



MAHATMA GANDHI INSTITUTE OF TECHNOLOGY (Autonomous)

Kokapet (Village), Gandipet (Mandal), Hyderabad-500 075

Academic Regulations for Two Year M.Tech. Regular Program with effect from the Academic Year 2021 – 2022 (MR-21)

Note:

- i) The academic regulations should be read as a whole, for the purpose of any Interpretation
- ii) In case of any doubt or ambiguity in the interpretation of the above rules and regulations, the decision of the Institute is final
- iii) Any reference to the College or Institute in these Regulations stands for Mahatma Gandhi Institute of Technology (Autonomous).

Mahatma Gandhi Institute of Technology (MGIT) established in the year 1997 by Chaitanya Bharathi Educational Society (CBES) was conferred autonomous status by the University Grants Commission, New Delhi and Jawaharlal Nehru Technological University (JNTUH) Hyderabad for a period of 10 years with effect from the academic year 2021-22. Consequently, the Institute is at liberty to prescribe its own courses that determine learning outcomes based on local needs and required skills. Autonomy enables the Institute to promote healthy practices such as community services and extension activities.

Academic independence is the major advantage for an autonomous system

In accordance with the guidelines of the University Grants Commission (UGC), All India Council for Technical Education (AICTE) and Jawaharlal Nehru Technological University (JNTUH), Hyderabad, MGIT introduced the Outcome Based Education (OBE) with Choice Based Credit System (CBCS) in both the undergraduate and post graduate programs offered from the academic year 2021-22.

The Credit based semester system provides flexibility in designing curriculum and assigning credits based on the course content and hours of teaching. The Choice based credit system provides a “cafeteria” type approach in which the student can take courses and acquire more than the required credits and adopt an interdisciplinary approach to learning.

Choice Based Credit System (CBCS): The choice based credit system enables a student to obtain a degree by accumulating the required number of credits prescribed for that

degree. Under CBCS, the requirement for awarding degree is prescribed in terms of number of credits to be completed by the students. The number of credits earned by the student reflects the knowledge acquired by him/her. Each course is assigned with a fixed number of credits based on the contents to be learnt. The student also has the choice in selecting the courses offered by the other Departments. The letter grade, grade points and the credit points earned for each of the course reflect the student's proficiency in that course.

1. Eligibility for Admission

- Admission to M.Tech. program shall be made subject to eligibility, qualification and specialization prescribed by the University from time to time, for each specialization under each M.Tech. program.
- Admission to M.Tech. program shall be made on the basis of either the rank or percentile obtained by the qualified student in the relevant GATE Examination or the rank obtained by the qualified student in an entrance test conducted by the State Government of Telangana (TSPGECET) or the University or on the basis of any other order of merit approved by the University, subject to reservations as prescribed by the State Government from time to time.

2. Medium of Instruction

The medium of instruction shall be English for all courses, examinations, seminar presentations and project work. The program curriculum will comprise courses of study as prescribed in the course structure and in accordance with the prescribed syllabus.

3. M.Tech. Programs offered

MGIT is offering Master of Technology (M.Tech.) degree programs in five disciplines. The various programs offered are given in table-1.

Table-1. M.Tech. Programs offered

S. No.	Title of the program	Specialization Code	Department
1.	Computer Aided Structural Engineering	20	CE
2.	Digital Electronics and Communication Engineering	38	ECE
3.	Power Electronics and Electric Drives	54	EEE
4.	Mechatronics	80	MCT
5.	Artificial Intelligence	A9	CSE

3.1 Structure of M.Tech. Program

The structure of the M.Tech. programs offered at MGIT is based on outcome based education with **Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS)**, in accordance with the guidelines of the UGC and the model curriculum suggested by the AICTE.

The M.Tech. program offered at MGIT follows semester pattern. The duration of M.Tech. program shall be two academic years (four semesters). Each academic year shall have two semesters (one odd and one even).

Each Semester shall be of 22 Weeks duration inclusive of Examinations with a minimum of 90 instructional days per Semester. The academic activities to be performed in an year along with their tentative timeframe are listed in the academic calendar given in table-2.

Table-2. Academic calendar

S.No.	Event	Duration
Odd Semester		
1.	First Spell of Instructions	8 Weeks
2.	First Internal Examination	1 Week
3.	Second Spell of Instructions	8 Weeks
4.	Second Internal Examination	1 Week
5.	Semester End Examinations of Mandatory audit courses, Laboratory courses and preparatory holidays for theory examinations	2 Weeks
6.	Semester End Theory Examinations	2 Weeks
7.	Semester Break and Even Semester Supplementary Examinations	2 Weeks
Even Semester		
8.	First Spell of Instructions	8 Weeks
9.	First Internal Examination	1 Week
10.	Second Spell of Instructions	8 Weeks
11.	Second Internal Examination	1 Week
12.	Semester End Examinations of Mandatory courses, Laboratory courses and preparatory holidays for theory examinations	2 Weeks
13.	Semester End Theory Examinations	2 Weeks
14.	Summer Vacation and Odd Semester Supplementary Examinations	6 Weeks

Each semester is structured to provide credits totalling to 68 for the entire M.Tech. program. Each semester shall have Continuous Internal Evaluation (CIE) and Semester End Examinations (SEE).

A student who pursues and registers for all the specified courses as listed in the M.Tech.

program structure and secures the required number of 68 credits in a normal (minimum) period of two academic years (four semesters) and a maximum period of four academic years (eight semesters) from the date of commencement of the first semester, shall be declared to have qualified for the award of M.Tech. degree in the chosen specialization of engineering selected at the time of admission.

3.2 Credit structure

Every course in the M.Tech. program has a Lecture – Tutorial – Practical – Credit (L:T:P:C) component. Based on L:T:P:C structure, the credits are allotted to a course using the criteria shown in table- 3.

Table-3. Contact hours and Credits Structure

S. No.	Type of Course	Component	Contact hours / week / semester	Credits
1	Theory	Lecture (L)	1	1
		Tutorial (T)	1	1
2	Laboratory	Practical (P)	1	0.5

Depending on the complexity and content of the course, the number of contact hours per week in a semester will be assigned.

Each M.Tech. program shall consist of a number of theory and practical courses and each course shall be assigned with credits. The curriculum shall comprise core theory courses, elective courses, laboratory courses, mandatory courses, audit courses, seminar, mini – project, internship and dissertation. However, mandatory audit courses do not carry any credits.

In accordance with the guidelines issued by UGC and AICTE, all the courses offered for the post graduate program are broadly classified as shown in table-4.

Table - 4. Classification of Courses

S.No.	Broad Course Classification	Course Group / Category	Course Description
1.	Core Courses (CC)	Professional Core (PC)	Includes courses related to the parent Discipline / Department / Branch of Engineering
		Dissertation	M.Tech. Project or the PG Project
		Mini Project with Seminar	Seminar based on core contents related to parent Discipline / Department/ Branch of Engineering

2.	Elective Courses (EC)	Professional Electives (PE)	Includes elective courses related to the parent Discipline / Department / Branch of Engineering
		Open Electives (OE)	Interdisciplinary courses or courses in an area outside the parent Discipline / Department / Branch of Engineering
3	Mandatory Courses	-	credit courses common to all specializations
4	Mandatory Audit Courses (AC)	-	Non credit courses

4. Course Registration

The following guidelines are designed for course registration:

- 4.1 A faculty member shall be appointed as a mentor, who will advise the students about the M.Tech. program, its course structure, curriculum, choice / option for courses, based on their competence, progress, pre-requisites and interest.
- 4.2 The students shall register for all the prescribed courses and additional courses if any at the beginning of each semester as per the schedule mentioned in the Almanac released in the beginning of the academic year. Additional courses will be offered based on progress, SGPA / CGPA and fulfillment of the pre- requisites, if any for the course.
- 4.3 The registration shall be organized by the Department or the Academic Section of the Institute.
- 4.4 A course may have one or more of its preceding course(s) as pre-requisite(s).
- 4.5 The Academic Section of the Institute invites “registration forms” from students before the beginning of the semester through ‘on-line registration’ ensuring “date and time stamping”. The on-line requests for any given semester shall be completed before the commencement of Semester End Examinations (SEE) of the preceding semester.
- 4.6 A student can apply for on-line registration, only after obtaining the written approval of his / her mentor, which should be submitted to the Academic Section of the Institute through the Head of the Department concerned. A copy of it shall be retained with Head of the Department, mentor and the student.
- 4.7 Course options exercised by the students through on-line registration are final and cannot be changed or interchanged. Further, alternate choices will not be considered. However, if the course that has been listed for registration by the Head of the Department in a

semester could not be offered due to any unforeseen or unexpected reasons, then the student shall be allowed to have alternate choice for a new course, subject to offering of such a course and availability of seats in it. Such alternate arrangements shall be made by the Head of the Department, with due notification and time framed schedule, within the first week of the commencement of class work for that semester.

5. Attendance Requirements

It is desirable for a student to have 100% attendance in each course. **The M.Tech. program is offered based on unit system with each course being considered a unit. Attendance is calculated separately for each course.** A student shall be eligible to appear for the Semester End Examinations, if he / she acquires a minimum of 75% attendance separately in each of the credit courses and mandatory non-credit courses offered. Two periods of attendance for each theory course shall be considered, if he / she appears for the Internal examination of that course. A Student's Mini Project with Seminar shall be eligible for evaluation, only if he/she ensures a minimum of 75 % of attendance in Mini Project with Seminar during that semester.

- 5.1 Shortage of attendance in each course (Theory/Lab/Mini project with Seminar) upto 10 % i.e. attendance from 65 % to less than 75 % may be condoned by the Institute Academic Committee on genuine and valid medical grounds, based on student's representation with supportive evidence. Such students shall pay a stipulated fee for condoning shortage of attendance (10 %). **Shortage of attendance below 65 % in any course shall in no case be condoned.**
- 5.2 Students whose shortage of attendance is not condoned in any course of a given semester are not eligible to appear for Semester End Examinations of that course. They get detained and their registration for that semester stands cancelled.
- 5.3 Students having less than 65 % attendance are required to seek Re-registration for those courses in subsequent semesters as and when offered.
- 5.4 A student fulfilling the attendance requirement of a given semester is not eligible for readmission into that semester.

6. Promotion Rules

- 6.1. A student shall put in a minimum required attendance in at least **three theory courses (excluding mandatory audit course)** in I semester for promotion to II Semester.

6.2. A student shall put in a minimum required attendance in at least **three theory courses (excluding mandatory audit course)** in II semester for promotion to III Semester.

7. Academic Requirements

In addition to the attendance requirements mentioned in S.No.5, a student must satisfy the following academic requirements:

7.1 A student shall be deemed to have satisfied the academic requirements and earned the credits for each theory and practical, if he /she secures not less than 40 % (28 out of 70 marks) in the Semester End Examination, and a minimum of 50 % of marks (50 out of 100 marks) in the sum total of the SEE and CIE put together. In terms of letter grades, it implies securing 'B' grade or above in that course.

7.2 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to Mini Project with seminar, if he/she secures not less than 50% marks (50 out of 100 marks).The student is deemed to have failed if he / she

- i) does not submit a seminar report on Mini-Project
- ii) does not make a presentation of the same before the Evaluation Committee as per the schedule or
- iii) secures less than 50% marks in mini project with seminar evaluation

In such a case, the student may re-appear for the above evaluation as and when it is scheduled.

7.3 To qualify for the award of degree in M.Tech. program, a student shall

- i) register for all courses covering 68 credits specified and listed in the course structure.
- ii) fulfill all the attendance and academic requirements for 68 credits,
- iii) earn all 68 credits by securing Semester Grade Point Average (SGPA) ≥ 6.0 in each semester, and Cumulative Grade Point Average (CGPA) ≥ 6.0 at the end of each successive semester
- iv) pass all the mandatory audit courses, though the performance in these courses is not considered for computing SGPA and CGPA.

Note: (1) The SGPA will be computed only if the student passes in all the courses offered in a given semester with a minimum 'B' grade in each course.

(2) CGPA is calculated only when the student passes in all the courses offered upto that semester of the M.Tech. program.

- 7.4 **Registration for extra course(s):** If a student registers for extra course(s) in the Parent Department or other Departments/ branches of Engineering over and above the courses specified in the course structure, the performance in extra course(s) will not be considered while computing the SGPA and CGPA. For such extra course(s) registered, Letter Grade alone will be indicated in the Semester Grade Report as a performance measure, subject to completion of the attendance and academic requirements as stated in items 5, 6 and 7.1 to 7.3.
- 7.5 When a student is detained due to shortage of attendance in any course(s) in any semester, he/she is eligible for re-registration of such course(s) in the subsequent semester(s), as and when next offered, with the academic regulations of the batch into which he/she is re-registered, by paying the prescribed fee per course. In all these re-registration cases, the student shall have to secure a fresh set of CIE and SEE marks for performance evaluation in such course(s), and SGPA/CGPA computation.
- 7.6 A student eligible to appear for the Semester End Examination in any course, but absent from it or failed, may reappear for that course at the supplementary examination as and when conducted. In such cases, his/her CIE Marks assessed earlier for that course will be carried over, and added to the marks secured in the supplementary Semester End Examination, for the purpose of evaluating his/her performance in that course.
- 7.7 If a student fails to secure (i) 68 credits stipulated in the course structure and (ii) minimum 'B' Grade in the mandatory audit courses within four academic years starting from the year of admission shall forfeit his / her seat in the post graduate program and his / her admission **stands cancelled**.

8. Evaluation Methodology

The performance of a student in every course will be evaluated for 100 marks each, with 30 marks allotted for Continuous Internal Evaluation (CIE) and 70 marks for Semester End Examination (SEE).

8.1 Continuous Internal Evaluation for Theory courses: 30 Marks

Continuous Internal Evaluation shall be conducted twice in a semester. Each Continuous Internal Evaluation consists of Internal Examination (20 Marks), Assignment (5 Marks) and Quiz on Assignment (5 Marks).

The average of two CIEs shall be taken as final marks secured by the student in Continuous Internal Evaluation.

8.2 Internal Examination Pattern

The first Internal Examination shall be conducted for the first 50 % of the syllabus and second Internal Examination shall be conducted for the remaining 50 % of the syllabus. The Internal Examination and Quiz on Assignment put together shall be of 2 Hours duration.

Question paper pattern for Internal examination shall be as follows:

All questions are compulsory in Part-A and Part-B

Part – A: 3 x 2 M = 6 M (one question from each unit without choice)

Part – B: 2 x 6 M and 1 x 2 M = 14 M

There shall be one question from each unit with internal choice in Part-B and there could be sub questions in a given question.

8.3 Assignment

A student shall submit two assignments in the topics suggested by the teacher. The first assignment shall be submitted before the conduct of the first Internal examination and the second assignment shall be submitted before the conduct of second Internal examination.

8.4 Quiz on Assignment

There shall be quiz on assignment along with each of the Internal Examinations in a semester. The quiz on assignment shall consist of 10 questions of the type multiple choice questions, fill in the blanks, assertion and reason, match the following and true/false statements.

8.5 Semester End Examination for Theory Courses: 70 Marks

The Semester End Examination shall be for three hours and **all questions are compulsory**. The question paper consists of Part-A and Part-B.

Part – A: 10 x 2 M = 20 Marks

There shall be two short answer questions from each unit without choice

Part – B: 5 x 10 M = 50 Marks

- i) There shall be one question from each unit with internal choice in Part-B
- ii) There could be sub-questions in a question

9. Evaluation of Practical Courses

9.1 For practical courses, there shall be a Continuous Internal Evaluation (CIE) during the semester for 30 marks and 70 marks for Semester End Examination (SEE)

9.2 Out of the 30 marks allocated to CIE, day-to-day work in the laboratory shall be evaluated for 15 marks and internal practical examination conducted by the laboratory

teacher concerned shall be evaluated for 15 marks

9.3 The Semester End Examination shall be conducted with an external examiner and internal examiner.

10. Mini Project

There shall be Mini Project with Seminar during II semester for Continuous Internal Evaluation of 100 marks. The Departmental Academic Committee (DAC) will review the progress of the mini project during seminar presentations and evaluate the same for 50 marks. Mini Project Viva Voce Examination will be evaluated by the DAC for another 50 marks before the Semester End Examinations. Student shall carry out the mini project in consultation with the mini project supervisor which may include critically reviewing the literature, project implementation and submit it to the Department in the form of a report. The Student shall make an oral presentation before the DAC consisting of Head of the Department, Mini Project supervisor and two other senior faculty members of the Department. The student has to secure a minimum of 50% of marks in i) seminar presentation and ii) mini project viva voce, to be declared successful. If he/she fails to obtain the minimum marks, he/she has to reappear for the same as and when scheduled.

11. Dissertation

11.1 Every eligible student shall be required to submit a dissertation on a topic approved by the Dissertation Review Committee. The Dissertation Review Committee (DRC) comprises the Head of the Department as Chairperson, Dissertation Supervisor and one senior faculty member of the Department offering the M.Tech. program.

11.2 **Registration for Dissertation:** A student is permitted to register for the Dissertation after satisfying the attendance requirement in all the courses, both theory and laboratory. After registration, the student in consultation with the Dissertation Supervisor must present the title, objective and plan of action of the Dissertation to the Dissertation Review Committee (DRC) for approval **within four weeks from the commencement of III Semester.**

Only after obtaining the approval of the DRC, the student can initiate the Dissertation work.

11.3 If a student wishes to change the supervisor or topic of the Dissertation, he/she can do so with the approval of the DRC. However, the DRC shall examine whether or not the change of supervisor/ topic leads to a major change of his/her initial plans of

Dissertation proposal. If yes, the student's date of registration for the project work starts from the date of change of Supervisor or topic as the case may be.

- 11.4 The Student shall submit Dissertation Progress Report in two stages by maintaining a minimum gap of **three** months between them.
- 11.5 The work on the Dissertation shall be initiated at the beginning of the III Semester and the duration of the Dissertation is two semesters. **The student is permitted to submit Dissertation only after successful completion of all theory, practical and mandatory audit courses with the approval of DRC not earlier than 40 weeks from the date of approval of the topic for Dissertation work.** He / She shall submit the draft copy of Dissertation to the Head of the Department and make an oral presentation before the DRC for its approval before submission.
- 11.6 **Dissertation Work Review – I:** The Dissertation Work Review - I in III Semester carries CIE marks of 100. The DRC evaluates the work for 50 marks and the Supervisor will evaluate it for the remaining 50 marks. The DRC and Supervisor will examine the Problem Definition, Objectives, Scope of Work, Literature Survey in the same domain and progress of the Dissertation Work. A student has to secure a minimum of 50 marks (B Grade) to be declared successful in Dissertation Work Review - I. If he/she fails to obtain the minimum required marks, he/she has to reappear for Dissertation Work Review - I as and when conducted.
- 11.7 **Dissertation Work Review - II:** The Dissertation Work Review - II in IV Semester carries CIE marks of 100. The DRC evaluates the work for 50 marks and the Supervisor will evaluate it for the remaining 50 marks. The DRC will examine the overall progress of the Dissertation Work and decide whether or not the Dissertation is eligible for final submission. The student has to secure a minimum of 50 marks to be declared successful in Dissertation Work Review - II. To facilitate Dissertation Work Review-II, the student has to submit the draft copy of the Dissertation to the Head of the Department and make the oral presentation to the DRC. If he/she fails to obtain the required minimum marks, he/she has to reappear for Dissertation Work Review – II as and when conducted.
- 11.8 At the end of IV semester, the Dissertation is evaluated by the external examiner for 100 marks. The student has to secure a minimum of 50 marks to be declared successful in Dissertation Evaluation (Viva-Voce) examination.
- 11.9 After approval from the DRC, a soft copy of the Dissertation should be submitted for ANTI-PLAGIARISM check in the office of the Controller of the Examinations. The

Dissertation will be accepted for submission and evaluation if the similarity index is **less than 30%**. If the similarity index has more than the required percentage, the student is advised to modify accordingly and re-submit the soft copy of the Dissertation after one month. The Plagiarism report should be included in the final report. The maximum number of re-submissions of Dissertation after plagiarism check is limited to **TWO**. The student has to register for project work again and work for two semesters. After three attempts, the admission is liable to be cancelled. The department authorities are advised to make plagiarism check of every soft copy of theses before submission to Controller of Examinations.

11.10 Three copies of the Dissertation certified by the supervisor shall be submitted to the Institute, after acceptance / publication of a research paper related to the Dissertation work in a UGC approved journal. A copy of the accepted / published research paper shall be attached to Dissertation.

11.11 The Dissertation shall be adjudicated by an external examiner selected by the Principal/Chief Controller of the Examinations from the panel of **three** examiners in the relevant specialization submitted by the supervisor concerned and Head of the Department.

11.12 If the report of the examiner is satisfactory, then the Head of the Department shall coordinate and make arrangements for the conduct of Dissertation Viva-Voce examination. The Dissertation Viva-Voce examination shall be conducted for 100 marks by a board consisting of the Head of the Department, external examiner who adjudicated the Dissertation and the Supervisor. The student has to secure a minimum of 50 marks in Dissertation Evaluation (Viva-Voce) examination. Otherwise, the student has to reappear for the Dissertation Viva-Voce examination **only after three months**. In the reappeared examination also, if he/she fails to fulfill the requirements, he/she will not be eligible for the award of the degree, unless the student is asked to revise and resubmit the Dissertation Work by the board within a specified time period (within **four** years from the date of commencement of his/her first semester).

11.13 The Dissertation Viva-Voce External examination marks must be submitted to the office of the Controller of the Examinations on the day of the Viva-Voce.

11.14 If the report of the external examiner is unsatisfactory, the student shall revise and resubmit the Dissertation. If the report of the examiner is unsatisfactory again, the Dissertation shall be summarily rejected. Subsequent actions for such dissertations may be considered, only on the specific recommendations of the external examiner

and /or Dissertation Review Committee. No further correspondence in this matter will be entertained, if there is no specific recommendation for resubmission.

11.15 **Supplementary Semester End Examinations**

Supplementary Semester End Examinations shall be conducted along with Regular Semester End Examinations. During Regular Odd Semester End Examinations, supplementary Examination of Even Semester shall be conducted and during Regular Even Semester End Examinations, supplementary Examination of Odd Semester shall be conducted.

11.16 The unsuccessful students in Dissertation Work Review - I shall reappear for it at the time of Dissertation Work Review – II. These students shall reappear for Dissertation Work Review - II in the next academic year at the time of Dissertation Work Review - I only after completion of Dissertation Work Review - I, and then Dissertation Work Review - II follows. The unsuccessful students in Dissertation Work Review - II shall reappear for Dissertation Work Review – II in the next academic year only at the time of Dissertation Work Review – I, **subject to the condition that the student fulfils all the Academic requirements to qualify for the degree within four academic years from the date of admission.**

12. **Mandatory Audit Courses**

Mandatory audit courses do not carry any credits and will be evaluated on the lines of theory courses. For mandatory audit courses, a student has to **secure a minimum of ‘B’ grade (50 Marks out of 100)** in CIE and SEE put together to qualify for the Award of M.Tech. Degree. **However, performance of these courses will not be considered for computing Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA).**

13. **Re-Admission/Re-Registration**

13.1 **Re-Admission for Discontinued Student:** A student, who has discontinued the M.Tech. degree program due to any reason whatsoever, may be considered for '**re-admission**' into the same degree program (with the same specialization) with the academic regulations of the batch into which he gets readmitted, with prior permission from the authorities concerned, subject to item 7.6.

13.2 If a student is detained in a course(s) due to shortage of attendance in any semester, he/she may be permitted to **re-register** for the same course(s) in the same category

(core or elective group) or equivalent subject if the same course is not available, as suggested by the Board of Studies of that Department, as and when offered in the subsequent semester(s), with the academic regulations of the batch into which he/she seeks re-registration, with prior permission from the authorities concerned.

13.3 A student shall be given one chance to re-register and attend the classes for a maximum of two course(s), if the CIE marks secured by him/her are less than 50% and failed in those courses but fulfilled the attendance requirement. A student must re-register for failed course(s) within four weeks of commencement of the class work and secure the required minimum attendance. In the event of the student taking this chance, his/her Continuous Internal Evaluation (internal) marks and Semester End Examination marks obtained in the previous attempt stand cancelled.

14. Grading procedure:

14.1 Letter grade based on absolute grading system will be awarded to indicate the performance of students in each course

14.2 Under absolute grading, the marks are converted to letter grades based on pre-determined class intervals

14.3 Based on the percentage of marks obtained in CIE and Semester End Examination put together, a corresponding letter grade shall be assigned

14.4 As a measure of the performance of a student, the marks obtained by the student in a given course will be awarded a letter grade and each letter grade has designated grade points

14.5 In accordance with UGC and AICTE guidelines, a 10 point absolute grading system is adopted to measure the performance of a student. The percentage of marks secured in a given course and the corresponding letter grade along with its designated grade points are shown in Table-5.

Table-5. Percentage of Marks, Corresponding Letter Grades and Grade Points

Percentage of Marks secured in a course (Class intervals)	Letter Grade	Grade Points
90 to 100	O (Outstanding)	10
80 to < 90	A+ (Excellent)	9
70 to < 80	A (Very Good)	8

60 to < 70	B+ (Good)	7
50 to < 60	B (Above Average)	6
< 50	F (Fail)	0
Not appeared in the examination	Ab (Absent)	0

14.6 A student who has obtained ‘F’ grade in any course shall be deemed to have failed and is required to reappear as a supplementary student in the Semester End Examination as and when conducted

14.7 A student who has not appeared for examination in any course, ‘Ab’ grade will be allocated and is deemed to have failed in that course. Such student will be required to reappear as a ‘supplementary student’ in the Semester End Examination as and when conducted.

14.8 A student earns grade points in each course on the basis of the letter grade secured in that course. The corresponding credit points are computed by multiplying the grade points with credits assigned for that particular course

Credit Points = Grade Points x Credits assigned for a course

14.9 A student passes the course only when grade points are five or more than five (‘B’ grade or above)

15. Computation of the Semester Grade Point Average (SGPA)

- The Semester Grade Point Average (SGPA) indicates the performance of a student in a given semester
- The SGPA is calculated by dividing the total credit points earned by the student in all the courses and the total number of credits assigned to the courses in a semester. Thus, if $\sum cp$ is the sum of credit points secured from all the courses offered in a given semester,

‘N’ is the number of courses offered in a semester

‘I’ is the course indicator index (takes into account all courses in a semester),

C_i is the number of credits allotted to the i^{th} course and G_i represents the grade points corresponding to the letter grade awarded for that i^{th} course.

$$\text{SGPA} = \frac{\sum_{i=1}^N C_i G_i}{\sum_{i=1}^N C_i}$$

$$\text{SGPA} = \frac{\text{Total credit points obtained in a semester}}{\text{Total credits offered in that semester}}$$

SGPA is computed only if the candidate passes (minimum 'B' grade) in all the courses offered in a semester

16. Computation of the Cumulative Grade Point Average (CGPA)

- The Cumulative Grade Point Average (CGPA) is a measure of the overall performance of a student in all the semesters offered for a given program
- It is the ratio of the total credit points secured by a student in all the courses offered in all the semesters and the total number of credits offered in all the semesters. Thus the CGPA is computed from second semester onwards as per the formula

$$\text{CGPA} = \frac{\sum_{j=1}^M C_j G_j}{\sum_{j=1}^M C_j} \text{ for 'S' semesters registered}$$

where 'M' is the total number of courses offered in all the semesters of the program, j is the course indicator index (taken into account all the courses from I semester to IV semester)

C_j is the number of credits allotted to the jth course and G_j represents the grade points corresponding to the letter grade awarded for that jth subject

$$\text{CGPA} = \frac{\text{Total credit points obtained in all the semesters}}{\text{Total credits for the program}}$$

- The CGPA is same as the SGPA in the first semester of the program
- The CGPA is calculated only when the student passes in all the courses i) upto a given semester and ii) all the semesters of the program.

Illustration of calculation of SGPA and CGPA:

Example 1:

S.No.	Semester	Course	Course credits (C)	Letter Grade secured	Grade Points (GP)	Credit Points (CP=C x GP)
1	I	Professional Core -I	3	A	8	3 x 8 = 24
2	I	Professional Core -II	3	A+	9	3 x 9 = 27
3	I	Professional Elective -I	3	A	8	3 x 8 = 24
4	I	Professional Elective -II	3	B+	7	3 x 7 = 21
5	I	Research Methodology and IPR	2	A	8	2 x 8 = 16
6	I	Audit Course-I	0	P	-	-
7	I	Laboratory-I	1.5	A+	9	1.5 x 9 = 13.5
8	I	Laboratory-II	1.5	A+	9	1.5 x 9 = 13.5
9	I	Finishing School-I	1	A	8	1 x 8 = 8
Total Credits			18	Total Credit Points		147

$$\text{SGPA for I Semester} = 147/18 = 8.16$$

$$\text{CGPA} = 8.16$$

Example 2:

S.No.	Semester	Course	Course credits (C)	Letter Grade secured	Grade Points (GP)	Credit Points (CP=C x GP)
1	I	Professional Core -I	3	A	8	3 x 8 = 24
2	I	Professional Core –II	3	A+	9	3 x 9 = 27
3	I	Professional Elective –I	3	A	8	3 x 8 = 24
4	I	Professional Elective –II	3	B+	7	3 x 7 = 21
5	I	Research Methodology and IPR	2	A	8	2 x 8 = 16
6	I	Audit Course-I	0	P	-	-
7	I	Laboratory-I	1.5	A+	9	1.5 x 9 = 13.5
8	I	Laboratory-II	1.5	A+	9	1.5 x 9 = 13.5
9	I	Finishing School-I	1	A	8	1 x 8 = 8
10	II	Professional Core –III	3	A	8	3 x 8 = 24
11	II	Professional Core –IV	3	A+	9	3 x 9 = 27
12	II	Professional Elective –III	3	A	8	3 x 8 = 24
13	II	Professional Elective –IV	3	B+	7	3 x 7 = 21
14	II	Audit Course-II	0	P	-	-
15	II	Laboratory-III	1.5	A+	9	1.5 x 9 = 13.5
16	II	Laboratory-IV	1.5	A+	9	1.5 x 9 = 13.5
17	II	Mini Project with Seminar	2	A	8	2 x 8 = 16
18	II	Finishing School-II	1	A	8	1 x 8 = 8
19	III	Professional Elective –V	3	A	8	3 x 8 = 24
20	III	Open Elective	3	A+	9	3 x 9 = 27
21	III	Dissertation-I (Review)	10	A+	9	10 x 9 = 90
22	IV	Dissertation-II (Review)	8	A+	9	8 x 9 = 72
23	IV	Viva- Voce	8	A	8	8 x 8 = 64
Total Credits			68	Total Credit Points		571

$$\text{SGPA for IV Semester} = 136/16 = 8.5$$

$$\text{CGPA for M.Tech. program} = 571/68 = 8.39$$

The above illustrated calculation process of SGPA and CGPA shall be followed for each subsequent semester upto IV semester

16.1 The CGPA obtained at the end of IV semester shall be the CGPA secured for entire M.Tech. program

16.2 The SGPA and the CGPA of a semester will be mentioned in the Semester Grade Report if the student passes all the courses offered in that semester in first attempt. Otherwise, the SGPA and the CGPA shall be mentioned on the Semester Grade Report in which sitting the student has passed (completed) last course of that semester.

16.3 A student shall be declared successful or ‘passed’ in a semester, if he/she secures ‘B’ grade or above in every course in that semester (SGPA \geq 6.00) and he/she shall be declared successful or ‘passed’ in the entire post graduate program, only when he/she gets the CGPA \geq 6.00 for the award of degree as required.

16.4 After the completion of a semester, a semester grade report shall be issued to all the registered students of that semester, indicating the letter grades and credits earned in the courses offered.

17. Award of Degree:

A student shall be considered qualified for the award of M.Tech. degree if he / she fulfills the following academic regulations:

- Pursued M.Tech. program study for two academic years and not more than four academic years from the year of admission
- Registered for 68 credits and secured 68 credits (CGPA \geq 6.00)
- A student who fails to fulfill the above mentioned academic requirements shall not be eligible for the award of degree

18. Award of Division:

A student who qualified for the award of degree shall be placed in the following divisions:

Division Awarded	CGPA
First Division with Distinction	≥ 7.75
First Division	6.75 to < 7.75
Second Division	6.00 to < 6.75

19. Withholding of Results

If the student has not paid the tuition fee or has any dues due to any reason whatsoever, or if any case of indiscipline / malpractice is pending, the result will be withheld and the student will not be allowed to pursue the next higher semester. The award or issue of the provisional certificate and the M.Tech. degree is liable to be withheld in such cases.

20. Revision of Academic Regulations and Curriculum

The Institute from time to time may revise, amend or change the academic regulations, scheme of examination and syllabus on approval by the Academic Council and Governing Body. The revision, amendments or changes made shall be applicable to all the students with effect from the dates notified by the Institute.

**DISCIPLINARY ACTION FOR / IMPROPER CONDUCT IN EXAMINATIONS
(MALPRACTICE RULES)**

S.No.	Nature of Malpractice/Improper conduct	Punishment
	If the student:	
1. (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, cell phones, pager, palm computers or any other form of material concerned with or related to the course of the examination (theory or practical) in which student is appearing but has not made use of (material shall include any marks on the body of the student which can be used as an aid in the course of the examination)	Expulsion from the examination hall and cancellation of the performance in that course only.
(b)	Gives assistance or guidance or receives it from any other student orally or by any other body language methods or communicates through cell phones with any student or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that course only of all the students involved. In case of an outsider, he will be handed over to the police and a case is registered against him.
2.	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the course of the examination (theory or practical) in which the student is appearing.	Expulsion from the examination hall and cancellation of the performance in that course and all other courses the student has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the courses of that semester. The hall ticket of the student is to be cancelled and sent to the University.

3.	Impersonates any other student in connection with the examination.	<p>The student who has impersonated shall be expelled from examination hall. The student is also debarred and forfeits the seat. If the imposter is an outsider, he will be handed over to the police and a case is registered against him.</p> <p>The performance of the original student, who has been impersonated, shall be cancelled in all the courses of the examination (including practicals and project work) already appeared and shall not be allowed to appear for examinations of the remaining courses of that semester and other semesters, if any. The student is also debarred for two consecutive semesters from class work and all examinations. The continuation of the program by the student is subject to the academic regulations in connection with forfeiture of seat.</p>
4.	Smuggles in the answer book or additional sheet or takes out or arranges to send out the question paper during or after the examination.	Expulsion from the examination hall and cancellation of performance in that course and all the other courses the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester and other semesters, if any. The student is also debarred for two consecutive semesters from class work and all examinations. The continuation of the program by the student is subject to the academic regulations in connection with forfeiture of seat.
5.	Uses objectionable, abusive or offensive language in the answer paper or in letter to the examiner or writes to the examiner requesting him/her to award pass marks.	Cancellation of the performance in that course.

6.	<p>Refuses to obey the orders of the chief superintendent/assistant– superintendent /any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in-charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in-charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the college campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.</p>	<p>In case of students of the college, they shall be expelled and cancellation of their performance in that course and all other courses the student(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the courses of that semester and other semesters, if any. The students also are debarred and forfeit their seats.</p> <p>In case of outsiders, they will be handed over to the police and a police case is registered against them.</p>
7.	<p>Leaves the exam hall taking away answer script or intentionally tears off the script or any part thereof inside or outside the examination hall.</p>	<p>Expulsion from the examination hall and cancellation of performance in that course and all the other courses the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester and other semesters, if any.</p> <p>The student is also debarred for two consecutive semesters from class work and all examinations. The continuation of the program by the student is subject to the academic regulations in connection with forfeiture of seat.</p>

8.	Possesses any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that course and all other courses the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester and other semesters, if any. The student is also debarred and forfeits the seat.
9.	If student of the college, who is not a student for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	Expulsion from the examination hall and cancellation of the performance in that course and all other courses the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester and other semesters, if any. The student is also debarred and forfeits the seat. Person(s) who do not belong to the college will be handed over to the police and, a police case will be registered against them.
10.	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that course and all other courses the student has already appeared for including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester.
11.	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that course and all other courses the student has appeared for including practical examinations and project work of that semester.
12.	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the Institute for further action to award a suitable punishment.	

Malpractices identified by Squad or Special Invigilators:

Punishments shall be given to the students as per the above guidelines.

Malpractices identified at Spot Valuation center during Valuation:

The following procedure shall be followed in the case of malpractice cases detected during valuation, scrutiny etc. at spot valuation center:

- i) Malpractice detected at the spot valuation center:** The case is to be referred to the Committee constituted to look into the malpractice cases. The committee shall meet and discuss / question the student and based on the evidences, the committee shall recommend suitable action on the student.
- ii)** A notice is to be served to the student(s) involved, through the Principal, to his address and to the student(s) permanent address regarding the malpractice and seek explanation.
- iii)** Based on the explanation given by the party involved and recommendations of the committee, action shall be initiated.
- iv) Composition of the committee constituted to look into malpractice cases**
 1. Principal: Chairman
 2. Controller of Examinations: Member
 3. Concerned Head of the Department: Member
 4. Chief Examiner of the course/course expert: Member
 5. Additional / Assistant Controller of Examinations: Member (Convener)