

***ORDINANCE – MASTER OF TECHNOLOGY (M.Tech.) EXAMINATION**

Notwithstanding anything contained in any other ordinance with regard to the matters hereunder, the course of study for the Degree of Master of Technology in the faculty of Engineering & Technology and the conditions for admission thereto shall be as under:

- 1.1 The Master of Technology Degree Course shall extend over a minimum period of two academic years except in the case of Part-Time admissions in which the minimum duration of the course shall be two and half-academic years. The examination shall be held in two parts i.e. Part-I at the end of the course of First year and Part-II at the end of the course of Second year. M.Tech Part-Time courses will have the same subjects and credits as for the regular students except that these courses will be offered by the respective departments at their own convenience spread over a period of two and half academic years. Teaching in each academic year shall be divided into two semesters. Each semester will be of about 16-18 weeks duration.
- 1.2 A candidate will be considered eligible for admission to the first semester of this course only if he/she fulfils the following requirements:
 - (i) **M. Tech (Computer Sc. & Engg.) / M.Tech (Software Engg.) / M. Tech (Information Technology)**
The candidate should have passed with minimum 50% marks in aggregate in B.Tech/B.E in Computer Engg./Computer Sc. & Engg./Computer Technology/Information Technology/Electronics Engg./Electrical Engg or M.Sc. (Computer Science /Electronics/IT/Software Engg./Maths /Physics/Statistics) and MCA or its equivalent examination from any recognized University.
 - (ii) **M. Tech (Electronics & Communication Engg.) / VLSI Design**
The candidate should have passed with minimum 50% marks in aggregate in B.Tech/B.E in Electronics & Communication Engg./Electronics & Telecommunication Engg./Electronics Engg./Electrical Engg./Electrical & Electronics Engg./Applied Electronics & Instrumentation Engg./Electronics Instrumentation & Control Engg./Instrumentation & Control Engg./ Instrumentation Engg./Control Engg./ Mechatronics/Bio-Electronics Engg./ M.Sc.(Electronics Science/Physics) or its equivalent examination from any recognized University.
 - (iii) **M. Tech (Manufacturing Systems)**
The candidate should have passed with minimum 50% marks in aggregate in B.Tech/B.E in Mechanical Engg./Production Engg./Automobile Engg./ Industrial Engg./Aeronautics Engg./Mechatronics/Mining Engg./Product Design./Product Design & Development/Metallurgy Engg. or its equivalent examination from any recognized University.
 - (iv) **M. Tech (CAD/CAM)**
The candidate should have passed with minimum 50% marks in aggregate in B.Tech/B.E Mechatronics or its equivalent examination from any recognized University.
 - (v) **M. Tech (Electrical Engg.)**
The candidate should have passed with minimum 50% marks in aggregate in B.Tech/B.E in Electrical Engg./Electrical & Electronics Engg./Instrumentation & Control Engg. or its equivalent examination from any recognized University.

(vi) M. Tech (Structural Engg.)/M.Tech (Environment Engg.)

The candidate should have passed with minimum 50% marks in aggregate in B.Tech/B.E in Civil Engg. or its equivalent examination from any recognized University.

(vii) M.Tech (Bio-Technology)

The candidate should have passed with minimum 50% marks in aggregate of B.Tech or its equivalent in the discipline of Engg./Medical/Dental/Pharmacy or M.Sc. in all branches of Science or equivalent. Preference will be given to the candidates with B.Tech Bio-Tech, Chemical Engg., M.Sc. Chemistry and Biological Sciences.

Non-Medical students will be required to undergo a pre-requisite course in the discipline to be arranged by the University.

(viii) € M.Tech. (Chemical Synthesis and Process Technology):

M.Sc. (Chemistry/Pharmaceutical Chemistry/Industrial Chemistry/Applied Chemistry) or M.Pharma/B.Pharma with Chemistry as one of the subject, B.Tech. (Chemical Engineering/Bio-technology) with 50% marks in aggregate.

In addition to above, M.Tech course in other disciplines can be added with the approval of the Vice-Chancellor.

Admission to M.Tech. Courses shall be made on the basis of GATE score/academic merit of the qualifying examinations giving preference to the candidates having qualified GATE.

- 2.1 At the end of each Semester there shall be an examination wherein candidates may be examined in the courses prescribed for that semester. Each Semester Examination shall be designed as First Semester Examination, Second Semester Examination, and Third Semester Examination and so on.
- 2.2 The examination of Odd Semester will normally be held in December/January and Even Semester normally in May/June in an academic year, on such dates as may be fixed by the University.
- 2.3 The last date(s) by which examination forms must reach the Controller of Examination shall be as notified by the Controller of Examinations.
3. The first and subsequent semesters examination shall be open to a regular student who :-
 - (i) has passed the requisite qualifying examination as laid down in Clause 1.2 if he/she is a candidate for the first semester examination, or, has passed the preceding semester examination if he/she is a candidate for the second/ third/ fourth semester examination, as the case may be. This is, however, subject to Clause 7 below.
 - (ii) has/her his name submitted to the Controller of Examinations by the Principal of the College/Institute and produces the following certificates signed by the Principal of the College/Institute:-
 - (a) of good character;
 - (b) of having remained on the rolls of the college/institute of this university for the semester preceding the examinations;

- (c) of having attended not less than 75% of the total number of lectures delivered in each subject/paper(s). This requirement shall be fulfilled separately for each course of study. The attendance shall be counted upto the date of commencement of preparatory holidays i.e. 7 days before the commencement of the examination.

The Principal of the College/Institute is empowered to condone the shortage of attendance upto 10% of the total lectures delivered in each subject/paper(s) in exceptional cases.

Provided that the candidate who has not attended the requisite number of classes for any subject(s) will be eligible to take examination in the remaining subjects. Provided further that a candidate who is deficient in attendance shall have to repeat those courses in which he/she is deficient in the immediate subsequent session.

Explanation:

For the purpose of counting of last date when the classes shall disperse for the preparatory holidays, first day of the commencement of any semester examination will apply to all semester examinations and all semester classes will have the preparatory holidays from the same date, i.e. 7 days before the date of commencement of any semester examination.

- 4.1 The courses of the study and the subjects of examinations shall be as approved by the Academic Council from time to time. The examination shall consist of:

- (a) **Written Papers:-** Written papers to be set by the External/Internal Paper-setters taken from the panel recommended by the respective Board of Studies and approved by the Academic Council. The answer books shall be evaluated by the External/Internal Examiners.
- (b) **Practical Examination:** - Examinations in Practical / viva-voce shall be conducted jointly by the External and Internal Examiners taken from the panel recommended by the respective Board of Studies and approved by the Academic Council. In the event, external examiner is not available, Director-Principal will appoint external examiner from among the faculty members of the concerned department/ institute.
- (c) **Sessional:-** Sessional work to be evaluated by the teachers concerned based on the work done during the semester on the basis of the following weightages:

I	For Theory Subjects:	
	(i) Class test (Two best of three)	40%
	(ii) Class Attendance (Lecture/Tutorial)	40%
	(iii) Class Work	20%
	(Marks will be awarded proportionate to attendance.)	
II	For Practical/Project Courses:	
	(i) Viva-Voce/Test	20%
	(ii) Laboratory Record	20%
	(iii) Class Attendance	40%
	(iv) Class Work	20%
	(Marks will be awarded proportionate to attendance.)	

For Seminar courses the marks will be awarded by the teacher Incharge of the seminar and for Comprehensive viva- voce, the marks will be awarded by a committee of three teachers including the Head of the department concerned.

The marks in the sessional work shall be awarded by the teachers and countersigned by the Head of the Institute/College/Department and the same be forwarded to the Controller of Examinations one week before the commencement of semester examination.

- 4.2 The candidate is required to obtain Pass Marks in each of the Theory and Practical papers in aggregate of the external and internal assessment/sessionals subject to obtaining pass marks separately in each paper of external examinations. The internal assessment award of any candidate who fails in one or more papers of any semester examination shall be carried forward to the next examination. He/she will, however, be allowed to improve his/her marks of sessional examinations at the time of appearing in the Reappear Papers.
5. The candidates shall be examined according to the scheme of examination and syllabus as approved by the Academic Council from time to time. A candidate who fails in an examination or having been eligible fails to appear in an examination shall take the examination according to the syllabus prescribed for regular students appearing for that examination.
6. A candidate not covered under Clause 7 below, whose result declared late for no fault of his/her shall attend classes of the next higher semester.
7. If a candidate has after attending the course of studies in the college and being eligible, either not appeared or appeared in any semester Examination and failed in one or more courses for that examination, he/she can appear for such course(s) at subsequent examinations without attending a fresh course of studies for that semester in the college according to syllabus for regular student in force. Such a candidate may, in the meantime, prosecute his/her studies for the next higher semester(s) and appear in the examination(s) for the same alongwith the examination for the lower semester(s).

Provided further that a candidate shall not be allowed to attend classes in semesters mentioned in Column (c) below unless he/she has fulfilled the attendance requirement as per Clause 3 and 7 for all courses of the Semester, mentioned in Column (d) below and shall be required to repeat the studies of the course(s) in which he/she has failed to achieve the attendance requirements whenever the courses are offered by the college:-

(c)	(d)
Third Semester onwards	First Semester

£ Provided still further that a candidate who fails to pass the M.Tech Examination within a period of four years (**four & half year** years in respect of candidates admitted under part-time programme) of his/her admission to the course, shall be deemed to be unfit for the Master of Technology course at this University.

8. (a) A candidate who has passed the Theory Papers and Practicals of Part-I Examination, has submitted the project, if any, and produce a certificate from his Supervisor that he has worked for Dissertation for at least one semester shall be allowed to submit two copies of his/her Dissertation.

Provided that a candidate who completes the Part-I examination may, on the recommendation of the Supervisor, be allowed to pursue his/her dissertation work at his place of employment.

- (b) The last date for receipt of Dissertation/Project Report in the office of the Controller of Examinations shall be 30th June of the 4th semester of M.Tech. Course and 31st December of the year in the case of M.Tech Part-time course.
 - (c) Dissertation should present an orderly and critical exposition of the existing knowledge of the subject and/or embody original investigation carried out by the candidate, in an orderly manner. The candidate should lay down in his/her dissertation clearly the work done by him/her as an original investigation and should quote the source from which he has obtained other information contained in his/her dissertation.
 - (d) Examination in Dissertation shall be carried out jointly by an Internal and an External Examiner or in his absence any other internal expert in the concerned subject, shall be the External Examiner. If the dissertation is found suitable, the candidate shall have a Viva-Voce test by both the Examiners at a place and on a date notified by the University.
 - (e) A candidate who fails in the dissertation shall be allowed to revise and re-submit it for fresh assessment not earlier than six months and not later than one year from the date of his failure. If the candidate fails in the dissertation even at the second attempt, he shall be deemed to have failed in the whole examination.
9. The minimum pass marks for any Semester Examination shall be:-
- (i) 40% in each written paper/practical examination/ viva-voce examination.
 - (ii) 40% in the aggregate of Sessional and examination marks for each theory subject/ practical paper subject to obtaining Pass Marks separately in each paper of external examination.

Further the Dissertation must be accepted (approved) for the award of M.Tech degree.

10. CREDIT-BASED SYSTEM OF EVALUATION

Credit – based system followed in the University in order to determine the division and performance of a candidate will be as under:

(i) CREDIT COUNTS:

All courses would have a credit count and teaching of subjects would be reckoned in terms of Credits. The number of credits of a course shall ordinarily be calculated as under:

- (a) LECTURES/TUTORIALS: One Lecture per week shall be assigned One Credit. For one Tutorial period per week, HALF a credit is to be assigned.
- (b) PRACTICALS: One lab period per week shall be assigned HALF a credit.
- (c) SEMINAR/GROUP DISCUSSION: One Credit each.
- (d) Dissertation/Thesis will have no credit count. Dissertation/Thesis will be evaluated jointly by one External & one Internal

Examiner. Successful completion of the Thesis/Dissertation work will be mandatory for the award of degree.

GRADING:-

- i) The Academic Performance of a student shall be graded on a **TEN-POINT SCALE**. The award of Grades based upon marks obtained out of 100 shall be made as follows:

MARKS	GRADE	MARKS
86 ≤ and above upto	O	< 100
76 ≤ and above upto	A+	< 85
66 ≤ and above upto	A	< 75
56 ≤ and above upto	B+	< 65
51 ≤ and above upto	B	< 55
46 ≤ and above upto	C	< 50
40 ≤ and above upto	P	< 45
--	F	--
--	Ab	--

- ii) Letter grade will be awarded to the candidates. Each letter grade indicates the level of performance in the course and has a grade point for purpose of computing the **Semester Grade Point Average (SGPA) / Cumulative Grade Point Average (CGPA)** as given below:

Letter Grade	Performance	Grade Point
O	Outstanding	10
A+	Excellent	9
A	Very Good	8
B+	Good	7
B	Above Average	6
C	Average	5
P	Pass	4
F	Fail (required to re-appear in the exam.)	
Ab	Absent	-

SGPA:- indicates the performance of the student in the current semester and is computed as below:

$$\frac{\text{Grade points earned in the current semester}}{\text{Total credits in the semester}}$$

CGPA:-

It indicates the performance of a student since his/her entry into the course including the current semester.

CGPA is the weighted average of all the grades awarded to a student since his entry into the University upto and including the latest Semester and computed as follows :-

$$CGPA = \frac{\sum C_i G_i}{\sum C_i}$$

$$= \frac{\text{Total Grade Points earned since his entry}}{\text{total credits}}$$

Where C_i denotes credits assigned to the i^{th} course and G_i indicates the grade point equivalent to the letter grade obtained by the candidate in the i^{th} Course.

iii) The division obtained by each student is classified on the following basis:

Division	C.G.P.A.
First with Distinction	8.0 or more
First	6.75 or more but less than 8.0
Second	Below 6.75

iv) In order to compare the students of this University vis-à-vis other Universities where percentage of marks are shown in the final result, the following conversion formula will be used for calculating the percentage of marks from CGPA.

$$\text{Percentage of marks obtained by a student} = (9.0 \times \text{C.G.P.A.})$$

11. The medium of instruction and examination shall be English.
12. The amount of examination fee to be paid by a regular/re-appear candidate for full course of each semester examination shall be as prescribed by the University from time to time.
13. At the end of each semester examination, the Controller of Examinations shall publish the result and issue Detailed Marks Cards.
14. Notwithstanding the integrated nature of this course which is spread over more than one academic year, the Ordinance in force at the time a student joins the course shall hold good only for the examination held during or at the end of that academic year and nothing in this ordinance shall be deemed to debar the University from amending the Ordinance and the amended Ordinance, if any, shall apply to all students whether old or new.

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* Approved by the Academic Council vide Res. No. 8(3) dated 05.04.2010 and Board of Management Res. No. 4(3) dated 13.04.2010.)

® Approved vide AC Res. No.19 dated 29-11-2010 and BOM Res. No. 5 dated 19-2-2011), w.e.f. the session 2010-11

€ Approved vide Academic Council vide Res. No. 4 dated 13-12-2013 and Board of Management Res. No. 3 dated 27-12-2013.

£ Amended vide AC Res. No. 9 dated 26-6-2017 and BOM Res. No. 6 dated 6-7-2017