Head of the School
Medical leave	10	Head of the School

- N.B. (i) Leave not availed of by a student in the first year shall not accumulate. The concerned School/Centre will maintain the leave record.
  - (ii) A student is not entitled to any vacation on account of inter-semester break, summer and winter vacations.
- **5.3** Any absence over and above the prescribed limit of admissible leave shall entail deduction from the assistantship, besides other action as may be decided by the Institute.

#### 6. Conduct and Discipline:

- **6.1** Students shall conduct themselves within and outside the precincts of the Institute in a manner befitting the students of an institution of national importance.
- 6.2 Detailed rules regarding conduct and discipline are given in Appendix-IV.

#### 7. Course Structure

- 7.1 Weightage of the courses shall be reckoned in credits, as specified against each subject.
- **7.2** In order to qualify for M. Tech degree of the Institute, a student is required to complete between 82 and 88 credits as required by the prescribed curricula of the School concerned.
- 7.3 The credits that have to be completed satisfactorily for the degree are distributed as follows:

•	Number of orcalis.			
(a)	Course work (including theory, seminar, laboratory)	45 - 50		
(b)	Comprehensive viva-voce (within 2nd semester)	03		
(c)	Thesis/Project work (3rd and 4th semesters)	40		

#### Number of Credits:

A student is required to qualify separately in each of the components (a), (b) and (c) listed above.

7.4 The curriculum for a course shall comprise of core and elective subjects. The core subjects may constitute a maximum of 30% to 40% of the theory subjects. The list of elective subjects may include subjects from allied disciplines also. The curriculum will also include compulsory seminar to be delivered by all students. Schools will prescribe the seminar carrying 2 (two) credit each in 1st Semester (Autumn) and the 2<sup>nd</sup> Semester (Spring). (Senate Ref. No.17.D.A.2).

#### 8. Comprehensive viva-voce and Thesis/Project Work:

**8.1 Comprehensive viva-voce:** A comprehensive viva-voce will ordinarily be held immediately after the end of second semester examination. The oral examination will carry 3 (three) credits and cover the entire course of study during the first and the second semester. The viva voce will be conducted by a Board consisting of members from the faculty of the School. The grade obtained in the viva-voce shall be used for computing the SGPA at the end of the 2nd semester.

The Head of the School may invite a member of faculty from an allied School to be associated with the conduct of the comprehensive viva-voce.

#### Note: [This clause is presently not in practice]

**8.2 Thesis / Project work:** A student will carry out project work during the third and fourth semester. The project carries a total of 40 credits (20 credits being assigned in third semester and 20 credits during fourth semester). A student shall carry out the project work under the supervision of a member of the teaching staff of the Institute.

A student may undertake to execute the project in collaboration with an Industry, Research and Development Organization or another academic institution/University where sufficient facilities exist to carry out the project work. In addition to the Supervisor from the School, a Joint Supervisor may be appointed from the Industry, a Research Laboratory or another University with the approval of the School Academic Committee (PG & R). The Joint Supervisor will be associated with the guidance and may also be associated with evaluation of the performance of the student. The internal Supervisor may, if felt necessary, visit the Industry, or the Research Laboratory or the University in connection with the project of a student.

For purpose of assessment, the performance of a student in the project work may be divided into the following parts:

**Third Semester:** The student shall have to submit a report of the work done during the Semester and present a seminar lecture of 20-25 minutes duration (followed by a discussion) to the members of the Project Assessment Committee formed (inclusive of the co-supervisor) by the School by 31st December.

The grades shall be assigned on the basis of marks awarded in the following manner on :

Assessment	of	Project	work	by	the	50%
Supervisor						
Assessment of Report and Seminar lecture					50%	
by Project Assessment Committee						

**Fourth Semester:** The student shall submit the dissertation latest by 30th April. The student will have to appear at a viva-voce and deliver a seminar lecture of 20-25 minutes duration. The dissertation seminar and viva-voce shall be conducted by the last date fixed as per the academic calendar by the Senate. The grades shall be assigned on the basis of marks awarded in the following manner:

Project work (marks to be awarded by the supervisor)	50%
Dissertation (marks to be awarded by the external examiner)	25%
Viva-voce (marks to be awarded by the Viva Board	25%

A student needs to have a satisfactory performance in each component separately to qualify for the degree.

- (a) **Project Work**: Assessment will involve the day-to- day work of the student for the project. The project supervisor(s) will periodically review the student's progress over the period and finally give an assessment of the work done by the student.
- (b) Dissertation and Viva-Voce: (Revised rule for thesis evaluation is given in Appendix-VI. (Ref: Senate Res. No. Appendix: 29.A.B.4.)

A student shall be required to submit a dissertation on the Project Work carried out by him/her. Three/four bound copies of the thesis will be submitted to the Head of the School by the last date mentioned in the Academic Calendar for the purpose. A brief bio- data of the student and a one-page abstract of the project work carried out will be required to be appended to the dissertation.

The thesis will be sent to the External Examiner, appointed by the appropriate authority, from a panel of Experts suggested by the School for examination.

Dissertation viva voce will be held by the date fixed in the Academic Calendar. The External Expert who examined the thesis will normally conduct the viva voce. In the case of students who are required to do the project work over an extended period and submit dissertation at a later date, an Expert from an allied School within the Institute may be associated with the assessment of dissertation and conduct of viva-voce.

Extension of project work beyond the submission deadline in very special cases may be granted by the Dean (Academic Affairs) on recommendation of the School for a maximum period of 3 months. The viva voce will have to be completed within the extension period. The student shall not be eligible either for award of assistantship during the extension period or any medal or prize. The student who have been absent on medical grounds and his/her project has been extended, he/she will also not be eligible for award of Medal or Prize.

- **8.3** Detailed evaluation procedure of the Thesis/ Project work is given in **Appendix- V** (Ref: Senate Res. No. Appendix: 29.A.B.4.).
- **8.4** Research Review Paper (RRP): In addition to thesis work, the curriculum also may include a Research Review Paper component. This is to be carried out by the student under the supervision of a faculty member.
- **8.5** The evaluation process of the Research Review Paper is given in **Appendix –VI**. (Senate Res. No. 26.A.B.3, Annexure-I).

#### 8.6 **Projects in collaboration with industry:**

A student may, with the approval of the Head of the School, do the project work with an Industry, a Research and Development Organization or another academic Institution/University. The student shall acknowledge the involvement and/or contribution of an industry, R & D organization or University in completing the project in the dissertation and a certificate to this effect, issued by the supervisor from the industrial organization, will be appended to it.

It is mandatory for all students (specially those who do their project in an industry, R & D organization or University in India or abroad) to make a full disclosure of all data on which they wish to base their thesis. They cannot claim confidentiality simply as it would come

into conflict with the Industry's, R & D laboratory's or other University's own interests. Any tangible intellectual property other than copyright of thesis have to be assigned to the Institute; the copyright of the thesis itself would however lie with the student as per the IPR policy in force at the time. The student's thesis shall be rejected unless there is full and complete disclosure of data and the student will not be eligible for M.Tech. degree of the Institute in such cases.

#### 9. Registration:

- **9.1** All students of the M.Tech. courses are to register for the required credits at the commencement of each of the four semesters, on the day announced for such registration.
- **9.2** The Head of the School concerned shall organize the registration of the students.
- **9.3** A student who is unable to register on the date fixed for registration may be permitted, in consideration of any compelling reason, late Registration within the next seven working days on payment of a prevalent additional late fee as prescribed by the Institute. Normally no late registration will be permitted after the 7<sup>th</sup> working day from the scheduled date.
- 9.4 Only those students will be permitted to register who have :
  - (a) Made all required advance payments of Institute tuition fee, seat rent etc., and
  - (b) Hall dues for the current semester for which they are registering,
  - (c) Cleared all Institute and Hall dues of the previous semester,
  - (d) Has maintained the SGPA/CGPA requirement during the earlier semester(s) as mentioned in 12.4(a).
- **9.5** The students shall choose the subjects for registration in consultation with the Faculty Advisor.
- A student may be allowed to become non-resident on the recommendation of the Faculty 9.6 Adviser and the Head of the School and with the approval of the Dean of Academic Affairs after successful and continuous completion of the full course work (theory/laboratory/seminar/workshop/comprehensive viva-voce etc.) with a CGPA > 6.0 and no failure. The withdrawing student shall have to complete the thesis/project work, submit the thesis and appear at the final viva-voce within 5 years of admission. Sponsored students and those who opt to become non-resident in order to join service will either have to produce a letter from their employer stating that they can carry out the thesis/project work at the employing organization or rejoin the School to work on the project full time at a later date if the employing organization does not have the facility for execution of the project work.

#### Provided further that

- (a) the student communicates in writing to the Head of the School by the end of preceding June the intention to submit the dissertation,
- (b) before submission of the dissertation the student delivers a Seminar talk on a date to be fixed by the Head of the School and clears all outstanding dues, if any, to the Institute or to the Hall of Residence.
- (c) the student has to pay the semester registration fee for third and fourth semesters and re-admission fee as may be prescribed by the Institute from time to time.

- (d) the assessment of the dissertation and the conduct of the viva voce thereon will be arranged by the Head of the School along with other regular students of the particular semester.
- Students who discontinue their studies without prior permission before completing the first 9.7 and second semester course work shall be deemed to have abandoned their studies and their names will be struck off the rolls of the Institute with effect from the date of absenting from the classes. A student who leaves the Institute without prior permission even during the 3rd or 4th semester shall also be treated to have discontinued and will be liable to similar action. Transcript/grade card for any unfinished course/programme of study will not be issued in such cases.
- **9.8** A student who has already registered may
  - a) Register for a new subject in addition to the subjects he/she has already registered for, or
  - b) Opt for a new subject in place of the one already registered for, with the concurrence of the Faculty Adviser and the Head of the School. Any change of subject as permissible by sub-paras (a) and (b), above must however, be done within one week of registration.
  - c) Such changes once made will be final and request for any further change/ modification shall not be acceptable.

#### 10. Grading System:

Description	Letter grade	Grade points per credit
Excellent	Ex	10
Very good	A	9
Good	В	8
Fair	С	7
Average	D	6
Pass	Р	5
Fail	F	0

there shall be two transitional symbols used by Examiners.

- I for Incomplete
- X for Debarred.

10.2	A <b>Semester Grade Point Average</b> (SGPA) will be computed for each Semester to work out the overall performance of a student in that semester. The SGPA will be calculated as follows:
	$SGPA = \sum_{i=1}^{n} \left  \begin{array}{c} n \\ \sum_{i=1}^{n} \\ i=1 \end{array} \right $
	Where: 'n' is the number of subjects registered for during the Semester, 'c <sub>i</sub> ' is the number of Credits allotted to a particular subject, and 'g <sub>i</sub> ' is the grade- points carried by the letter corresponding to the grade awarded to the student for that subject. SGPA will be rounded off to be second place of decimal and recorded as such. The SGPA would indicate the performance of the student in the semester to which it refers.
10.3	A <b>Cumulative Grade Point Average</b> (CGPA) will be computed at the end of the Second and the Thesis/Project semesters. The CGPA gives the cumulative performance of the student from the first semester up to the end of the semester to which it refers, and will be calculated as follows:
	$CGPA = \sum_{i=1}^{m} \left  \begin{array}{c} m \\ \sum_{i=1}^{m} \\ i=1 \end{array} \right $
	Where 'm' is the total number of subjects the student has registered from the first semester onwards up to and including the semester S, 'ci' is the number of Credits allotted to a particular subject 'si' and 'gi' is the grade-point carried by the letter corresponding to the grade awarded to the student for the subject 'si'. CGPA will be rounded off to the second place of decimal and recorded as such.
	The CGPA would indicate the cumulative performance of the student from the first semester up to the end of the semester to which it refers.
10.4	Whenever these Grade Point Averages are to be used for the purpose of determining the inter-se- merit ranking of a group of students, only the rounded off values will be taken into account.
10.5	When a student gets grade 'I' for any subject(s) during a semester, the SGPA for that semester and the CGPA will be tentatively calculated ignoring this subject. After the 'I' grade(s) has been replaced by a appropriate grade(s), the SGPA for that semester and the CGPA will finally be recalculated taking into account the performance in the subject(s) concerned.[For 'X' grade, see section 13.3 and13.4]
10.6	When a student gets grade 'F' for any subject(s) during a semester, the SGPA and CGPA from that semester onwards will be tentatively calculated, taking only 'zero points' for each such 'F' grade. After the F grade(s) has been substituted by a higher grade in the supplementary examination or in a subsequent semester, the SGPA and CGPA of all the semesters, onwards from the semester in which 'F grade was obtained earlier, will be suitably modified to take this change of grade into account.

10.7	In the case of a relatively large more or less a normal distribution		re the performance level depicts
	However, if by teacher's/ class is considered to be 'B' grade.	co-ordination committee's appreciably high, the aver	narks) is to be assigned 'C' grade. perception the general level of the age performance may be assigned
	average performance in t	between (but excluding) the	ne relatively with respect to the e 'F' and 'Ex' grades, which have undary marks between grades.
	(c) Normally, in a reasonably to be as follows:	/ large class of students o	listribution of grades is expected
	Ex A B, C, D P F	< = 10 10 - 20 20 - 35 10 - 25 < = 5	
		o grade would be done a	e supplementary examination the applying the same norm as was
	tending to cluster into sa done using the table given the teacher may, on his/h	me category, conversion below, where 'm' stands	resulting in almost all the marks n from marks to grade may be for the marks obtained. However, ulty level of assessment process /- 5 marks.
	Range of	Grade	
	Marks		
	m >= 90	Ex	
	80 <= m < 9		
	70 <= m < 8		
	<u>60 &lt;= m &lt; 7</u>		
	50 <= m < 6		
	35 <= m < 5		
	40 <= m < 5		
	m < 35	F for Theory	
	m < 40	F for Laboratory	

## 11. Award of Grades:

11.1	There will be continuous assessment of a student's performance throughout the semester and grades will be awarded by the teacher concerned or by the appropriate committees appointed for the purpose on the basis of following:
	(a) mid-semester and end-semester examination in the case of theoretical subjects,

	(b) compréhensive viva- voce,				
	(c) laboratory/design voce.	n/workshop, thesis/pr	oject, seminars, diss	sertation and viva	
11.2	In the case of theoretical subject	ots:			
	<ul> <li>a) The concerned School will conduct the mid- semester and end semester examinations.</li> <li>b) For theoretical subjects, the final grades will be awarded on the basis of Teacher's</li> </ul>				
	Assessment, Mid-Seme the weightage given bel		End-Semester Exam	nination, according to	
	<b>Teacher's</b> <b>Assessment</b> (attendance, home assignment,	Mid-Semester examination	End-Semester examination		
	assignments, class tests, tutorials etc.)				
	20	30	50		
11.3	<ul> <li>c) The final grades for a since the final grades for a since</li></ul>	ugh Head of the Scho e academic calendar.	ool by the teacher c	oncerned as per the	
	the weightage as shown below:				
		Attendance and comp tory / drawing – task	letion 60		
	At least 2 oral/prac viva-voce	tical / drawing tests a	ind or 40		
11.4	A Seminar Assessment Committee will be formed by the Heads of the School for the evaluation of performance at Seminars. Every student who registers for 'Seminar' is expected to attend all the seminars of all the students of the batch held in the School during the Semester. Due weightage will be given to a student's attendance in the overall evaluation of this requirement.				
11.5	Viva-voce Boards will be constituted by the Head of the School for conducting the comprehensive viva- voce, which will normally be conducted in May. The viva shall be assessed either by the Academic Committee of the School or by a committee constituted for the purpose.				
	mination:				

## 12. Examination:

12.1 In case of theoretical subjects, there will be a mid- semester examination in about the middle of the Semester and an end-semester examination at the end of the semester. Normally, there will be no end- semester examination in the practical (i.e., Laboratory, Workshop etc.). However, if any test or final examination in Laboratory/Drawing/Workshop is held, its weightage should conform to section 11.3.

12.2	Students will be permitted to appear in the examinations of only those subjects for which they have registered themselves in the beginning of a semester.
12.3	The semester examination will carry specified weightage for the purpose of award of grades for subjects of various L-T-P loading {(vide para 11.2(b) above)}.
12.4	(a) A student will continue his studies if he/she,
	i. Clears 2/3rd of the registered credits in the First year to enable him/her to register for the 2nd year, failing which the student repeats the First Year.
	ii. The SGPA and CGPA to be calculated considering only the credits cleared i.e. Grade F credits not be included for the calculation.
	iii. If the GPA so calculated is less than that of 6.00 and 2/3 <sup>rd</sup> of the registered credits are cleared, the student is registered to complete the programme in slow pace
	<ul> <li>While registering for a subject, the student be permitted to register a different subject for elective, if desired.</li> </ul>
	(b) The Four Semester programme is to be completed in maximum of Six Semesters.
	(c).The Institute assistantship of a student will be withheld in case a student fails in any subject. It will be restored only if SGPA/CGPA is at least 6.0 AND there is no 'F' grade following the supplementary examination. The student may however, continue without assistantship after supplementary examination with 'F' grade/grades, subject to the provisons contained in clause -12.4 (a).
	(d) A student can appear for Supplementary Examination in the subject(s) concerned to be held in the School once a year during June/July and after that only the CGPA be calculated. In supplementary examination the student will be given one grade lower than the actual performance grade except in the case of grade 'P' which will remain unchanged. The student will apply in a prescribed form together with necessary fees in order to appear in the supplementary examination.
	(e) Students with 'F' grades also have an option to re- register for the subject(s) in which they have failed in the following Autumn Semester or Spring Semester in which the subjects are offered. In such a case they will be entitled to full credit according to performance at the examination.
	(f) Students who have obtained CGPA lower than 6.00 may be allowed, on the recommendation of the Head of the School and with the approval of Dean (Academic Affairs) to re-register in one or more subject(s) in which he/she has received 'P' grade(s), so as to improve his/her CGPA to 6.00 or above by registering in the subject in the semester whenever it is offered. The availability of the course/faculty and a slot in the time-table is to be ensured by the concerned student/faculty advisor before registration in such subject(s) for grade improvement. This additional facility in any way, should not affect the total duration of the programme and graduation requirement mentioned under the provisions of clause-14. The grades will be revised and recorded only if there is an improvement over the existing 'P' grade.
	(g) Any change of grade of a student in a subject, consequent upon detection of any genuine error of omission and/or commission on part of the concerned teacher, must be approved by the School Academic Committee and must be forwarded by the

	teacher/chairman, co-ordination committee, through the Head of the concerned School within 20 (twenty) days from the date of commencement of the next Semester.
12.5	A student whose performance in any of the parts of the project work as prescribed in section 8 has been unsatisfactory, may be assigned additional work on the same problem or assigned a new problem. If the student is assigned additional work the student will have to complete the work and appear at the viva-voce as scheduled. If the student is assigned a new problem on account of any reason, the student will have to submit the dissertation and complete the viva-voce by October 31 of that calendar year. The student shall not be eligible for assistantship during the extended period of his/her stay but will have to pay project semester fees during the extended period of stay.
12.6	A student who has failed in the comprehensive viva-voce shall be required to present himself/herself again within a period of two months for the viva-voce on a date to be fixed by the Head of the School. The student will be entitled to award of one grade lower than the actual performance in such cases. The student has to discontinue studies in the event of failing second time.

## 13. The Incomplete Grade 'I' and Debarred Grade 'X'

13.1	(a) The grade 'I' may be temporarily given to a student who is unable to appear in the end semester examination because of:
	<ul> <li>(i) illness or accident which disables the student from appearing in the examination. This must be duly certified by the Institute Doctor.</li> </ul>
	<ul> <li>(ii) a calamity in the family at the time of the examination which, in the opinion of the Head of the School and Dean of Students Affairs required the student to be away from the campus.</li> </ul>
	(b) If a student is unable to appear at a mid-semester examination for any of the compelling reasons mentioned above, the teacher(s) concerned may use discretion, and take a test with same weightage.
13.2	<ul> <li>(a) A student who has been awarded grade 'I' in a subject in the end-semester examination shall have the option to either,</li> <li>(i) appear at a supplementary examination to be held by the School by filling in the application in prescribed form together with payment of necessary fees. In the supplementary examination the student will be awarded one grade lower than the actual grade obtained from the performance in the examination, except in the case of grade 'P' which will remain unchanged, or</li> <li>(ii) re-register for the subject in the subsequent semester in which it is offered. In such</li> </ul>
	case the student is entitled to full credit in accordance with the performance.
	(b) No supplementary examination will be held in laboratory subjects. The student has to re-register during a regular semester.
13.3	Debarred Grade "X" A student who
	(i) is absent for a major part of a semester, or

- (ii) does not complete a major part of the laboratory/design/ workshop/seminar work etc. or
- (iii) does not appear in the mid-semester examination without any acceptable ground, shall be awarded grade 'X' and he/she shall be debarred from appearing at the end semester examination of the corresponding subject(s).
- 13.4 A student who is debarred from appearing at an end-semester examination for reasons as specified by clause -13.3 will be required to re-register for the subject(s) in the next semester when they are offered by the School, subject to other conditions of the regulations.

#### 14. Graduation Requirements

- 14.1 In order to qualify for M.Tech. degree of the Institute, a student must
  - (a) have completed all the credit requirements for the degree, which is prescribed as minimum credits by the concerned School, with grade 'P' or a higher grade in each of the subjects etc., for which the student had registered in all the semesters,
  - (b) have obtained a CGPA of 6.00 or more at the end of the semester in which the student completes all the requirements (including the project dissertation/thesis), for the degree.
- 14.2 A student will be declared to have qualified for the degree in a session if the student completes all the requirements covering minimum credits specified by the concerned School by the 30th July when the session is closed, and will be admitted to the degree in the next annual Convocation.
- 14.3 A student who has qualified for the degree will be admitted to it only after the student has cleared all Institute and Hall dues, and has returned any inventory/instruments, School library books etc., outstanding in his/her name in good condition.

#### 15. Withdrawal

- 15.1 A student who has been admitted to M.Tech. program may be permitted to withdraw temporarily for a period of one semester or more from the Institute on account of prolonged illness/acute problem in the family provided that:
  - (a) The student applies to the Institute within 15 days of commencement of the semester or from the date last attended the classes, stating fully the reasons for such withdrawal together with supporting documents and endorsement of the father/guardian,
  - (b) the Institute is satisfied that, inclusive of the period of withdrawal, the student is likely to complete all the requirements for the degree within 5 years of admission to the program,
  - (c) there are no outstanding dues or demands from the Institute/School/Hall of Residence/Library.
- 15.2. A student who has been granted temporary withdrawal under provisions of clause 15.1 will be required to pay tuition fee and other fees for the current semester registration when the student rejoins the program.
- 15.3 A student shall be granted only one such temporary withdrawal during the program.

#### 16. Termination

The studentship shall be terminated (1) if he/she remains absent from classes or leave the campus without any intimation to the Institute authorities, and do not register for three (03) consecutive semesters and (2) the same rule also be applicable for those students who would register online by merely paying necessary fees but do not report to the campus as per the academic calendar, do not attend any classes and away from the campus, for three (03) consecutive semesters. [Ref. Senate Res.44.A.B.15 & 44.A.C.4]

#### 17. Assistantships, Medals and Prizes

The Institute shall award Postgraduate Assistantships, Medals and Prizes in accordance with the provisions laid down in the rules at **Appendix-VII**.

#### 18. Relaxation

The Senate may, under exceptional circumstances, consider any case of a student having a minor deficiency in respect of any of the requirements stated in these regulations and relax the relevant provision of these regulations based on the merit of the case. The grounds on which such relaxation is granted shall invariably be recorded and cannot be cited as precedence.

## LIST OF 4-SEMESTER POSTGRADUATE PROGRAMS LEADING TO M.TECH. DEGREES OFFERRED BY THE SCHOOLS

(Vide *para 1.2* of the Regulations)

# M.Tech. Programmes:

Schools	M.Tech. Programme
School of earth Ocean and Climate Sciences	Climate Sciences & Technology
	Electronics and Communication
	Engineering
School of Electrical Sciences	Power System Engineering
	Power Electronics and Drive
	Computer Science and Engineering
	Mechanical Systems Design
School of Mechanical Sciences	Thermal Science and Engineering
	Manufacturing Engineering
	Structural Engineering
	Transportation Engineering
School of Infrastructure	Environmental Engineering
	Water Resources Engineering
	Geotechnical Engineering
School of Minerals Metallurgical	Metallurgical and Materials Engineering
and Materials Engineering	(Senate Res. No. 37.A.B.1) from 2018-19.

# **MODALITY FOR ADMISSION TO M.TECH. PROGRAMME**

# (Ref. Senate Res. No. 29.A.B.1)

(Vide para 3.9 of the Regulation)

Admission to M.Tech. Programme in different disciplines will be based on two types of selection:

- 1) Regular Admission
- 2) Spot Admission

# **Regular Admission**

# Shortlisting and Selection Criteria:

- a) Eligibility: Minimum 60% marks or 6.5 CGPA in a 10-point scale in B. Tech ./ B.E. / M. Sc. (or equivalent degree) in appropriate discipline(s) with a valid GATE score in the disciplines(s) enlisted by the respective school. 5% relaxation of marks in the qualifying degree examination would be granted to the SC/ST/PW candidates as compared to the General/OBC (NCL) candidates. This is applicable to both regular and sponsored candidates (*Senate Res. No. 24.A.B.1*).
- b) The shortlisting of regular candidates for admission into M. Tech. Programmes will be based on GATE score only. The fixing of cut-off score for candidates in different categories shall be as per the norms of the Institute defined in the following table. The same basis as applied in GATE qualifying scores has been used.

Category	Cutoff GATE Score	
Unreserved	X	
OBC (NCL)	0.9 X	
SC/ST/PwD	0.67 X	
X = Cutoff GATE score for unreserved category (to be		
decided by school)		

- c) Selection of regular candidates is based on 70% weightage for the GATE score and 30% weightage for the performance in the Written Test and Interview.
- d) The final selection of regular candidates will be solely based on the combined scores of the candidates with 70% weightage to the GATE score and 30% weightage to the written test and interview marks. The Written Test and Interview shall be given equal weightage of 15% each. A candidate in the unreserved category will be eligible for interview subject to scoring a minimum of 40% of the maximum marks in the written test. A candidate in the unreserved category will be eligible for final selection subject to scoring a minimum of 50% of the maximum marks in the written test and interview for reserved categories shall be governed as per the norms mentioned in the above table. Assignment and calculation of the cut-off marks on the combined score for final selection of the candidates in different categories shall be as per the norms mentioned in the above table.
- e) Depending upon the number of candidates qualified in the selection test, waiting list will be prepared by respective Schools and accordingly candidate will be issued offer letters <u>upto last round as decided</u> by the authority.

Note: A candidate who fails to appear for the Personal Interview will not be considered for admission.

# Spot Admission

- 1) Spot admission to M. Tech. Programme will be offered to fill the vacant seats only from the waiting list after last round of offer letters have been issued.
- 2) The list of vacancies (Discipline wise and category wise) will be displayed in the Institute website next day after the final date of registration.
- 3) The Spot Selection may also be extended to the candidates who had been offered admission, but couldn't confirm their admission earlier.
- 4) The list of candidates for Spot admission will be displayed in the Institute website two (02) days after the final date of registration.
- 5) If a candidate, who receives an offer in spot selection and fails to exercise his/her option to accept / reject the offer then, the offer is treated as cancelled and the entire spot admission fee will be forfeited. No refunds will be made to such candidates.
- N.B. 1. It may be noted that attending Spot Admission does not guarantee the offer of admission.
  2. No refund will be made to the candidate who cancels his/her admission after taking admission to M. Tech. programme through spot admission.

# **Sponsored Students**

- 1. The Institute may admit persons, who are in gainful employment as 'Sponsored Students' to any of the courses covered by this regulation, subject to the condition laid down in following paragraphs.
- 2. Candidates who possess the minimum prescribe qualification and are in service in any of the following establishments shall be eligible for admission to the M.Tech. courses as Sponsored Students:
  - (i) Defence or other Ministries of the Government of India or any other Government organization
  - (ii) Established industries, Research and Development Organizations as may be recognized by the Institute from time to time
  - (iii) Autonomous public undertakings
  - (iv) QIP Scheme of the Government of India
  - v) Universities and recognized technical institutions which are not covered by the QIP Scheme.

## 3. Sponsored candidates from DRDO and similar other Govt. Organization:

The candidates sponsored by DRDO (Defence Research and Development Organization) and similar approved government organizations, who have been selected through approved internal procedure, will be admitted in the appropriate discipline.

#### 4. Other Sponsored Candidates:

Candidates who have served continuously for a minimum period of 3 years in the sponsoring organization are eligible for admission to the M.Tech. Program as Sponsored Candidates.

- (i) A sponsored candidate with a valid GATE score will have to undergo the same shortlisting and selection process as those of the regular candidates.
- (ii) A sponsored candidate without valid GATE score will be shortlisted only if he/she has obtained a minimum 65% marks (or 7.0 CGPA IN 10 –point scale) in all academic examinations. A relaxation of 5% marks is permitted only in one academic examination. He/she will also have

to appear at the written test and interview in the School. The weightage for the Written Test and Interview shall be 70% and 30%, respectively. The candidate will be eligible for interview subject to scoring a minimum of 40% of the maximum marks in the written test. The candidate will be eligible for final selection subject to scoring a minimum of 50% of the maximum marks in the Interview. The fixing of cut-off marks for reserved categories shall be governed as per the norms of the Institute. The final selection will be based on the combined score of Written Test and Interview.

Note: A candidate who fails to appear for the Personal Interview will not be considered for admission.

- 5. Candidates seeking admission as sponsored students shall have to produce while applying evidence to the effect that:
  - (i) they are on leave to study with full pay for the duration of the course, and
  - (ii) their services in the establishments concerned will be retained.
- 6. Intending sponsored candidates must submit their application on prescribed form for admission through their employers, a competent authority of which will forward the same to the Institute with suitable endorsements as required in the application form, so as to reach the Institute by the stipulated date.
- 7. All sponsored candidates shall be required to qualify in an interview by a selection committee to be appointed by the Academic Committee of the concerned School. The provisions of this para shall not be applicable to the candidates selected for admission under Defence sponsorship of the Government of India.
- 8. A sponsored candidate selected for admission shall be required, at the time of joining the Institute, to
  - (a) produce certificates in a prescribed form from the employers to the effect that the applicant:-
    - (i) has been in service there for at least a period of 2 years.
    - (ii) has been officially released from duties for purpose of joining the course and that he/she will draw full pay during their period of study,
    - (iii) services are retained with the employers
  - (b) submit evidence of having passed the qualifying examinations with required percentage of marks or grade and such other documents as the Institute may require.

#### RULES RELATING TO RESIDENCIAL REQUIREMENTS (Vide *para 4.2* of the Regulations)

The following are the detailed rules governing residence requirements of students:

- 1. The mess of each Hall of Residence shall function as a single integrated unit and shall not, under any circumstances, be sub-divided into any kind of groups or sub-groups.
- 2. Under special circumstances, the Director/Dean(Academic Affairs) may permit a student to reside with the parent/guardian in the Institute Campus or within a reasonable distance from the Institute. Such a student shall, however, be attached to a Hall of Residence and will be required to pay seat rent according to rules, and Hall establishment charges fixed by the Warden. However, this permission may be withdrawn at the discretion of the Institute, at any time considered appropriate by it, without assigning any reason.
- 3. Family accommodation may be provided to married students (Sponsored, QIP, Foreign nationals with Government Assistantship) of M.Tech courses, if available.
- 4. A student shall reside in a room allotted to him/her and may shift to any other room only under the direction/permission of the Warden.
- 5. No student shall come into or give up residence in any Hall of Residence without the prior permission of the Warden.
- 6. Students shall be required to make their rooms available whenever required for repairs, maintenance, disinfection, or inspection and shall be required to vacate the rooms when leaving for the vacations/holidays.
- 7. Students shall be responsible for the proper care of the furniture, fan and other fittings in the rooms allotted to them and shall generally assist the Warden in ensuring proper use, care and security of those provided in the Halls for common use of all students.
- 8. Students will be responsible for the safe keeping of their own property. In the event of loss of the personal property of a student due to theft, fire or any other cause, the Institute shall accept no responsibility and shall not be liable for payment of any compensation.
- 9. All students must abide by the rules and regulations of the Halls of Residence as may be framed from time to time.
- 10. Use of electrical appliances like heaters or ovens and cooking inside the rooms are strictly prohibited. Engaging personal attendants and keeping pets by a student in the Hall of Residence are debarred.
- 11. A student who has been permitted under the provisions of para 15.1 and para 15.2 of the Regulation to withdraw temporarily from the program must vacate the Hall of Residence, on the day of departure. Suitable accommodation may be re-allotted when the student rejoins the program.

#### RULES RELATING TO CONDUCT AND DISCIPLINE

(Vide *para 6.2* of the Regulations)

Following rules shall be applicable to all students in the matters of conduct and discipline:

- Students shall show due respect to the teachers of the Institute, the Wardens of the Halls of residence, the Sports Officers of the Gymkhana and the Officers of the National Cadet Corps; proper courtesy and consideration should be extended to the employees of the Institute and of the Halls of residence. They shall also pay due attention and courtesy to visitors.
- 2. Students are required to develop a friendly camaraderie with fellow students. In particular, they are expected to show kindness and consideration to the new students admitted to the Institute every year. Law bans ragging of new comers in any form. Acts of ragging will be considered as gross indiscipline and will be severely dealt with.
- 3. The following acts of omission and/or commission shall constitute gross violation of the code of conduct and are liable to invoke disciplinary measures.
  - Ragging
  - Lack of courtesy and decorum; indecent behavior any where within or outside the campus
  - Willful damage or stealthy removal of any property/belongings of the Institute/ Hall or of fellow students
  - Possession, consumption or distribution of alcoholic drinks or any kind of hallucinogenic drug
  - Involvement in misuse of internet/e-mail facilities or servers anywhere in the Hall of Residence/Department/Centre
  - Adoption of unfair means in the examinations
  - Mutilation or unauthorized possession of library books
  - Noisy and unseemly behavior, disturbing studies of fellow-students.

Commensurate with the gravity of the offence, the punishment may be reprimand, fine, expulsion from the Hall, debarment from an examination, rustication for a specified period or even outright expulsion from the Institute.

- 4. For an offence committed in :
  - (a) the Hall of Residence,
  - (b) the Department or in a classroom, and
  - (c) elsewhere,

the Warden, the Head of the School and the Dean of Students' Affairs, respectively, shall have the authority to reprimand or impose fine or take any other suitable measure.

- 5. All cases involving punishment other than reprimand shall be reported to the Chairman of the Standing Institute Conduct and Disciplinary Committee.
  - (a) All major acts of indiscipline, which may have serious implications on the general body of students, and/or which may warrant a uniform and more formalized nature of investigation, shall be handled by the **Standing Institute Conduct and Disciplinary Committee**, appointed by the Senate.

The Standing Institute Conduct and Disciplinary Committee consists of the following ex-officio and other members [Ref. Senate Res. No. 31.A.E.1]

Dean of Students' Affairs	- Chairman
Three Faculty member (to be nominated by the Senate	- Members
Warden	- Member
President, Students' Gymkhana	- Member
Vice President, Students' Gymkhana	- Member
Assistant Registrar (Academics)	- Member Secretary

- (b) Recommendations of the committee, which include the suggested quantum of punishment in cases of proven guilt, will be submitted for approval of the Chairman of the Senate.
- 6. Cases of adoption of unfair means in an examination shall be dealt with by the Head of the School concerned in consultation with the Invigilators and the Paper-Setter. The Head of the School shall recommend appropriate measures in each case to the Director who as Chairman of the Senate shall award the punishment and later report the matter to the Senate.
- 7. (i) The Head of the School may debar a student from appearing in an examination on any of the following grounds, if the student's
  - (a) Attendance in the lecture/tutorial/practical/ workshop/design/field visit/project and seminar classes during the semester has been unsatisfactory;
  - (b) Performance in the laboratory/workshop/ design etc., and work done during the semester/project has not been satisfactory;
  - (c) Conduct in the classes or in the School has been unsatisfactory or the student has attempted to adopt unfair means at the examination;
  - (iii) A student may also be debarred from appearing at an examination if there is a written report from the Warden of the Hall of Residence to the effect that the student :
    - (a) has not cleared the outstanding dues in the Hall;
    - (b) has been involved in an act of misconduct or indiscipline;
    - (c) has been involved in any such activity, which is/amounts to detrimental towards reputation and interests of the School/Institute.

# **Thesis Evaluation for M.Tech. Programmes**

[Ref. Senate Res. No. 29.A.B.4]

(Vide para 8.3 of the regulation)

## **PROCEDURE AND GUIDELINES:**

- 1. The normal duration for M. Tech./M. Sc. thesis work is 2 semesters. The thesis is to be evaluated in two stages, i.e., Stage-1 evaluation at the end of first semester of the thesis work and Stage-2 evaluation at the end of the second semester of the thesis work. Stage-1 and Stage-2 evaluations are termed as Interim Evaluation and Final Evaluation, respectively.
- 2. The interim evaluation is to be done by the internal examiners and supervisor(s) of the thesis. For interim evaluation, the student must give an open oral presentation and submit a written report on the work carried out by him/her.
- 3. (a) For final evaluation of each thesis, two internal examiners and an external examiner are to be appointed. The internal examiners (within the School) are nominated by the Head of School. The external examiner (outside the institute) is to be appointed by the Dean (Academic Affairs) from the list of the examiners recommended by the School. The recommended practice is that one external examiner is appointed for examination of at most six (6) theses. The Head of School shall send the list of external examiners to the Dean (Academic Affairs) at least two months before the final examination date.

(b)The final evaluation is to be done by a committee consisting of supervisor(s), internal examiners and the external examiner. The supervisor will be the coordinator for the interim and final evaluation.

(c) For the final evaluation, the student must submit a soft-bound copy of the thesis to the School at least three weeks before the date of final examination. The School should send the thesis to the examiners well before the final examination date.

- 4. The evaluation report should be recorded by the supervisor and the examiners by filling up the prescribed evaluation forms. For each evaluation, the mark awarded to a student is computed as the average of the marks awarded to the student (as mentioned in the evaluation form) by the supervisor(s) and the examiners.
- 5. There should be independent evaluation of Thesis Part- 1 & Part- II and the grades should be awarded accordingly.
- 6. The final grade is awarded based on this final composite score of a student (as per the grading system given in the following Table).

Performance	Letter Grade	Range of marks ('m') obtained
Excellent	EX	$m \ge 90$
Very Good	А	$80 \le m \le 90$
Good	В	$70 \le m \le 80$

## Grading System

Fair	С	$60 \le m < 70$
Average	D	$50 \le m \le 60$
Pass	Р	$35 \le m \le 50$
Fail	F	<i>m</i> < 35

- 7. The grades from EX to P are the Pass Grades. If a student is not awarded one of these grades, then the student is deemed to have failed in this examination and is given an F grade and such a student, having incorporated the suggestions and observations of the panel, can ask to be re-evaluated within ONE MONTH. The student should pass this re-evaluation. Should the student fail again, re-registration for this is required in the next semester.
- 8. The Head of School shall organize the evaluation process in the School.
- 9. After the evaluation process is over, the School must send the original evaluation reports and the hard-bound thesis (final form) to the Academic Section for further processing. The final thesis will be archived in the Institute Library.

# **INTERIM EVALUATION OF THESIS**

NAME OF THE STUDENT:

ROLL NUMBER:

TITLE OF THE THESIS:

DATE OF EXAMINATION:

**REMARKS and SUGGESTIONS** are to be included on the reverse of this form.

## Summary of Marks Awarded in Mid-Term Evaluation:

Panel Member	Name	Marks awarded	Signature	Marks awarded to
		(out of 100)		the student <sup>*</sup>
Supervisor				
Co-supervisor				
(if any)				
Internal				
Examiner-1				
Internal				
Examiner-2				

**Approved By:** 

Head of School:

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\*Mark awarded to the student is the average of the marks awarded by the supervisor(s) and the internal examiners.

# FINAL EVALUATION OF THESIS

NAME OF THE STUDENT:

ROLL NUMBER:

TITLE OF THE THESIS:

DATE OF EXAMINATION:

### Summary of Marks Awarded in Final Evaluation:

Panel Member	Name	Marks awarded (out of 100)	Signature	Marks awarded to the student*
Supervisor				
Co-supervisor (if any)				
Internal				
Examiner-1				
Internal				
Examiner-2				
External				
Examiner				

#### **RECOMMENDATIONS:**

The thesis submitted by the candidate is: (*please choose ONE*)

(a)Acceptable and may be regarded as final in its present form.

(b)Acceptable with minor revisions. The revisions and modifications have been indicated to the student during the examination (the revisions and modifications to be done should be outlined on the reverse of this form). The student should submit the modified thesis certified by the supervisor for final submission.

(c) Not acceptable in its present form and it needs **major revision**. The modifications to be done should be outlined in a separate document. The modifications must be incorporated by the student in the thesis and the same must be certified by the supervisor and the internal examiner before final submission.

GRADE AWARDED: EX A B C D P F

(Please circle the awarded grade clearly AND strike out the others)

**Approved By:** 

Head of School:

\_\_\_\_\_

\*Mark awarded to the student is the average of the marks awarded by the supervisor(s) and the examiner(s).

## INTERIM EVALUATION OF THESIS BY SUPERVISOR/EXAMINER

#### NAME OF THE STUDENT:

### ROLL NUMBER:

## SCHOOL/ CENTRE:

#### Assessment:

#### Part A: Based on the Report

S. No.	Assessment criterion	Marks (out of 10)	Remarks
1.	Review of the research area		
2.	Objective/Aim/Goals set for the thesis work		
	(Clarity and completeness)		
3.	Work carried out		
4.	Extent of independent study		
5.	Analysis and interpretation		
6.	Conclusion		
7.	Report organization and quality		

## Part B: Based on the Presentation and Viva-Voce Examination

S. No.	Assessment criterion	Marks(out of 15)	Remarks
1.	Presentation: clarity and structure		
2.	Answers to questions- demonstrating depth of		
	understanding of the problem and inference drawn		

## TOTAL MARKS =

\_\_\_\_\_

**REMARKS and SUGGESTIONS** are to be included on the reverse of this form.

#### Name of the Supervisor/Examiner:

Signature with Date:

# FINAL EVALUATION OF THESIS BY SUPERVISOR/EXAMINER

## NAME OF THE STUDENT:

### **ROLL NUMBER:**

SCHOOL/ CENTRE:

#### I. Assessment:

#### Part A: Based on the Thesis

S. No.	Assessment criterion	Marks (out of 10)	Remarks
1.	Review of the research area		
2.	Objective/Aim/Goals set for the thesis work (Clarity and completeness)		
3.	Work carried out		
4.	Extent of independent study		
5.	Analysis and interpretation		
6.	Conclusion		
7.	Thesis organization and quality		

## Part B: Based on the Presentation and Viva-Voce Examination

S. No.	Assessment criterion	Marks(out of 15)	Remarks
1.	Presentation: clarity and structure		
2.	Answers to questions- demonstrating depth of		
	understanding of the problem and inference drawn		

#### TOTAL MARKS =

**II. Recommendations:** The thesis submitted by the candidate is: (*please choose ONE*)

(a) Acceptable and may be regarded as final in its present form

(b) Acceptable with minor revisions. The revisions and modifications have been indicated to the student during the examination (the revisions and modifications to be done should be outlined on the

reverse of this form). The student should submit the modified thesis certified by the supervisor for final submission.

(c) Not acceptable in its present form and it needs major revision. The modifications to be done should be outlined in a separate document. The modifications must be incorporated by the student in the thesis and the same must be certified by the supervisor and the internal examiner before final submission.

Name of the Supervisor/Examiner:

Signature with Date:

## Research Review Paper Evaluation for M.Tech. Programme (Ref. Senate Res. No.26.A.B.3) (Vide para 8.5 of the Regulation)

## **PROCEDURE AND GUIDELINES:**

- 1. The normal duration for research review paper work in M. Tech. programme is one semester. The research review paper is to be evaluated in two stages, i.e., Stage-1 evaluation at the middle of the semester and Stage-2 evaluation at the end of the semester. Stage-1 and Stage-2 evaluations are termed as the Mid-Term Evaluation and Final Evaluation, respectively.
- 2. For each research review paper evaluation, an internal examiner is to be appointed. The internal examiner (within the School) is nominated by the Head of School before mid-term evaluation.
- 3. Both mid-term and final evaluations are to be performed by a committee consisting of supervisor and the internal examiner. The internal examiner will serve as the coordinator for the evaluation process. The duration of evaluation of each research review paper should not be less than an hour.
- 4. For every evaluation, the student must give an oral presentation followed by an open viva-voce and submit a written review paper/report. For the final evaluation, the student must submit soft-bound copy of the research review paper to the School at least two weeks before the date of final examination. The School should send the review paper to the evaluation committee before the final examination date.
- 5. The evaluation report should be recorded by the supervisor and the internal examiner by filling up the prescribed evaluation form. For each evaluation, the mark awarded to a student is computed as the average of the marks awarded to the student (as mentioned in the evaluation form) by the supervisor and the internal examiner. In the final evaluation at the end of the semester, the final marks awarded to a student is computed by assigning 40% weightage and 60% weightage to the average marks awarded to the student in the mid-term and end-term evaluations, respectively, and the final grade is awarded based on this final composite score of a student (as per the grading system given in the following Table).

Performance	Letter Grade	Range of marks ('m') obtained
Excellent	EX	$m \ge 90$
Very Good	А	$80 \le m \le 90$
Good	В	$70 \le m \le 80$
Fair	С	$60 \le m < 70$
Average	D	$50 \le m \le 60$

#### **Grading System**

Pass	Р	$35 \le m \le 50$
Fail	F	<i>m</i> < 35

- 6. The grades from **EX** to **P** are the Pass Grades. If the student is not awarded one of these grades, then the student is deemed to have failed in this examination and is given an **F** grade and such a student, having incorporated the suggestions and observations of the panel, can ask to be re-evaluated within ONE MONTH. The student should pass this re-evaluation. Should the student fail again, reregistration for this is required in the next semester.
- After the final evaluation process is over, the School must send the original evaluation reports and the hard-bound research review paper (final form) to the Academic Section for further processing. The final research review paper will be archived in the School Library. Copies of all evaluation reports must be kept in the school office.

# **MID-TERM EVALUATION OF RESEARCH REVIEW PAPER**

NAME OF THE STUDENT: ROLL NUMBER: TITLE OF THE RESEARCH REVIEW PAPER: DATE OF EXAMINATION:

**REMARKS and SUGGESTIONS** are to be included on the reverse of this form.

## Summary of Marks Awarded in Mid-Term Evaluation:

Panel Member	Name	Marks awarded	Signature	Marks awarded to the
		(out of 100)		student <sup>*</sup>
Supervisor				
Internal				
Examiner				

**Approved By:** 

Head of School:

\_\_\_\_\_

\*Mark awarded to the student is the average of the marks awarded by the supervisor and the internal examiner.

# FINAL EVALUATION OF RESEARCH REVIEW PAPER

NAME OF THE STUDENT:

ROLL NUMBER:

TITLE OF THE RESEARCH REVIEW PAPER:

DATE OF EXAMINATION:

## Summary of Marks Awarded in Final Evaluation:

Panel Member	Name	Marks awarded	Signature	Marks awarded to the
		(out of 100)		student*
Supervisor				
Internal				
Examiner				

#### **Calculation of Final Marks Awarded:**

	Final mark awarded to the student (out of 100)
40% of marks awarded in the mid-term evaluation	
60% of marks awarded in the mid-term evaluation	

## GRADE AWARDED: EX A B C D P F

(Please circle the awarded grade clearly AND strike out the others)

#### **RECOMMENDATIONS:**

The Research Review Paper submitted by the candidate is: (please choose ONE)

(a) Acceptable and may be regarded as final in its present form.

(b) Acceptable with minor revisions. The revisions and modifications have been indicated to the student during the examination (the revisions and modifications to be done should be outlined on the reverse of this form). The student should submit the modified research review paper certified by the supervisor for final submission.

(c) Not acceptable in its present form and it needs major revision. The modifications to be done should be outlined in a separate document. The modifications must be incorporated by the student in the review paper and the same must be certified by the supervisor and the internal examiner before final submission.

**Approved By:** 

#### Head of School:

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\*Mark awarded to the student is the average of the marks awarded by the supervisor and the internal examiner

# MID-TERM EVALUATION OF RESEARCH REVIEW PAPER BY THE SUPERVISOR/EXAMINER

NAME OF THE STUDENT:

ROLL NUMBER:

SCHOOL/ CENTRE:

## Assessment:

## Part A: Based on the Report

S. No.	Assessment criterion	Marks (out of 15)	Remark(s)
1.	Understanding of the research area		
2.	Clarity and completeness/progress of the review work		
3.	Analysis and interpretation done		
4.	Organization and quality of the review report/paper		

## Part B: Based on Presentation and Viva-Voce Examination

S. No.	Assessment criterion	Marks (out of 20)	Remarks
1.	Presentation: clarity and structure		
2.	Answers to questions – demonstrating depth of		
	understanding of the problem and inference drawn		

## TOTAL MARKS =

**REMARKS and SUGGESTIONS** are to be included on the reverse of this form.

Name of the Supervisor/Examiner:

Signature with Date:

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## FINAL EVALUATION OF RESEARCH REVIEW PAPER BY

## THE SUPERVISOR/EXAMINER

### NAME OF THE STUDENT:

#### **ROLL NUMBER:**

#### SCHOOL/ CENTRE:

#### I. Assessment

#### Part A: Based on the Review Paper

S. No.	Assessment criterion	Marks (out of 15)	Remarks
1.	Understanding of the research area		
2.	Clarity and completeness of the review work		
3.	Analysis and interpretation done		
4.	Organization and quality of the review paper		

### Part B: Based on the Presentation and Viva-Voce Examination

S. No.	Assessment criterion	Marks (out of 20)	Remarks
1.	Presentation: clarity and structure		
2.	Answers to questions – demonstrating depth of		
	understanding of the problem and inference drawn		

#### TOTAL MARKS =

II. Recommendations: The Research Review Paper submitted by the candidate is: (please choose ONE )

(a) Acceptable and may be regarded as final in its present form

(b) Acceptable with minor revisions. The revisions and modifications have been indicated to the student during the examination (the revisions and modifications to be done should be outlined on the reverse of this form). The student should submit the modified research review paper certified by the supervisor for final submission.

(c) Not acceptable in its present form and it needs **major revision**. The modifications to be done should be outlined in a separate document. The modifications must be incorporated by the student in the review paper and the same must be certified by the supervisor and the internal examiner before final submission.

Name of the Supervisor/Examiner:

Signature with Date:

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#### TERMS AND CONDITIONS FOR AWARD OF INSTITUTE POSTGRADUATE ASSISTANTSHIP, INSTITUTE MEDALS, PRIZES AND ENDOWMENTS (Vide para 17 of the Regulations)

#### I. Institute Postgraduate Assistantship

- 1. All students admitted to any of the M.Tech. Courses under section 3.1 of this Regulation shall be entitled to Institute Assistantship Provided that the first installment of assistantship shall be released only after satisfactory scrutiny of necessary documents supporting the students' eligibility for the assistantship. The students will have to submit all documents latest by the time of registration for the second semester.
- **2.** The monthly value of the assistantship shall be as approved by the Board of Governors from time to time with the prior sanction of the Government of India.
- **3.** The Assistantship shall be tenable for a maximum period of 24 months subject to the provisions appearing hereinafter.
  - (i) The award of a assistantship shall be made, in the first instance, for 12 months of the session (July to June following) and will remain valid till the month of next June provided the student maintains the requirement of attendance, conduct and discipline etc.
  - (ii) The assistantship shall be released in the beginning only after the admission of a student has been confirmed on verification of all necessary testimonials and the student has been reported medically fit by the Institute Doctor.
  - (iii) Notwithstanding the provisions of the foregoing sub-paragraphs the assistantship for the first month shall be payable on pro-rata basis depending on the date of joining of a student.
  - (iv) The last month installment of assistantship for the 24th month shall be payable in full irrespective of the date of final viva-voce of the Project Semester, provided the student does not join any paid employment or any other assistantship before the last day of the month.
  - (v) In the case of a student who discontinues studies before completing the program, the assistantship shall be payable up to the date the student attends the classes or works in the Department/Centre.
- **4.** A student who was permitted, after having successfully completed the course work barring the thesis/project work, to leave the Institute for purpose of joining services may be re-awarded the assistantship for the remaining part of the tenure of 24 months; provided that-
  - (I) the student submits on re-joining, an application for the resumption of assistantship enclosing a certificate of 'No Objection' from the employer. The student shall not draw any salary from the employer during continuance of the assistantship;
  - (II) such application shall be granted at the discretion of the Institute on the basis of merit of the case.
- **5.** In the event of a student being absent from the School without obtaining prior permission/sanction there for and/or if the period of absence exceeds the limit of admissible leave as prescribed by para 5.3 of the rules, deductions may be made from the student's monthly installment of assistantship proportionately.

- 6. A student shall be required to abide by all instructions issued by the Institute from time to time concerning award/payment of assistantship. In the event the student is reported to be caught/proved adopting unfair means in the examination, laboratory tests etc., the disciplinary committee will have the option to decide stopping the payment of assistantship and any other contingency amount for such duration, as it may deem fit and approved by the Chairman, Senate.
- 7. No student shall be permitted to enjoy more than one assistantship or remuneration from any other source during the same period. In the event of an awardee becoming eligible for another scholarship from the Institute or any other source, the student will have the option to retain any of the awards according to the choice. In such a case the student will communicate the choice in writing to the Dean of Academic Affairs.
- **8.** A student who has been admitted to the program as a sponsored candidate may also apply for, and be awarded at the discretion of the Dean (Academic Affairs) Institute assistantship subject to the condition that the student-
  - (I) possesses B.Tech. or equivalent degree, or has qualified at GATE and has a valid GATE score percentile not below the cut-off point of admission of regular students in the session for the School concerned
  - (II) produce a certificate of 'No Objection' from the employer, and
  - (III) there is a vacancy in sanctioned strength of the School.

#### II. Institute Gold Medals, Silver Medals and Endowment Prizes:

- **9.** A student who fulfils the following general conditions shall be eligible for award of (a) Medals and (b) Endowment Prizes as mentioned in para 11 below In order to be eligible for the award of Medals/Prizes-
  - (i) He/she must have obtained a CGPA of 9.00 or higher at the end of the Semester for which the award is meant
  - (ii) He/she must have completed the four semesters of the program consecutively and uninterrupted,
  - (iii) He/she must not have failed in a subject (theory, laboratory, comprehensive viva-voce or Seminar) at any stage of the postgraduate program,
  - (iv) no disciplinary action should have been taken against the student during the course of the postgraduate program.

**Note** :(i) In the event of there being a tie between two or more students becoming eligible for an award all of them obtaining the same CGPA, their performance at the end of the preceding semester will be taken into consideration. In case the performance in the preceding semester also happens to be the same, the performance in the semester previous to that will be taken into account to break the tie. If the tie cannot be broken thus the eligible students will share the prize/medal.

(ii) On the recommendation of the Postgraduate Programme & Evaluation Committee (PGPEC) the Senate may decide, in view of the exigencies occurring in a year or situations arising what so ever, to award any medal/prize for that year or discontinue award or to consider conferment in any other form it considers appropriate.

- **10.** The following are the Medals and prizes to be awarded by the Institute to the most eligible student:
  - (a) Institute Gold Medal : A gold medal (The Director's Gold Medal) be awarded to the student who is adjudged to be academically best securing the highest CGPA at the end of the fourth semester, among the students completing M.Tech. courses in that year, subject to the condition that all other requirements as mentioned under para- 9 were fulfilled.

(b) Institute Silver Medals : One Silver Medal shall be awarded every year to the best outgoing postgraduate student (first in order of merit) of each School provided that the number of students graduating in the session from the school concerned is not less than 5 and that all other requirements as mentioned under para- 9 were fulfilled.