

**ACADEMIC REGULATIONS**  
For  
**B. Tech. Four Year Degree Programme**  
**(MR17 Regulations)**  
Effective from the Academic Year 2017-18



**MALLA REDDY ENGINEERING COLLEGE**  
**(Autonomous)**

(An Autonomous Institution approved by UGC and affiliated to JNTUH, Approved by AICTE & Accredited by NAAC with 'A' Grade and NBA & Recipient of World Bank Assistance under TEQIP Phase – II, S.C I.1)

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**MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)**  
**MR17 – ACADEMIC REGULATIONS (CBCS)**  
**for**  
**B.Tech. (REGULAR) DEGREE PROGRAMME**

Applicable for the students of B.Tech. (Regular) programme admitted from the Academic Year **2017-18** onwards

The B.Tech. Degree of Jawaharlal Nehru Technological University Hyderabad, Hyderabad shall be conferred on candidates who are admitted to the programme and who fulfill all the requirements for the award of the Degree.

**VISION**

To be a premier center of professional education and research, offering quality programs in a socio-economic and ethical ambience.

**MISSION**

- To impart knowledge of advanced technologies using state-of-the-art infrastructural facilities.
- To inculcate innovation and best practices in education, training and research.
- To meet changing socio-economic needs in an ethical ambience.

### **PROGRAMME OUTCOMES (POs)**

PO 1	<b>Engineering knowledge:</b> Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.
PO 2	<b>Problem analysis:</b> Identify, formulate, review research literature and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
PO 3	<b>Design/development of solutions:</b> Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.
PO 4	<b>Conduct investigations of complex problems:</b> Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.
PO 5	<b>Modern tool usage:</b> Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.
PO 6	<b>The engineer and society:</b> Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.
PO 7	<b>Environment and sustainability:</b> Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.
PO 8	<b>Ethics:</b> Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.
PO 9	<b>Individual and team work:</b> Function effectively as an individual and as a member or leader in diverse teams, and in multidisciplinary settings.
PO 10	<b>Communication:</b> Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.
PO 11	<b>Project management and finance:</b> Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO 12	<b>Life-long learning:</b> Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

1. **Under-Graduate Degree Programme in Engineering & Technology (UGP in E&T): Malla Reddy Engineering College (Autonomous)** offers 4 Year (8 Semesters) **Bachelor of Technology (B.Tech.)** Under Graduate Programmes, with effect from the Academic Year 2017-18 onwards, in the following Branches of Engineering.

S. No.	Branch Code	Branch	Intake
1	01	Civil Engineering (CE)	180
2	02	Electrical and Electronics Engineering (EEE)	60
3	03	Mechanical Engineering (ME)	240
4	04	Electronics and Communication Engineering (ECE)	180
5	05	Computer Science and Engineering (CSE)	240
6	06	Information Technology (IT)	60
7	25	Mining Engineering (Min.E)	60

## 2. Eligibility for Admission

- 21 Admission to the UGP shall be made either on the basis of the merit rank obtained by the qualifying candidate in entrance test conducted by the Telangana State Government (TSEAMCET), or the University, or on the basis of any other order of merit approved by the University, subject to reservations as prescribed by the Government of Telangana from time to time.
- 22 The medium of instructions for the entire UGP in E&T will be ENGLISH only.

## 3. B.Tech. Programme (UGP) Structure & Duration of Study.

- 31 A student after securing admission shall pursue the Under Graduate Programme in B.Tech. in 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. Further 2 years of extension is allowed for appearing examinations, failing which student shall forfeit seat in B.Tech. Course.

Each semester is structured to provide 24 credits, totaling to 192 credits for the entire B.Tech. programme.

Each student shall secure 192 credits (with CGPA  $\geq 5$ ) required for the completion of the Under Graduate Programme and award of the B.Tech. degree.

- 32 UGC/ AICTE specified Definitions/ Descriptions are adopted appropriately for various terms and abbreviations used in these Academic Regulations / Norms, which are as listed below.

### 3.2.1 Semester Scheme:

Each UGP is of 4 academic years (8 Semesters), with the academic year being divided into two semesters of 22 weeks ( $\geq 90$  teaching days, out of which number of contact days for teaching / practical  $\geq 75$  and conducting examinations and preparation days = 15 ) each, each semester having ‘**Continuous Internal Evaluation (CIE)**’ and ‘**Semester End Examination (SEE)**’. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) as indicated by UGC and Curriculum / Course Structure as suggested by AICTE are followed.

### 3.2.2 Credit Courses:

All Subjects / Courses are to be registered by a student in a semester to earn credits. Credits shall be assigned to each Subject / Course in a L: T: P: C (Lecture Periods: Tutorial Periods: Practical Periods: Credits) Structure, based on the following general pattern.

- One Credit - for one hour / Week / Semester for Theory / Lecture (L) Courses; and
- One Credit - for two hours / Week / Semester for Laboratory / Practical (P) Courses or Tutorials (T).

Courses like Computational Mathematics Lab, Environmental Science, Professional Ethics, Gender Sensitization lab, Law for Engineers, Fine Arts / Foreign languages and other student activities like Internship, Sports / Yoga and NSS are identified as Mandatory / Audit courses. These courses will not carry any credits.

### 3.2.3 Subject / Course Classification:

All subjects / courses offered for the under graduate programme in E&T (B.Tech. degree programmes) are broadly classified as follows. The Institute has followed almost all the guidelines issued by AICTE / UGC/Affiliating University.

(a) **Foundation Courses(FC)**

(b) **Core Courses (CC)**

(c) **Elective Courses (EC)**

(d) **Mandatory Courses (MC)**

(e) **Audit Courses(AC)**

(f) **Minor Courses(MiC)**

- **Foundation Courses (FC)** are further categorized as:
  - (i) Humanities and Social Sciences(HS)
  - (ii) Basic Sciences (BS)
  - (iii) Engineering Sciences (ES).
- **Core Courses (CC) and Elective Courses (EC)** are categorized as Professional Subjects (PS), which are further subdivided as–
  - (i) Professional / Departmental Core (PC)Subjects
  - (ii) Professional / Departmental Electives(PE)
  - (iii) Open Electives(OE)
  - (iv) Project Related(PR)
- **Mandatory Courses (MC - Non-credit with evaluation).**
- **Audit Courses (AC – Non - credit without evaluation).**
- **Minor Courses (MiC – One or two credit courses)**

### 3.2.4 Course Nomenclature:

The curriculum nomenclature or course structure grouping for each of the UGP in E & T (B.Tech. Degree Programmes), is as listed below (along with AICTE specified % range of total credits).

Sl. No.	Classification		Course Work – Subject Area	Distribution of credits	As per AICTE
	AICTE	UGC			
1	HS	Foundation Courses	Humanities and Social sciences including English, Environmental Sciences and Management subjects.	5.2 %	5 - 10 %
2	BS		Basic Sciences (BS) including Mathematics, Physics and Chemistry.	15.10 %	15 - 20 %
3	ES		Engineering Sciences (ES) including Engineering Workshop, Engineering Graphics, Basics of Electrical and Electronics / Mechanical / Computer Engineering.	18.75 %	15 - 20 %

4	PC	Core Courses	Professional core subjects are relevant to the chosen specialization / branch; [May be split into Hard (no choice) and Soft (with choice)], if required.	35.41 %	30 - 40 %	
5	PR	Project Related	Minor and major projects, Technical Seminar and Comprehensive viva-voce.	9.89 %	10 - 15 %	
6	PE	Professional Electives	Professional electives are relevant to the chosen specialization / branch.	10.41 %	10 - 15 %	
7	OE	Open Electives	Open electives are the courses from other technical and / or emerging subject areas.	5.2 %	5 - 10 %	
8	MC	Mandatory Courses	These courses are non - credit courses with evaluation.	-	-	
9	AC	Audit Courses	These courses are non - credit courses without evaluation.	-	-	
10	MiC	Minor Courses	These are one or two credit courses intended to improve the skills of the student in placements and entrepreneurship.	-	-	
<b>Total credits for UGP (B.Tech.)</b>					<b>192</b>	<b>(100%)</b>

#### 4.0 Course Registration

- 4.1** A 'Faculty Advisor or Counselor' shall be assigned to each student, who will advise him on the Under Graduate Programme (UGP), its Course Structure and Curriculum, Choice / Option for Subjects / Courses, based on his competence, progress, pre-requisites and interest.
- 4.2** Academic section of the College invites 'Registration Forms' from students within 15 days from the commencement of class work for the semester.
- 4.3** If the student submits ambiguous choices or multiple options or erroneous entries during registration for the Subject(s) / Course(s) under a given specified Course / Group / Category as listed in the course structure, only the first mentioned Subject / Course in that category will be taken into consideration.
- 4.4 Open Electives:** A student has to complete 3 Open Electives during the period of UGP. The students have to choose only one open elective in a semester from III year I semester onwards from the given list. However, the student cannot opt for an open elective subject offered by their own (parent) department, if it is already listed under any category of the subjects offered by parent department in any semester.
- 4.5 Professional Electives:** A student has to complete 6 Professional Electives during the period of UGP. Students have to choose professional electives from III year I semester onwards from the list of professional electives offered by their departments.
- 4.6** For Audit Courses like Sports / Yoga and NSS, Computational Mathematics Lab, MOOC/NPTEL online courses etc, a '**Satisfactory Participation Certificate**' from the authorities concerned for the relevant semester is essential. No Marks or Credits shall be awarded for these activities.
- 4.7** For Mandatory Courses, a '**Satisfactory / Not Satisfactory**' grade is awarded based on the

performance in both CIE and SEE.

## 5.0 Elective Subjects / Courses to be offered

- 5.1 An Elective Subject/ Course may be offered to the students, ONLY IF a minimum of 40 students opt for the same. The maximum strength of a section is limited to 75.
- 5.2 If more entries for registration of a subject come into picture, then the concerned Head of the Department shall take necessary actions, whether to offer such a Subject / Course for TWO (or multiple) SECTIONS or NOT.

## 6.0 Attendance Requirements:

- 6.1 A student shall be eligible to appear for the Semester End Examinations, if he / she acquire a minimum of 75 % of attendance in aggregate of all the Subjects / Courses (including Non - Credit Courses) for that semester.
- 6.2 Condoning of shortage of attendance in aggregate up to 10 % ( $\geq 65\%$  and  $< 75\%$ ) in each semester may be granted by the College Academic Committee (CAC) on genuine and **valid grounds** based on the student's representation with supporting evidence.
- 6.3 A stipulated fee prescribed by the CAC, 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 register their Semester End Examinations, they get detained and their registration for that semester shall stand cancelled. They will not be promoted to the next semester. They may seek re-registration for all those Subjects registered in that Semester in which he got detained, by seeking re - admission for 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 If any student fulfills the attendance requirement in the present semester shall not be eligible for readmission into the same class.

## 7.0 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 he / she secures not less than 40 % marks (24 out of 60 marks) in the Semester End Examination and a minimum of 40 % of the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) marks taken together (i.e. 40 marks) in terms of Letter Grades, this implies securing 'P' 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 Minor Project / Technical Seminar / Major Project, if he / she secure not less than 40 % of the total marks to be awarded for each. The student would be treated as failed, if he (i) does not submit a report on his / her Minor Project / Technical Seminar / Major Project or does not make a presentation of the same before the Evaluation Committee as per schedule or (ii) secures less than 40 % of marks in industry oriented Mini Project / Technical Seminar / Main Project evaluations. He / She may reappear once for each of the above evaluations, when they are scheduled again; if he / she fails in such '**one-reappearance**' evaluation also, he / she has to reappear for the same in the next subsequent semester, as and when it is scheduled.
- 7.3 **Promotion Rules:** Every student has to fulfill the Attendance and Academic requirements by

securing the required credits against registered credits as shown below:

Sl. No.	Promotion	Conditions to be fulfilled
1.	First year first semester (I Semester) to first year second semester (II Semester)	<ul style="list-style-type: none"> <li>Regular course of study of first year first semester. (I Semester)</li> </ul>
2.	First year second semester (II Semester) to second year first semester (III Semester)	<ul style="list-style-type: none"> <li>Regular course of study of first year second semester (II Semester).</li> <li>Must have secured at least 50 % credits up to first year second semester (II Semester) from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.</li> </ul>
3.	Second year first semester (III Semester) to second year second semester (IV Semester)	<ul style="list-style-type: none"> <li>Regular course of study of second year first semester (III Semester)</li> </ul>
4.	Second year second semester (IV Semester) to third year first semester (V Semester)	<ul style="list-style-type: none"> <li>Regular course of study of second year second semester (IV Semester).</li> <li>Must have secured at least 60% credits up to second year second semester (IV Semester) from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.</li> </ul>
5.	Third year first semester (V Semester) to third year second semester (VI Semester)	<ul style="list-style-type: none"> <li>Regular course of study of third year first semester (V Semester).</li> </ul>
6.	Third year second semester (VI Semester) to fourth year first semester (VII Semester)	<ul style="list-style-type: none"> <li>Regular course of study of third year second semester (VI Semester).</li> <li>Must have secured at least 60 % credits up to third year second semester (VI Semester) from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.</li> </ul>
7.	Fourth year first semester (VII Semester) to fourth year second semester (VIII Semester)	<ul style="list-style-type: none"> <li>Regular course of study of fourth year first semester (VII Semester).</li> </ul>

7.4 A Student shall register for all subjects covering 192 credits as specified and listed (with the relevant Course / Subject Classifications as mentioned) in the Course Structure, fulfills all the Attendance and Academic requirements for 192 credits securing a minimum of 'P' Grade (Pass Grade) or above in each subject and earn all 192 credits securing SGPA  $\geq 5.0$  (in each semester) and CGPA (at the end of each successive semester)  $\geq 5.0$ , to successfully complete the UGP.

7.5 After securing the necessary 192 credits as specified for the successful completion of the entire under graduate programme, the student can avail exemption of two subjects up to 6 credits, that is, one open elective and one professional elective subject or two professional elective subjects for optional drop out from these 192 credits earned; resulting in 186 credits for under graduate programme performance evaluation, i.e., the performance of the student in these 186 credits shall alone be taken into account for the calculation of the final CGPA (at the end of under graduate



programme, which takes the SGPA of the IV year II semester into account) and shall be indicated in the grade card of IV year II semester. However, the performance of student in the earlier individual semesters, with the corresponding SGPA and CGPA for which grade cards have already been given will not be altered.

- 7.6 If a student registers for some more '**Extra Subjects**' (in the parent Department or other Departments / Branches of Engineering) other than those listed subjects totaling to 192 credits as specified in the Course Structure of his / her department, the performances in those 'extra Subjects' (although evaluated and graded using the same procedure as that of the required 192 credits) will not be taken into account while calculating the SGPA and CGPA. For such extra subjects registered, Letter Grade alone will be indicated in the Grade Card, as a performance measure, subject to completion of the Attendance and Academic Requirements as stated in items No.6 and 7.1 to 7.5.
- 7.7 When a student is detained due to shortage of attendance in any semester, he / she 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 that entire semester in which he / she got detained.
- 7.8 When a student is detained due to lack of credits in any year, 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.
- 7.9 A student eligible to appear in the Semester End Examination in any Subject / Course, but absent from it or failed (there by failing to secure 'P' Grade or above) may reappear for that Subject / Course at the supplementary examination as and when conducted. In such cases, his / her Internal Marks (CIE) assessed earlier for that Subject / Course will be carried over and added to the marks to be obtained in the SEE supplementary examination, for evaluating his / her performance in that subject.

## **8. Evaluation, Distribution and Weightage of Marks**

The performance of a student in each semester shall be evaluated subject - wise (irrespective of credits assigned) for 100 marks for Theory, Practicals, Seminar, Drawing / Design, Minor Project, Major Project and Minor Courses etc. For all Subjects / Courses, the distribution shall be 40 marks for CIE (Continuous Internal Evaluation) and 60 marks for the SEE (Semester End Examination) and a Letter Grade corresponding to the % of marks obtained shall be given.

### **8.1 Theory Courses:**

#### **8.1.1 Continuous Internal Evaluation (CIE):**

During the semester, there shall be **2 mid - term examinations** for 40 marks each. Each mid - term examination consists of online **objective test** for 10 marks with duration of **20 minutes** and **subjective paper** for 25 marks with duration of **90 minutes**. Further, there will be an allocation of 5 marks for **Assignment**.

<b>Mid – Term Examination -UG</b>				
<b>Part</b>	<b>Type of Questions</b>	<b>No. of questions</b>	<b>Marks per question</b>	<b>Total</b>
Part A	Multiple-choice questions	20	0.5	10
Part B	Subjective Questions with internal choice	5	5	25
<b>Mid-Term Exam Total</b>				35
Assignment				05
<b>Grand Total</b>				40

The first mid - term examination shall be conducted for the first 50% of the syllabus and the second mid-term examination shall be conducted for the remaining 50% of the syllabus. First assignment should be submitted before the conduct of the first mid - term examinations and the second assignment should be submitted before the conduct of the second mid– term examinations. The assignments shall be as specified by the concerned subject teacher. The first mid - term examination marks, first assignment marks shall make one set of CIE marks and the second mid - term examination marks, second assignment marks shall make second set of CIE marks; the average of marks obtained in both the mid examinations shall be taken as the final marks secured by the student towards Continuous Internal Evaluation in the theory subjects.

### 8.1.2. Semester End Examination (SEE):

SEE is for 60 marks, the distribution for which is given below

<b>Type of Questions</b>	<b>No. of Questions to be answered</b>	<b>Marks per question</b>	<b>Total</b>
Internal Choice Questions (One from each module)	5	12	60
<b>Grand Total</b>			<b>60</b>

## 8.2 Practical Courses:

### 8.2.1 Continuous Internal Evaluation(CIE):

There will be CIE for 40 marks, shall be awarded with a distribution of 20 marks for day - to - day performance and timely submission of lab records, 5 marks for viva - voce, 15 marks for internal lab exam. (average of marks obtained in the two internal exams).

### 8.2.2 Semester End Examination (SEE):

There will be SEE for 60 marks, shall be awarded with a distribution of 15 marks for design/procedure/schematic diagram of the given experiment, 20 marks for conduction of experiment, 15 marks for results and 10 marks for viva - voce. For conducting SEE, one internal examiner and one external examiner will be appointed by the Chief Controller of Examinations of the college. The external examiner should be selected from outside the college among the autonomous / reputed institutions from a panel of three examiners submitted by the concerned Head of the Department.

### 8.3 a. Engineering Drawing:

The distribution of marks is as given below

<b>CIE for Engineering Drawing</b>				
<b>Part</b>	<b>Type of Questions</b>	<b>No. of questions</b>	<b>Marks per question</b>	<b>Total</b>
Part A	Day-to-Day Work			20
<b>Mid – Term Examination</b>				
Part B	Choice Questions [4 out of 6]	4	5	20
<b>Total</b>				<b>40</b>

<b>SEE for Engineering Drawing</b>			
<b>Type of Questions</b>	<b>No. of questions</b>	<b>Marks per question</b>	<b>Total</b>
Either or Choice from each module	5	12	60

### 8.3 b. Machine Drawing:

The distribution of marks is as given below

<b>CIE for Machine Drawing</b>				
<b>Part</b>	<b>Type of Questions</b>	<b>No. of questions</b>	<b>Marks per question</b>	<b>Total</b>
Part A	Day-to-Day Work			20
<b>I Mid Term Examination</b>				
Part B	Choice Questions [4 out of 6]	4	5	20
<b>II Mid Term Examination</b>				
Part B	Choice Questions – Assembly Drawing [1 out of 2]	1	20	20

<b>SEE for Machine Drawing</b>				
<b>Part</b>	<b>Type of Questions</b>	<b>No. of questions</b>	<b>Marks per question</b>	<b>Total</b>
Part A	Choice Questions [2 out of 4]	2	10	20
Part B	Compulsory Questions (Assembly Drawing)	1	40	40
<b>Total</b>				<b>60</b>

### 8.4 Projects:

#### 8.4.1 Mini Project:

There shall be a mini - project, in collaboration with an industry of their specialization. Students will register for this immediately after III year II semester (VI Semester) end examinations and pursue it during summer vacation. CIE of 40 marks are awarded based on the report submitted and presentation before the department committee consists of project coordinator, supervisor of the mini - project and a senior faculty member of the department in IV year I semester (VII Semester). SEE of 60 marks will be evaluated by the committee consists of an external examiner, Head of the Department, supervisor of the mini - project and a project coordinator of the department.

#### **8.4.2 Major Project:**

Major Project has to be carried out during the VIII semester, as per the instructions of the project supervisor assigned by the Head of the Department. Out of total 100 marks allotted for the major project, 40 marks shall be for **CIE** (Continuous Internal Evaluation) and 60 marks for the **SEE** (Semester End Viva-voce Examination). CIE marks shall be awarded by a Departmental Committee consisting of project coordinator, Supervisor of Major Project and a senior Faculty member, from two reviews (average). Review - I will be conducted within a month from the commencement of class work (problem definition, objective, literature survey and brief description - each 10 marks) and Review - II will be conducted before second mid examination (progress of work, results, discussion and presentation - each 10 marks). The Major Project Viva-voce (SEE) shall be conducted by a committee comprising of an External Examiner, Head of the Department and Project Supervisor. In SEE of 60 marks, 15 marks for working model / simulation / data collection, 15 marks for report preparation and 30 marks for presentation and viva - voce. The external examiner should be selected by Chief Controller of Examinations from outside the college among the autonomous / reputed institutions from a panel of three examiners submitted by the concerned Head of the Department / Board of Studies (BOS) Chairman.

#### **8.5 Technical Seminar:**

For Technical Seminar presentation, the student shall collect the information on a specialized topic, prepare a Technical Report and submit to the department at the time of seminar presentation. The seminar presentation (along with the technical report) shall be evaluated by a committee consisting of Seminar coordinator and two senior faculty members for 100 marks. There shall be no semester end examination for the seminar.

#### **8.6 Comprehensive Viva -Voce:**

The Comprehensive Viva - Voce shall be conducted in VIII semester for 100 marks. This Viva - Voce is intended to assess the students' understanding of various subjects studied during the B.Tech. programme and will be evaluated by a committee, consisting of the Head of the Department and two senior faculty members. There shall be no external evaluation.

#### **8.7 Non-Credit Courses:**

##### **8.7.1 Mandatory Courses:**

Mandatory Non - Credit Courses offered in any semester, a 'Satisfactory / Not Satisfactory' shall be awarded to the student based on the performance in both CIE and SEE.

##### **8.7.2 Audit Courses:**

Audit Courses offered in any Semester, a '**Satisfactory Participation Certificate**' shall be issued to the student from the concerned authorities, only after securing  $\geq 65$  % attendance in such a course. No marks or Letter Grade shall be allotted for these activities.

#### **9.0 Grading Procedure**

**9.1** Marks will be awarded to indicate the performance of each student in each theory subject, or Lab / Practical or Seminar or Project or Minor - Project or Minor Course etc., based on the % marks obtained in CIE + SEE (Continuous Internal Evaluation+ Semester End Examination, both taken together) as specified in Item No. 9 and 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 Guidelines) and corresponding percentage of marks shall be followed.

<b>% of Marks</b>	<b>Grade Points</b>	<b>Letter Grade</b>
≥ 90	10	O ( Out Standing)
≥ 80 to < 90	9	A <sup>+</sup> (Excellent)
≥ 70 to < 80	8	A (Very Good)
≥ 60 to < 70	7	B <sup>+</sup> (Good)
≥ 50 to < 60	6	B (Average)
≥ 40 to < 50	5	C (Pass)
< 40	0	F (Fail)
Absent	0	Ab

**9.3** A student obtaining ‘F’ Grade in any subject shall be considered ‘Failed’ and will be required to reappear as ‘Supplementary Candidate’ in the Semester End Examination (SEE) as and when conducted. In such cases, his / her Internal Marks (CIE Marks) in those subject(s) will remain same as those he / she obtained earlier.

**9.4** A Letter Grade does not imply any specific % of marks.

**9.5** In general, a student shall not be permitted to repeat any Subject / Course (s) only for the sake of ‘GradeImprovement’ or ‘SGPA/CGPAImprovement’. However, he/she has to repeat all the Subjects / Courses pertaining to that semester, when he / she is detained (as listed in Items Nos. 7.7 & 7.8).

**9.6** A student earns Grade Point (GP) in each Subject / Course, on the basis of the Letter Grade obtained by him in that Subject / Course (excluding Mandatory non-credit Courses). Then the corresponding ‘Credit Points’ (CP) are computed by multiplying the Grade Point with credits for that particular Subject / Course.

**Credit Points (CP) = Grade Point (GP) x Credits ... For a Course**

**9.7** The Student passes the Subject / Course only when he / she gets GP ≥ 5 ( ‘C’ Grade or above).

**9.8** The Semester Grade Point Average (SGPA) is calculated by dividing the Sum of Credit Points (ΣCP) 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

$$SGPA = \{\sum_{i=1}^N C_i G_i\} / \{\sum_{i=1}^N C_i\} \dots \text{for each semester}$$

where ‘i’ is the subject indicator index (takes into account all subjects in a semester), ‘N’ is the number of Subjects ‘REGISTERED’ for the semester (as specifically required and listed under the Course Structure of the parent Department) is the number of credits allotted to the i<sup>th</sup> subject and represents the Grade Points (GP) corresponding to the Letter Grade awarded for that i<sup>th</sup> subject.

**9.9** The Cumulative Grade Point Average (CGPA) is a measure of the overall cumulative performance of a student over 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 II semester onwards, at the end of each semester, as per the formula.

$$CGPA = \{\sum_{j=1}^M C_j G_j\} / \{\sum_{j=1}^M C_j\} \dots \text{for all ‘S’ semesters registered}$$

(i.e., upto and inclusive of 'S' semesters,  $S \geq 2$ )

where 'M' is the TOTAL number of subjects (as specifically required and listed under the course structure of the parent department) the student has 'REGISTERED' from the 1<sup>st</sup> Semester onwards upto and inclusive of the semester 'S' (obviously  $M > N$ ), 'j' is the subject indicator index (takes into account all subjects from '1' to 'S' semesters) is the number of credits allotted to the j<sup>th</sup> subject, and represents the Grade Points (GP) corresponding to the Letter Grade awarded for that j<sup>th</sup> subject. After registration and completion of I Year I Semester however, the SGPA of that semester itself may be taken as the CGPA, as there are no cumulative effects.

#### ILLUSTRATION OF CALCULATION OF SGPA

Course/Subject	Credits	Letter Grade	Grade Points	Credit Points
Course 1	4	A	8	$4 \times 8 = 32$
Course 2	4	O	10	$4 \times 10 = 40$
Course 3	4	C	5	$4 \times 5 = 20$
Course 4	3	B	6	$3 \times 6 = 18$
Course 5	3	A+	9	$3 \times 9 = 27$
Course 6	2	B	6	$2 \times 6 = 12$
Course 7	2	A+	9	$2 \times 9 = 18$
Course 8	2	A	8	$2 \times 8 = 16$
Total Credits 24				Total Credit Points 183

$$\text{SGPA} = 183/24 = 7.62$$

#### ILLUSTRATION OF CALCULATION OF CGPA:

Course / Subject	Credits	Letter Grade	Grade Points	Credit Points
<b>I Year I Semester</b>				
Course 1	4	A	8	$4 \times 8 = 32$
Course 2	4	A+	9	$4 \times 9 = 36$
Course 3	4	B	6	$4 \times 6 = 24$
Course 4	3	O	10	$3 \times 10 = 30$
Course 5	3	B+	7	$3 \times 7 = 21$
Course 6	2	B	6	$2 \times 6 = 12$
Course 7	2	A+	9	$2 \times 9 = 18$
Course 8	2	A	8	$2 \times 8 = 16$
<b>I Year II Semester</b>				
Course 9	4	B+	7	$4 \times 7 = 28$
Course 10	4	O	10	$4 \times 10 = 40$
Course 11	4	A	8	$4 \times 8 = 32$
Course 12	3	B	6	$3 \times 6 = 18$
Course 13	3	C	5	$3 \times 5 = 15$
Course 14	2	A+	9	$2 \times 9 = 18$
Course 15	2	O	10	$2 \times 10 = 20$
Course 16	2	A	8	$2 \times 8 = 16$
Total Credits = 48				Total Credit Points = 376

$$\text{CGPA} = 376 / 48 = 7.83$$

**9.10** For merit ranking or comparison purposes or any other listing, ONLY the 'ROUNDED OFF' values of the CGPAs will be used.

**9.11** For calculations listed in Item Nos.9.6 to9.10, performance in failed Subjects / Courses (securing ‘F’ Grade) will also be taken into account and the credits of such Subjects / Courses will also be included in the multiplications and summations. However, Mandatory Courses will not be taken into consideration.

**9.12 Passing Standards:**

**9.121** A student shall be declared successful or ‘passed’ in a semester, only when he / she gets a SGPA  $\geq 5.00$  (at the end of that particular semester); and a student shall be declared successful or ‘passed’ in the entire UGP, only when he / she gets a CGPA  $\geq 5.00$ ; subject to the condition that he / she secures a GP  $\geq 5$  (‘C’ Grade or above) in every registered Subject / Course in each semester (during the entire UGP) for the degree award, as required.

**9.122** In spite of securing ‘P’ Grade or above in some (or all) Subjects / Courses in any semester, if a student receives a SGPA  $< 5.00$  and / or CGPA  $< 5.00$  at the end of such a semester, then he / she ‘may be allowed’ (on the ‘specific recommendations’ of the Head of the Department and subsequent approval from the Principal) (i) to go into the next subsequent semester (subject to fulfilling all other attendance and academic requirements as listed under Items Nos. 7 & 8); (ii) to ‘improve his / her SGPA of such a semester (and hence CGPA) to 5.00 or above’, by reappearing for ONE or MORE (as per student’s choice) of the same course(s) in which he / she has secured ‘P’ Grade(s) in that semester, at the Supplementary Examinations to be held in the next subsequent semester(s). In such cases, his/her Internal Marks (CIE Marks) in those subject(s) will remain same as those he / she obtained earlier. In these considerations, the newly secured Letter Grades will be recorded and taken into account for calculation of SGPA and CGPA, only if there is an improvement.

**9.123** A student shall be declared successful in any Non-Credit Course, if he / she secures a ‘Satisfactory Participation Certificate’ for that Audit Course and “Satisfactory Certificate’ for Mandatory Course.

**9.13** After the completion of each 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 and Grade Earned etc.), Credits earned, SGPA and CGPA.

**10.0 Declaration of Results**

**10.1** Computation of SGPA and CGPA are done using the procedure listed in items 9.6 to9.10.

**10.2** For final % of marks equivalent to the computed final CGPA, the following formula may be used ...

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

**11.0 Award of Degree**

**11.1** A student who register for all the specified courses as listed in the Course Structure, satisfies all the course requirements, passes all the examinations prescribed in the entire UG Programme (UGP) within the specified period (refer 4.1) and secures the required number of 192 Credits (with CGPA  $\geq 5.0$ ) shall be declared to have ‘QUALIFIED’ for the award of the B.Tech. Degree in the chosen branch of engineering as selected at the time of admission.

**11.2** A student who qualifies for the award of the degree as listed in Item 12.1, shall be placed in the following classes:

Class Awarded	CGPA
First Class with Distinction	$\geq 8.00$
First Class	$\geq 6.50$ and $< 8.00$
Second Class	$\geq 5.50$ and $< 6.50$
Pass Class	$\geq 5.00$ and $< 5.50$

**11.3** A student with final CGPA (at the end of the UGP) < 5.00 will not be eligible for the award of the degree.

## **12. Withholding of Results**

If the student has not paid fees to college at any stage or has pending dues against his / her name due to any reason whatsoever or if any case of indiscipline is pending against him, the result of the student may be withheld and he / she 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.

## **13.0 Transitory Regulations**

### **A. For students detained due to shortage of attendance:**

1. A student who has been detained in I year of MR13 / MR14 / MR15 regulations due to lack of attendance, shall be permitted to join I year I Semester of MR17 regulations and he / she 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 MR13 / MR14 / MR15 regulations for want of attendance shall be permitted to join the corresponding semester of MR17 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 MR17 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 MR13 / MR14 / MR15 regulations, who has been detained due to lack of credits, shall be promoted to the next semester of MR17 regulations only after acquiring the required credits as per the corresponding regulations of his / her first admission. 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 MR17 academic regulations are applicable to a student from the year of readmission onwards. See rule (C) for further Transitory Regulations.

### **C. For readmitted students in MR17 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 MR17 regulations. The performance evaluation of the student will be done after the exemption of two subjects if total credits acquired are  $\leq 206$ , three subjects if total credits acquired are  $> 206$  (see MR17 regulations for exemption details).
- 6 If a student readmitted to MR17 regulations, has any subject with 80 % of syllabus common with his / her previous regulations, that particular subject in MR17 regulations will be substituted by another subject to be suggested by the College Academic Committee (CAC).  
**Note:** If a student readmitted to MR17 regulations, has not studied any subjects / topics in his / her earlier regulations of study which is prerequisite for further subjects in MR17 regulations, the departments concerned shall conduct remedial classes to cover those subjects/topics for the benefit of the students.

## **14.0 Student Transfers**

**14.1** There shall be no branch transfers after the completion of admission process.

**14.2** The students seeking transfer to MALLA REDDY ENGINEERING COLLEGE



(Autonomous) - MREC(A) from various other Universities / Institutions have to pass the failed subjects which are equivalent to the subjects of MREC(A) and also pass the subjects of MREC(A) 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 MREC(A), the students have to study those subjects in MREC(A) in spite of the fact that those subjects are repeated.

- 14.3** The transfer students from other Universities / Institutions to MREC(A) who are on rolls will be provided one chance to write internal examinations in the failed subjects and / or subjects not studied as per the clearance letter issued by the JNTUH.

**150 Scope**

- (i) Where the words “he”, “him”, “his”, occur in the write - up of regulations, they include “she”, “her”, “hers”.
- (ii) Where the words “Subject” or “Subjects”, occur in these regulations, they also imply “Course” or “Courses”.
- (iii) The academic regulations should be read as a whole, for the purpose of any interpretation.
- (iv) In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the College Academic Committee headed by the principal is final.

## Academic Regulations for B.Tech. (Lateral Entry Scheme)

w.e.f the A Y 2018-19

### 1. Eligibility for award of B. Tech. Degree(LES)

The LES students after securing admission shall pursue a course of study for not less than three academic years and not more than six academic years.

2. The student shall register for 144 credits and secure 144 credits with CGPA  $\geq 5$  from II year to IV year B.Tech. programme (LES) for the award of B.Tech. degree. **Out of the 144 credits secured, the student can avail exemption up to 6 credits**, that is, one open elective subject and one professional elective subject or two professional elective subjects resulting in 138 credits for B.Tech. programme performance evaluation.
3. The students, who fail to fulfil the requirement for the award of the degree in six academic years from the year of admission, shall forfeit their seat in B.Tech.
4. The attendance requirements of B. Tech. (Regular) shall be applicable to B.Tech.(LES).

### 5. Promotion Rule:

Sl.No.	Promotion	Conditions to be fulfilled
1	Second year first semester (III Semester) to second year second semester (IV Semester)	Regular course of study of second year first semester (III Semester).
2	Second year second semester (IV Semester) to third year first semester (V Semester).	(i) Regular course of study of second year second semester (IV Semester) (ii) Must have secured at least 29 credits out of 48 credits i.e., 60 % credits up to second year second semester (IV Semester) from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
3	Third year first semester (V Semester) to third year second semester (VI Semester)	Regular course of study of third year first semester (V Semester).
4	Third year second semester (VI Semester) to fourth year first semester (VII Semester)	(i) Regular course of study of third year second semester (VI Semester) (ii) Must have secured at least 58 credits out of 96 credits i.e., 60 % credits up to third year second semester (VI Semester) from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
5	Fourth year first semester (VII Semester) to fourth year second semester (VIII Semester)	Regular course of study of fourth year first semester (VII Semester)

6. All the other regulations as applicable to B. Tech. 4 - year degree course (Regular) will hold good for B. Tech. (Lateral Entry Scheme).

## MALPRACTICES RULES

### DISCIPLINARY ACTION FOR IMPROPER CONDUCT IN EXAMINATIONS

Sl.No.	Nature of Malpractices/Improper conduct	Punishment
	If the candidate:	
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 student 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 course of the examination)	Expulsion from the examination hall and cancellation of the performance in that course only.
(b)	Gives assistance or guidance or receives it from any other student orally or by any other body language methods or communicates through cell phones with any 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 course only of all the students involved. In case of an outsider, he will be handed over to the police and a case is registered against him.
2	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to that course of the examination (theory or practical) in which the candidate is appearing.	Expulsion from the examination hall and cancellation of the performance in that course and all other courses the student has already appeared including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the courses of that semester. The hall ticket of the candidate shall be cancelled.
3	Impersonates any other candidate in connection with the examination.	The student who has impersonated shall be expelled from examination hall. The candidate is also debarred and forfeits the seat. The performance of the original student who has been impersonated, shall be cancelled in all the courses of the examination (including practicals and project work) already appeared and shall not be allowed to appear for examinations of the remaining courses of that semester. The candidate is also debarred for two consecutive semesters from class work and

		all SEE. The continuation of the programme 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 course and all the other courses the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester. The student is also debarred for two consecutive semesters from class work and all SEE. The continuation of the programme 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 course.
6	Refuses to obey the orders of the Chief Controller of Examinations (CCE) / Controller of Examinations (CE) / Assistant Controller of Examinations (ACE) / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-incharge, 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	In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that course and all other courses the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the courses of that semester. The students also are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police cases registered against them.

	means or misconduct or has the tendency to disrupt the orderly conduct of the examination	
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 course and all the other courses the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester. The candidate is also debarred for two consecutive semesters from class work and all SEE. The continuation of the programme by the student 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 course and all other courses the student has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester. The candidate is also debarred and forfeits the seat.
9	If student of the college, who is not a student for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	Expulsion from the examination hall and cancellation of the performance in that course and all other courses the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester. 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 course and all other courses the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the courses of that semester.

11	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that course and all other courses the student has appeared including practical examinations and project work of that SEE.
12	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the CCE for further action toward suitable punishment.	

**Note: *The student(s) found indulging in malpractices during the CIE also will be punished based on the recommendations of the College Academic Committee.***

**Malpractices identified by squad or special invigilators**

1. Punishments to the students as per the above guidelines.

