

**RAJAGIRI SCHOOL OF ENGINEERING & TECHNOLOGY
(AUTONOMOUS)**

**BACHELOR OF TECHNOLOGY (B.TECH.)
PROGRAMME
REGULATIONS 2023**



Rajagiri Valley, Kakkanad,
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**RAJAGIRI SCHOOL OF ENGINEERING & TECHNOLOGY
(Autonomous)**

ACADEMIC REGULATIONS FOR B. TECH DEGREE PROGRAMMES - 2023

The regulations here are effective from the academic year 2023 - 2024 and are applicable to students admitted in Rajagiri School of Engineering & Technology (Autonomous), Kakkanad, an Autonomous Institution affiliated to A. P. J. Abdul Kalam Technological University, Thiruvananthapuram, Kerala. The regulations are subject to amendments as may be made by the Academic Council/Governing Body of the Institution from time to time. Any or all such amendments will be effective from such date to such batches of students as may be decided by the Academic Council/Governing Body.

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In the following regulations unless the context otherwise requires.

- i) **“Choice Based Credit System”**: The choice-based credit system provides a ‘cafeteria’ type approach in which the students can take courses of their choice, learn at their own pace, undergo additional courses and acquire more than the required credits, and adopt an interdisciplinary approach to learning.
- ii) **“Programme”** means specialization or discipline of B.Tech Degree Programme, like Computer Science Engineering, Mechanical Engineering, etc.
- iii) **“Course”** means a theory or practical course that is normally studied in a semester, like Mathematics, Physics, etc.
- iv) **“Head of the Institution”** and **“Chairman - Academic Council”** mean the Principal of the institution who is responsible for all academic activities and the implementation of relevant rules and regulations.
- v) **“Head of the Department”- HoD** means Head of the Department concerned.
- vi) **“Controller of Examinations”**- means the authority of the institution who is responsible for all Examination related activities of all the disciplines; hereafter referred to as CoE.
- vii) **“RSET”** means Rajagiri School of Engineering & Technology (Autonomous).

2. ADMISSION TO THE PROGRAMME

- 2.1 Admission Policy, eligibility for admission and admission procedure shall be decided by the Governing Body from time to time.
- 2.2 If at any time after admission, it is found that a candidate has not fulfilled any of the requirements stipulated by the institution, the Principal may revoke the admission of the

candidate and report the matter to the Academic Council for suitable action.

3. STRUCTURE OF THE B.TECH. DEGREE PROGRAMME

3.1 Minimum Duration: The programme will extend over a period of FOUR years leading to the Degree of Bachelor of Technology (B.Tech.) of the A. P. J. Abdul Kalam Technological University. The four academic years will be divided into EIGHT SEMESTERS with two semesters per year.

3.2 Maximum Duration: The total period for completion of the programme reckoned from the commencement of the first semester to which the candidate is admitted shall not exceed the maximum period of 6 years spanning 12 semesters.

3.3 Every academic year shall have two semesters normally from “1st July to 31st December (Odd semester)” and “1st January to 30th June (Even semester)”. Each semester will have a minimum of 65 working days and a maximum of 75 working days.

3.4 All the B.Tech. degree programmes will have a curriculum and syllabi for the courses approved by the Academic Council (AC). Innovative elective courses and add - on courses can be included as and when required, on the recommendation of the respective Board of Studies (BoS) and subject to the approval of the AC. All revisions shall be based only on the recommendation of the BoS concerned. The final curriculum and syllabus will be decided by the AC.

3.5 Every B.Tech. degree programme will have a curriculum with syllabi consisting of theory/practical/tutorial/theory elective/practical elective/noncredit courses/Rajagiri elective courses/project/internship.

3.6 The academic programmes follow the credit system. The curricula of all B.Tech programmes, except for the curriculum of the B.Tech. programme in Computer Science and Business Systems, will have a total of 167 academic credits and 2 additional credits for performance in various activities. For the B.Tech. programme in Computer Science and Business Systems, the curriculum has 174 credits and 2 additional credits for performance in various activities.

3.7 No semester shall have more than six lecture-based courses and two laboratory and/or drawing/seminar/project courses in the curriculum.

3.8 Semester wise credit distribution for various programmes is given below.

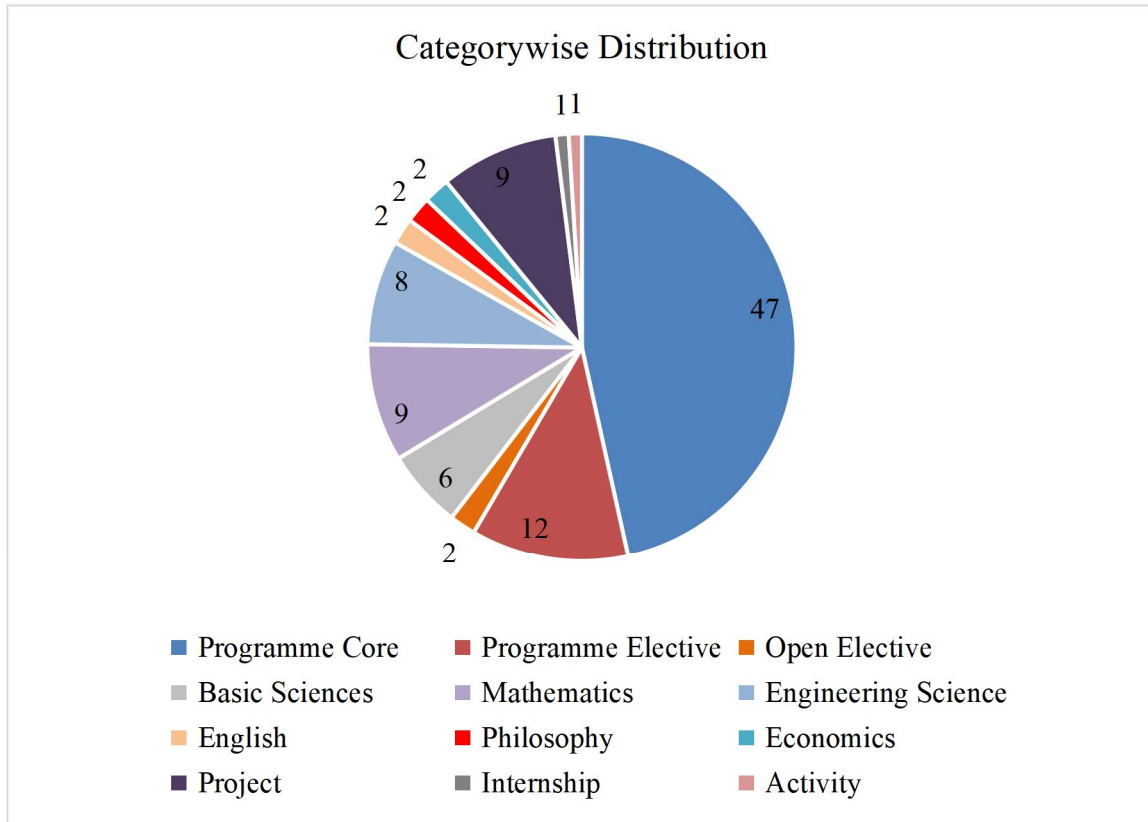
| Semester 1 | Semester 2 | Semester 3 | Semester 4 | Semester 5 | Semester 6 | Semester 7 | Semester 8 | Total |
|-------------------------|-------------------------|------------|------------|------------|------------|------------|------------|----------|
| 17 [#] /19/20* | 23 [#] /21/21* | 22/23* | 22/22* | 22/21* | 22/25* | 20/20* | 21/24* | 169/176* |

**for B. Tech. Computer Science and Business Systems*

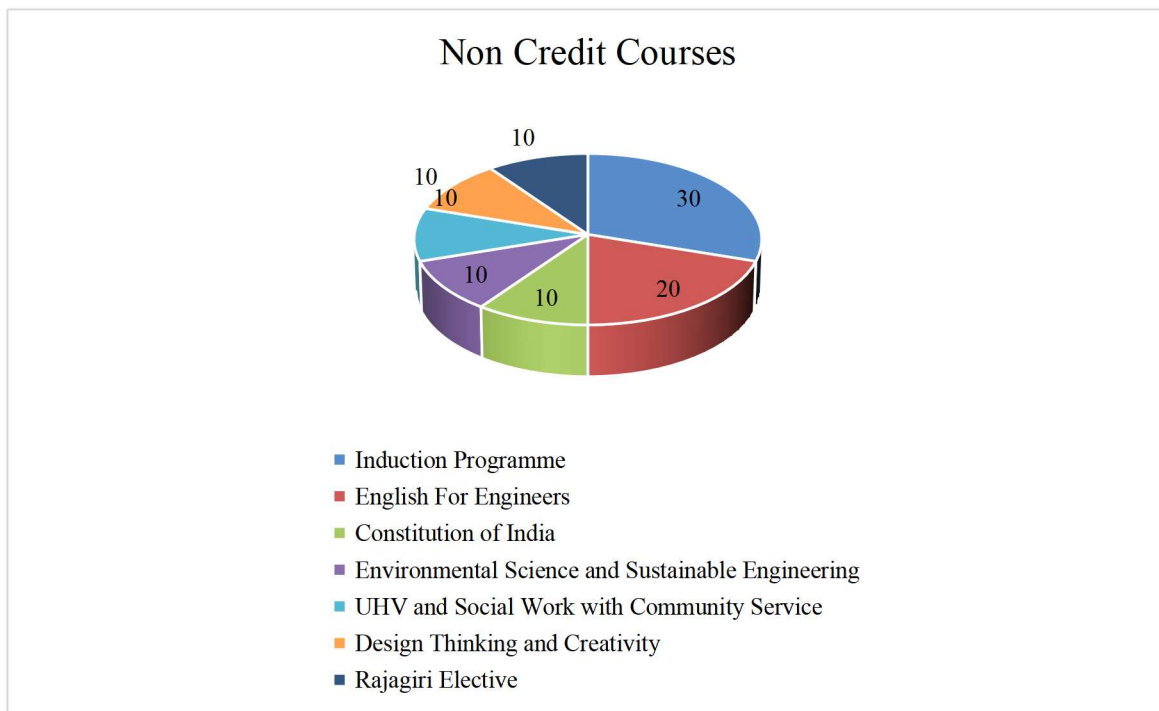
#for B.Tech. Artificial Intelligence and Data Science, B.Tech. Computer Science and Engineering, B.Tech. Information Technology.

3.9 The medium of instruction shall be English. All examinations, project/seminar reports and

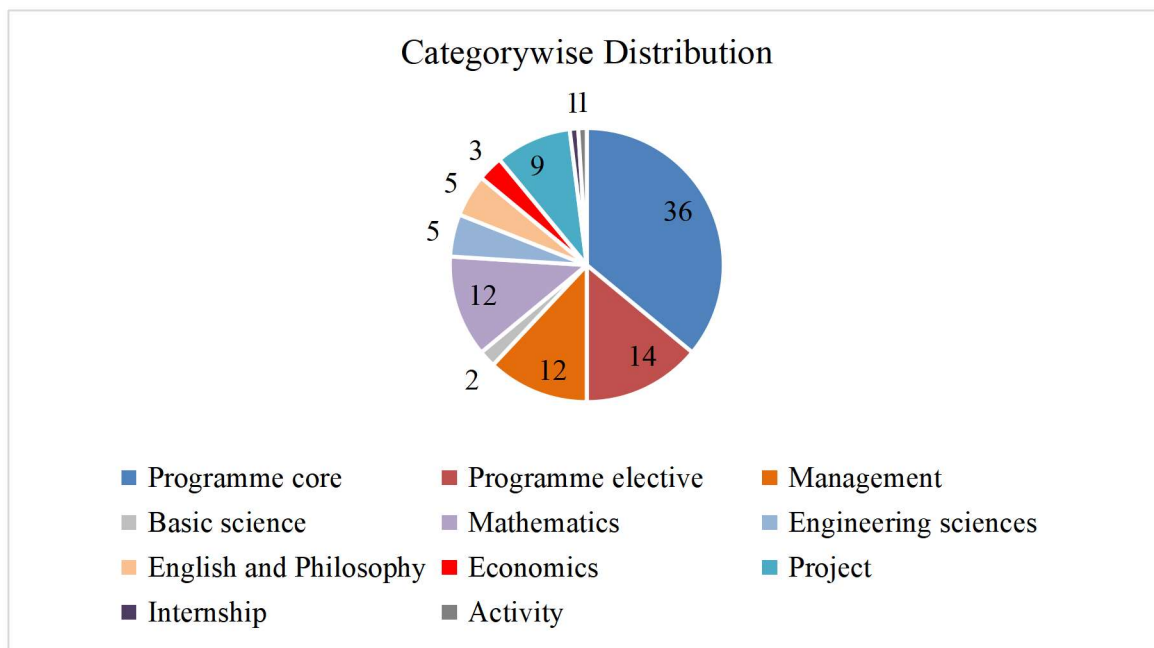
AD/CS/IT



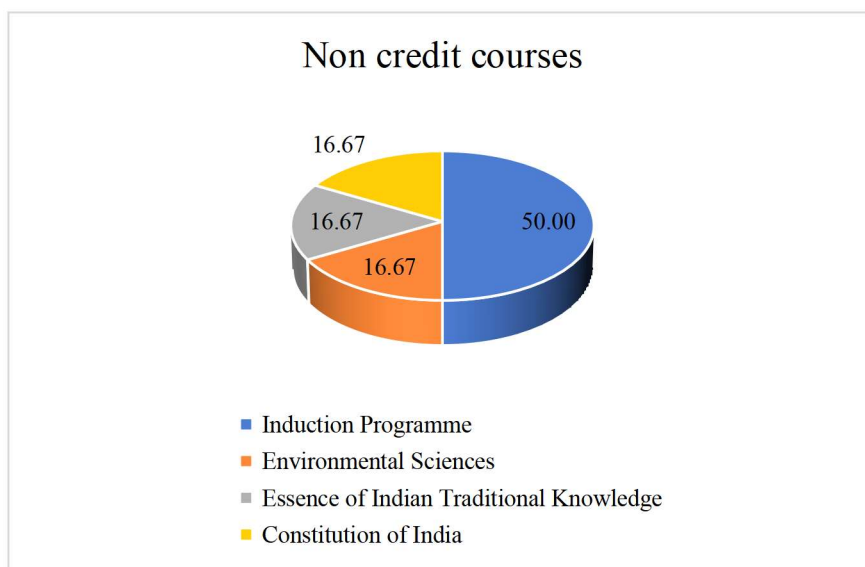
3.11 Noncredit courses shall be offered from third semester onwards. Distribution of the courses is given below.



3.12 Every course offered for the B. Tech. degree programme in Computer Science and Business Systems will be placed in one of the 10 categories as shown below.



3.13 Distribution of the noncredit courses offered for B. Tech. Computer Science and Business Systems is given below.



4. ACADEMIC MONITORING AND STUDENT SUPPORT

4.1 Class Teacher and Mentor System: There shall be a Class Teacher and an Associate Class Teacher for a class, and a Mentor each for 15 to 20 students in the class. The Principal shall assign regular Faculty Members as Class Teachers and Associate Class Teacher in discussion with the HoD concerned.

4.2 The documents regarding all academic and non-academic matters of students shall be kept in the custody of the Class Teacher. Mentoring records will be maintained by the Mentors and submitted to the Class Teacher/HoD at the time of inspections.

4.3 Every class shall have an Advisory Committee consisting of the HoD, Class Teachers, course teachers, mentors and at least four student representatives. The overall goal of the Advisory Committee is to improve the teaching- learning process. The Class Teacher or the Associate Class Teacher will be the Convener of the Advisory Committee, and the HoD will be the ex-officio Chairperson.

The functions of the Advisory Committee include:

- (i) Clarifying the regulations of the degree programme and the details of rules therein.
- (ii) Solving issues faced by the students in the classroom and in the laboratories.
- (iii) Informing the students of the academic schedule, including the dates of assessments and the syllabus coverage for each assessment.
- (iv) Informing the students of the details of regulations regarding weightage used for each assessment. In the case of practical courses (laboratory/ drawing/project work/seminar etc.) the breakup of marks for each experiment/ exercise/module of work, should be clearly discussed in the Advisory Committee meeting.
- (v) Analyzing the performance of the students of the class after each test and finding the ways and means of solving problems, if any.
- (vi) Identifying the weak students, if any, and suggesting implementation of remedial measures.

During these meetings, the student representatives shall freely express their opinions and suggestions to improve the effectiveness of the teaching-learning process, provide their feedback and raise concerns if any.

If the situation warrants, the Advisory Meetings can be held in the class with the participation of all the students.

4.4 The Advisory Committee meetings shall be convened thrice in a semester:

1. Immediately after the commencement of the semester
2. Immediately after the result publication of the first internal examination

3. Immediately after the result publication of the second internal examination/immediately before the end of the semester
- 4.5 The Principal may attend any of the Class Advisory Meetings at his discretion.
- 4.6 The Mentors shall meet their mentees at least twice in a semester. They shall offer guidance and help to solve the academic, non-academic and personal issues of the students in their mentoring group. Wherever required, the Mentors may consult the Class Teachers, course teachers, or the Student Welfare Officer to resolve concerns raised by the mentees.
- 4.7 The internal marks, activity points earned during the semester and eligibility of attendance shall be uploaded in the portal only after displaying the same on the notice board at least for two working days. This is for the information and feedback of the students. Any concerns raised by the students regarding attendance, internal marks or activity points shall be considered in the Advisory Meetings. The Principal/ HoD shall ensure the proper redressal of the concerns raised by the students regarding internal assessment and attendance. The Class Teacher shall be the custodian of the minutes and action taken reports of the Advisory Meetings.
- 4.8 The Class Teachers shall get the minutes and action taken reports of Advisory Meetings approved by the HoD and the Principal. The Class Teachers shall maintain a hard copy of the consolidated statement of attendance, activity points and internal marks of the students, and these documents shall be made available to the HoDs for all inspections.
- 4.9 All requests/applications from a student or parent to higher offices are to be forwarded/recommended by his/her Class Teacher. Students and parents shall first approach their Class Teachers for all kinds of advice, clarifications and permissions on academic matters. It is the official responsibility of the Institution to provide the required guidance, clarifications and advice to the students and parents strictly based on the prevailing academic regulations.
- 4.10 Regular communication with the parents of the students regarding progress in academic matters, conduct of Open House after publication of results of internal examinations, and other general issues shall be the responsibility of the Class Teachers.

5. COURSE COMMITTEE FOR COMMON COURSES

- 5.1 Each common theory course offered to more than one discipline or group shall have a “Course Committee” comprising all the teachers teaching the common course with one of them nominated as Course Coordinator.
- 5.2 The nomination of the Course Coordinator shall be made by the HoD / Principal depending on whether all the teachers teaching the common course belong to a single department or to several departments.
- 5.3 The Course Committee shall meet to arrive at a common scheme of evaluation for the tests and shall ensure a uniform evaluation of the tests. Wherever feasible, the Course Committee may also prepare a common question paper for the internal assessment test(s).

6. ACADEMIC AUDITING

The Internal Quality Assurance Cell (IQAC) gives advice and guidelines to the administration to maintain high quality work in academics and administration. The cell monitors the quality aspects of all the academic and non-academic activities of the Institution. The cell works on various accreditation aspects. IQAC shall conduct academic auditing every semester.

Academic auditing shall cover:

- 1.Course delivery and adherence to the course plan, syllabus coverage, quality of question papers used for internal examinations, internal evaluation, maintenance of laboratory experimental set ups and equipment, practical assignments, mini projects and conduct of practical classes and their evaluation.
- 2.Co-curricular and extra-curricular activities available for students, the monitoring mechanism of activity points to be earned by the students.
- 3.Academic functioning of the college encompassing students, faculty and college administration covering punctuality, attendance, discipline, academic environment, learning ecosystem, academic accountability, academic achievements and benchmarking.
- 4.The audit shall also cover the quality criteria prescribed by MHRD/UGC/AICTE/ NIRF/NAAC/NBA/any other governmental organization.

7. ASSESSMENT

- 7.1 There shall be End Semester Examinations (ESE) in every semester for the courses as prescribed in the respective curriculum.
- 7.2 The ESE will be held twice in a year – May/June session (for even semesters) and November/December session (for odd semesters).
- 7.3 Candidates in each semester will be evaluated both by Continuous Internal Evaluation (CIE)

and ESE.

- 7.4 Continuous Internal Evaluation (CIE): The CIE will be based on day-to-day work, periodic tests (minimum two in a semester) and assignments (minimum two). The Faculty Member (s) concerned shall carry out the CIE for the course allotted to him/her.
- 7.5 There shall be a minimum of two internal evaluation tests, each of 1hr./2hrs duration except for practical courses. Each test shall cover 50% of the syllabus and shall be for 25/50 marks. Retest shall be permitted for those students who could not appear for the internal tests due to genuine grounds. Three days shall be utilized for conducting the internal evaluation test.
- 7.6 The main eligibility criteria for registering to the ESE are attendance in the course and no pending disciplinary action. The minimum attendance for appearing in the ESE is 75% for male students and 73% for female students in each course. Students who do not meet these eligibility criteria are awarded an FE grade. Details of courses which have different eligibility criteria are given in the Assessment Pattern.
- 7.7 Students who have completed a course but who could not write the ESE shall be awarded an 'I' grade, provided they meet the above eligibility criteria. They shall register (exam registration) and appear for the ESE at the next opportunity and earn the credits without having to register (course registration) for the course again.
- 7.8 Students with an FE grade shall register for the courses during the normal semesters in which the courses are offered. However, the seventh and eighth semester FE grade students can register for the courses in the next immediate chance, if the courses are offered by the institution. If the department permits, students with an FE grade have the option to clear the same during the semester break. They must write the internal exams and the updated mark split-up with attendance (duly signed by the faculty in charge and the HoD) must be forwarded to the CoE.
- 7.9 Students who fail in a Pass/Fail course have to write an examination covering the entire syllabus following the End Semester Examinations (ESE) question paper pattern. Students must secure a minimum of 50% marks in the exam to get the Pass grade. The exam will be scheduled and conducted by the respective departments. Question paper, question paper scrutiny, list of students, date of exam must be shared well in advance with the CoE. Marks and attendance sheet duly signed by the faculty in charge and the HoD should also be forwarded to the CoE.
- 7.10 The maximum number of credits a student can register for (course registration), in a semester is limited to 8 credits in excess of the total mandatory credits allotted in the curriculum for that semester.

7.11 A student will be eligible for the award of B. Tech. Degree of A P J ABDUL KALAM TECHNOLOGICAL UNIVERSITY on satisfying the following requirements:

1. Fulfilled all the curriculum requirements within the stipulated duration of the course.
2. Earned the required minimum credits as specified in the curriculum for the branch of study.
3. No pending disciplinary action.

7.12 The final mark list and grade card and Provisional Certificate shall be issued by RSET.

7.13 Students who have registered for a course have to attend the course regularly and undergo the CIE and appear for the ESE. Credits for the course are deemed to be earned only on getting at least a pass grade 'P' or better in the composite evaluation.

7.14 Pass minimum for a course shall be 40% for the ESE and 50% for CIE and ESE put together unless otherwise specified in the assessment pattern. Letter grade 'F' will be awarded to the student for a course if either his/her mark for the ESE is below 40% or the overall mark [CIE + ESE] is below 50%.

7.15 Students who have received an F grade in an ESE have to appear for the ESE at the next opportunity and earn the credits. They shall not be permitted to register for the course again.

7.16 Grading is based on the overall percentage of marks obtained by the student in a course. The grade card will give the grades only against the courses the student has registered for. Semester grade card shall give the grade for each registered course, Semester Grade Point Average (SGPA) for the semester as well as Cumulative Grade Point Average (CGPA).

| Grade and Grade Points | | |
|-------------------------------|-------------------------|--|
| Grades | Grade Point (GP) | % of Total Marks obtained in the course |
| S | 10 | 90% and above |
| A+ | 9.0 | 85% and above but less than 90% |
| A | 8.5 | 80% and above but less than 85% |
| B+ | 8.0 | 75% and above but less than 80% |
| B | 7.5 | 70% and above but less than 75% |
| C + | 7.0 | 65% and above but less than 70% |
| C | 6.5 | 60% and above but less than 65% |

| | | | |
|--|-------------------------------------|---|---------------------------|
| D | 6.0 | 55% and above but less than 60% | |
| P (Pass) | 5.5 | 50% and above but less than 55% | |
| F (Fail) | 0 | Below 50% (CIE + ESE) or Below 40% for ESE | |
| FE | 0 | Failed due to lack of eligibility | |
| M | 0 | Committed malpractice | |
| I | 0 | Could not appear for the end semester examination but fulfills the eligibility criteria. | |
| Classification of B. Tech Degree | First Class with Distinction | | CGPA 8.0 and above |
| | First Class | | CGPA 6.5 and above |
| <i>Equivalent percentage marks shall be = 10 × CGPA</i> | | | |

| Semester | Allotted Credits | Cumulative Credits | Credits to be earned for Promotion |
|-----------------|-------------------------|---------------------------|---|
| First | 17/19/20* | 17/19/20* | Not Applicable |
| Second | 23/21/21* | 40/41* | Not Insisted |
| Third | 22/23* | 62/64* | Not Insisted |
| Fourth | 22 | 84/86* | Not Insisted |
| Fifth | 22/21* | 106/107* | 21 Credits from S1& S2 |
| Sixth | 22/25* | 128/132* | Not Insisted |
| Seventh | 20 | 148/152* | 43/44* Credits from S1 to S4 |
| Eight | 21/24 | 169/176* | Not Insisted |

** for B.Tech. Computer Science and Business Systems.*

7.17 There is no provision for improving the grade. However, the student is permitted to check the answer books of the ESE after the results are declared, on payment of the prescribed fee. Any discrepancy in evaluation could be brought to the notice of the CoE, who shall initiate appropriate action.

7.18 ASSESSMENT CRITERIA:

2023A01. INDUCTION PROGRAMME

Assessment shall be done online on the 15th day. The duration of the assessment will be 120 minutes. 100 Questions shall be given with one mark for each question. 22 each from fundamentals of Mathematics, Programme Core and Fundamentals of Computing (AE/EC/EE/CE/ME - 16 + 6; AD/CS/CU/IT- 22), Engineering Science and English, 12 from Universal Human Values.

Maximum marks: 100 marks

Minimum required to pass: 50 marks

2023A02. PROGRAMME CORE COURSES/ PROGRAMME ELECTIVES (with module 6)

Evaluation - Total: 150 marks - CIE: 50, ESE: 100

Pass minimum for the course shall be 40% for ESE and 50% for CIE and ESE put together. Minimum of 75% attendance is mandatory for registering for ESE.

| | | | | | |
|-------------------|------------------------------|------------------------------|--|------------|--------------|
| CIE | | | | ESE | TOTAL |
| 50 | | | | | |
| Attendance | Internal examinations | Assignment | | | |
| | | Class/Home Assignment | Project/Assignment/Report from Module 6 | | |
| 10 | 25 | 10 | 5 | 100 | 150 |

2023A03. PROGRAMME CORE COURSES/PROGRAMME ELECTIVES (without module 6)

Evaluation - Total: 150 marks - CIE: 50, ESE: 100

Pass minimum for the course shall be 40% for ESE and 50% for CIE and ESE put together. Minimum of 75% attendance is mandatory for registering for ESE.

| | | | | |
|-------------------|------------------------------|-------------------|------------|--------------|
| CIE | | | ESE | Total |
| 50 | | | | |
| Attendance | Internal examinations | Assignment | | |
| 10 | 25 | 15 | 100 | 150 |

2023A04. PRACTICAL INTEGRATED CORE COURSES/PROGRAMME ELECTIVES (with module 6)

Evaluation - Total: 250 marks - CIE: 150, ESE: 100

| | | | |
|---------------|------------|------------------|--------------|
| Theory | | Practical | Total |
| 150 | | 100 | |
| CIE | ESE | CIE | 250 |

| | | | | | | | |
|-------------------|------------------------------|-----------------------------------|-------------------------------------|------------|-------------------|-----------------------------|----------------------------------|
| 50 | | | | 100 | Attendance | Internal Examination | Lab work/Record/viva voce |
| Attendance | Internal Examinations | Class/Home Assignment/Quiz | Project/report from module 6 | | 10 | 50 | 40 |
| 10 | 25 | 10 | 5 | | | | |

Condition for Pass

To pass the course, the student has to pass theory and practical separately.

- i. Pass criteria for theory part:
40% for ESE and 50% for CIE and ESE put together of theory part.
- ii. Pass criteria for practical part:
50% marks for CIE of practical and 50% marks for Internal examination of practical.
If a student does not satisfy (ii), he/ she will be awarded 'Failed due to lack of eligibility (FE)' grade and has to repeat the practical part.

Attendance requirement

- i. Eligibility to register for ESE: Minimum 75 % attendance for theory part.
- ii. If a student doesn't have 75% attendance for the theory part 'Failed due to lack of eligibility (FE)' grade will be awarded for the course, and he/ she has to repeat the theory part.
- iii. If a student doesn't have 75% attendance for the practical part 'Failed due to lack of eligibility (FE)' grade will be awarded for the course, and he/ she has to repeat the practical part.

**2023A05. PRACTICAL INTEGRATED CORE COURSES/PROGRAMME ELECTIVES
(without module 6)**

Evaluation - Total: 250 marks - CIE: 150, ESE: 100

| Theory | | | Practical | | | Total | |
|-------------------|------------------------------|------------|--|-----------------------------|----------------------------------|--------------|------------|
| 150 | | | 100 | | | | 250 |
| CIE | | ESE | CIE | | | | |
| 50 | | 100 | Attendance | Internal Examination | Lab work/Record/viva voce | | |
| Attendance | Internal Examinations | | Assignment/Quiz/ Course Project | 10 | 50 | 40 | |
| 10 | 25 | | 15 | | | | |

Condition for Pass

To pass the course, the student has to pass theory and practical separately.

- iii. Pass criteria for theory part:
40% for ESE and 50% for CIE and ESE put together of theory part.
- iv. Pass criteria for practical part:
50% marks for CIE of practical and 50% marks for Internal examination of practical.
If a student does not satisfy (ii), he/ she will be awarded 'Failed due to lack of eligibility (FE)' grade and has to repeat the practical part.

Attendance requirement

- iv. Eligibility to register for ESE: Minimum 75% attendance for theory part.
- v. If a student doesn't have 75% attendance for the theory part 'Failed due to lack of eligibility (FE)' grade will be awarded for the course and he/ she has to repeat the theory part.
- vi. If a student doesn't have 75% attendance for the practical part 'Failed due to lack of eligibility (FE)' grade will be awarded for the course and he/ she has to repeat the practical part.

2023A06. PRACTICAL INTEGRATED COURSES IN S1/S2 (E.g.: Engineering Chemistry, Principles of Electronics Engineering etc.)

Evaluation - Total: 250 marks - CIE: 150, ESE: 100

Pass minimum for the theory part of the course shall be 40% for ESE and 50% for CIE and ESE put together and 50% for CIE of practical part. Minimum of 75% attendance is mandatory for registering for ESE.

| Theory | | | Practical | | | Total |
|------------|-----------------------|--------------------------------|------------|---------------------------|----------------------|-------|
| 150 | | | 100 | | | |
| CIE | | ESE | CIE | | | |
| 50 | | | Attendance | Lab work/Record/viva voce | Internal Examination | |
| Attendance | Internal Examinations | Assignment/Quiz/Course Project | | | | |
| 10 | 25 | 15 | 20 | 50 | 30 | |

2023A07. COURSES WITH L-T-P: 4-0-0 COMPRISING TWO DISCIPLINES (E.g.: Introduction to Civil and Mechanical Engineering/ Introduction to Electrical and Electronics Engineering)

Evaluation - Total: 150 marks - CIE: 50, ESE: 100

Pass minimum for the course shall be 40% for ESE and 50% for CIE and ESE put together. Minimum of 75% attendance is mandatory for registering for ESE.

| CIE | | | ESE | Total |
|------------|-----------------------|---------------------------------|-----------|-----------|
| 50 | | | | |
| Attendance | Internal Examinations | Assignment/Quiz/ Course Project | | |
| 10 | 25 | | 15 | |
| | Section A | Section B | Section A | Section B |
| | 12.5 | 12.5 | 7.5 | 7.5 |

2023A08. COURSES WITH L-T-P: 3-0-2 (with two sections)

Evaluation - Total: 150 marks - CIE: 50, ESE: 100

Pass minimum for the course shall be 40% for ESE and 50% for CIE and ESE put together. Minimum of 75% attendance is mandatory for registering for ESE.

| CIE | | ESE | Total |
|-----|--|-----|-------|
| 50 | | | |

B.Tech Regulations - 2023

| Attendance | Internal Examinations | | Practical Evaluation | | | |
|------------|-----------------------|------------------|---|--------------------------|---|--------------------------|
| 10 | 20 | | 20 | | | |
| | Section A | Section B | Section A | | Section B | |
| | 10 | 10 | 10 | | 10 | |
| | | | Implementing the work/ Conducting the experiment | Final Examination | Implementing the work/ Conducting the experiment | Final Examination |
| | | | 5 | 5 | 5 | 5 |

2023A09. COURSES WITH LTP:3-0-2

Evaluation - Total: 150 marks - CIE: 50, ESE: 100

Pass minimum for the course shall be 40% for ESE and 50% for CIE and ESE put together. Minimum of 75% attendance is mandatory for registering for ESE.

| | | | | |
|-------------------|------------------------------|-----------------------------|------------|--------------|
| CIE | | | ESE | Total |
| 50 | | | 100 | 150 |
| Attendance | Internal Examinations | Practical Evaluation | | |
| 10 | 20 | 20 | | |

2023A10. CONSTRUCTION TECHNOLOGY AND BUILDING DRAWING

Evaluation - Total: 150 marks - CIE: 50, ESE: 100

| | | | | | |
|-------------------|------------------------------|--------------------|---------------------------------------|------------|--------------|
| Theory | | | Practical | | Total |
| 90 | | | 60 | | 150 |
| CIE | | ESE | CIE | ESE | |
| 40 | | 50 | Lab work/Record/ viva voce | 50 | |
| Attendance | Internal Examinations | Assignments | 10 | | |
| 10 | 25 | 5 | | | |

Pass criteria for theory part:

40% for ESE and 50% for CIE and ESE put together of theory part.

Pass criteria for practical part:

50% for ESE of practical part.

Minimum of 75% attendance is mandatory for registering for ESE.

2023A11. COURSES WITH L-T-P: 3-0-2 (E.g.: Engineering Graphics)

Evaluation - Total: 150 marks - CIE: 50, ESE: 100

Pass minimum for the course shall be 40% for ESE and 50% for CIE and ESE put together. Minimum of 75% attendance is mandatory for registering for ESE.

| | | | | |
|-------------------|--|--|------------|--------------|
| CIE | | | ESE | Total |
| 50 | | | | |
| Attendance | Internal Examinations | Assignment/Quiz/Course Project | | |
| 10 | 20 (10 marks for Test 1 & 10 marks for Test 2) | 20 (10 marks for Section A class work & 10 marks for Section B class work) | 100 | 150 |

2023A12. ENGINEERING PHYSICS

Evaluation - Total: 250 marks - CIE: 150, ESE: 100

Pass minimum for the theory part of the course shall be 40% for ESE and 50% for CIE and ESE put together and 50% for CIE of practical part. Minimum of 75% attendance is mandatory for registering for ESE.

| | | | | | | |
|-------------------|------------------------------|------------|----------------------------------|-------------------|--|-----------------------------|
| Theory | | | Practical | | | Total |
| 150 | | | 100 | | | |
| CIE | | ESE | CIE | | | |
| 50 | | | 100 | Attendance | Evaluation of Computational & Entrepreneurial Mindset | Internal Examination |
| Attendance | Internal Examinations | | Entrepreneurial Portfolio | 10 | 50 | 40 |
| 10 | 25 | 15 | | | | |

2023A13. DESIGN THINKING (CU)

Evaluation - Total: 150 marks - CIE: 100, ESE: 50

| | | | | |
|-------------------|------------------------------|--|------------|--------------|
| CIE | | | ESE | Total |
| 100 | | | | |
| Attendance | Internal examinations | Assignment/Quizzes/Course Project | | |
| 10 | 40 | 50 | 50 | 150 |

Eligibility to register for ESE: Minimum 75 % attendance.

Pass criteria: 40% for ESE and 50% for CIE and ESE put together of theory part.

2023A14. PRACTICAL COURSES: Practical Elective and Practical Courses except for courses in first and second semesters

Evaluation - Total: 150 marks - CIE: 75, ESE: 75

Pass minimum for the course shall be 40% for ESE and 50% for CIE and ESE put

together. Minimum of 75% attendance is mandatory for registering for ESE.

| CIE | | | ESE | TOTAL |
|------------|-----------------------|-----------------------|-----|-------|
| 75 | | | 75 | 150 |
| Attendance | Internal examinations | Continuous Assessment | | |
| 15 | 30 | 30 | | |

2023A15. PRACTICAL COURSES: Manufacturing Practices – A and B

Evaluation - Total: 100 marks - CIE: 100

Pass minimum for the course shall be 50% for CIE and a minimum of 75% attendance.

| CIE | | | | | | Total |
|------------|-----------|-----------------------|-----------|--------------------------------|-----------|-------|
| Attendance | | Internal Examinations | | Lab work/Assessment/ Viva-voce | | |
| Section A | Section B | Section A | Section B | Section A | Section B | 100 |
| 10 | 10 | 15 | 15 | 25 | 25 | |

2023A16. PRACTICAL COURSES (S1)

Evaluation - Total: 100 marks - CIE: 100

Pass minimum for the course shall be 50% for CIE and a minimum of 75% attendance.

| CIE | | | Total |
|------------|-----------------------|--------------------------------|-------|
| Attendance | Internal Examinations | Lab work/Assessment/ Viva-voce | |
| 20 | 30 | 50 | 100 |

2023A17. NON-CREDIT COURSES

Evaluation – Total: 100 marks – CIE: 100

To be eligible for a pass grade, the student should score 50% marks in CIE and have a minimum of 75% attendance.

| CIE | | | Total |
|------------|-----------------------|-----------------------------|-------|
| Attendance | Internal examinations | Assignment/Quizzes /Project | |
| 10 | 40 | 50 | 100 |

2023A18. NON-CREDIT COURSES (Courses with modules offered from different departments.)

Evaluation – Total: 100 marks – CIE: 100

To be eligible for a pass grade, the student should score 50% marks in CIE and have a minimum of 75% attendance.

| CIE | | | | Total | |
|------------|-----------------------|-----------|----------------------------|-----------|-----|
| Attendance | Internal examinations | | Assignment/Quizzes/Project | | |
| 10 | 40 | | 50 | | 100 |
| | Section A | Section B | Section A | Section B | |
| | 20 | 20 | 25 | 25 | |

2023A19. MINI PROJECT

Evaluation - Total: 150 marks – CIE: 75, ESE: 75

Pass minimum for the course shall be 50% for ESE and 50% for CIE and ESE put together. Minimum of 75% attendance is mandatory for registering for ESE.

| | |
|--|----|
| Split up for CIE | |
| Evaluation by the Committee (will be evaluating the level of completion and demonstration of functionality/specifications, presentation, oral examination, work knowledge and involvement) | 40 |
| Project Guide | 15 |
| Project Report | 10 |
| Attendance | 10 |
| Split up for ESE | |
| Presentation | 30 |
| Viva | 25 |
| Design/Demonstration | 20 |

2023A20. SEMINAR

Evaluation - Total: 100 marks - CIE: 100

Minimum required to pass: 50 marks and a minimum of 75% attendance.

| | |
|---------------------------------|----|
| Presentation | 40 |
| Seminar Guide | 20 |
| Technical Content of the Report | 20 |
| Seminar Coordinator | 10 |
| Attendance | 10 |

2023A21. PROJECT PHASE – 1

Evaluation - Total: 100 - CIE: 100

Minimum required to pass: 50 marks and a minimum of 75% attendance.

The maximum number of students permitted in a batch for the project shall be 4.

| | |
|--|----|
| Project progress evaluation by guide | 30 |
| Interim evaluation by the Evaluation Committee | 20 |
| Final Evaluation by the Evaluation Committee | 30 |
| Project Phase - I Report (By Evaluation Committee) | 20 |

2023A22. PROJECT PHASE - 2

Evaluation - Total: 150 marks – CIE: 150

Minimum required to pass: 75 marks and a minimum of 75% attendance.

| | |
|--|-----------------------------------|
| Evaluation by Project Guide | 30 |
| Interim evaluation, twice in the semester by the evaluation committee | 50 (25 marks for each evaluation) |
| Quality of the report evaluated by the above committee | 30 |
| Final evaluation by a three-member committee | 40 |
| The evaluation committee comprises Head of the Department or a senior faculty member, Project coordinator and project guide. | |

2023A23. MANDATORY INTERNSHIP

Evaluation - Total: 100 marks, CIE: 100

Pass minimum for the course shall be 50 % of CIE.

| | |
|-----------|----|
| Report | 50 |
| Viva voce | 50 |

2023A24. MOOC grading

| NPTEL grading | Equivalent RSET grading |
|---|-------------------------|
| >=90 – Elite Gold | S |
| 75-89 – Elite Silver | A |
| 60-74 – Elite | B |
| 40-59 – successfully completed the course | C |
| <40 – no certificate | F |

7.19 The students can apply for scrutiny/revaluation of the answer books of the ESE after the results are declared. The final marks awarded will be the better of the two marks. If the difference in marks obtained in revaluation and the original valuation is more than 15% of the maximum marks, it shall be sent for third valuation. The final mark shall then be the average of the closer of the two marks obtained in the three valuations to the advantage of the student or the mark obtained in the original valuation, whichever is higher. The CoE shall examine such cases and conduct proper enquiry to see whether any of the examiners is responsible for negligent valuation of answer script and initiate suitable action as per the Examination Manual.

7.20 There is no scrutiny/revaluation for supplementary examination.

7.21 Mark lists and grade cards shall be made available in the student login for the registered courses, in every semester. On earning the required credits for the degree, the college will issue the final consolidated grade sheet for the B. Tech Degree Programme including CGPA.

7.22 Calculation of SGPA/CGPA

SGPA and CGPA are calculated as follows.

$SGPA = \frac{\sum(C_i \times GP_i)}{\sum C_i}$, where 'C_i' is the credit assigned for a course and 'GP_i' is the grade point for that course. Summation is done for all courses specified in the curriculum of that semester. The failed and incomplete courses shall also be considered in the calculation.

$CGPA = \frac{\sum(C_i \times GP_i)}{\sum C_i}$, where 'C_i' is the credit assigned for a course and 'GP_i' is the grade point for that course. Summation is done for all courses specified in the curriculum up to that semester for which the 'CGPA' is needed. Here the failed courses shall also be accounted for.

CGPA for the B. Tech Degree Programme is arrived at by considering all course credits that are needed for the degree and their respective grade points.

7.23 Any act of violation of examination guidelines, indiscipline, misbehavior, or unfair practice in examinations on the part of students, faculty members, staff, institution, management or any other source shall be viewed very seriously. It is the responsibility of the Principal and the Controller of Examinations to see that the examinations are conducted strictly and as specified in the examination Manual. Malpractices in examinations observed or reported by faculty members, invigilators or anybody shall be immediately reported to the Principal. The Principal shall in turn conduct a preliminary enquiry giving the student concerned a chance to explain his/her case. The Principal shall then forward the case with his/her preliminary enquiry report and remarks to the CoE along with all related documents and evidences within two working days. The CoE shall decide the course of action on the issue as per the prescribed norms in the Examination Manual.

7.24 A student should earn 2 credits by actively involving in co-curricular and extra-curricular activities. On getting the minimum 100 activity points, the student passes the course and earns the two credits which will not be counted for the calculation of CGPA but is mandatory for the award of the degree. For the students admitted under lateral entry scheme, the 2 credits shall be considered to have been earned on getting 75 activity points. Students are required to keep a file containing documentary proof of activities done by him/her attested by the Senior Faculty Advisor/ Faculty Advisors. A student who fails to obtain the required activity points during the course of study can acquire the additional points after his/her course of study on completion of the following activities: MOOC with final assessment certificate, competitions conducted by professional societies, attending full time conferences at IITs/NITs, paper presentations at IITs/NITs, poster presentations at IITs/NITs, industrial training internship, foreign language skill, patent filed/ published/approved/licensed, awards for products developed etc.

8. BREAK OF STUDY

8.1 A student is permitted to avail of break of study:

- (i) In case of accident or serious illness needing prolonged hospitalization and rest.
 - (ii) In case the student has a bright idea and would like to initiate a start-up venture or develop a product.
 - (iii) In case of any personal reasons that necessitate a break of study.
 - (iv) For internship leading to employment.
 - (v) For taking up a Fellowship in Foreign University/ National and International Industry.
- 8.2 For break of study due to illness, the student shall submit all necessary medical reports together with the recommendation of the doctor treating him/her giving definite reasons for break of study and its duration. Before joining back, the student should submit the fitness certificate from the doctor who treated him/her.
- 8.3 Students who want to initiate a start-up venture or product development, have to submit a project report, clearly indicating the purpose, action plan, technical details, funding details and future plans to the Principal. The Principal shall evaluate the proposal by constituting an expert team and take an appropriate decision based on the team's recommendation. The break of study for the startup shall be permitted only after the 4th semester for a maximum duration of two semesters. This is however permitted only on successfully completing the courses listed out in the first two semesters.
- 8.4 Students who require a break of study due to personal reasons shall convince the Principal on the genuine need for it by giving authentic evidence for the same.
- 8.5 Students who require break of study for 'internship leading to employment' shall produce the offer letter obtained from the employer concerned. Only campus placed students with an annual compensation of more than 6 lakhs are eligible to avail of this facility.
- 8.6 Students who require break of study for 'taking up a Fellowship in Foreign University/ National and International Industry', must provide relevant documentation of the fellowship offer, including the duration and nature of the fellowship. Approval for the break of study shall be granted based on the fellowship's academic and professional value, as assessed by the Principal, after obtaining recommendations from the Central Internship Cell.
- 8.7 In the semester system followed by the institution, break of study for an academic year is the preferred option rather than break of study for a semester.
- 8.8 Students are not permitted to attend any regular classes offered by the institution during the break of study period. Students are also not permitted to represent the institution or University in any technical or non-technical events during the break of study period. Students are not allowed to participate in any institution-level activities or events held on campus during their break of study.

- 8.9 The student can avail himself of the break of study only with the prior approval of the Principal.
- 8.10 After completion of the break of study duration, the student must rejoin on the first working day of the same semester from which he/she had started availing of the break of study option.

9. ATTENDANCE

- 9.1 Students are expected to attain 100% attendance for all courses. However, under unavoidable circumstances they are permitted to take leave. Total leave of absence shall not exceed 25% of the academic contact hours for a course and 75% attendance is mandatory for registering for the ESE. For female students mandatory attendance required for registering for the ESE is 73%.
- 9.2 80% attendance for a course is mandatory to attend the internal examination of the course.
- 9.3 On medical grounds, the Principal can relax the minimum attendance requirement for ESE to 60%. This is permitted for one or more courses registered in the semester.
- 9.4 This provision (vide 9.3) is permissible only for any two semesters during the entire programme.
- 9.5 The Principal is authorized to grant attendance relaxation (duty leave) to students participating in officially sponsored national level competitions/championships/ tournaments when called upon to do so, up to a maximum of 10%. Such students should produce the participation certificate countersigned by the faculty in charge, i.e. Sports Coordinator in the case of sports activities and Class Teachers in the case of other extracurricular activities - within seven days of the event. The participation certificate thus produced shall be forwarded to the Principal with the due recommendation of the respective HoD. Under any circumstances, the Principal shall not consider the certificate if the overall attendance of the candidate is less than 60%. Late applications received shall not be considered on any account.
- 9.6 A student will be considered to be under 'Unauthorized Absence' if he/she is continuously absent from classes or other academic obligations for more than 10 consecutive working days without submitting a written notification to the Principal. The Principal shall send an official communication to the student, parent, or guardian, directing the student to immediately resume attendance.

10. MINOR IN ENGINEERING

- 10.1 All B. Tech students are eligible to register for Minor in Engineering. The Minor in Engineering registration shall be along with the registration of the 3rd semester.
- 10.2 The institution can offer Minor programme in any discipline where there is expertise to offer courses for the programme.
- 10.3 The student shall earn an additional 20 credits to be eligible for the award of B. Tech Degree with

Minor.

- 10.4 If a student fails in any course of the Minor programme, he/she is given one chance of taking the supplementary examination. This provision is restricted to one course of the Minor programme. He/ She shall not be eligible to continue the B.Tech Minor if he/she fails in the supplementary examination also. However, the additional credits and grades earned by the student to date shall be included in the mark list and grade card but shall not be considered in calculating the CGPA.
- 10.5 Out of the 20 credits, 8 credits shall be earned by undergoing two courses in semesters 3 and 4, 8 credits shall be earned by attending MOOC courses in semesters 5 and 6. The final 4 credits shall be earned by doing a mini project in semester 7 or 8.
- 10.6 The curriculum and syllabus of the MOOC courses shall be approved by the BoS and the AC.
- 10.7 The assessment of the MOOC courses and earning of credits shall be as given below. The candidate shall produce the certification issued by the conducting agency of the MOOCs in proof of credit attainment.

| NPTEL grading | RSET grading |
|--|---------------------|
| >=90 Elite Gold | S |
| 75-89 Elite Silver | A |
| 60-74 Elite | B |
| 40-59 successfully complete the course | C |
| <40 no certificate | F |

3 Undergraduate Degree with Minor will be

issued to the students who fulfill all the academic eligibility requirements for the B. Tech Degree Programme and Minor in Engineering.

- 10.9 The maximum number of students permitted in a batch for the mini project for Minor shall be 3.

11. **B. Tech (Honours)**

- 11.1 B. Tech students whose CGPA up to S2 is greater than or equal to 8 are eligible to register for B.Tech. (Honours). However, their mandatory CGPA at the end of eighth semester shall be 8.5 or higher to be eligible for the award of B. Tech (Honours).
- 11.2 The B. Tech (Honours) registration shall be along with the registration of the 4th semester.
- 11.3 If a student fails in any course including the course chosen for B. Tech (Honours), he/she shall not be eligible to continue the B.Tech. (Honours). However, the additional credits so far earned by the student shall be included in the grade card but shall not be considered in calculating the CGPA.

- 11.4 The student shall earn an additional 20 credits to be eligible for the award of B. Tech. (Honours) Degree. Out of the 20 Credits, 8 credits shall be earned by undergoing two specified courses of the respective stream in semesters 4 and 5. Credits for the B. Tech. (Honours) Elective courses are deemed to be earned only on getting at least a grade 'C' or better in the composite evaluation.
- 11.5 A student shall not be permitted to select the normal elective courses of the respective B. Tech programmes for attaining the credit requirements of B. Tech. (Honours).
- 11.6 Out of the remaining 12 credits, 8 credits could be acquired through two MOOCs of the respective streams recommended by the BoS and approved by the AC in semesters 6 and 7. The final 4 credits shall be awarded for doing a mini project in semester 8.
- 11.7 The candidate shall produce the certification issued by the conducting agency of the MOOCs in proof of credit attainment. Assessment of MOOC courses shall be done as given in 10.7.
- 11.8 The maximum number of students permitted in a batch for the mini project for Honours is 2.

12. GRACE MARKS FOR SPORTS /ARTS COMPETITIONS

- 12.1 Only bona-fide, regular candidates are eligible for the award of Grace Marks.
- 12.2 The criterion for the award of Grace Marks is representing the University in officially sponsored national level competitions/championships/ tournaments when called upon to do so. The student shall get official prior permission from the Principal to represent the University.
- 12.3 The maximum grace marks that can be awarded to a candidate in a particular semester for all activities put together shall be 5% of the aggregate maximum ESE marks of all theory courses for which the institution conducts ESE.
- 12.4 The maximum grace marks that can be awarded to a student for a theory course in a particular semester for all activities put together shall not exceed 10% of the maximum aggregate marks of ESE of the course.
- 12.5 The Grace Marks shall be added to the Total Marks.
- 12.6 Grace Marks shall not be awarded to a student for Practical/ Lab/Viva Voce/internal assessment/ Seminar etc.
- 12.7 Eligible Grace Marks shall be distributed equally amongst all theory papers/courses of an examination. However, re-distribution of Grace Marks shall be allowed only in the case of those courses of an examination for which the candidate has passed. Re-distribution is possible from passed courses to failed courses only. Re-distribution of Grace Marks is not permissible from failed courses to other courses for a pass.
- 12.8 Grace Marks shall be awarded for all theory papers/courses/subjects in a semester.

- 12.9 Re-distribution shall be done only to enable a candidate to obtain the minimum marks required for a pass.
- 12.10 Grace Marks shall not be re-distributed from one semester to another semester.
- 12.11 If the candidate does not secure the minimum marks required for a pass even after effecting re- distribution, eligible moderation fixed by the respective board if any, shall be awarded to that candidate in addition to the Grace Marks for a pass.
- 12.12 Eligible Grace Marks shall be awarded for the regular examination of the performing semester only. Grace Marks shall not be awarded for supplementary examinations. The performing semester shall be considered from 1st July to 31st December (Odd semester) and 1st January to 30th June (Even Semester).
- 12.13 Grace Marks shall be awarded on the basis of performance in the respective semester.
- 12.14 Request for Grace Marks shall be submitted to the CoE through the Principal along with all relevant documents, within the time limit prescribed. The request for Grace Marks received after the time limit shall not be entertained on any account.
- 12.15 Only a single highest achievement during the period of a semester shall be considered for awarding grace marks.

13. GRACE MARKS FOR PERSONS WITH DISABILITY (PWD)

- 13.1 A person with disability means a person suffering from not less than 40% of any disability as certified by the District Medical Board. To be eligible for the grace marks, the certificate of disability specifying the percentage of disability shall be produced before the Principal at the time of admission.
- 13.2 The Grace Marks that can be awarded for PWD candidates shall be 25% of the marks scored by the candidate in each course at the time of finalization of the results.
- 13.3 Transfer of marks from one paper to another shall not be permitted. Fractions of marks if any, while computing the Grace Marks shall be rounded off to the next higher integer.
- 13.4 PWD candidates who are eligible for Grace Marks shall be awarded Grace Marks for regular and supplementary chances until they pass the whole examination.
- 13.5 Grace Marks shall be awarded only for the marks of the ESE conducted by the institution.
- 13.6 The request for Grace Marks shall be submitted to the CoE through the Principal along with all relevant documents, within the time limit prescribed. The request for Grace Marks received after the time limit shall not be entertained on any account.

14. MALPRACTICE

- 14.1 If a student indulges in malpractice in the ESE, he/she shall be liable for punishment as prescribed in the Examination Manual.

14.2 If a student indulges in malpractice for internal examination, the answer book shall not be evaluated. Further he/she shall be debarred from attending ESE of the course.

15. REVISION OF REGULATION AND CURRICULUM

The institution may from time-to-time revise, amend or change the Regulations, scheme of examinations and syllabi if found necessary by the Academic Council and Governing Body.

16. SPECIAL CASES

In the event of any clarification in the interpretation of the above rules and regulations, they shall be referred to the Academic Council/Governing Body. The Principal in consultation with respective bodies will offer suitable interpretation/ clarifications/ amendments required for special cases on such references and get them ratified in the next meeting of the Academic Council, if necessary. The decision of the Academic Council is final.

17. TRANSITORY PROVISION

Notwithstanding anything contained in these regulations, the Principal shall, for a period of two years from the date of coming into force of these regulations, have the power to provide by order that these Regulations shall be applied to any B.Tech programme with such modifications as may be necessary.

| | | |
|---|-------------------|--------------------|
| Academic Council approved on | 22 August 2023 | Item No. AC 6/02 |
| Governing Body approved on | 07 September 2023 | Item No. GB.6 (04) |
| Academic Council approved with revisions on | 19 November 2024 | Item No. AC 9/02 |
| Governing Body approved with revisions on | 12 December 2024 | Item No. GB.9 (03) |
| Principal | | |