



**ACADEMIC REGULATIONS (R22) FOR B.TECH REGULAR  
STUDENTS WITH EFFECT FROM THE ACADEMIC YEAR 2022-23**

**1.0 Under-Graduate Degree Programme in Engineering & Technology (UGP in E&T)**

TKR College of Engineering & Technology (TKRCET) offers a 4-year (8 semesters) **Bachelor of Technology (B.Tech.)** degree programme, under Choice Based Credit System (CBCS) from the academic year **2022-23**.

- 1.1** TKR College of Engineering & Technology (TKRCET) offers an VIII- Semesters (4-years) **Bachelor of Technology (B.Tech.)** degree Program, under the Choice Based Credit System (CBCS) at its Autonomous College with effect from the academic year 2022-2023 in the following branches of Engineering:

S.No	Branch
1	Civil Engineering
2	Electrical & Electronics Engineering
3	Mechanical Engineering
4	Electronics & Communication Engineering
5	Computer Science & Engineering
6	Information Technology
7	Computer Science & Engineering (Artificial Intelligence & Machine Learning)
8	Computer Science & Engineering (Data Science)

**2.0 Eligibility for Admission**

- 2.1** Admission to the undergraduate (UG) programme shall be made either on the basis of the merit rank obtained by the qualified student in entrance test conducted by the Telangana State Government (EAMCET) or the College or on the basis of any other order of merit approved by the University, subject to reservations as prescribed by the government from time to time.

- 2.2** Seats for each Program in the college are classified into CATEGORY-A (70% of intake), CATEGORY-B (30% of intake) and CATEGORY-C (10% of intake through Lateral Entry).

- 2.3 Admission to the CATEGORY-A (70% of Intake) is made either on the basis of the merit rank obtained by the qualified candidate in the entrance test conducted by the Telangana State Government (EAMCET) or on the basis of any other order of merit approved by the University, subject to reservations prescribed by the government from time to time.
- 2.4 The college fills CATEGORY-B (30% of Intake) as per the guidelines of the competent authority.
- 2.5 CATEGORY-C (10% of intake) are Lateral Entry students who are admitted into the third semester directly based on the rank secured by the candidate in the Engineering Common Entrance Test (ECET) in accordance with the instructions received from the convener, ECET and the competent authority.
- 2.6 The medium of instructions for the entire undergraduate programme in Engineering & Technology will be **English** only.
- 2.7 It is mandatory that every student follows the undertaking and abides by the rules of TKR College of Engineering and Technology from time to time.

### 3.0 **B.Tech. Programme Structure**

- 3.1 The programme structure at TKRCET is, referred under semester pattern only. A student after securing admission shall complete the B.Tech. programme in a minimum period of **four** academic years (8 semesters), and a maximum period of **eight** academic years, starting from the date of commencement of first year first semester, failing which student shall forfeit seat in B.Tech course. **Each student shall secure 160 credits (with CGPA  $\geq$  5) required for the completion of the undergraduate programme and award of the B.Tech. Degree.**

- 3.1.1 A Student after securing admission through lateral Entry (Category C) is required to pursue the undergraduate program in B.Tech for a minimum period of VI Semesters (3 academic years) for a maximum of 6 academic years, starting from the date of commencement of the third semester, failing which the student shall forfeit the seat in the B.Tech course. **Each student should secure 120 credits (with CGPA  $\geq$  5.0) required for the completion of the undergraduate program and award of B.Tech degree.**

- 3.2 UGC/ AICTE specified definitions/ descriptions are adopted appropriately for various terms and abbreviations used in these academic regulations/ norms, which are listed below.

#### 3.2.1 **Semester Scheme**

Each undergraduate programme, is of 4 academic years (8 semesters) with the academic year divided into two semesters of 22 weeks ( $\geq$  90 instructional days)

each. In every semester - ‘Continuous Internal Evaluation (CIE)’ and ‘Semester End Examination (SEE)’ assessments are made under Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) indicated by UGC, curriculum/course structure suggested by AICTE/ Affiliating University are followed with minor modifications.

### 3.2.2 Credit Courses

All subjects/ courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/ course in an 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 or Tutorials.
- One credit for two hours/ week/ semester for Laboratory/ Practical (P) courses.
- Courses like Environmental Science, Constitution of India, Intellectual Property Rights, and Gender Sensitization Lab are mandatory courses. **These courses will not carry any credits.**

### 3.2.3 The Structure of the under graduate Engineering Program:

S.NO.	CATEGORY	Suggested breakup of credits (Total 160)
01	Humanities and Social sciences including Management	11*
02	Basic Sciences	23*
03	Engineering Science Course including Workshop, drawing basics of electrical/mechanical/computer etc.	22*
04	Professional Core Courses	59*
05	Professional Elective Courses relevant to chosen specialization/branch	18*
06	Open Electives-Electives from other technical and/or emerging subjects	12
07	Project work, seminar and internship in industry or elsewhere	15
08	Mandatory courses [Environmental sciences, Indian Constitution, Essence of Indian Traditional Knowledge]	(non- credit)
	<b>Total</b>	<b>160*</b>

\* Minor Variation is allowed as per the need of the respective disciplines.

### 3.2.4 Subject Code classification as of R 22 Regulations

The Subject Codes of various branches in R22 Regulations are, formulated using the following Procedure:

### Regulation, Branch, Semester, Classification, S.No.

<b>Regulation</b>	<b>R17-A, R18-B, ....., and so on</b>
<b>UG Branch</b>	<b>1- Civil Engineering, 2- Electrical and Electronics Engineering, 3- Mechanical Engineering, 4- Electronics and Communication Engineering, 5- Computer Science and Engineering, 12- Information Technology 66- Computer Science and Engineering (Artificial Intelligence and Machine Learning) 67- Computer Science and Engineering (Data Science)</b>
<b>PG Branch</b>	<b>43-Power Electronics 58-Computer Science and Engineering, 25-Software Engineering, 00- Master of Business Administration</b>
<b>Semester</b>	<b>I, II, III, IV, V, VI, VII, VIII.</b>
<b>Classification</b>	<b>HS-Humanities and Sciences, BS-Basic Sciences, ES- Engineering Sciences, PC- Professional Core, PE- Professional Elective, OE-Open Elective, PW-Project Work.</b>
<b>S.No.</b>	<b>1 to 9</b>

#### 4.0 Course Registration

- 4.1 A 'faculty advisor or counselor' shall be assigned to a group of 20 students, who will advise the students about the undergraduate programme, its course structure and curriculum, choice/option for subjects/ courses, based on their 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 'on-line registration', ensuring 'date and time stamping'. The on-line registration requests for any 'current semester' shall be **completed before the commencement of SEEs (Semester End Examinations) of the 'preceding semester'**.
- 4.3 A student can apply for **on-line** registration, **only after** obtaining the '**written approval**' from faculty advisor/counselor, which should be submitted to the college academic section through the Head of the Department. A copy of it, shall be retained with the Head of the Department, Faculty Advisor/ Counselor and the student.
- 4.4 A student may be permitted to register for all the subjects/ courses in a semester as specified in the course structure with maximum additional subject(s)/course(s) limited to Six (6) Credits (any 2 elective subjects), based on progress and SGPA/ CGPA, an completion of the 'pre-requisites' as indicated for various subjects/ courses, in the department course structure and syllabus contents.
- 4.5 Choice for '**additional subjects/ courses**', not more than any 2 elective subjects in any Semester, must be clearly indicated, which needs the specific approval and signature of the Faculty Advisor/Mentor/HOD.

- 4.6** If the student submits ambiguous choices or multiple options or erroneous entries during **on-line** 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.
- 4.7** Subject/course options exercised through **on-line** registration are final and **cannot** be changed or inter-changed; further, alternate choices also will not be considered. However, if the subject/ course that has already been listed for registration by the Head of the Department in a semester could not be offered due to any inevitable or unexpected reasons, then the student shall be allowed to have alternate choice either for a new subject (subject to offering of such a subject), or for another existing subject (subject to availability of seats). The Head of the Department will make such alternate arrangements, with due notification and time-framed schedule, within **a week** after the commencement of class-work for that semester.
- 4.8** **Open Electives:** The students have to choose three Open Electives (OE-I, II & III, **and/or** IV) 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, and Mandatory Courses etc.) of subjects even in the forthcoming semesters.
- 4.9** **Professional Electives:** The students have to choose six Professional Electives (PE-I to VI) from the list of professional electives given.
- 5.0** **Subjects/ courses to be offered**
- 5.1** A subject/course may be offered to the students, **only if** a minimum of 30 students opt for it.
- 5.2** More than **one faculty member** may offer the **same subject** (lab/ practical may be included with the corresponding theory subject in the same semester) in any semester. However, selection of choice for students will be based on - '**first come first serve** basis and CGPA criterion' (i.e. the first focus shall be on early **on-line entry** from the student for registration in that semester, and the second focus, if needed, will be on CGPA of the student).
- 5.3** If more entries for registration of a subject come into picture, then the Head of the Department concerned shall decide, whether or not to offer such a subject/ course for **two (or multiple) sections**.
- 5.4** An Elective Course is offered to the students if and only if there is a minimum of 1/3 strength of the sanctioned intake register for that course.

## **6.0 Attendance requirements:**

- 6.1** A student shall be eligible to appear for the semester end examinations, if the student acquires a minimum of 75% of attendance in aggregate of all the subjects/ courses **(including attendance in mandatory 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.
- 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 for 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 are detained and their registration for that semester shall stand cancelled,** including all academic credentials (internal marks etc.) of that semester. **They will not be promoted to the next semester.** They may seek re-registration for all those subjects registered in that semester, in which the student is detained, by seeking re-admission into that semester as and when offered; 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.

## **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 student secures not less than 35% in the internal examinations (i.e., 14 marks out of 40 marks). For Semester End Examinations not less than 35% (i.e., 21 marks out of 60 marks) and a minimum of 40% in the sum total of the CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together (i.e., 40 marks out of 100 marks); 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 Industry Oriented Mini Project (or) Internship (or) Seminar, 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/she (i) does not submit a report on 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 Industry Oriented Mini Project (or) Internship evaluations as

applicable.

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

S. No.	Promotion	Conditions to be fulfilled
1	First semester to Second semester	Regular course of study of first semester.
2	Second semester to Third semester	(i) Regular course of study of second semester. (ii) Must have secured at least 20 credits out of 40 credits i.e., 50% 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.
4	Fourth semester to Fifth semester	(i) Regular course of study of fourth semester. (ii) Must have secured at least 48 credits out of 80 credits i.e., 60% 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.
6	Seventh semester to Eighth semester	(i) Regular course of study of sixth semester. (ii) Must have secured at least 72 credits out of 120 credits i.e., 60% credits up to sixth Semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
7	Seventh semester to Eighth semester	Regular course of study of seventh semester.

7.4 A student (i) shall register for all courses/subjects covering 160 credits as specified and listed in the course structure, (ii) fulfills all the attendance and academic requirements for 160 credits, (iii) earn all 160 credits by securing SGPA  $\geq 5.0$  (in each semester), and CGPA  $\geq 5$  (at the end of 8 semesters), (iv) **passes all the mandatory courses offered during the entire 4 year programme**, to successfully complete the undergraduate programme. The performance of the student in these

160 credits shall be considered for the calculation of the final CGPA (**at the end of undergraduate programme**), and shall be indicated in the grade card / marks memo of VIII semester.

- 7.5** If a student registers for ‘**extra subjects**’ (in the parent department or other departments/branches of Engg.) other than those listed subjects totaling to 160 credits as specified in the course structure of his department, the performances in those ‘**extra subjects**’ (although evaluated and graded using the same procedure as that of the required 160 credits) will not be considered while calculating the SGPA and CGPA. For such ‘**extra subjects**’ registered, percentage of marks and letter grade alone will be indicated in the grade card / marks memo as a performance measure, subject to completion of the attendance and academic requirements as stated in regulations Items 6 and 7.1 – 7.4 above.
- 7.6** A student eligible to appear in the semester end 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/s 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 SEE supplementary examination for evaluating performance in that subject.
- 7.7** A student **detained in a semester due to shortage of attendance shall re-admit during the same semester in the next academic year for fulfillment of academic requirements. The academic regulations under which a student has been re-admitted shall be applicable.** Further, no grade allotments or SGPA/ CGPA calculations will be done for the entire semester in which the student has been detained.
- 7.8** A student detained **due to lack of credits, will be promoted, to the next academic year only after acquiring the required number of academic credits.** The academic regulations under which the student has been readmitted shall be applicable to him.

## **8.0 Evaluation - Distribution and Weightage of Marks**

- 8.1** The performance of a student in every subject/course (other than specified project work) will be evaluated for 100 marks each, with 40 marks allotted for CIE (Continuous Internal Evaluation) and 60 marks for SEE (Semester End-Examination). The Project under stage-1 will be evaluated for full 100 marks internally.
- 8.2** In CIE, for theory subjects, 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 with a total duration of 2 hours as follows:
1. Mid-term Examination for 30 marks:
    - a. Part - A: Objective/quiz paper for 10 marks.
    - b. Part – B: Descriptive paper for 20 marks.
  1. Assignment for 5 marks. (Average of 2 Assignments each for 5 marks)

2. Subject Viva-Voce/PPT/Poster Presentation/ Case Study on a topic in the concerned subject for 5 marks.
3. For subjects like drawing the evaluation should be, carried for 15 marks directly without assignment, will be, awarded based on day-to-day performance.

**Part - A: Objective/quiz paper for 10 marks:** Objective/quiz paper is set with multiple choice and fill-in the blanks type of questions for a total of 10 marks.

**Part – B: Descriptive paper for 20 marks:** The descriptive paper shall contain six (6) questions full or each question comprising of two parts as a and b, out of which, the student has to answer three (4) questions, each carrying 5 marks. The average of the two Mid Term Examinations shall be taken as the final marks for Mid Term Examinations.

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.

**Assignment for 5 (five) marks:** Five (5) marks is 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 five (5) marks).

**Subject Viva-Voce/PPT/Poster Presentation/ Case Study on a topic in the concerned subject for 5 marks:** Subject Viva-Voce/PPT/Poster Presentation/ Case Study on a topic in the subject concerned for 5 marks before II Mid-Term Examination for all subjects other than drawing oriented subjects.

**The details of the End Semester question paper pattern is as follows:**

- 8.2.1** The Semester End Examinations (SEE), 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:** compulsory question, which consists of ten sub-questions from all unit carrying equal marks.

**Part-B** consists of five questions (numbered from two (2) to six (6)) 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 duration of Semester End Examination is 3 hours.**

- 8.3** For practical subjects there shall be a Continuous Internal Evaluation (CIE) during the semester for 40 marks and 60 marks for semester end examination. 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 Project, 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.

The Semester End Examination shall be, conducted with an external examiner and the laboratory teacher. The external examiner shall be, appointed from the other colleges, which will be, decided by the examination branch of the college.

In the Semester End Examination held for 3 hours, total 60 marks are, allocated as follows:

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.
- 8.4** The UG project shall be initiated at the beginning of the VII Semester and the duration of the project work is one semester. The student must present Project Stage – I during VII Semester. As the part of evaluation, the student should submit in consultation with his Supervisor, the title, objective and plan of action of his Project work to the departmental committee for approval and marks are awarded based on the presentation and approval of the committee by the Project Coordinator. The Evaluation is internal for 100 marks, only after obtaining the approval of the departmental committee; the student can start his project work.
- 8.5** UG project work shall be carried out in two stages: Project Stage – I for approval of project during VII Semester and Project Stage – II during VIII Semester. Student has to submit project stage-II report at the end of VIII Semester. An External Examiner, before commencement of Semester End Theory examinations, shall evaluate the project for 100 marks externally.
- 8.6** For Project Stage–I, the departmental committee consisting of Head of the Department, project supervisor and a senior faculty member shall approve the project work after the presentation by student before I Mid-Term examination of VII Semester. The student is deemed to be not eligible to register for the Project stage-I, if he does not submit a report on Project Stage-I or does not make a presentation of the same before the evaluation committee as per schedule. A student who has failed may reappear once for the above evaluation, when it is, scheduled again; if he fails in such ‘one reappearance’ evaluation also, he has to reappear for the same in the next subsequent

semester, as and when it is scheduled. The Evaluation for Project I will be in internal mode for 100 marks.

- 8.7** For Evaluating of project stage-II, College selects an external examiner from the list of experts in the relevant branch submitted by the Principal of the College.

For Project Stage – II, the external examiner shall evaluate the project work for 60 marks and the internal project committee shall evaluate it for 40 marks. Out of 40 internal marks, the departmental committee consisting of Head of the Department, Project Supervisor and a Senior Faculty Member shall evaluate the project work for 20 marks and Project Supervisor shall evaluate for 20 marks. The student is, deemed to have failed, if, (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 SEE taken together.

A student, who has failed, may reappear once for the above **evaluation**, when it is scheduled again; if student fails in such ‘one reappearance’ evaluation also, he has to reappear for the same in the next subsequent semester, as and when it is scheduled.

- 8.8** A student has to (shall be, given one time chance to) re-register for a maximum of two subjects:

- **If the internal marks secured by a candidate in mid examinations (average of two mid-term examinations consisting of Objective & descriptive parts) are less than 35% and failed in those subjects (or)**

A student must re-register for the failed subject(s) for 25 marks within four weeks of commencement of the classwork in next academic year. In addition, the student has to earn 35% of total internal marks (14 out of 40 marks including Mid- Term examinations, Assignment & Subject Viva-voce/PPT/ Poster presentation/ Case Study on a topic in the concerned subject). **In the event of the student taking this chance, his Continuous Internal Evaluation marks for 25 and Semester End Examination marks for 60 obtained in the previous attempt stand cancelled. However, the marks allotted for Assignment, and Subject Viva-Voce/PPT/Poster Presentation/Case Study on a topic in the concerned subject are carry forwarded as awarded in the regular course of study.**

- 8.9** The laboratory marks, sessional marks, and the end examination marks awarded by the college are subject to scrutiny and scaling, if necessary, by a committee, constituted in this regard, with a university representative/under the guidance of the Director of Evaluation of the affiliating university. The recommendations of the committee are final and binding. The laboratory records, internal examination scripts and external examination scripts, shall be preserved as per the rules for two consecutive academic years if the respective subjects are cleared, and shall be produced before the committee as and when required, till preserved.

- 8.10** For mandatory courses, the student should participate in activities and submit the proof

of attendance, or satisfactory report of participation. For theory-oriented subjects the evaluation will be internally by the concerned teacher and submit the satisfactory for individual student.

## 9.0 Grading Procedure

9.1 Grades will be, awarded to indicate the performance of students in each Theory Subject, Laboratory/Practicals/ Industry-Oriented Mini Project/Internship/SDC and Project Stage. Based on the percentage of marks obtained (Continuous Internal Evaluation plus Semester End Examination, both taken together) as specified in item 8 above, a corresponding letter grade shall be given.

9.2 As a measure of the performance of a student, a 10-point absolute grading system using the following letter grades (as per UGC/AICTE guidelines) and corresponding percentage of marks shall be, followed:

<b>% of Marks Secured in a Subject/Course (Class Intervals)</b>	<b>Letter Grade (UGC Guidelines)</b>	<b>Grade Points</b>
<b>Greater than or equal to 90%</b>	<b>O (Outstanding)</b>	<b>10</b>
<b>80 and less than 90%</b>	<b>A<sup>+</sup> (Excellent)</b>	<b>9</b>
<b>70 and less than 80%</b>	<b>A (Very Good)</b>	<b>8</b>
<b>60 and less than 70%</b>	<b>B<sup>+</sup> (Good)</b>	<b>7</b>
<b>50 and less than 60%</b>	<b>B (Average)</b>	<b>6</b>
<b>40 and less than 50%</b>	<b>C (Pass)</b>	<b>5</b>
<b>Below 40%</b>	<b>F (FAIL)</b>	<b>0</b>
<b>Absent</b>	<b>Ab</b>	<b>0</b>

9.3 A student who has obtained an ‘F’ grade in any subject shall be, deemed to have ‘**failed**’ and is required to reappear as a ‘supplementary student’ in the semester end examination, as and when offered. In such cases, internal marks in those subjects will remain the 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 indicate any specific percentage 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, based on the letter grade secured in that subject/ course. 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** A student passes the subject/ course only when **GP ≥ 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

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

where ‘i’ is the subject indicator index (takes into account all subjects, in semester) ‘N’ is the no. of subjects registered for the semester (as specifically required and listed under the course structure of the parent department)  $C_i$  is the no. of credits allotted to the  $i^{\text{th}}$  subject.  $G_i$  represents the grade points (GP) corresponding to the letter grade awarded for the  $i^{\text{th}}$  subject.

- 9.9** 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 to **two** decimal places. CGPA is thus computed from the I year II semester onwards at the end of each semester as per the formula

$$\text{CGPA} = \{\sum_{j=1}^M C_j G_j\} / \{\sum_{j=1}^M C_j \text{ for all semester registered}\}$$

(i.e., up to and inclusive of S semesters,  $S \geq 2$ ),

Where, ‘M’ is the **total** no. of subjects (as specifically required and listed under the course structure of the parent department) the student has **‘registered’** i.e., from the 1<sup>st</sup> semester onwards up to and inclusive of the 8<sup>th</sup> semester, ‘j’ is the subject indicator index (takes into account all subjects from 1 to 8 semesters),  $C_j$  is the no. of credits allotted to the  $j^{\text{th}}$  subject, and  $G_j$  represents the grade points (GP) corresponding to the letter grade awarded for that  $j^{\text{th}}$  subject. After registration and completion of I semester, 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 x 8 = 32
Course 2	4	O	10	4 x 10 = 40
Course 3	4	C	5	4 x 5 = 20
Course 4	3	B	6	3 x 6 = 18
Course 5	3	A+	9	3 x 9 = 27
Course 6	3	C	5	3 x 5 = 15
	21			152

$$\text{SGPA} = 152/21 = 7.24$$

**Illustration of Calculation of CGPA up to 3<sup>rd</sup> Semester:**

Semester	Course/ Subject Title	Credits Allotted	Letter Grade Secured	Corresponding Grade Point (GP)	Credit Points (CP)
I	Course 1	3	A	8	24
I	Course 2	3	O	10	30
I	Course 3	3	B	6	18
I	Course 4	4	A	8	32
I	Course 5	3	A+	9	27
I	Course 6	4	C	5	20
II	Course 7	4	B	6	24
II	Course 8	4	A	8	32
II	Course 9	3	C	5	15
II	Course 10	3	O	10	30
II	Course 11	3	B+	7	21
II	Course 12	4	B	6	24
II	Course 13	4	A	8	32
II	Course 14	3	O	10	30
III	Course 15	2	A	8	16
III	Course 16	1	C	5	5
III	Course 17	4	O	10	40
III	Course 18	3	B+	7	21
III	Course 19	4	B	6	24
III	Course 20	4	A	8	32
III	Course 21	3	B+	7	21
	<b>Total Credits</b>	<b>69</b>		<b>Total Credit Points</b>	<b>518</b>

$$\text{CGPA} = 518/69 = 7.51$$

The calculation process of CGPA illustrated above will be, followed for each subsequent semester until 8<sup>th</sup> semester. The CGPA obtained at the end of 8<sup>th</sup> semester will become the final CGPA secured for entire B.Tech. Programme.

- 9.10** 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. However, mandatory courses will not be, taken into consideration.

## **10.0 Passing Standards**

- 10.1** A student shall be declared successful or 'passed' in a semester, if he secures a GP  $\geq 5$  ('C' grade or above) in every subject/course in that semester (i.e. when the student gets an SGPA  $\geq 5.0$  at the end of that particular semester); and he shall be declared successful or 'passed' in the entire undergraduate programme, only when gets a CGPA  $\geq 5.00$  ('C' grade or above) for the award of the degree as required.
- 10.2** After the completion of each semester, a grade card or grade sheet 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.) and credits earned. **There is NO exemption of credits in any case.**

## **11.0 Declaration of results**

- 11.1** Computation of SGPA and CGPA are, done using the procedure listed in 9.6 to 9.9.
- 11.2** For final percentage of marks equivalent to the computed final CGPA, the following formula may be used.

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

## **12.0 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.
- 12.3** A student with final CGPA (at the end of the undergraduate programme)  $> 8.00$ , and fulfilling the following conditions - shall be placed in '**First Class with Distinction**'. However, the student
- (i) Should have passed all the subjects/courses in '**First Appearance**' within the 8 sequential semesters from the date of commencement of first semester.

- (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 > 8 shall be, placed in '**First Class**'.
  - Students with final CGPA (at the end of the undergraduate programme)  $\geq 7.0$  but < 8.00 shall be placed in '**First Class**'.
- (iii) Students with final CGPA (at the end of the undergraduate programme)  $\geq 6.00$  but < 7.00, shall be placed in '**Second Class**'.
- (iv) 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**'.

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

**12.5** Student with maximum CGPA fulfilling the conditions listed under item 12.3(i) alone will be eligible for award of '**Gold Medal**'.

### **13.0 Withholding of results**

**13.1** If the student has not paid the fees to the University 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 will be, withheld and the student will not be allowed to go into the next higher semester. The award or issue of the degree will also be, withheld in such cases.

### **14.0 Transitory Regulations**

A. For students detained due to shortage of attendance:

A Student who has been detained in any during his course Semester of R18/R 20 Regulations due to lack of attendance, shall be permitted to join I Semester of R22 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 Semester.

B. For students detained due to shortage of credits:

A student of R18 Regulations who has been, detained due to lack of credits shall be, promoted to the next semester of R22 Regulations only after acquiring the required number of credits as per the corresponding regulations of his/her first admission. The total number of minimum credits required are 160 including both R18 & R22 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 R22 Academic Regulations are applicable to a student from the year of readmission. See rule (C) for further Transitory Regulations.

C. For readmitted students in R22 Regulations:

A student who has failed in any subject under any regulation has to pass those subjects in the same regulations. 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 R22 Regulations. **There is NO exemption of credits in any case.**

If a student of R22 Regulation is admitted under, transfer quota/transit regulation and has any subject with 80% of syllabus common with their previous regulations, that particular subject in R22.

Regulations will be substituted by another subject to be suggested by the College.

- 14.1** A student, who has discontinued for any reason, is liable to completely pay his balance annual fees, from the discontinued year to completion of the four-year course.

## **15.0 Student Transfers**

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

- 15.2** There shall be no transfers from one college/stream to another within the constituent colleges and units of TKR Educational Society.

- 15.3** The students seeking transfer (as per State Govt. guidelines) to colleges affiliated to TKRCET from various other Universities/institutions have to pass the failed subjects which are equivalent to the subjects of TKRCET, and also pass the subjects of TKRCET, 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 TKRCET, the students have to study those subjects in TKRCET in spite of the fact that those subjects are repeated.

- 15.4** The autonomous affiliated colleges have to provide one chance to write the internal examinations in the equivalent **subject(s)** to the students transferred from other Universities/institutions to TKRCET autonomous affiliated colleges who are on rolls, as per the clearance (equivalence) letter issued by the State Govt. and Affiliating University.

## **16.0 Scope**

- 16.1** The academic regulations should be read as a whole, for the purpose of any interpretation.

- 16.2** In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the chairman/Governing body of TKR Educational society is final.

- 16.3** The College may change 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 College authorities.

- 16.4** Where the words “he”, “him”, “his”, occur in the regulations, they include “she”, “her”, “hers”.

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**ACADEMIC REGULATIONS FOR B.TECH (LATERAL ENTRY SCHEME) FROM  
THE AY 2023-24**

**1. Eligibility for the 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 120 credits and secure 120 credits with CGPA  $\geq 5$  from II Semester to VIII Semester (3 years course of study) B.Tech. Programme (LES) for the award of B.Tech. Degree.
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**

S. No	Promotion	Conditions to be fulfilled
1	Third semester to Fourth semester	Regular course of study of Third semester.
2	Fourth semester to Fifth Semester	(i) Regular course of study of second semester. (ii) Must have secured at least 24 credits out of 40 credits i.e., 60% 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.
4	Sixth semester to Seventh semester	(i) Regular course of study of Sixth semester. (ii) Must have secured at least 48 credits out of 80 credits i.e., 60% credits up to Sixth semester from all the relevant regular and supplementary examinations, whether the student takes those examinations or not.
5	Seventh semester to Eighth semester	Regular course of study of Seventh 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).**

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## Malpractices Rules

### Disciplinary Action For / Improper Conduct in Examinations

	Nature of Malpractices/Improper conduct	Punishment
	If the student:	
1. (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, cell phones, pager, palm computers or any other form of material concerned with or related to the 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 student 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.
(b)	Gives assistance or guidance or receives it from any other student orally or by any other body language methods or communicates through cell phones with any student or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that subject only of all the students involved. In case of an outsider, he will be handed over to the police and a case is registered against him.
2.	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject of the examination (theory or practical) in which the student is appearing.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the student 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 student is to be cancelled and sent to the University.
3.	Impersonates any other student in connection with the examination.	The student who has impersonated shall be expelled from examination hall. The student is also debarred and forfeits the seat. The performance of the original student, who has been impersonated, shall be cancelled in all the subjects of the examination (including practicals and project work) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The

		student is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the student 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, 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 student 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 student is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat.
5.	Uses objectionable, abusive or offensive language in the answer paper or in 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 chief superintendent/assistant – superintendent / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walk out, or threatens the officer-in charge or any person on duty in or outside the examination hall of any injury to his person or to any of his relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in-charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which	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 student(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The students 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.

	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.	
7.	Leaves the exam hall taking away answer script or intentionally tears off 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 student 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 student is also debarred for two consecutive semesters from class work and all University examinations. The continuation of the course by the student is subject to the academic regulations in connection with forfeiture of seat.
8.	Possesses 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 student 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 student is also debarred and forfeits the seat.
9.	If student of the college, who is not a student for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the student 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 student is also debarred and forfeits the seat.  Person(s) who do not belong to the college will be handed over to the police and, a police case will be registered against them.
10.	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject

		and all other subjects the student has already appeared for 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 student has appeared for 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 University for further action to award a suitable punishment.	

#### **Malpractices identified by squad or special invigilators**

1. Punishments to the students as per the above guidelines.
2. Punishment for Institutions: (If the squad reports that, the college is also involved in encouraging malpractices)
  - a. A show-cause notice shall be issued to the college.
  - b. Impose a suitable fine on the college.
  - c. Shifting the examination center from one college to another college for a specific period of not less than one year.

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