

## FOREWORD

CMR Technical Campus, established in the year 2009, Approved by AICTE, New Delhi, Permanently Affiliated to JNTUH, twice Accredited by NBA and has been bestowed with NAAC 'A' Grade of 3.12 score on 04 scale in February 2019 for its remarkable academic accomplishments accompanied by its unflinching spirit and dedication to impart quality technical education to the deserving aspirants. The institution has commenced functioning independently within the set norms prescribed by UGC and AICTE. The performance of the institution manifests the confidence that the prestigious monitoring body, the UGC has on it, in terms of upholding its spirit and sustenance of the expected standards of functioning on its own consequently facilitating the award of degrees for its students. Thus, an autonomous institution is provided with the necessary freedom to have its own curriculum, examination system and monitoring mechanism, independent of the affiliating University but under its observance.

CMR Technical Campus takes pride for having won the confidence of such distinguished academic bodies meant for monitoring the quality in technology education. Besides, the institution is delighted to sustain the same spirit of discharging the responsibilities that it has been conveying since a decade to attain the current academic excellence, if not improving upon the standards and ethics. Consequently, statutory bodies such as the Academic Council and the Boards of Studies have been constituted under the supervision of the Governing Body of the College and with the recommendations of the JNTU Hyderabad, to frame the regulations, course structure and syllabi for autonomous status.

The autonomous regulations, course structure and syllabi have been framed in accordance with the vision and mission of the institution along with certain valuable suggestions from professionals of various ancillary fields such as the academics, the industry and the research, all with a noble vision to impart quality technical education and contribute in catering full-fledged engineering and management graduates to the society.

All the faculty members, the parents and the students are requested to study all the rules and regulations carefully and approach the Director to seek any clarifications, if needed, without presumptions, to avoid unwanted subsequent inconveniences and embarrassments. The cooperation of all the stake holders is sought for the successful implementation of the autonomous system in the larger interests of the institution and for brightening the career prospects of engineering and management graduates.

**DIRECTOR**

## CMR TECHNICAL CAMPUS

**Vision:**

To impart quality education in serene atmosphere thus strive for excellence in Technology and Research.

**Mission:**

- To create state of art facilities for effective Teaching – Learning process.
- Pursue and Disseminate knowledge based research to meet the needs of Industry & Society.
- Infuse Professional, Ethical and Societal values among Learning Community.

**Quality Policy:**

- The management is committed in assuring quality service to all its stakeholders like parents, students, alumni, employees, employers and the community.
- Continual quality improvement by establishing and implementing mechanisms and modalities.
- Transparency in procedures and access to information and actions.

**Core Values:**

The CMR Technical Campus is guided by the following core values in delivering its mission and pursuing its vision.

- **A**ccountability: Demonstrate responsibility for our actions; establish and communicate clearly defined and articulated goals and objectives.
- **B**enchmark: To develop and pursue high standards by encouraging skill development and entrepreneurship to meet industry and society needs.
- **C**ommitment: Focus on students and stakeholders needs; continuously evaluate and improve academics, research and infrastructure.
- **D**ignity: Recognize the expertise of all members of the institute and encourage individual contribution and also include stakeholders in the decisions that affect them.

**CMR TECHNICAL CAMPUS  
UGC AUTONOMOUS**

Kandlakoya (V), Medchal Road, Hyderabad-501401, Telangana State (India)

**Academic Regulations [R25]  
B. Tech. - Regular Four Year Degree Programme  
(For students admitted from the academic year 2025 - 26)  
&  
B. Tech. - Lateral Entry Scheme  
(For students admitted from the academic year 2026 - 27)**

CMR Technical Campus (CMRTC) offers a 4-year (8 semesters) Bachelor of Technology (B. Tech.) degree programme, under Choice Based Credit System (CBCS).

**1. UNDER GRADUATE PROGRAMS OFFERED (Engineering & Technology)**

**CMRTC (Autonomous)**, affiliated to JNTUH, offers 4 Year (8 Semesters) **B. Tech.** Degree Programme in the following Branches of Engineering:

| S.No | Branch                                              | Branch Code | Acronym |
|------|-----------------------------------------------------|-------------|---------|
| 1    | Electronics and Communication Engineering           | 04          | ECE     |
| 2    | Computer Science and Engineering (CSE)              | 05          | CSE     |
| 3    | Computer Science and Engineering (AI & ML)          | 66          | CSM     |
| 4    | Computer Science and Engineering (Data Science)     | 67          | CSD     |
| 5    | Electronics Engineering(VLSI Design and Technology) | 77          | EVL     |

**2. ADMISSION CRITERIA AND MEDIUM OF INSTRUCTION**

**2.1 Admission into first year of four- year B. Tech. (Regular) Degree Programme:**

**2.1.1 Eligibility:** A candidate seeking admission into the first year of four-year B. Tech. Degree Programme should have:

- (i) Passed either Intermediate Public Examination (IPE) conducted by the Board of Intermediate Education, Telangana, with Mathematics, Physics and Chemistry as optional subjects or any equivalent examination recognized by Board of Intermediate Education, Telangana or a Diploma in Engineering conducted by the Board of Technical Education, Telangana or equivalent Diploma recognized by Board of Technical Education for admission as per guidelines defined by the Regulatory bodies of Telangana State Council for Higher Education (TSCHE) and AICTE.
- (ii) Secured a rank in the TGEAPCET examination conducted by TSCHE for allotment of a seat by the Convenor, TGEAPCET.

**2.1.2 Admission Procedure:** Admissions are made into the first year of four- year B. Tech. Degree Programme as per the stipulations of the TSCHE.

- (a) Category A: 70% of the seats are filled through TGEAPCET counseling.
- (b) Category B: 30% of the seats are filled by the Management.

**2.2 Admission into the second year of four-year B. Tech. (Regular) Degree Programme Under Lateral Entry Scheme.**

- 2.2.1 **Eligibility:** A candidate seeking admission into the II year I Semester B. Tech. Regular Degree Programme under Lateral Entry Scheme (LES) should have passed the qualifying examination (B.Sc. Mathematics or Diploma in concerned course) and have secured a rank at Engineering Common Entrance Test TGE CET (FDH). Admissions are made in accordance with the instructions received from the Convenor, TGE CET and Government of Telangana State.
- 2.2.2 **Admission Procedure:** Admissions are made into the II year of four-year B.Tech. (Regular) Degree Programme through Convenor, TGE CET (FDH) against the sanctioned intake in each Programme of study as lateral entry student.
- 2.3 **Branch Transfers:** There shall be no Branch transfers after the completion of Admission Process.
- 2.4 **Medium of Instruction:** The Medium of Instruction and Examinations for the entire B. Tech. programme will be in **English** only.
3. **B. Tech. PROGRAMME STRUCTURE**
- 3.1 **Admitted under Four Year B. Tech. (Regular) degree Programme:**
- 3.1.1 A student after securing admission shall pursue the under graduate programme in B. Tech for a minimum period of **four** academic years (8 semesters), and a maximum period of **eight** academic years (16 semesters) starting from the date of commencement of first year first semester, failing which, students shall forfeit their seat in B. Tech course.
- 3.1.2 An **induction program** of one-week duration for the UG students entering the institution, right at the start shall be implemented. Normal classes commence only after the induction programme is conducted. Following activities could be part of the induction programme: i) Physical Activity, ii) Creative Arts, iii) Imparting Universal Human Values, iv) Literary Activities, v) Lectures by Eminent People, vi) Visits to Local Areas and vii) Familiarization to department as well as entire institute and viii) Making students understand Innovative practices at the college premises etc.
- 3.1.3 The entire B. Tech. programme is structured for a total of 164 credits. Distribution of credits Semester-wise is available in the respective course structure.
- 3.1.4 Each student shall register 164 credits and secure minimum 160 credits (with CGPA  $\geq$  5) for the completion of the under graduate programme and award of the B.Tech degree.
- 3.2 **Admitted under Lateral Entry Scheme (LES) into B. Tech. degree Programme:**
- 3.2.1 After securing admission into II-year B.Tech. I Semester, the LES students shall pursue a course of study for not less than three academic years (6 Semesters) and not more than six academic years (12 Semesters), failing which students shall forfeit their seat in B.Tech. programme.
- 3.2.2 The student shall register 124 credits and secure minimum 120 credits (with CGPA  $\geq$  5) from II year to IV year B.Tech. programme (LES) for the award of B. Tech degree.
- 3.3 The Course Structure is organized based on the AICTE Model Curriculum (Jan-2018) for Under- Graduate Degree Courses in Engineering & Technology. **UGC / AICTE** specified definitions / descriptions are adopted appropriately for various terms and abbreviations used in these Academic Regulations / Norms, which are listed below:

**3.3.1 Semester Scheme:**

The evaluation of course is on the basis of Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) as indicated by UGC while the course Curriculum / Course Structure is as suggested by AICTE.

- B. Tech. (Regular) Programme is of 4 Academic Years (8 Semesters)
- B. Tech. (LES) Programme is of 3 Academic Years (6 Semesters),
- Each academic year is divided into two semesters.
- Each semester is of 22 weeks ( $\geq 90$  Instructional days per semester)
- Each Semester is having - 'Continuous Internal Evaluation (CIE)' and 'End Semester Examination (ESE)'.

**3.3.2 Credit Courses:**

All courses offered in each semester are to be registered by the student. Against each course in the course structure, the L: T: P: C (lecture periods: tutorial periods: practical periods: credits) pattern has been defined.

- One credit is allocated for one hour per week in a semester for lecture (L) or Tutorial (T) session.
- One credit is allocated for two hours per week in a semester for Laboratory/ Practical (P) session.
- One credit is allocated for two hours per week in a semester for Project/Mini-Project session.

For example, a theory course with three credit weightage requires three hours of classroom instruction per week, totaling approximately 45 hours of instruction over the entire semester.

**3.3.3 Subject / Course Classification:**

CMRTC has followed the guidelines specified by AICTE / UGC / JNTUH. The subjects / courses offered in B. Tech. programme are broadly classified as mentioned below.

| S. No. | Broad Course Classification | Course Group/ Category              | Course Description                                                                                                                                 |
|--------|-----------------------------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | Foundation Courses          | BS – Basic Sciences                 | Includes mathematics, physics and chemistry Courses.                                                                                               |
| 2      |                             | ES – Engineering Sciences           | Includes fundamental engineering Courses                                                                                                           |
| 3      |                             | HS – Humanities and Social sciences | Includes Courses related to humanities, social sciences and management                                                                             |
| 4      | Core Courses                | PC – Professional Core              | Includes core Courses related to the parent discipline/ department/ branch of Engineering.                                                         |
| 5      | Elective Courses            | PE – Professional Electives         | Includes elective Courses related to the parent discipline/ department/ branch of Engineering.                                                     |
| 6      |                             | OE – Open Electives                 | Elective Courses which include inter- disciplinary Courses or Courses in an area outside the parent discipline/ department/ branch of Engineering. |

|    |                                |                                                                                         |                                                                                                             |
|----|--------------------------------|-----------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 7  | Project Core                   | Project Work                                                                            | B. Tech. Project or UG Project or UG Major Project                                                          |
| 8  | Other Core Courses(OCC)        | Industry Training/ Internship/ Industry Oriented Mini-Project/Skill Development Courses | Industry Training/ Internship/Industry Oriented Mini-Project/Skill Development Courses                      |
| 9  |                                | Seminar                                                                                 | Seminar/ Colloquium based on core contents related to parent discipline/ department/ branch of Engineering. |
| 10 | Skill Development Courses(SDC) | -                                                                                       | Courses designed to help individuals gain, improve, or refine specific skills                               |
| 11 | Value Added Courses (VAC)      | -                                                                                       | Courses to build professional values, traditional knowledge and sensitization of societal issues            |

### 3.3.4 Subject Code Nomenclature:

|   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|---|---|---|---|---|---|---|---|---|

1, 2 - Year of implementation of Regulation  
 3, 4 - Department Code (Course offering department)  
 5 - Serial No. of Semester (1 to 8)  
 6, 7 - Serial No. of Course, Semester wise  
 8, 9 - Course Group/ Category

**Example: - 25EC302PC**

## 4. COURSE REGISTRATION

- 4.1 A ‘**Faculty Advisor/Mentor**’ shall be assigned to a group of around 20 students to advise the students about the B. Tech. programme, course structure and curriculum, choice / option for subjects / courses, based on his/her competence, progress, pre-requisites and interest.
- 4.2 The academic section of the college invites ‘registration forms’ from students before the beginning of the semester through online registration, ensuring ‘**date and time stamping**’. The online registration requests for any semester courses shall be completed **before the commencement of ESEs (End Semester Examinations) of the ‘preceding semester’**.
- 4.3 A student can apply for **online** registration, **only after** obtaining the ‘**written approval**’ from faculty advisor or Mentor, which should be submitted to the college academic section through the Head of the Department. A copy of it shall be retained with Head of the Department, faculty advisor and the student.
- 4.4 A student has to register for all courses in a semester as specified in the course structure.
- 4.5 If the student submits ambiguous choices or multiple options or erroneous (incorrect) entries during **online** registration for the course(s) under a given / specified course group/category as listed in the course structure, only the first mentioned course in that category will be taken into consideration.

- 4.6 Course options exercised through **online** registration are final and **cannot** be changed or inter- changed; further, alternate choices also will not be considered. However, if the course that has already been listed for registration by 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 - either for a new course (subject to offering of such a course), or for another existing course (subject to availability of seats), which may be considered. Such alternate arrangements will be made by Head of the Department, with due notification and time- framed schedule, within the **first week** from the commencement of class-work for that semester.
- 4.7 The Head of the Department / Course Coordinator should review vacant slots in the timetable of each section once in every week or fortnight. The vacant slots in the timetable may be allocated to the subject teachers who could not take classes in proportion to the number of weeks completed from the commencement of the semester.
- 4.8 Two faculty members may be allocated for the tutorial session of Mathematics-1 course for better interaction/practice and to minimize the failures in the subject.
- 4.9 **Professional Electives:** Students have to choose six Professional Electives (PE-I to VI), wherever offered, from the list of professional electives given. Students have the flexibility to choose from the list of professional electives offered by the Institute or opt to register for the equivalent Massive Open Online Courses (MOOCs) as listed from time to time by the Institute/University.
- 4.10 **Open Electives:** The students have to choose three Open Electives (OE-I, II & III) from the list of Open Electives given by other departments. However, the student can opt for an Open Elective subject offered by his own (parent) department, if the student has not registered and not studied that subject under any category (Professional Core, Professional Electives, Mandatory Courses etc.) offered by parent department in any semester. Open Elective subjects already studied should not repeat/should not match with any category (Professional Core, Professional Electives, Mandatory Courses etc.) of subjects even in the forthcoming semesters.
- 4.11 **Provision for early registration of MOOCs:** For a professional elective in a semester, students are allowed to register for an equivalent MOOCs course listed from time to time by the Institute/University one semester in advance. For example, a Professional Elective of III Year II Sem shall be allowed to register under MOOCs platform in III year I Sem.
- The credits earned in one semester in advance can be submitted in the subsequent semester for the assessment.
- The students who have registered in advance in an equivalent MOOCs course and fail to secure any pass grade in the MOOCs course, can register for the regular course offered in the following semester of their course structure.
- 4.12 **Conversion of Marks Secured in MOOCs into Grades:** Marks secured in the internal and external evaluations of a MOOCs course shall be scaled to 40 and 60 marks respectively. The sum of these two components shall be considered as the total marks out of 100. The corresponding grade shall then be determined as per the marks-to-grades conversion rules specified in Item 9.2.
- 4.13 **MOOCs:** MOOCs are allowed only for professional elective courses and for a few Minors & Honors courses.

## 5. RULES TO OFFER ELECTIVE COURSES

- 5.1 An elective course may be offered to the students, only if a minimum of 25% of class strength opts for it. More than **one faculty member** may offer the **same subject** (lab / practical's may be included with the corresponding theory subject in the same semester) in any semester.
- 5.2 Same elective course for different sections may be offered by different faculty members. The selection of elective course by students will be based on first come first serve and / or CGPA criterion.
- 5.3 If the number of students registrations are more than the strength of one section, then it is choice of the concerned Department to offer the same course for more than one section based on the resources available in the department.

## 6. ATTENDANCE REQUIREMENTS

- 6.1 A student shall be eligible to appear for the semester end examinations, if the student acquires a minimum 75% of attendance in aggregate of all the subjects / courses for that semester. **Two periods** of attendance for each theory subject shall be considered, if the student appears for the mid-term examination of that subject. ***This attendance should also be included in the final attendance.***
- 6.2 Shortage of attendance in aggregate up to 10% (65% and above, and below 75%) in each semester may be condoned by the college academic committee on genuine and valid grounds, based on the student's representation with supporting evidence.
- 6.3 A stipulated fee shall be payable towards condoning of shortage of attendance.
- 6.4 Shortage of attendance below 65% in aggregate shall in **no** case be condoned.
- 6.5 Students whose shortage of attendance is not condoned in any semester are not eligible to take their end examinations of that semester. They get detained and will not be promoted to the next semester. their registration for that semester shall stand cancelled, including internal Marks. They may seek re-registration for all those subjects registered in that semester in which student was detained, by seeking re-admission into that semester as and when offered; in case if there are any professional electives and / or open electives, the same may also be re- registered, if offered. However, if those electives are not offered in later semesters, then alternate electives may be chosen from the **same** set of elective subjects offered under that category.
- 6.6 A student fulfilling the attendance requirement in the present semester shall not be eligible for readmission into the same class.
- 6.7 The attendance requirements of B. Tech. (Regular) shall be applicable to B. Tech. (LES).

## 7. ACADEMIC REQUIREMENTS

The following academic requirements have to be satisfied, in addition to the attendance requirements mentioned in item no. 6.

- 7.1 A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/course, if student secures not less than 35% of marks (21 marks out of 60 marks) in the End Semester Examination (ESE), and a minimum of 40% of marks (40 marks out of 100 marks) in the sum total of the Continuous Internal Evaluation (CIE) and End Semester Examination (ESE) taken together; in terms of letter grades, this implies securing 'C' grade or above in that subject / course.

- 7.2** A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to Field Based Research Project (or) Industry Oriented Mini Project (or) Internship, if the student secures not less than 40% marks (i.e. 40 out of 100 allotted marks) in each of them. The student is deemed to have failed, if he (i) does not submit a report on Field Based Research Project/Industry Oriented Mini Project/Internship, or (ii) not make a presentation of the same before the evaluation committee as per schedule, or (iii) secures less than 40% marks in Field Based Research Project (or) Industry Oriented Mini Project (or) Internship evaluations.

A Student may reappear once for each of the above evaluations, when they are scheduled again; if the student fails in such 'one reappearance' evaluation also, the student has to reappear for the same in the next subsequent semester, as and when it is scheduled.

### **7.3 Promotion Rules**

#### **7.3.1 B. Tech. (Regular):**

| S. No. | Promotion                           | Conditions to be fulfilled                                                                                                                                                                                                                                                                               |
|--------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | First Semester to Second Semester   | Regular course of study of First Semester and fulfilment of attendance requirement.                                                                                                                                                                                                                      |
| 2      | Second Semester to Third Semester   | (i). Regular course of study of Second Semester and fulfilment of attendance requirement.<br>(ii). Must have secured at least 25% credits (10 out of 40 credits) up to Second Semester from all the relevant regular and supplementary examinations whether the student takes those examinations or not. |
| 3      | Third Semester to Fourth Semester   | Regular course of study of Third Semester and fulfilment of attendance requirement.                                                                                                                                                                                                                      |
| 4      | Fourth Semester to Fifth Semester   | (i) Regular course of study of Fourth Semester and fulfilment of attendance requirement.<br>(ii). Must have secured at least 25% credits up to Fourth Semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.                        |
| 5      | Fifth Semester to Sixth Semester    | Regular course of study of Fifth Semester and fulfilment of attendance requirement.                                                                                                                                                                                                                      |
| 6      | Sixth Semester to Seventh Semester  | Regular course of study of Sixth Semester and fulfilment of attendance requirement.                                                                                                                                                                                                                      |
| 7      | Seventh Semester to Eighth Semester | Regular course of study of Seventh Semester and fulfilment of attendance requirement.                                                                                                                                                                                                                    |

## 7.3.2 B. Tech - Lateral Entry Scheme (LES):

| S. No. | Promotion                           | Conditions to be fulfilled                                                                                                                                                                                                                                                       |
|--------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1      | Third Semester to Fourth Semester   | Regular course of study of Third Semester and fulfilment of attendance requirement.                                                                                                                                                                                              |
| 2      | Fourth Semester to Fifth Semester   | (i) Regular course of study of Fourth Semester and fulfilment of attendance requirement.<br>(ii) Must have secured at least 25% credits up to Fourth Semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not. |
| 3      | Fifth Semester to Sixth Semester    | Regular course of study of Fifth Semester and fulfilment of attendance requirement.                                                                                                                                                                                              |
|        | Sixth Semester to Seventh Semester  | Regular course of study of Sixth Semester and fulfilment of attendance requirement.                                                                                                                                                                                              |
| 5      | Seventh Semester to Eighth Semester | Regular course of study of Seventh Semester and fulfilment of attendance requirement.                                                                                                                                                                                            |

## 7.4 CREDIT EXEMPTION:

A student (i) shall register for all courses/subjects covering 164 credits (124 credits in case of LES) as specified and listed in the course structure, (ii) fulfills all the attendance and academic requirements for 164 credits (124 credits in case of LES), (iii) earn 160 or more credits (120 or more credits in case of LES) by securing SGPA  $\geq 5.0$  (in each semester), and CGPA  $\geq 5$  (at the end of 8 semesters), to successfully complete the undergraduate programme.

- The performance of the student in the best 160 credits (Best 120 credits in case of LES) shall be considered for the calculation of the final CGPA (**at the end of undergraduate programme**).
- The other student can avail exemption of courses **totaling up to 4 credits** other than Professional core courses, Laboratory Courses, Seminars, Project Work and Field Based Research Project / Industry Oriented Mini Project / Internship, for optional drop out from these 164 credits registered (124 credits in case of LES);
- The semester grade point average (SGPA) of each semester shall be mentioned at the bottom of the grade card, when all the subjects in that semester have been passed by the student.
- Credits earned by the student in either a Minor or Honors program cannot be counted towards the required 160 credits for the award of the B.Tech. degree.

7.5 A student eligible to appear in the End Semester Examination for any subject / course, but absent from it or failed (thereby failing to secure 'C' grade or above) may reappear for that subject / course in the supplementary examination as and when conducted. In such cases, internal marks (CIE) assessed earlier for that subject / course will be carried over, and added to the marks to be obtained in the ESE supplementary examination for evaluating performance in that subject.

7.6 A student detained in a semester due to shortage of attendance may be re-admitted when the same semester is offered in the next academic year for fulfillment of academic requirements. The academic regulations under which student has been readmitted shall be applicable. However, no grade allotments or SGPA / CGPA calculations will be done for the entire semester in which student has been detained.

7.7 A student detained due to lack of credits, shall be promoted to the next academic year only after acquiring the required academic credits. The academic regulations under which student has been readmitted shall be applicable to him.

## 8. EVALUATION - DISTRIBUTION AND WEIGHTAGE OF MARKS

8.1 The performance of a student in every subject/course (including Value Added Courses and Skill Development Courses, Laboratory/Practical and Project Work) will be evaluated for 100 marks each, with 40 marks allotted for CIE (Continuous Internal Evaluation) and 60 marks for ESE (End Semester Examination), irrespective of the credits allocated.

### 8.2 Evaluation of Theory Subjects / Courses:

A) **Continuous Internal Evaluation (CIE):** For each theory subject, during a semester, there shall be two mid-term examinations. Each Mid-Term examination consists of two parts i) **Part – A** for 10 marks, ii) **Part – B** for 20 marks, totaling to 30 marks. Total duration of Mid-Term Examination is 2 hours.

#### 1. Mid-Term Examination for 30 marks:

- a. Part - A: Descriptive paper for Part-A (10 marks) Consists of one compulsory question with 5 sub questions (2, 2, 1 questions from Units I, II, III respectively in I Mid-Term and 1, 2, 2 questions from Units III, IV, V respectively in II Mid-Term) carrying 2 marks each.
- b. Part – B: Descriptive paper for Part-B (20 marks) consists of 3 questions (May contain sub questions) carrying 8 marks, 8 marks & 4 marks from Units I, II, III respectively in I Mid-Term and 4 marks, 8 marks & 8 marks from Units III, IV, V respectively in II Mid-Term with internal choice. The student has to answer all the questions.

The **average of the two Mid-Term examinations** (I Mid-Term & II Mid-Term) shall be taken as the final marks for Mid –Term examination (for 30 marks).

The remaining 10 marks of Continuous Internal Evaluation (out of 40) are distributed as:

2. Assignment for 5 marks. (**Average of 2 Assignments** each for 5 marks)
3. Subject Viva-Voce/PPT/Poster Presentation/ Case Study on a topic in the concerned subject for 5 marks.

While the first mid-term examination shall be conducted on 50% of the syllabus, the second mid-term examination shall be conducted on the remaining 50% of the syllabus.

Five (5) marks are allocated for assignments (as specified by the subject teacher concerned). The first assignment should be submitted before the conduct of the first

mid- term examination, and the second assignment should be submitted before the conduct of the second mid-term examination. The average of the two assignments shall be taken as the final marks for assignment (for 5 marks).

Five marks for the Viva-Voce/PPT/Poster Presentation/ Case Study on a topic in the concerned subject. This assessment shall be completed before II Mid-Term Examination. The Principals shall schedule these sessions in their semester plan.

A **Computer-Based Test (CBT)** in each course is available for students who either:

1. Missed one of the two mid-term examinations due to unavoidable circumstances, or
2. Attended both mid-term examinations but wish to improve their internal marks.

The CBT will be conducted at the end of the semester and will carry a total of 30 marks. The marks obtained in the CBT will be considered equivalent to those obtained in one mid-term examination. Zero marks will be awarded to students who are absent from the mid-term examination. The average of the best two scores from the three exams (the two mid-term exams and the CBT), combined with other internal assessment components, will constitute the Continuous Internal Improvement (CII) marks for that specific course. CBT exams shall be conducted by the Institute/University.

- B) **End Semester Examinations:** The duration of End Semester Examination (ESE) is 3 hours. The details of the end semester question paper pattern are as follows:

The End Semester Examination (ESE), for theory subjects, will be conducted for 60 marks consisting of two parts viz. i) **Part- A** for 10 marks, ii) **Part - B** for 50 marks.

- Part-A is a compulsory question which consists of five short answer questions (One from each unit) carrying 2 marks each.
- Part-B consists of five questions (numbered from 2 to 11) carrying 10 marks each. Each of these questions is from each unit and may contain sub-questions. For each question there will be an “either” “or” choice, which means that there will be two questions from each unit and the student should answer either of the two questions. The student shall answer one question from each of five units.

- C) For the subject, **Computer Aided Engineering Graphics**, the Continuous Internal Evaluation (CIE) and End Semester Examinations (ESE) evaluation pattern is same as Practical subjects **for Circuit Branches Like ECE, CSE and allied branches.**

- 8.3 **Evaluation of Practical Subjects / Courses:** In any semester, a student has to complete at least 08 to 10 experiments / exercises in each laboratory course and get the record certified by the Subject teacher and concerned Head of the Department to be eligible for End Semester Examination.

For practical subjects, there shall be a Continuous Internal Evaluation (CIE) during the Semester for 40 internal marks and 60 marks for End Semester Examination (ESE).

- A) **Continuous Internal Evaluation (CIE):** Out of the 40 marks for internal evaluation:

1. A write-up on day-to-day experiment in the laboratory (in terms of aim, components/procedure, expected outcome) which shall be evaluated for 10 marks.
2. 10 marks for viva-voce (or) tutorial (or) case study (or) application (or) poster presentation of the course concerned.

3. Internal practical examination conducted by the laboratory teacher concerned shall be evaluated for 10 marks.
4. The remaining 10 marks are for Laboratory Report/Project and Presentation, which consists of the Design (or) Software / Hardware Model Presentation (or) App Development (or) Prototype Presentation submission which shall be evaluated after completion of laboratory course and before semester end practical examination.

**B) End Semester Examination (ESE):** The ESE for practical subject / course shall be conducted at the end of the semester by one internal and one external examiner appointed by the Head of the Institution as per the recommendation of the concerned Head of the Department.

In the End Semester Examination held for 3 hours, total 60 marks are divided and allocated as shown below:

1. 10 marks for write-up
2. 15 for experiment/program
3. 15 for evaluation of results
4. 10 marks for presentation on another experiment/program in the same laboratory course and
5. 10 marks for viva-voce on concerned laboratory course.

For any change of experiment, 5 marks will be deducted from the total of 60 marks. If second time change of experiment is requested, another five marks will be deducted from the 60 marks. No third change will be permitted.

#### 8.4 **Field-based Research Project:**

There shall be a Field-based Research Project in the intervening summer between II-II and III- I Semesters. Students will register for this project immediately after II Year II Semester examinations and pursue it during summer vacation. The Field-based Research Project shall be submitted in a report form and presented before the committee in III year I semester. It shall be evaluated for 100 external marks. The evaluation committee shall consist of an External Examiner, Head of the Department, Supervisor of the Project and a Senior Faculty Member of the department. There shall be no internal marks for Field-based Research Project. Student shall have to earn 40% marks, i.e 40 marks out of 100 marks. The student is deemed to have failed, if he (i) does not submit a report on the Project, or (ii) does not make a presentation of the same before the committee as per schedule, or (iii) secures less than 40% marks in this course.

#### 8.5 **Internship/Industry Oriented Mini Project:**

There shall be an Internship/Industry Oriented Mini Project in collaboration with an industry from their specialization. Students shall register for this project immediately after III Year II Semester Examinations and pursue it during summer vacation. Internship should be carried out at an organization (or) Industry. The Industry Oriented Mini Project shall be submitted in a report form and presented before the committee in

IV Year I Semester before the semester end examination. It shall be evaluated for 100 external marks. The committee consists of an External Examiner, Head of the Department, Supervisor of the Industry Oriented Mini Project/Internship, and a Senior Faculty Member of the Department.

For evaluating industry-oriented mini-projects, it is preferable to appoint an external examiner from the industry, ideally from one of the organizations/ industries with which the institute has established / proposing to establish collaborations.

**8.6 UG Project Work:**

The UG project work shall be initiated at the beginning of the IV Year II Semester and the duration of the project work is one semester. The student must present in consultation with his/her supervisor, the title, objective and plan of action of his/her Project work to the departmental committee for approval within two weeks from the commencement of IV Year II Semester. Only after obtaining the approval of the departmental committee, the student can start his/her project work.

**8.6.1** Student has to submit project work report at the end of IV Year II Semester. The project work shall be evaluated for 100 marks. Out of which 40 marks and 60 marks are allocated for CIE and External Evaluation respectively.

**8.6.2** For internal evaluation, the departmental committee consisting of Head of the Department, Project Supervisor and a Senior Faculty Member shall evaluate the project work for 40 marks. The distribution of marks is as follows:

|                               |                 |
|-------------------------------|-----------------|
| Objective(s) of the work done | 05 Marks        |
| Methodology adopted           | 15 Marks        |
| Results and Discussions       | 15 Marks        |
| Conclusions and Outcomes      | 05 Marks        |
| <b>Total</b>                  | <b>40 Marks</b> |

**8.6.3** The External Evaluation shall be conducted by the external examiner for a total of 60 marks. It shall comprise the presentation of the work, communication skills, and viva-voce, with a weightage of 20 marks, 15 marks, and 25 marks respectively.

**8.6.4** The topics for main Project shall be different from the topic of Industry Oriented Mini Project/ Internship/SDC. The student is deemed to have failed, if he (i) does not submit a report on the Project, or (ii) does not make a presentation of the same before the External Examiner as per schedule, or (iii) secures less than 40% marks in the sum total of the CIE and ESE taken together.

**8.6.5** For conducting the viva-voce exam of project work, the Director shall appoint an external examiner from the panel of experts recommended by the Heads of the Departments.

**8.6.6** A student who has failed, may re-appear once for the above evaluation, when it is scheduled again; if student fails in such 'one re-appearance' evaluation also, he/she has to appear for the same in the next subsequent year, as and when it is scheduled

**8.7 Skill Development Courses:**

Four Skill Development Courses are included in the Curriculum in II-1, II-2, III-1 and III-2 semesters. Each Skill Development Course carries one credit. The evaluation pattern will be same as that of a laboratory course including the internal and external assessments.

The objective of Skill Courses is to develop the cognitive skills as well as the psycho-motor skills.

**8.8 Value-Added Courses:**

The evaluation of Value-Added Courses shall be similar to that of theory courses and their mid-term and End Semester Examination[ESE] shall be scheduled along with the main stream examinations.

## 9. GRADING PROCEDURE

- 9.1 Grades will be awarded to indicate the performance of the student in each theory subject, laboratory/practicals, Industry-Oriented Mini Project/Internship/Skill Development Course(SDC) and Project Work based on the percentage of marks obtained in Continuous Internal Evaluation plus End Semester Examination, both taken together, as specified in item 8 above, a corresponding letter grade shall be given.
- 9.2 As a measure of the student's performance, a 10-point Absolute Grading System using the following letter grades (UGC/AICTE Guidelines) and corresponding percentage of marks shall be followed.

| % of Marks Secured in a Subject/Course<br>(Class Intervals) | Letter Grade<br>(UGC Guidelines) | Grade Points |
|-------------------------------------------------------------|----------------------------------|--------------|
| 90% and above ( $\geq 90\%$ , $\leq 100\%$ )                | O<br>(Outstanding)               | 10           |
| Below 90% but not less than 80% ( $\geq 80\%$ , $<90\%$ )   | A <sup>+</sup><br>(Excellent)    | 9            |
| Below 80% but not less than 70% ( $\geq 70\%$ , $<80\%$ )   | A (Very Good)                    | 8            |
| Below 70% but not less than 60% ( $\geq 60\%$ , $<70\%$ )   | B <sup>+</sup> (Good)            | 7            |
| Below 60% but not less than 50% ( $\geq 50\%$ , $<60\%$ )   | B (Average)                      | 6            |
| Below 50% but not less than 40% ( $\geq 40\%$ , $<50\%$ )   | C (Pass)                         | 5            |
| Below 40% ( $< 40\%$ )                                      | F (Fail)                         | 0            |
| Absent                                                      | Ab                               | 0            |

- 9.3 A student obtaining **F** grade or **AB** grade in any subject shall be considered '**failed**' in that subject and will be required to reappear in '**Supplementary Exam**' in the End Semester Examination (ESE), as and when offered. In such cases, Continuous Internal Examination (CIE) in those subject(s) will remain same as those obtained earlier.
- 9.4 To a student who has not appeared for an examination in any subject, '**Ab**' grade will be allocated in that subject, and he is deemed to have '**Failed**'. A student will be required to reappear as a '**supplementary student**' in the semester end examination, as and when offered next. In this case also, the internal marks in those subjects will remain the same as those obtained earlier.
- 9.5 A letter grade does not imply any specific % of marks. secured by the student, but it indicates only the range of percentage of marks.
- 9.6 A student earns grade point (GP) in each subject / course, on the basis of the letter grade obtained in that subject/course. Then the corresponding '**credit points**' (CP) are computed by multiplying the grade point with credits for that particular subject/course.

$$\text{Credit Points (CP)} = \text{Grade Point (GP)} \times \text{Credits} \dots\dots \text{For a course}$$

- 9.7 The student passes the subject / course only when **GP  $\geq 5$  (C grade or above)**.
- 9.8 The Semester Grade Point Average (SGPA) is calculated by dividing the sum of credit points ( $\Sigma$ CP) secured from all subjects / courses registered in a semester, by the total number of credits registered during that semester. SGPA is rounded off to **two** decimal places. SGPA is thus computed as

$$\text{SGPA (S}_i\text{)} = \Sigma (\text{C}_i \times \text{G}_i) / \Sigma \text{C}_i$$

Where  $\text{C}_i$  is the number of credits of the  $i^{\text{th}}$  course and  $\text{G}_i$  is the grade point scored by the student in the  $i$  course.

- 9.9 If a student earns more than 160 credits, only the courses corresponding to the best 160 credits shall be considered for the computation of CGPA of B. Tech. degree.
- 9.10 The Cumulative Grade Point Average (CGPA) is a measure of the overall cumulative performance of a student in all semesters considered for registration. The CGPA is the ratio of the total credit points secured by a student in **all** registered courses in **all** Semesters, and the total number of credits registered in **all** the semesters. CGPA is rounded off to **two** decimal places. CGPA is thus computed from the I year, I semester onwards, at the end of each semester, as per the formula:

$$\text{CGPA} = \sum (C_j \times S_i) / \sum C_j$$

where  $S_i$  is the SGPA of the  $i^{\text{th}}$  semester and  $C_j$  is the total number of credits in that semester.

| Illustration of calculation of SGPA |           |              |              |                | Illustration of calculation of CGPA |            |      |                |
|-------------------------------------|-----------|--------------|--------------|----------------|-------------------------------------|------------|------|----------------|
| Course /Subject                     | Credits   | Letter Grade | Grade Points | Credit Points  | Sem.                                | Credits    | SGPA | Credits x SGPA |
| Course 1                            | 4         | A            | 8            | 4 x 8 = 32     | SemI                                | 20         | 7    | 20 x 7 = 140   |
| Course 2                            | 4         | O            | 10           | 4 x 10 = 40    | SemII                               | 20         | 6    | 20 x 6 = 120   |
| Course 3                            | 3         | C            | 5            | 3 x 5 = 15     | SemIII                              | 20         | 6.5  | 20 x 6.5 = 130 |
| Course 4                            | 3         | B            | 6            | 3 x 6 = 18     | SemIV                               | 20         | 6    | 20 x 6 = 120   |
| Course 5                            | 1.5       | A+           | 9            | 1.5 x 9 = 13.5 | SemV                                | 20         | 7.5  | 20 x 7.5 = 150 |
| Course 6                            | 1.5       | A            | 8            | 1.5 x 8 = 12   | SemVI                               | 20         | 8    | 20 x 8 = 160   |
| Course 7                            | 1.5       | B+           | 7            | 1.5 x 7 = 10.5 | SemVII                              | 20         | 8.5  | 20 x 8.5 = 170 |
| Course 8                            | 1.5       | A+           | 9            | 1.5 x 9 = 13.5 | SemVIII                             | 20         | 8    | 20 x 8 = 160   |
| <b>Total</b>                        | <b>20</b> |              | <b>62</b>    | <b>154.5</b>   | <b>Total</b>                        | <b>160</b> |      | <b>1150</b>    |
| <b>SGPA = 154.5/20 = 7.72</b>       |           |              |              |                | <b>CGPA = 1150/160 = 7.18</b>       |            |      |                |

The CGPA of the entire B.Tech. programme shall be calculated considering the best 160 credits earned by the student.

- 9.11 For merit ranking or comparison purposes or any other listing, **only** the ‘**rounded off**’ values of the CGPAs will be used.
- 9.12 SGPA and CGPA of a semester will be mentioned in the semester Memorandum of Grades if all subjects of that semester are passed in first attempt. Otherwise the SGPA and CGPA shall be mentioned only on the Memorandum of Grades in which sitting he passed his last exam in that semester.
- 10. PASSING STANDARDS**
- 10.1 A student shall be declared ‘**successful**’ or ‘**passed**’ in a semester, if student secures a GP  $\geq 5$  (‘C’ grade or above) in every subject/course in that semester (i.e. when student gets an SGPA  $\geq 5.00$  at the end of that particular semester); and a student shall be declared ‘**successful**’ or ‘**passed**’ in the entire under graduate programme, only when a student gets a CGPA  $\geq 5.00$  for the award of the degree as required.
- 10.2 After the completion of semester, a grade card or grade sheet (or transcript) shall be issued to all the registered students of that semester, indicating the letter grades and credits earned. It will show the details of the courses registered (course code, title, no. of credits, grade earned etc.), credits earned, SGPA, and CGPA.

## 11 DECLARATION OF RESULTS

- 11.1 Computation of SGPA and CGPA are done using the procedure listed in 9.6 to 9.10.
- 11.2 For Final percentage of marks equivalent to the computed final CGPA, the following formula may be used:

$$\text{Percentage of Marks} = (\text{final CGPA} - 0.5) \times 10$$

## 12 AWARD OF DEGREE

12.1 A student who registers for all the specified subjects/ courses as listed in the course structure and secures the required number of 160 credits (with CGPA  $\geq 5.0$ ), within 8 academic years from the date of commencement of the first academic year, shall be declared to have '**qualified**' for the award of B. Tech. degree in the branch of Engineering selected at the time of admission.

12.2 A Student who qualifies for the award of the degree as listed in item 12.1 shall be placed in the following classes.

1. A student with final CGPA (at the end of the undergraduate programme)  $\geq 8.00$ , and fulfilling the following conditions - shall be placed in '**First Class with Distinction**'.

However, he

- (i) Should have passed all the subjects/courses in '**First Appearance**' within the first 4 academic years (or 8 sequential semesters) for B. Tech (Regular) and first 3 academic years (or 6 sequential semesters) for B. Tech.(LES) from the date of commencement of first year first semester for B. Tech(Regular) and II Year I Semester for B. Tech. (LES).
- (ii) Should not have been detained or prevented from writing the semester end examinations in any semester due to shortage of attendance or any other reason.

A student not fulfilling any of the above conditions with final CGPA  $\geq 8$  shall be placed in 'First Class'.

2. Students with final CGPA (at the end of the undergraduate programme)  $\geq 7.0$  but  $< 8.00$  shall be placed in '**First Class**'.
3. Students with final CGPA (at the end of the undergraduate programme)  $\geq 6.00$  but  $< 7.00$ , shall be placed in '**Second Class**'.
4. All other students who qualify for the award of the degree (as per item 12.1), with final CGPA (at the end of the undergraduate programme)  $\geq 5.00$  but  $< 6$ , shall be placed in '**pass class**'.
5. A student with final CGPA (at the end of the undergraduate programme)  $< 5.00$  will not be eligible for the award of the degree.

12.3 **Grace Marks:** Grace marks shall be given to those students who complete the course work of four year B. Tech. degree, not secured pass grade in not more than three subjects and adding a specified grace marks enables the student to pass the subject(s) as well as gets eligibility to receive the provisional degree certificate.

Grace marks for students admitted under the R-25 Academic Regulations should not exceed **0.15%** of the total maximum marks in all eight semesters (excluding the marks allocated for value added courses and skill development courses).

12.4 **Award of Medals:** Students fulfilling the conditions listed under item 12.2 alone will be eligible for award of '**College Ranks**' and '**Medals**'.

If more than one student secures the same highest CGPA, then the following tie resolution criteria, in the same order of preference shall be followed for selecting the Gold Medal winner, until the tie is resolved: 1) more number of times secured highest SGPAs, ii) more number of O and A+ grades in that order and iii) highest SGPA in the order of first semester to eight semester.

**12.5 Multiple Entry Multiple Exit Scheme (MEME)****12.5.1 Exit Option after Second Year:**

Students enrolled in the 4-Year B.Tech. program are permitted to exit the program after successful completion of the second year (B.Tech. II Year II Semester). The students who desire to exit after the II year shall formally inform the exit plan one semester in advance i.e. at the commencement of II Year II Semester itself. Such students need to fulfil the additional requirements as specified in Item 12.5.2 described below.

Upon fulfilling the requirements like earning all the credits up to II Year II Semester and successfully completing the additional requirements, the students will be awarded a 2-Year Undergraduate (UG) Diploma in the concerned engineering branch.

**12.5.2 Additional Requirements for Diploma Award**

To qualify for the diploma under the exit option, students must also complete 2 additional credits through one of the following University-prescribed pathways:

**Work-based Vocational Course:**

Participation in a practical, hands-on vocational training program relevant to the engineering field, typically conducted during the summer term.

**Internship/Apprenticeship:**

Completion of a minimum 8-week internship or apprenticeship in their related field to gain practical industry exposure.

In addition, students must clear any associated course(s) and submit the internship/apprenticeship report as per the University's schedule and guidelines.

**12.5.3 Re-entry into the B.Tech. Program**

Students who have exited the B.Tech. program with a 2-Year UG Diploma may apply for re-entry into the Third Year (Fifth Semester) of the B.Tech. program. Re-entry is subject to the following conditions:

- The student must surrender the awarded UG Diploma Certificate.
- Students who wish to rejoin in III Year must join the same B.Tech. program and same college from which the student exited. Before rejoining, students should check for continuation of the same branch at the college. If the specific branch is closed in that particular college, then student should consult the University for the possible alternative solutions.
- Re-registered students will be governed by the academic regulations in effect at the time of re-entry, regardless of the original regulations under which they were admitted.
- If a student opts to continue his/her studies without a gap after being awarded the diploma, they must register for the third-year courses before the commencement of classwork

**12.5.4 Break in Study and Maximum Duration**

Students are allowed to take a break of up to four years after completion of II Year II Semester with prior University permission through the Principal of the college.

Re-entry after such a break is subject to the condition that the student completes all academic requirements within twice the duration of the program (i.e., within 8 years for a 4-year B.Tech. program).

**12.5.5 LES students are not permitted to exit the B.Tech Program after completion of second year(B. Tech. II Year II Semester)**

**12.6 Graduation Day:** The College shall have its own Annual Graduation Day for the award of Degrees issued by the University.

**12.7 Transcripts:** After successful completion of prerequisite credits for the award of degree a transcript containing performance of all academic years will be issued as a final record. Duplicate transcripts will also be issued if required after the payment of requisite fee and also as per norms in vogue.

### **13 WITHHOLDING OF RESULTS**

If the student has not paid the fees to the Institute at any stage, or has dues pending due to any reason whatsoever, or if any case of indiscipline is pending, the result of the student may be withheld, and the student will not be allowed to go into the next higher semester. The award or issue of the degree may also be withheld in such cases.

### **14 SUPPLEMENTARY EXAMINATIONS**

**14.1** Supplementary examinations for odd semester subjects will be conducted along with even semester regular examinations and vice versa.

**14.2** Advanced supplementary examinations in IV Year II Semester courses may be conducted for those who failed in any course offered in IV Year II Semester. It may enable the students to receive their B. Tech. provisional certificate at an early date. Advanced supply examinations may be scheduled within one month period after the declaration of the final semester results.

There shall be no supplementary examination in the successive semester. The students who could not secure any pass grade in advance supplementary examinations have to wait for regular series examination of next batch to write their back-log examination.

### **15. TRANSITORY REGULATIONS**

A. For students detained due to shortage of attendance:

1. A Student who has been detained in I year of any previous Regulations due to lack of attendance, shall be permitted to join I year I Semester of R25 Regulations and he is required to complete the study of B. Tech. programme within the stipulated period of eight academic years from the date of first admission in I Year.
2. A Student who has been detained in any semester of II, III and IV years of any previous regulations for want of attendance, shall be permitted to join the corresponding semester of R25 Regulations and is required to complete the study of B. Tech. within the stipulated period of eight academic years from the date of first admission in I Year. The R25 Academic Regulations under which a student has been readmitted shall be applicable to that student from that semester. See rule (C) for further Transitory Regulations.

B. For students detained due to shortage of credits:

3. A student of any previous Regulations who has been detained due to lack of credits, shall be promoted to the next semester of R25 Regulations only after acquiring the required number of credits as per the corresponding regulations of his/her first admission. The total credits required are 160 (120 for LES) including Previous & R25 regulations. The student is required to complete the study of B. Tech. within

the stipulated period of eight academic years from the year of first admission. The R25 Academic Regulations are applicable to a student from the year of readmission. See rule (C) for further Transitory Regulations.

C. For readmitted students in R25 Regulations:

4. A student who has failed in any subject under any regulation has to pass those subjects in the same regulations.
5. The maximum credits that a student acquires for the award of degree, shall be the sum of the total number of credits secured in all the regulations of his/her study including R25 Regulations.
6. If a student is readmitted to R25 Regulations and has any subject with 80% of syllabus common with his/her previous regulations, that particular subject in R25 Regulations will be substituted by another subject to be suggested by the CMRTC Academic Council.

**Note:** If a student readmitted to R25 Regulations and has not studied any subjects/topics in his/her earlier regulations of study which is prerequisite for further subjects in R25 Regulations, remedial classes shall be conducted to cover those subjects/topics for the benefit of the students.

## **16 STUDENT TRANSFERS**

- 16.1 There shall be no branch transfers after the completion of admission process.
- 16.2 The students seeking transfer to CMRTC from various other institutions have to pass the failed subjects which are equivalent to the subjects of CMRTC, and also pass the subjects of CMRTC which the students have not studied at the earlier institution. Further, though the students have passed some of the subjects at the earlier institutions, if the same subjects are prescribed in different semesters of CMRTC, the students have to study those subjects in CMRTC in spite of the fact that those subjects are repeated.
- 16.3 The transferred students from other Institutions to CMRTC who are on rolls shall be provided one chance to write the CBT (for internal marks) in the **equivalent subject(s)** as per the clearance letter issued by the University.
- 16.4 One chance shall be provided to write the internal examinations in the **equivalent subject(s)** to the students transferred from other institutions to CMRTC as per the clearance (equivalence) letter issued by the University.

## **17 VALUE ADDED COURSES**

- 17.1 Faculty members who have received a certificate in Innovation and Entrepreneurship / Entrepreneurship from a reputed foundation/organization may be given preference to teach the "Innovation and Entrepreneurship" course. This certificate course should include an assessment. Total training duration (online or physical), excluding assessment, should be at least 30 hours. Faculty members from all disciplines with innovative mindset and aptitude to co-create an entrepreneurial ecosystem are eligible to teach this subject.

- 17.2 Faculty members who have credited a course on Intellectual Property Rights in their UG or PG programme or credited an equivalent course in MOOCs platform/ reputed foundation/ organization in which assessment is a part, may be given preference to teach the elective course on Intellectual Property Rights.
- 17.3 To ensure quality delivery and standardization in teaching the **Indian Knowledge System (IKS)** and other value-added courses, the following guidelines must be adhered to: i) faculty members must undergo a Faculty Development Program (FDP) organized by UGC-MMTTC (Malaviya Mission Teacher Training Centre), **or** Any other recognized and competent institution/organization offering similar certified programs, ii) the total instructional duration of the FDP should be a around 32 hours or more, III) all sessions in the FDP must be conducted by certified and qualified resource persons with recognized expertise in the respective domains, IV) A formal assessment component must be included as part of the FDP.

## **18 MAPPING WITH THE SUSTAINABLE DEVELOPMENT GOALS**

All the courses specified in the course structure of every programme are mapped with the one or more sustainable development goals.

## **19 RULES OF DISCIPLINE**

- 19.1 Any attempt by any student to influence the teachers, examiners, faculty members and staff of Controller of Examination office for undue favours in the exams, and bribing them either for marks or attendance will be treated as malpractice case and the student can be debarred from the college.
- 19.2 When the performance of the student in any subject(s) is cancelled as a punishment for indiscipline, student is awarded zero marks in that subject(s).
- 19.3 When the student's answer book is confiscated for any kind of attempted or suspected malpractice the decision of the Malpractice Prevention Committee is final.

## **20 MALPRACTICE**

- 20.1 **Malpractice Prevention Committee:** The committee shall examine the student's malpractice and indiscipline cases occurred, while conducting the examinations and recommend appropriate punishment to the Academic Council after taking explanation from the student and concerned invigilator as per the malpractice rules mentioned below. The committee consists of
- Controller of Examinations - Chairman
  - Addl. Controller of Examinations - Convener
  - Subject Expert - Member
  - Head of the Department of which the student belongs to - Member
  - The Invigilator concerned – Member

20.2 **Malpractice Rules:** Disciplinary Action for Improper Conduct in Examinations

| S. No. | Nature of Malpractices / Improper Conduct                                                                                                                                                                                                                                                                                                                                                                                            | Punishment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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 subject of the examination (theory or practical) in which he is appearing but has not made use of (material shall include any marks on the body of the candidate which can be used as an aid in the subject of the examination) | Expulsion from the examination hall and cancellation of the performance in that subject only.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| 1(b)   | Gives assistance or guidance or receives it from any other candidate orally or by any other body language methods or communicates through cellphones with any candidate 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 subject only of all the candidates 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 subject of the examination (theory or practical) in which the candidate is appearing.                                                                                                                                                                                                | Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that Semester/year. The Hall Ticket of the candidate shall be cancelled.                                                                                                                                                                                                                                                                                                                                                                                                         |
| 3      | Impersonates any other candidate in connection with the examination.                                                                                                                                                                                                                                                                                                                                                                 | The candidate who has impersonated shall be expelled from examination hall. The candidate is also debarred and forfeits the seat. The performance of the original candidate who has been impersonated, shall be cancelled in all the subjects of the examination (including practical's and project work) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the imposter is an outsider, he will be handed over to the police and a case is registered against him. |

|   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | Smuggles in the Answer book or additional sheet or takes out or arranges to send out the question paper during the examination or answer book or additional sheet, during or after the examination.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all examinations. The continuation of the course by the candidate 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 letters to the examiners or writes to the examiner requesting him to award pass marks.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Cancellation of the performance in that subject.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 6 | Refuses to obey the orders of the Controller of examinations / 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 addl. Controller of examinations 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 addl. Controller of examinations, 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. | In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The candidates also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.                                           |

|    |                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 7  | Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.                                                           | Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with Forfeiture of seat. |
| 8  | Possess any lethal weapon or firearm in the examination hall.                                                                                                                                             | Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat.                                                                                                                                                                            |
| 9  | If student of the college, who is not a candidate 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. | Student of the colleges expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the College will be handed over to 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 subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year.                                                                                                                                                                                                                                  |

|    |                                                                                                                                                                                 |                                                                                                                                                                                         |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 11 | Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.                                                                       | Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester/year examinations. |
| 12 | If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the Chief Superintendent for further action to award suitable punishment. |                                                                                                                                                                                         |

**21 SCOPE**

- i) Wherever the words 'he, him, his' occur in the regulations, they shall include 'she, her, hers'.
- ii) The Academic Regulations should be read as a whole, for the purpose of any interpretation.
- iii) The above mentioned rules and regulations are applicable in general to both B. Tech. (Regular) and B. Tech. (LES), unless and otherwise specific.
- iv) In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the College Academic Committee is final.

**22 REVISION AND AMENDMENTS TO REGULATIONS**

The Academic Council may revise or amend the academic regulations, course structure or syllabi at any time, and the changes or amendments made shall be applicable to all students with effect from the dates notified by the Academic Council.

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**Academic Regulations for *B. Tech. with Honors program***

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**1. Objectives**

The key objectives of offering B. Tech. with Honors program are:

- To expand the domain knowledge of the students laterally and vertically.
- To increase the employability of undergraduate students with expanded knowledge in one of the core Engineering disciplines.
- To provide an opportunity to students to pursue their higher studies in wider range of specialisations.

**2. Academic Regulations for B. Tech. Honors degree**

- 1) The weekly instruction hours, internal & external evaluation and award of grades are on par with regular 4-Years B. Tech. program.
- 2) For B. Tech with Honors program, a student needs to earn additional 20 credits (over and above the required 160 credits for B. Tech degree). The broad guidelines for the courses of Honors program, their respective credits weightage and semester-wise break-up of the course are enclosed as Annexure. All these 20 credits need to be completed in III year and IV year only.
- 3) After registering for the Honors programme, if a student is unable to pass all courses in first attempt and earn the required 20 credits, he/she shall not be awarded Honors degree. However, if the student earns all the required 160 credits of B. Tech., he/she will be awarded only B. Tech degree in the concerned branch.
- 4) There is no transfer of credits from courses of Honors program to regular B. Tech. degree course & vice versa.
- 5) These 20 credits are to be earned from the additional courses offered by the host department in the college or from a closely related department in the college as well as from the MOOCS platform.
- 6) For the courses selected under MOOCS platform following guidelines may be followed:
  - a) Prior to registration of MOOCS courses, formal approval of the courses, by the University is essential. University before the issue of approval considers the parameters like the institute / agency which is offering the course, syllabus, credits, duration of the programme and mode of evaluation etc.
  - b) Minimum credits for a MOOCS course must be equal to or more than the credits specified in the Honors course structure provided by the University.
  - c) Only Pass-grade/marks or above shall be considered for inclusion of grades in the Honors grade memo.
  - d) Any expenses incurred for the MOOCS courses are to be met by the students only.

- 7) The choice to opt/take the Honors program is purely on the choice of the students.
- 8) The student shall be given a choice of withdrawing all the courses registered and/or the credits earned for Honors program at any time; and in that case the student will be awarded only B. Tech. degree in the concerned branch on earning the required credits of 160.
- 9) The students of every branch can choose Honors program in their respective branches if they are eligible for the Honors program. A student who chooses an Honors program is not eligible to choose a Minor program and vice-versa.
- 10) The B. Tech. with Honors program shall be offered from the AY 2021-22 onwards. The students who are pursuing their III year I semester in the current academic year can register for the Honors program if they fulfil the eligibility criteria.
- 11) A student can graduate with Honors if he/she fulfils the requirements for his/her regular B. Tech. program as well as fulfils the requirements for Honors program.
- 12) The institute shall maintain a record of students registered and pursuing their Honors programs branch-wise. The same report needs to be sent to the University once the enrolment process is complete.
- 13) The department shall prepare the time-tables for each Honors program offered at their respective departments without any overlap/clash with other courses of study in their respective semesters.

### **3. Eligibility conditions of the students for the Honors degree**

- a) A student can opt for B. Tech. degree with Honors, if she/he passed all subjects in first attempt in all the semester till the results announced and maintaining 7.5 or more CGPA.
- b) If a student fails in any registered course of either B. Tech. or Honors in any semester of four years program, he/she will not be eligible for obtaining Honors degree. He will be eligible for only B. Tech. degree.
- c) Prior approval of mentor and Head of the Department for the enrolment into Honors program, before commencement of III year I Semester (V Semester), is mandatory.
- d) If more than 30% of the students in a branch fulfil the eligibility criteria (as stated above), the number of students given eligibility should be limited to 30%. The criteria to be followed for choosing 30% candidates in a branch may be the CGPA secured by the students till II year I semester.
- e) The department concerned should be preferably NBA accredited and shall offer at least one M. Tech. Program.
- f) Successful completion of 20 credits earmarked for honors program with at least 7.5 CGPA along with successful completion of 160 credits earmarked for regular B. Tech. Program with at least 7.5 CGPA and passing all subjects in first attempt gives the eligibility for the award of B. Tech. (Honors) degree.
- g) For CGPA calculation of B. Tech. course, the 20 credits of Honors program will not be considered.

**4. Registration for the course in Honors program**

- a) At the beginning of each semester, just before the commencement of classes, students shall register for the courses which they wish to take in that semester.
- b) The students should choose a course from the list against each semester (from Honors course structure) other than the courses they have studied/registered for regular B.Tech. programme. No course should be identical to that of the regular B. Tech. course. The students should take the advice of faculty mentors while registering for a course at the beginning of semester.
- c) The maximum No. of courses for the Honors is limited to two (three in case of inclusion of lab) in a semester along with regular semester courses.
- d) The registration fee to be collected from the students by the College is **Rs. 1000/-** per one credit.
- e) A fee for late registration may be imposed as per the norms.

## Academic Regulations for *B. Tech. with Minor program*

### 1. Objectives

The key objectives of offering B. Tech. with Minor program are:

- To expand the domain knowledge of the students in one of the other branches of engineering.
- To increase the employability of undergraduate students keeping in view of better opportunity in interdisciplinary areas of engineering & technology.
- To provide an opportunity to students to pursue their higher studies in the inter- disciplinary areas in addition to their own branch of study.
- To offer the knowledge in the areas which are identified as emerging technologies/thrust areas of Engineering.

### 2. Minor courses and the offering departments

| S. No. | Minor Program                              | Eligible branch of students                                                                     | @Offering Department     | Award of Degree                                                                           |
|--------|--------------------------------------------|-------------------------------------------------------------------------------------------------|--------------------------|-------------------------------------------------------------------------------------------|
| 1.     | Artificial Intelligence & Machine Learning | All branches, except B. Tech. in CSE (AI&ML) /B. Tech. (AI&ML)/ B. Tech. (AI)/ B. Tech. CSE(AI) | CSE                      | “B. Tech. in <u>branch name</u> with Minor in Artificial Intelligence & Machine Learning” |
| 2.     | Cyber Security                             | All branches, except B. Tech. in CSE (Cyber Security)/ B. Tech. (Cyber Security)                | CSE                      | “B. Tech. in <u>branch name</u> with Minor in Cyber Security”                             |
| 3.     | Data Science                               | All branches, except B. Tech. in CSE (Data Science)/ B. Tech. (Data Science)                    | CSE                      | “B. Tech. in <u>branch name</u> with Minor in Data Science”                               |
| 4.     | IOT                                        | All branches, except B. Tech. in CSE (IOT) / B. Tech. (IOT)                                     | ECE                      | “B. Tech. in <u>branch name</u> with Minor in IOT”                                        |
| 5.     | Innovation and Entrepreneurship            | All branches.                                                                                   | Management Science / MBA | “B. Tech. in <u>branch name</u> with Minor in Innovation and Entrepreneurship”            |

**Note: @ As per AICTE guide lines.**

### 3. Academic Regulations for B. Tech. Degree with Minor programs

1. The weekly instruction hours, internal & external evaluation and award of grades are on par with regular 4-Years B. Tech. program.
2. For B. Tech. with Minor, a student needs to earn additional 18 credits (over and above the required 160 credits for B. Tech degree). The list of courses of each Minor program, their respective credits weightage and semester-wise break-up of the courses are enclosed as Annexure. All these 18 credits need to be completed in III year and IV year only.

3. After registering for the Minor programme, if a student is unable to earn all the required 18 credits in a specified duration (twice the duration of the course), he/she shall not be awarded Minor degree. However, if the student earns all the required 160 credits of B. Tech., he/she will be awarded only B. Tech degree in the concerned branch.
4. There is no transfer of credits from Minor program courses to regular B. Tech. degree course & vice versa.
5. These 18 credits are to be earned from the additional Courses offered by the host department in the college as well as from the MOOCS platform.
6. For the course selected under MOOCS platform following guidelines may be followed:
  - a) Prior to registration of MOOCS courses, formal approval of the courses, by the University is essential. University before the issue of approval considers the parameters like the institute / agency which is offering the course, syllabus, credits, duration of the programme and mode of evaluation etc.
  - b) Minimum credits for MOOCS course must be equal to or more than the credits specified in the Minor course structure provided by the University.
  - c) Only Pass-grade/marks or above shall be considered for inclusion of grades in minor grade memo.
  - d) Any expenses incurred for the MOOCS courses are to be met by the students only.
7. The choice to opt/take a Minor program is purely on the choice of the students.
8. The student shall be given a choice of withdrawing all the courses registered and/or the credits earned for Minor program at any time; and in that case the student will be awarded only B. Tech. degree in the concerned branch on earning the required credits of 160.
9. The student can choose only one Minor program along with his/her basic engineering degree. A student who chooses an Honours program is not eligible to choose a Minor program and vice-versa.
10. The B. Tech. with a Minor program shall be offered from the AY 2021-22 onwards. The students who are pursuing their III year I semester in the current academic year can register for the Minor program if they fulfil the eligibility criteria.
11. A student can graduate with a Minor if he/she fulfils the requirements for his/her regular B. Tech. program as well as fulfils the requirements for Minor program.
12. The institute shall maintain a record of students registered and pursuing their Minor programs, minor program-wise and parent branch-wise. The same report needs to be sent to the University once the enrolment process is complete.
13. The institute / department shall prepare the time-tables for each Minor course offered at their respective institutes without any overlap/clash with other courses of study in the respective semesters.

**4. Eligibility conditions for the student to register for Minor course**

- a) A student can opt for B. Tech. degree with Minor program if she/he has no active backlogs till II Year I Semester (III semester) at the time of entering into III year I semester.
- b) Prior approval of mentor and Head of the Department for the enrolment into Minor program, before commencement of III year I Semester (V Semester), is mandatory
- c) If more than 50% of the students in a branch fulfil the eligibility criteria (as stated above), the number of students given eligibility should be limited to 50%.

**5. Registration for the courses in Minor Program**

- d) At the beginning of each semester, just before the commencement of classes, students shall register for the courses which they wish to take in the that semester.
- e) The students should choose a course from the list against each semester (from Minors course structure) other than the courses they have studied/registered for regular B. Tech. programme. No course should be identical to that of the regular B Tech course. The students should take the advice of faculty mentors while registering for a course at the beginning of semester.
- f) The maximum No. of courses for the Minor is limited to two (three in case of inclusion of lab) in a semester along with regular semester courses.
- g) The registration fee to be collected from the students by the College is **Rs. 1000/-** per one credit.
- h) A fee for late registration may be imposed as per the norms.

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