# ROHINI COLLEGE OF ENGINEERING & TECHNOLOGY AFFILIATED TO ANNA UNIVERSITY, CHENNAI

Institute Vision	Institute Mission
To be an academic institute of	To foster and promote technically
continuous excellence towards	competent graduands by imparting the
education and research in rural regime	state of art Engineering education in rural
and provide service to nation in terms of	regime.
nurturing potentially higher social, ethical	To enunciate research assisted scientific
and engineering companion graduands.	learning by dissemination of knowledge
	towards science, agriculture, industry
	and national security.

REGULATIONS: RCET-R2024 [Common to all B.E. / B.Tech. Degree

(8 – Semester / 6 - Semester LES) Full-Time Programmes]

(w.e.f. 2024 - 2025)

CHOICE BASED CREDIT SYSTEM (CBCS)

Degree of Bachelor of Engineering / Bachelor of Technology

# 1.PRELIMINARY DEFINITIONS AND NOMENCLATURE

In these regulations, unless the context otherwise requires:

- I. "**Programme**" means Degree Programme, that is B.E. / B.Tech. degree programme.
- II. "Branch" means specialization or discipline of B.E. / B.Tech degree programme like Civil Engineering, Agricultural, etc.
- III. "Course" means a theory or practical subject studied in a semester, like Mathematics, Physics, etc.
- IV. "University" means ANNA UNIVERSITY.
- V. "Chairperson, Academic Council" means the authority of the Autonomous Institution who is responsible for all academic activities of the Institute / Departments for implementation of relevant Rules and Regulations.

- VI. "Controller of Examinations" means the authority of the Autonomous Institute who is responsible for all activities of the End Semester Examinations.
- VII. "Head of the Institution" means the Principal of the campus.
- VIII. "Chairperson, BoS" means Chairperson of Board of Studies of each Programme
  - IX. "Head of the Department" means Head of the Department concerned.
  - X. "Credit" means a numerical value allocated for each course to describe the student's workload required per week.
- XI. "Grade" means the letter grade assigned to each course based on the range of marks specified.
- XII. "Grade Point" means a numerical value (0 to 10) allocated based on the grade assigned to each course.
- XIII. "LES" means Lateral Entry Scheme.
- XIV. "CBCS" means Choice Based Credit System.
- XV. Honours program normally refers to a higher level of academic achievement in the emerging areas of the same discipline chosen by the students.
- XVI. Minor program normally refers to a higher level of academic achievement in the emerging areas of the other discipline preferred by the students.
- XVII. "Course Instructor" means the faculty of the concerned theory or laboratory course who handles the course.
- XVIII. "Course Coordinator" means the faculty of the concerned theory or laboratory course who coordinates the entire course.
- XIX. "Core Course" means the mandatory courses pertaining to the chosen branch of the students.
- XX. "Professional Elective" (PE) course means the courses which are applicable only for the concerned programme students.
- XXI. "Open Elective" (OE) course means the courses which are open to all the UG programme students.
- XXII. "Allied Elective" (AE) means a course which can be opted by students of UG programmes other than students of the hosting programme
- XXIII. "Theory Course with Laboratory Component" (TCLC) means a laboratory based theory course.

- XXIV. "Value Added Course" (VAC) means a course offered by the department to bridge the gap between the curriculum and the requirements of the industry, which could be selected by any student in the college.
- XXV. "Special Course" (SPC) means a course for the registered students of concerned programme, to be offered by experts from reputed industry/institution in India/Abroad.
- XXVI. "Online Course" (OLC) means a course that would be offered by premier institutions like IITs, IISc, etc. through online platform (NPTEL / GIAN / MOOCS / COURSERA, etc.) suggested by the concerned Department.
- XXVII. "Internship" (IS) or Fellowship means a period of time that the student would be deputed to undergo in-house training in reputed Industries or premier institutions or R & D organizations.
- XXVIII. Ability Enhancement Courses (AEC) are the courses for all disciplines which lead to knowledge enhancement in aptitude, coding and soft skills.
  - XXIX. Employability Enhancement Courses (EEC) refers to the courses that bridge the gap between skills possessed by the students and the abilities that are required by the organizations.
  - XXX. Mandatory Courses (MC) are training programs / courses conducted to enhance the integrity among the students.
  - XXXI. "Audit Course" (AUC) means a course which could be audited by the students across any programme in the college.

# 2. ADMISSION PROCEDURE

Candidate, seeking admission to the B.E./B.Tech. Programme, shall satisfy the conditions of admission prescribed by the Directorate of Technical Education (DoTE) and Anna University, Chennai as given below.

# 2.1 Regular Admission

Candidates, for admission to the first semester of the eight semesters B.E./B.Tech. Degree Programmes, shall be required to have passed:

i. Higher Secondary Examination (10 +2) of curriculum (Regular Academic Stream) prescribed by the Government of Tamil Nadu with Mathematics, Physics, and Chemistry as three of the four subjects of the study prescribed under Part-III or any

other examinations of any Board or University or authority accepted by the Syndicate of the University / DoTE, Chennai as equivalent thereto.

(or)

ii. Should have passed Higher Secondary Examination of Vocational Stream (Engineering/Technology), prescribed by the Government of Tamil Nadu.

# 2.2 Lateral Entry Admission

2.2.1 The candidates who possess Diploma in Engineering / Technology awarded by the State Board of Technical Education and Training, Tamil Nadu or its equivalent are eligible to apply for lateral Entry admission to the third semester of B.E. / B.Tech. programmes in the branch of study as per the eligibility criteria prescribed by the DoTE from time to time.

(or)

2.2.2 The candidates who possess the Bachelor Degree in Science (B.Sc.) (10+2+3 stream) with Mathematics as a subject in B.Sc. is eligible to apply for lateral entry admission to the third semester of B.E./B.Tech. programmes, as per the eligibility criteria prescribed by the DoTE from time to time. The students belonging to B.Sc stream shall clear Engineering Graphics and Branch Specific Course for third and fourth semester as bridge courses.

### 2.3 Transferred

The candidate, who are transferred from other institutions, affiliated to Anna University, are eligible to be admitted, either in III semester or V semester or VII semester, as per the eligibility norms.

## 3. PROGRAMMES OFFERED

A candidate may be offered admission to any one of the programmes offered by the Institution for the candidates specified in Clause 2.1 and as per the eligibility criteria of DoTE for the candidates under Clause 2.2 from the list given below:

# B. E. Programmes

- i. Biomedical Engineering
- ii. Civil Engineering

- iii. Computer Science and Engineering
- iv. Computer Science and Engineering (Artificial Intelligence & Machine Learning)
- v. Electrical and Electronics Engineering
- vi. Electronics and Communication Engineering
- vii. Mechanical Engineering

# B. Tech. Programmes

- i. Agricultural Engineering
- ii. Artificial Intelligence and Data Science

#### 4. STRUCTURE OF THE PROGRAMME

# 4.1 Categorization of Courses

Every Each programme shall have a curriculum comprising of Theory, Theory-cum-Practical and Practical courses with well-defined Program Outcomes and Programme Educational Objectives (PEO) as per Outcome Based Education (OBE). The content of each course is designed based on the Course Outcomes (CO). The courses of a programme are categorized as follows:

#### A. Foundation Courses

- i. **Basic Science (BS)** courses including Mathematics, Physics, Chemistry and further specialization in these subjects
- ii. **Engineering Science (ES)** courses including Engineering Graphics, Basics of Electrical/Electronics/Civil/Mechanical, Engineering Mechanics and Computer Programming.
- iii. **Humanities and Social Science (HSS)** courses including Language Courses, Management Courses, Soft Skills and Professional Ethics.
- B. Professional Core Courses (PC) Relevant to the chosen specialization/branch

## C. Elective Courses

 i. Professional Electives (PE) – Six numbers of Professional Electives relevant to the chosen specialization/ branch are to be selected and will be offered from IV semester onwards.

- ii. Open Electives (OE) Four numbers of Open Elective courses from the list prescribed in the curriculum which will be offered from IV semester onwards, with one course in each semester
- **D. Employability Enhancement Courses (EEC)** includes Project Work and /or Internship, Seminar, Industrial /Practical Training, Value Added, and Certificate Courses.
  - i. **Project Work, Mini Project, Seminar, Internship** and Fellowship in reputed organization/Industry.
  - Value Added Courses (VAC) which may or may not lead to International / National Certification.
  - iii. Online Course (OLC) At least four online courses which are conducted by premier institutions like IITs, IISc, etc. through online platform (NPTEL / GIAN / MOOCS / COURSERA, etc.) approved by the concerned Department.
  - iv. Integrated Aptitude Skills (IAS) Four levels of aptitude training program will be conducted during second and third year of their study for the enhancement of student employability.
  - v. **Integrated Technical Training (ITT)** Training program will be conducted during third semester to enhance the coding skill of the students on C, C++, JAVA or PYTHON.
  - vi. Integrated Soft Skills Training (IST) Two levels of soft skills training program will be conducted to enhance the personality of the students during the second and third year of their study.
- **E. Mandatory Courses (MNC)** Training programs or courses like Induction program for first year students, Introduction to Women and Gender Studies, Indian / Tamil culture and heritage courses, Disaster Management etc.

The recommended distribution of credits for each category is given Table I.

Table I: Credit Distribution

S.No	Category	Credits (Regular)	Credits (Lateral)
A	Foundation Courses	63	19
(l)	Basic Science (BS)	25	6
(II)	Engineering Science (ES)	25	6
(III)	Humanities and Social Science (HSS)	13	7
В	Professional Core Courses (PC)	59	56
С	Elective Courses	30	30
(l)	Professional Electives (PE)	18	18
(II)	Open Electives (OE)	12	12
D	Project, Seminar, Internship in industry or at Higher Learning institutions	17	17
		169	135
		(from A to D)	(from A to D)
	Mandatory Courses prescribed by	and the	and the
E	AICTE/UGC	successful	successful
	(Not to be included for CGPA)	completion of	completion of
		Mandatory	Mandatory
		Courses	Courses

# **4.2 Personality and Character Development:**

The candidates are encouraged to enrol in any one of the personalities and character development programme (like NCC/ NSS/YRC/NSO) and undergo training for about 80 hours, within the first two years and attend a camp of about seven days. The training shall include classes on hygiene and health awareness and also training in first-aid. National Service Scheme (NSS) will have social service activities in and around the College. Youth Red Cross (YRC) will have activities related to social services in and around College. While the training activities will normally be during weekends, the camp will normally be during vacation period. National Sports Organization (NSO) will have sports, Games, Drills and Physical exercise.

# 4.3 Credit Assignment:

Each course is assigned a certain number of credits based on the number of periods the candidate has to spend to learn the course.

Contact period per week	Credits
One Period of Learning Theory	1
One Period of Learning in Small Group	1
Two Periods of Learning through Practice (Laboratory/ Project Work)	1

Each semester curriculum shall normally have a blend of lecture courses not exceeding 7 Theory courses and Laboratory integrated theory courses and 4 Employability Enhancement Course(s) and Laboratory Courses. However, the total number of courses per semester shall not exceed 10.

### 4.4 VALUE ADDED COURSES

**4.4.1** Students may optionally undergo Value Added Courses and the credits earned through the Value Added Courses shall be over and above the total credit requirement prescribed in the curriculum for the award of the degree. Courses with two/ three credits shall be offered by a Department of an institution with the prior approval from the Head of Institution. The grades earned by the students for Value Added Courses will be recorded in the Mark Sheet, however the same shall not be considered for the computation of CGPA.

# 4.4.2 INTERNATIONAL CERTIFICATION

Value Added Courses which may lead to international certification are designed and offered by each department for the benefit of the students. Each Value-Added Course is assigned 1 Credit. International certification establishes an industry standard by which students are evaluated through a fair, comprehensive test of their knowledge in the areas related to their disciplines. Being certified makes the student, a highly competent professional. After attending the VAC as per Clause 4.4.1 students can appear for the respective international certification examinations. The students should mandatorily attend one international certification course during their course of study. Students who have successfully received International Certification will earn 1 credit. The credits earned will be considered for CGPA calculation. If a student gets a pass

mark in the Value-Added Course examination, that VAC will be entered in respective semester grade sheet and the credits earned will be eligible for credit calculations and included in CGPA. The successful completion of these international certification courses shall be considered in lieu of professional elective of curriculum as approved by the Head of the Institution.

## 4.5 On line Courses

Students are permitted to optionally enrol and study a maximum of three online courses under each UG programme with the approval of Head of Institution. The successful completion of these courses shall be considered in lieu of professional elective / open elective courses of curriculum as approved by the Head of the Institution.

4.5.1 On line courses are courses that would be offered by premier institutions like IITs, IISc through online platform (NPTEL / GIAN / MOOCS / COURSERA, etc.) and suggested by the concerned Department. The list of online courses will be decided by the Department beyond the prescribed curriculum and approved by the respective Board of Studies (BoS). The successful completion of each online course of at least eight-week duration shall be given 1 credit, while courses of duration twelve week and above shall be given 1.5 credits. The students should attend minimum of one and maximum of two online courses per semester from first to sixth semester of study. It is optional during other semesters. Details of online courses successfully completed by the students (from I to VIII semesters) shall be maintained in a separate Additional Credit Bank. If a course from the bank is used for dropping (Clause 31), only such courses alone will be considered for GPA and CGPA calculation. The same shall be updated IN THE CONCERNED Semester grade statement. The unused courses and their credits available in the Additional Credit Bank will not be considered for CGPA calculation, however they will be reflected in the Consolidated Grade Statement.

The mapping of marks with grades is applicable, only if the student passes the course as per the guidelines of NPTEL given in Table II.

Table II: Mapping of Marks scored in NPTEL course and Credits earned

Letter Grade	Marks	
0	90-100	
A+	80-89	
А	70-79	
B+	60-69	
В	50-59	
С	40-49	

#### 4.6 INTERNSHIP/FELLOWSHIP

**4.6.1** The students may undergo Internship at a Research organization / University/ Industry (after due approval from the Head of the Institution) for the period prescribed in the curriculum during the summer / winter vacation, in lieu of Industrial training. Attendance Certificate mentioning the period of Industrial Training / Internship and signed by the competent authority of the industry, as per the format provided by the Head of the Institution. In this case, the training has to be undergone continuously for a period of at least two weeks in an organization

**4.6.2** If Industrial Training/ Internship is not prescribed in the curriculum, the student may undergo Industrial Training/ Internship optionally and the credits earned will be indicated in the Grade Sheet. If the student earns three credits in Industrial Training/ Internship, the student may drop one Professional Elective (only one professional elective can be dropped). In such cases, Industrial Training / Internship need to be undergone continuously from one organization or with a combination one two week and one four weeks from one/two organizations. However, if the number of credits earned is 1 or 2, then these credits shall not be considered for classification of the degree. Students shall get permission from the Head of the Institution for taking Industrial Training/Internship. The credit distribution along with duration of training is shown in table III.

Table III.- Credit Distribution along with Internship training

DURATION OF TRAINING / INTERNSHIP	CREDITS
2 Weeks*	1
4 Weeks	2

6 Weeks	3
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<sup>\*1</sup> Week = 40 Internship Hours

### 4.7 Industrial Visit

Every student is required to go for at least one Industrial Visit every semester starting from the first year of the Programme. The Heads of Departments shall ensure that necessary arrangements are made in this regard.

# 4.8 Employment Enhancement Courses (EEC):

# 4.8.1 Mini Project

Candidates as a team comprising a maximum of 3 members, should complete Mini Project, relevant to their branch of study and earn one credit, under the Employment Enhancement category. The Head of the Department shall constitute a review committee, comprising of 3 members, for Mini Project. The review committee shall assess the same based on the criteria, approved by Head of the institute and award marks for 100. The credits earned will be indicated in the Mark Sheet and is also included in the CGPA for the award of degree.

# 4.8.2 Integrated Aptitude Skills (IAS)

In order to enhance the employability of students, they are given aptitude training on significant areas like Verbal ability, Logical Reasoning and Quantitative aptitude. The courses on Integrated Aptitude Skills (IAS) are assigned with one credit per course.

The credits earned through these Courses will not be considered for CGPA calculation. The performance of the students in these Courses is evaluated through end semester internal examination for 100 marks. If a student gets a pass mark in this Course, then the credits earned will be mentioned in the mark sheet or else, it will not be reflected in the mark sheet.

# 4.8.3 Integrated Technical Training (ITT)

In order to promote the employability skills of students, they are given technical hands-on training on significant programming environments like Python, C, C++ or JAVA. The choice of the programming language would be updated now and then, based upon the new update or release. The courses on Integrated Technical Training (ITT) are assigned with one and a half credit per course.

The credits earned through these Courses will not be considered for CGPA calculation. The performance of the students in these Courses is evaluated through end semester internal examination for 100 marks. If a student gets a pass mark in this Course, then the credits earned will be mentioned in the grade sheet or else, it will not be reflected in the grade sheet.

# 4.8.4 Integrated Soft Skills Training (IST)

Integrated Soft Skills Training is intended to equip future Engineering professionals with skills that are often overlooked in conventional education. It aims to bridge the soft skills gap prevalent among the student community. The courses on Integrated Soft Skills Training (IST) are assigned with one credit per course.

The credits earned through these Courses will not be considered for CGPA calculation. The performances of the students in these Courses are evaluated through end semester internal examination for 100 marks. If a student gets a pass mark in this Course, then the credits earned will be mentioned in the grade sheet or else, it will not be reflected in the grade sheet.

# 4.8.5 Project Work

Project work will be carried out in two phases. Phase I of the project work will be assessed internally. There is no end semester examination for Phase I project. Phase II of Project Work will have internal assessment and End Semester Examination. Project work may be allotted to a single candidate or to a group of candidates not exceeding 4 per group preferably candidates from different departments. There shall be three reviews during the semester by the review committee. The candidate shall make a presentation on the progress made by him / her before the committee.

The Candidates shall be permitted to carry out their final semester Project work for six months in industry/research organizations through the Head of Department, who shall recommend and forward the proposal to the Head of the institution for approval.

# 4.9 Mandatory Courses:

The courses such as Professional Ethics and Constitution of India are mandatory. The minimum attendance percentage is 75% for each of these courses. Every Candidate should have undergone these courses, and should have passed the examinations. However, no credits are assigned for the courses.

**4.10The medium of instruction is English** for all the Courses (except Tamil), examinations, seminar presentation, projects, and any other courses that a student registers for.

# 5. DURATION OF THE PROGRAMME

- **5.1** A Candidate is ordinarily expected to complete the B.E. / B.Tech. programme in 8 semesters (four academic years) but in any case, not more than 14 semesters for HSC (or equivalent) learners and not more than 12 semesters for Lateral Entry learners. The candidate has to pay the tuition fee for every semester, until he/she completes the course.
- **5.2** Each semester shall normally consist of 75 working days or 540 periods of 50 minutes each.
- **5.3** The Head of the Institution shall ensure that every facilitator imparts instruction as per the number of periods specified in the syllabus and that the facilitator imparts the content of the specified syllabus for the course offered. The Head of the Department may conduct additional classes for improvement, special coaching, conduct Formative assessment etc., over and above the specified periods. But for the purpose of calculation of attendance requirement for writing the end semester examinations (as per clause 7) by the candidates, following method shall be used, for each course.

Attendance 
$$\% = \frac{\textit{Total No.of periods attended in a particular course per semester}}{\textit{Total No.of periods alloted for the course per semester}} \times 100\%$$

- **5.4** The End Semester Examination will ordinarily follow immediately after the last working day of the semester commencing from I semester as per the academic schedule prescribed from time to time.
- **5.5** The total period for completion of the programme reckoned from the commencement of the first semester to which the learner was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study (vide clause 18) in order that he/she may be eligible for the award of the degree (vide clause 16).

### 6. COURSE REGISTRATION

- **6.1** Each student, on admission shall be assigned to a Mentor who shall advise / counsel the student about the details of the academic programme and the choice of course(s) considering the student's academic background and career objectives.
- **6.2** In each semester, the candidate can register for a minimum of 18 credits and a maximum of 36 credits, (up to 6th semester). However, a candidate can register less than the prescribed minimum credits, under specific conditions, with the approval of Head of the institution.
- **6.3** The candidate should register for the course within three days, when the course is open for registration.
- **6.4** The prerequisite as defined in the Syllabus, has to be satisfied, (the candidate should have registered for the prerequisite course, obtained 75% of attendance and a minimum of 50% in the internal marks), before registering for a particular course.
- **6.5** From the III to VII semesters (from IV to VII semesters in case of lateral entry students), the student has the option for dropping existing courses. The total number of credits that a student can drop is limited to 8, subject to a maximum of 2 courses in a given semester. The candidate is permitted to withdraw i.e., drop from the course, within 5 working days of registration.
- **6.6** The registration details of the candidates should be approved by the Head of the Department and forwarded to the Controller of Examinations, through Dean (Academics). This registration is for undergoing the course as well as for writing the End Semester Examinations (vide clause 7).
- **6.7** Courses shall be offered by any department, if a minimum of 30 candidates register for the course. Any change in this regard is at the sole discretion of Head of the institution.
- **6.8** The student shall register Project work I in semester VII and Project work II in semester VIII only.

# 7. ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE COURSE AND TO BE ELIGIBLE TO ATTEND THE END SEMESTER EXAM

A student who has fulfilled the following conditions (video Clause 7.1 and 7.2) shall be deemed to have satisfied the attendance requirements for appearing for Semester End Examination of a particular course.

- **7.1** Every student is expected to attend all the periods and earn 100% attendance. However, a student shall secure not less than 75 % overall attendance.
- 7.2 If a student, secures overall attendance between 65 % and 75%) in the current semester due to medical reasons (prolonged hospitalization / accident / specific illness) or participation in Institution/ University/ State/ National/ International level extra and co-curricular activities, with prior permission from the Head of the Department, shall be permitted to appear for the current semester examinations subject to the condition that the student shall submit the medical certificate / participation certificate attested by the Head of the Institution . The same shall be forwarded to the Controller of Examinations for record purposes. However, during the entire programme of study, a student can avail such condonation in any two semesters only.
- 7.3 A student shall normally be permitted to appear for Semester End Examination of the course(s) if the student has satisfied the attendance requirements (vide Clause 7.1 7.2) and has registered for examination in those courses of that semester by paying the prescribed fee.
- 7.4 Students who do not satisfy Clause 7.1 and 7.2 and who secure less than 65% overall attendance would not be permitted to move to the higher semester and has to repeat the current semester in the next academic year as per the norms prescribed.
- **7.5** In the case of reappearance (Arrear) registration for a course, the attendance requirement as mentioned in Clauses 7.1 7.3 is not applicable. However, the student has to register for examination in that course by paying the prescribed fee.
- 7.6 A student who has already appeared for a course in a semester and passed the examination is not entitled to reappear in the same course for improvement of grades.
- 7.7 Every facilitator is required to maintain an Attendance and Assessment Record which consists of attendance marked in each lecture or practical or project work, the test marks and the record of class work (topic covered), separately for each course. This should be submitted to the Head of the Department periodically for checking the syllabus coverage and the records of test marks and attendance.

The Head of the Department will put his/her signature and date after due verification. The record should be verified by the Head of the Institution periodically and will keep this document in safe custody (for five years).

#### 8. MENTOR

- **8.1** The role of Mentor is to help the candidates in planning their courses of study and for general advice on the academic programme. The Head of the Department of the candidates will assign 30 candidates to a faculty of the Department who shall function as Mentor, for those learners throughout their period of study.
- **8.2** The Mentor shall advise the candidates in registering and reappearance for courses, authorize the process, monitor their attendance and progress and counsel them periodically.
- **8.3** If necessary, the Mentor may also discuss with or inform the parents about the progress / performance of the candidates concerned.
- **8.4** The Mentors inform the learners about the various facilities and activities available to enhance the candidate's curricular and co-curricular activities.
- **8.5** The mentors monitor the academic and general performance of the learners including attendance and to counsel them accordingly.
- **8.6** Analyzing the performance of the candidates after each test and finding ways and means of solving problems, if any. Identifying the different learners, if any, and requesting the faculty concerned to provide some additional help or guidance.

### 9. CLASS COMMITTEE

Every course shall have a Class Committee for learners, consisting of teachers of the course concerned, candidates' representatives and a chairperson who is not teaching the course, probably a faculty of other departments. The functions of the Class Committee include.

a. Solving problems experienced by candidates in the classroom and in the laboratories. Clarifying the regulations of the Degree Programme. Informing the learner representatives, the details of Regulations regarding weightage used for each assessment. In the case of practical courses (laboratory / drawing / project work etc.) the breakup of marks for each experiment / exercise / module of work, should be clearly discussed in the class committee for students meeting.

- b. Informing the candidates representatives, the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
- **9.1** The Class committee for candidates for a course under a particular branch is normally constituted by the Head of the Department. However, if the candidates of different branches are mixed in a class, the Class Committee for students is to be constituted by the Head of the Institution.
- **9.2** The Class Committee for learners shall be constituted within the first week of each semester.
- **9.3** At least 5 candidate's representatives (boys and girls) shall be included in the Class Committee for the candidates.
- **9.4** The Chairperson of the Class Committee for candidates may invite the Head of the Department to the course for the Class Committee meeting.
- **9.5** The Head of the Institution may participate in any of the Class Committee meeting for candidates.
- 9.6 The chairperson is required to prepare the minutes of every meeting, submit the same to the Dean, (Academics) and Head of the Institution, within two days of the meeting and arrange to circulate it among the candidates and teachers concerned. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the Management by the Head of the Institution.
- 9.7 The first meeting of the Class Committee for candidates shall be held within one week from the date of commencement of the semester, in order to inform the learners about the nature and weightage of assessments within the framework of the Regulations. Two or three subsequent meetings may be held in a semester at suitable intervals. The Class Committee for candidates' Chairman shall put on the Notice Board the cumulative attendance particulars of each learner at the end of every such meeting to enable the candidates to know their attendance details to satisfy the clause 7 of this Regulation. During these meetings, the candidates members representing the entire course, shall meaningfully interact and express the opinions and suggestions of the other learners of the class in order to improve the effectiveness of the teaching-learning process.

### 10. COURSE COMMITTEE FOR COMMON COURSES

Each common course offered to more than one discipline or branch shall have a "Course Committee" comprising all the facilitators imparting the common course with one of them nominated as Course Coordinator. The nomination of the Course Coordinator shall be made by the Head of the Department / Head of the Institution depending upon whether all the facilitators imparting the common course belong to a single department or to several departments. The 'Course committee' shall meet in order to arrive at a common scheme of evaluation for the test 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(s).

# 11. B.E. / B. Tech. (Hons) and B.E. / B. Tech. minor with specialization in another discipline.

### 11.1 B.E. / B.Tech. Honours

- The students should have earned additionally a minimum of 18 credits from more than one specialization of the same programme.
- Should have passed all the courses in the first attempt.
- Should have earned a minimum CGPA of 7.50.

After successful completion of any additional courses will get B.E. / B.Tech Honours degree The specialization will not be mentioned in their Degree

# 11.2 B.E. / B.Tech. Honours (specialization in the same discipline):

- The student should have earned additionally a minimum of 18 credits from a particular specialization of the same programme.
- Should have passed all the courses in the first attempt.
- Should have earned a minimum CGPA of 7.50.

For example, students of Electrical and Electronics Engineering, who have studied six additional courses under "Electrical Vehicles" will be given degree B.E (Honours) in Electrical and Electronics Engineering with Specialization in Electrical Vehicles.

# 11.3 B.E. / B.Tech. (minor in another specialisation)

The student should have earned additionally a minimum of 18 credits

in any one of the specialisation of other B.E/B.Tech. programmes.

• Should have earned a minimum CGPA of 6.50.

For an example, students of Mechanical Engineering, who have studied six additional courses from "Internet of Things" will be given degree B.E in Mechanical Engineering with minor degree in Internet of Things.

**11.4** The Departments will be offering the following Honours / Minor program in emerging areas under the respective UG Degree Programme as given in the table IV. Students are expected to successfully complete any 6 courses additionally and earn 18 credits.

Table I V - Honours / Minor program in emerging areas offered

SI. No	Emerging Areas	Programmes eligible for Honours	Programmes eligible for Minor
1	Smart Cities		
2	Infrastructure Engineering	B.E - CIVIL	B.E - BME, CSE, CSE (A&ML), ECE, EEE, MECH, B.Tech - AGRI, AIDS
3	Smart Grid Technologies	B.E - EEE	B.E - BME, CIVIL CSE, CSE (Al&ML), ECE, MECH, B.Tech - AGRI, AIDS
4	Electric Vehicles	B.E- EEE, MECH, B.Tech - AGRI	B.E - BME, CIVIL CSE, CSE (AI&ML), ECE, B.Tech - AIDS
5	Robotics	B.E- ECE, EEE, MECH	B.E - BME, CIVIL, CSE, CSE (Al&ML), B.Tech - AGRI, AIDS
6	3D Printing	B.E- CIVIL, MECH	B.E - BME, CSE, CSE (Al&ML), ECE, EEE, B.Tech - AGRI, AIDS
7	Internet of Things	B.E - EEE, ECE, CSE, CSE (Al&ML), BME B.Tech - AGRI, AIDS	B.E - CIVIL,MECHANICAL
8	Artificial Intelligence and Robotics	B.E - BME, CSE, CSE (Al&ML), ECE B.Tech - AIDS	B.E - CIVIL, EEE, MECH, B.Tech AGRI

9	Cyber Security	B.E CSE, CSE (Al&ML), BME, EEE, ECE B.Tech - AIDS	B.E - CIVIL, MECH, B.Tech - AGRI,
10	Virtual Reality & Augmented Reality	B.E CSE, CSE (Al&ML), B.Tech - AlDS	B.E - BME, CIVIL,ECE, EEE, MECH, B.Tech - AGRI
11	Clinical Engineering	ВМЕ	B.E - CIVIL, CSE,CSE (Al&ML), ECE,EEE, MECH, BME, B.Tech - AGRI, AIDS
12	Nursery and Green House Engineering	AGRI	B.E - BME, CIVIL, CSE, CSE (AI&ML), ECE, EEE, MECH, B.Tech - AIDS
13	Innovation, Entrepreneurship and Venture Development	-	B.E - BME, CIVIL, CSE, CSE (Al&ML), ECE, EEE, MECH, B.Tech - AGRI, AIDS

## 11.5 Procedure for the Enrolment:

The students have to register for this Honors / Minor program through web portal as per the procedure laid down by the institute and approved by the Head of the Institute. The selection of Honors / Minor program shall be done based upon the interest of the students. The respective Heads of the Departments offering the honors / Minor program will approve the list of students.

11.6 The students can earn a maximum of 6 credits out of 18 credits through online mode preferably through SWAYAM NPTEL platform. The equivalent NPTEL courses and their corresponding credits will be approved by the Department with the prior approval from the Head of the Institution and the Board of Studies and the same can be used to drop only the corresponding Honours / minor course. The online course (NPTEL) should be completed with not less than B+ Grade in advance to drop a corresponding honours course.

# 11.7 Cancellation of the programme:

i. If a student fails in course(s) of regular degree program and successfully completes the course(s) of Honours / Minor in a semester, his/her registration to the Honours / Minor will be cancelled automatically. However, the grades obtained

in the successfully completed Honours / Minor course(s) during current and previous semester(s) will be considered in the respective GPA, eventually considered in CGPA also.

- ii. If a student fails in course(s) of the Honours / Minor and successfully completes the course(s) of his regular degree program in a semester, his/her registration to the Honours / Minor will be cancelled automatically. However, the grades obtained in the successfully completed Honours / Minor course(s) during previous and current semester(s) will be considered in the respective GPA, eventually considered in CGPA also.
- iii. If a student fails both in course(s) of his regular degree program and course(s) of the Honours / Minor in a semester, his/her registration to the Honours / Minor will be cancelled automatically. However, the grades obtained in the successfully completed Honours / Minor course(s) during previous semester(s) will be considered in the respective GPA, eventually considered in CGPA also.
- iv. If a student successfully completes both course(s) of his regular degree program and course(s) of the Honours / Minor in a semester, his/her registration to the Honours / Minor will be continued automatically. The grades obtained in the successfully completed Honours / Minor course(s) during current and previous semester(s) will be considered in the respective GPA, eventually considered in CGPA also. The student will be awarded Honours / Minor as per clause.
- v. If a student wishes to withdraw from Honours / Minor during any semester, he/ she can be permitted but the grades of successfully completed Honours / Minor course(s) during previous semester(s) will be included in the respective GPA and eventually considered in overall CGPA also.

# 11.8 Dropping of electives:

The registration of Honours / Minor program shall get cancelled vide clause 5.9 (i – iii) and the student can also withdraw from Honours / Minor program as per clause 5.9 (v). After the cancellation / withdrawal, if the student wishes, he / she can use the credits of the successfully completed Honours / Minor courses to drop any two Allied / Open elective courses as per the following conditions. However, if a student has successfully completed more than two honours / Minor courses at the time of honours / Minor cancellation / withdrawal, such courses will be

mentioned in the Semester Grade statement but only the courses with higher Grades will be considered for the final CGPA calculation in the Consolidated Grade statement.

- i. The students who have opted Minor degree program (clause 5.5) can drop only the Allied Elective courses.
- ii. The students who have opted Honours with specialization / Honours degree program (clause 5.4 / clause 5.3) can drop the Open / Allied Elective courses.
- **11.9** New Honours / Minor in emerging areas may be introduced by the department / institution at any time depending upon the requirement after getting approval from the concerned Board of Studies, Academic Council and Governing Body.

## 12. SYSTEM OF EXAMINATION

- **12.1** Performance in each course of study shall be evaluated based on (i) continuous Assessment (CA) throughout the semester and (ii) Examination at the end of the semester.
- **12.2** Each course, both theory and practical (including project work & viva voce examinations) shall be evaluated for a maximum of 100 marks.
- **12.3** For all theory courses, the continuous internal assessment will carry **40 marks** while the End Semester examination will carry **60 marks**.
- **12.4** For all theory courses with laboratory component, the continuous internal assessment will carry **50 marks** while the End Semester examination will carry **50 marks**.
- **12.5** For all laboratory courses, the continuous assessment will carry **60 marks** while the End Semester examination will carry **40 marks**.
- **12.6** The continuous assessment for the project work will carry **60 marks** while the End Semester examination will carry **40 marks**.
- **12.7** Industrial Training and Seminar shall carry 100 marks and shall be evaluated through internal assessment only.
- **12.8** The University examination (theory and practical) of 3 hours duration shall ordinarily be conducted between October and December during the odd semesters and between April and June during the even semesters.

**12.9** The End semester examination for Project Work shall consist of evaluation of the final report submitted by the student or students of the project group (of not exceeding 4 students) by an external examiner and an internal examiner, followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner, the supervisor of the project group and an internal examiner.

#### 13. PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

# **13.1 THEORY COURSES**

Two assessments each carrying 100 marks shall be conducted during the semester. The total marks obtained in all assessments put together out of 200, shall be proportionately reduced for 40 marks and rounded to the nearest integer (This also implies equal weightage to the two assessments). The scheme of assessment is shown in table V.

Table V: Scheme of Assessment for theory courses

Assessment I (100 Marks)		Assessment II (100	Marks)	
Individual Assignment /		Individual Assignment /		Total Internal
Case Study/ Seminar/ Written		Case Study / Seminar /	Written	Assessment
Mini Project/ any other Test		Mini Project / anyother	Test	
experiential Learning		experiential Learning		
40	60	40	60	200*

\*The weighted average shall be converted into 40 marks for internal Assessment. A minimum of two internal assessments will be conducted as a part of continuous assessment. Each internal assessment is to be conducted for 100 marks and will have to be distributed in two parts viz., Individual Assignment / Casestudy / Seminar / Mini project / any other experiential learning and Test with each having a weightage of 40% and 60% respectively. The tests shall be in written mode. The total internal assessment marks of 200 shall be converted into a maximum of 40 marks and rounded to the nearest integer.

## 13.2 LABORATORY COURSES

The maximum marks for Internal Assessment shall be 60 marks in case of practical courses. Every practical exercise / experiment shall be evaluated based on conduct

of experiment / exercise and records to be maintained. There shall be at least one test. The criteria for arriving at the Internal Assessment marks of 60 is as follows: 75 marks shall be awarded for successful completion of all the prescribed experiments done in the Laboratory and 25 marks for the test. The total mark shall be converted into a maximum of 60 marks and rounded to the nearest integer. The scheme of assessment for laboratory courses are shown in table VI.

Table VI: Scheme of Assessment for Laboratory courses

Internal Assessment (100 Marks)*					
Evaluation of Laboratory					
Observation, Record	Test				
75	25				

<sup>\*</sup> Internal assessment marks shall be converted into 60 marks.

# 13.3 THEORY COURSES WITH LABORATORY COMPONENT / LABORATORY COURSES WITH THEORY COMPONENT

Weightage of internal assessment and end semester examination marks will be 50 % each. The distribution of marks for the theory and laboratory components in the internal assessments and end semester examination for different types of courses are provided in the table. The scheme of assessment for Theory Courses with Laboratory Component are shown in table VII.

Table VII: Scheme of Assessment for Theory courses with Laboratory

Component

L	Т	Р	С	Internal Assessment 1	Internal Assessment 2	End Semester Examination
1	0	4	3	Lab (25%)	Theory (25%)	Lab only (50%)
1	0	2	2	Lab (25%)	Theory (25%)	Lab only (50%)
2	0	2	3	Theory (25%)	Lab (25%)	Theory (25%) Lab (25%)
3	0	2	4	Theory (25%)	Lab (25%)	Theory (35%) Lab (15%)

2	0	4	4	Theory (25%)	Laboratory (25%)	Theory (15%) Lab (35%)
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The procedure for the conduct of internal assessments for theory and laboratory components shall be as per the clause 13.1 and 13.2 respectively.

\*The weighted average shall be converted into 50 marks for internal Assessment.

### 13.4 PROJECT WORK / INTERNSHIP

The student shall register for Project Work in Seventh and Eight semester. Project work may be allotted to a single student or to a group of students not exceeding 4 per group. The student is also permitted to undergo a semester long internship in an industry / academic / research institution.

- **13.4.1** Project Work shall be carried out under the supervision of a "qualified teacher" in the Department concerned. In this context "qualified teacher" means the faculty memberpossessing (i) PG degree or (ii) Ph.D. degree.
- 13.4.2 The Project Work carried out in industry / academic/research institution shall be jointly supervised. The Project Work shall be jointly supervised by a supervisor of the department and an expert from the organization as a joint supervisor and the student shall be instructed to meet the supervisor periodically and to attend the review committee meetings for evaluating the progress. The review meetings, if necessary, may also be arranged in online mode with prior approval from the Head of the Institution and suitable record of the meetings shall be maintained.
- 13.4.3 The Head of the Institutions shall constitute a review committee for Project Work for each programme. The review committee consists of supervisor, an expert from the Department and a project coordinator from the Department. If the project coordinator/expert member happens to be the supervisor, then an alternate member shall be nominated. In the case of Industrial Project / Internship, the review committee shall consist of the supervisor, the coordinator from industry and the project coordinator from the Department.

There shall be three reviews conducted by the review committee. The student shall make presentation on the progress made by him / her before the committee. The total marks obtained in the three reviews shall be **reduced for 60marks** and rounded

to the nearest integer (as per the scheme given in table VIII).

13.4.4 The project report shall carry a maximum of 10 marks. The project report shall be submitted as per the approved guidelines. Same marks shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 30 marks. Marks awarded to each student of the project group is based on the individual performance in the viva-voce examination. The scheme of evaluation for project is given in table VIII.

Table VIII: Scheme of evaluation for project work

Continuo (6	ous Asse 0 Marks)		End Semester Examinations (40 Marks)				
Review I	Review II	Review III	Project Report	Viva-Voce Examination			
20	20	20	External	Internal	External	Supervisor	
20	20 20	20	10	10	10	10	

In the case of industrial projects, the marks allotted for supervisor will be shared equally by the supervisor from the Department and coordinator from Industry.

- 13.4.5 The last date for submission of the project report is on the last working day of the semester. If a student fails to submit the project report on or before the specified deadline, it will be considered as fail in the Project Work and the student shall re-register for the same in the subsequent semester.
- 13.4.6 Students shall also undertake a start-up activity for the development of products aspart of project work. If the outcome of a start-up is a fully developed product and whose concept is tested and validated, then it shall be considered in lieu of the project work. Such students shall submit a startup report, which includes the concepts and process flow of the developed product, publications and patents, if any.

The evaluation of the start-up report is as per the clause 13.4.4.

# 13.4.7 OTHER EMPLOYABILITY ENHANCEMENT COURSES

(a) The Seminar / Case Study course is to be considered as purely INTERNAL (with 100% internal marks only). Every student is expected to present a minimum of 2 seminars per semester before the evaluation committee and for each seminar, marks can be equally apportioned. The three member committee appointed by the Head of the Institution, consisting of the course coordinator and two experts from the Department, will evaluate the seminar and at the end of the semester, the marks shall be consolidated and taken as the final mark. The evaluation shall be based on the seminar paper (40%), presentation (40%) and response to the questions asked during presentation (20%).

- (b) The Industrial / Practical Training, Summer Project, Internship, shall carry 100 marks and shall be evaluated through internal assessment only. At the end of Industrial / Practical Training / Internship / Summer Project, the student shall submit an attendance certificate from the organization where he / she has undergone training and a brief report. The evaluation will be made based on this report and a viva-voce Examination, conducted internally by a three-member Departmental Committee constituted by the Head of the Institution consisting of the course coordinator and two experts from the Department. The certificates (issued by the organization) submitted by the students shall be attached to the mark list sent by the Head of the Institution to the Controller of Examinations.
- (c) For all the courses under Employability Enhancement Courses Category, except the Project Work, the evaluation shall be done with 100% internal marks and as per the procedure described in clause 12.5 (a) / (b).

# 13.4.8 ASSESSMENT FOR VALUE ADDED COURSE

The value added course shall carry 100 marks and shall be evaluated through continuous assessments only. Two Assessments shall be conducted during the semester by the Department concerned. The total marks obtained in the tests shall be reduced to 100 marks and rounded to the nearest integer. A committee consisting of the Head of the Department, staff handling the course and a senior faculty member nominated by the Head of the Institution shall do the evaluation process. The list of students along with the marks and the grades earned shall be forwarded to the Controller of Examinations for appropriate action at least one month before the commencement of End Semester Examinations. The grades earned by the students for Value Added Courses will be recorded in the Grade Sheet, however the same shall not be considered for the computation of CGPA.

13.5 Internal marks approved by the Head of the Institution shall be displayed

# by the respective HODs within 5 days from the last working day.

# 13.6 ATTENDANCE RECORD

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD', which consists of attendance marked in each lecture or practical or project work class, the test marks and the record of class work (topic covered), separately for each course. This should be submitted to the Head of the Department periodically (at least three times in a semester) for checking the syllabus coverage and the records of test marks and attendance. The Head of the Department will put his/her signature and date after due verification. At the end of the semester, the record should be verified by the Head of the Institution who will keep this document in safe custody (for five years).

# 13.7 Conduct of Academic Audit by every Institution

In order to ensure the better performance of the students, Academic Audit is to be done for every course taught during the semester. The academic records shall be maintained in the form of documentation for the individual assignments / case study report / report of mini project submitted by each student and assessment test question paper and answer script. Report of industrial training / internship shall also be maintained, if applicable. For laboratory courses students' record shall be maintained. Further, the attendance of all students shall be maintained as a record. The Head of the Institution shall arrange to conduct the Academic Audit for every course in a semester by forming the respective committees with an external course expert as one of the members drawn from a Technical institution of repute near the institute.

### 13.8 REQUIREMENTS FOR APPEARING FOR UNIVERSITY EXAMINATIONS

A student shall normally be permitted to appear for the University Examinations for all the courses registered in the current semester (vide clause 6) if he/she has satisfied the semester completion requirements (as per clause 7). Further, examination registration by a student is mandatory for all the courses in the current semester and all arrear(s) course(s) for the University examinations failing which, the student will not be permitted to move to the higher semester. A student who has already appeared for any course in a semester and passed the examination is not entitled to reappear in the same subject for improvement of grades.

### 14. PASSING REQUIREMENTS

**14.1** A student who secures not less than 50% of total marks prescribed for the course [Internal Assessment + End semester University Examinations] with a minimum of 45% of the marks prescribed for the end-semester University Examination, shall be declared to have passed the course and acquired the relevant number of credits.

This is applicable for both theory and laboratory courses (including project work).

**14.2** If a student fails to secure a pass in a theory course / laboratory course (except electives), the student shall register and appear only for the end semester examination in the subsequent semester. In such case, the internal assessment marks obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts till the student secures a pass. However, from the third attempt onwards if a student fails to obtain pass marks (IA+ End Semester Examination) as per clause 14.1, then the student shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the University end semester examinations alone.

14.3 If the course, in which the student has failed, is a Professional Elective or an Open Elective course, the student may be permitted to complete the same course. In such case, the internal assessment marks obtained by the student in the first appearance shall be retained and considered valid for all subsequent attempts till the candidate secures a pass. However, from the third attempt onwards if a candidate fails to obtain pass marks (IA + End Semester Examination) as per clause 14.1, then the candidate shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the University end semester examinations alone.

If any other Professional Elective or Open Elective course is opted by the student, the previous registration is cancelled and henceforth it is to be considered as a new Professional Elective or Open Elective course. The student has to register and attend the classes, earn the continuous assessment marks, fulfil the attendance requirements as per clause 7 and appear for the end semester examination.

**14.4** If a student has submitted the project report but absent in the end semester examination of project work, the student is deemed to be failed. In this case and also if

a student attends and fails in the End semester examination of Project work of B.E. / B.Tech, he/she shall attend end semester examination again within 60 days from the date of declaration of the results. The subsequent viva-voce examination will be considered as reappearance with payment of exam fee. In case, the student fails in the subsequent viva-voce examination also, the student shall redo the course again, when offered next.

- **14.5** The passing requirement for the courses which are assessed only through purely internal assessments (EEC courses except Project Work and laboratory), is 50% of the internal assessment (continuous assessment) marks only.
- **14.6** A student can apply for revaluation of the student's semester examination answer paper in a theory course, as per the guidelines of the COE on payment of a prescribed fee along with prescribed application to the COE through the Head of the Institution. The COE will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Institution. Revaluation is not permitted for laboratory course and EEC courses.

### 15. AWARD OF LETTER GRADES

**15.1** The award of letter grades will be decided using relative grading principle except Laboratory Courses and Project Work. The performance of a student will be reported using letter grades, each carrying certain points as detailed below:

Letter Grade	Grade Points*
O (Outstanding)	10
A+ (Excellent)	9
A (Very Good)	8
B+ (Good)	7
B (Average)	6
C (Satisfactory)	5
U (Re-appearance)	0
SA (Shortage of Attendance)	0
WD (Withdrawal)	0

A student is deemed to have passed and acquired the corresponding credits in a particular course if he/she obtains any one of the following grades: "O", "A+", "A", "B+", "B", "C".

'SA' denotes shortage of attendance (as per clause 7.3) and hence prevented from writing the end semester examinations. 'SA' will appear only in the result sheet.

"U" denotes that the student has failed to pass in that course. "WD" denotes withdrawal from the exam for the particular course. The grades U and W will figure both in the Grade Sheet as well as in the Result Sheet. In both cases, the student has to appear for the End Semester Examinations as per the Regulations.

If the grade U is given to Theory Courses/ Laboratory Courses it is not required to satisfy the attendance requirements (vide clause 7), but has to appear for the end semester examination and fulfil the norms specified in clause 14 to earn a pass in the respective courses.

If the grade U is given to EEC course (except Project Work), which are evaluated only through internal assessment, the student shall register for the course again in the subsequent semester, fulfil the norms as specified in clause 14 to earn pass in the course. However, attendance requirement need not be satisfied.

# 15.1.1 Relative Grading

For those students who have passed the course (theory course / laboratory integrated courses / theory integrated courses / all other EEC except laboratory course / Project Work Courses), the relative grading shall be done. The marks of those students who have passed only shall be inputted in the software developed for relative grading. The evolved relative grading method normalizes the results data using the BOX-COX transformation method and computes the grade range for each course separately and awards the grade to each student. (theory course /laboratory integrated courses / theory integrated courses and all other EEC Courses). If the students' strength is greater than 30, the relative grading method shall be adopted.

# 15.1.2 Absolute Grading

- In all the courses, if the number of students who have passed the course is less than or equal to 30 then absolute grading shall be followed with the graderange as specified in the Table.
- For the Project Work / Internship and Laboratory Courses, absolute grading procedure shall be followed as given in the Table below irrespective of the

number of students who have passed the course.

Table – Grade range for absolute grading

0	A+	Α	B+	В	С	U
91 - 100	81 - 90	71 - 80	61 - 70	56 - 60	50 – 55	< 50

- 15.2 For the Co-curricular activities such as National Cadet Corps (NCC)/ National Service Scheme (NSS) / NSO / YRC / Science club / Literary Club/ Fine Arts Club, a 'completed' remark will appear in the Grade Sheet on successful completion of the same. Every student shall put in a minimum of 75% attendance in the training and attend the camp or events of the clubs compulsorily. The training and camp or club events shall be completed during the first year of the programme. However, for valid reasons, the Head of the Institution may permit a student to complete this requirement in the subsequent years. Successful completion of any one of the above co-curricular activities is compulsory for the award of degree.
- **15.3** The grades O, A+, A, B+, B, C obtained for the one/two credit course (not the part of curriculum) shall figure in the Grade Sheet under the title 'Value Added Courses/Internship/Industrial training'. The courses for which the grades obtained are RA, SA will not figure in the Grade Sheet.
- **15.4** For the students who complete the Mandatory Course satisfying attendance requirement, the title of the Mandatory Course will be mentioned in the Grade Sheet.

### **15.5 GRADE SHEET**

After results are declared, Grade Sheets will be issued to each student which will contain the following details:

- The college in which the student has studied
- List of courses studied for Hons., minor and any other additional courses inwhich the student has passed with the grades under the title additional courses.
- The Grade Point Average (GPA) for the semester considering only the courses of curriculum (not the additional courses) and
- The Cumulative Grade Point Average (CGPA) of all courses registered

from first semester onwards considering only the courses of curriculum (not the additional courses). However, for the students who have successfully completed the requirements of B.E. / B. Tech. (Hons) and B.E. / B.Tech. Minor vide Clause 4.10, grades scored in the six additional courses shall be taken into account for the computation of CGPA.

During each semester, the list of curricular courses (not the additional courses) registered and the grades scored in each course are used to compute the Grade Point Average (GPA). GPA is the ratio of the sum of the products of the number of credits of curricular courses (not the additional courses) registered and the grade points corresponding to the gradesscored in those courses, taken for all the courses, to the sum of the number of credits of all the courses in the semester. U grades will be excluded for calculating GPA and CGPA.

$$GPA/CGPA = \frac{\sum_{i=1}^{n} C_i GP_i}{\sum_{i=1}^{n} C_i}$$

where  $C_i$  is the number of Credits assigned to the course

**GP**<sub>i</sub> is the point corresponding to the grade obtained for each course.

**n** is number of all courses successfully cleared during the particular semester in the case of GPA and during all the semesters in the case of CGPA.

- **15.5.1** If a student studies more number of professional and open electives than required asper the student's programme curriculum, the calculation of final CGPA shall be as per 4.10.6 and 4.10.7.
- **15.5.2** If a student successfully completes all the requirements of the programme and also meets the requirements of B.E. / B. Tech. (Hons) or B.E. / B. Tech. Minor but desires not to opt for the additional qualification, then he/she has to submit a declaration with regard to the same 30 days before the completion of VIII semester.
- **15.5.3** In the consolidated grade sheet the CGPA earned shall be converted into percentage of marks as follows:

Percentage of Marks = CGPA  $\times$  10.

# 16. ELIGIBILITY FOR THE AWARD OF THE DEGREE

**16.1** A student shall be declared to be eligible for the award of the B.E. / B.Tech. Degree provided the student has

- Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.
- ii. Successfully completed the course requirements, appeared for the End
   Semester examinations and passed all the subjects within the period as prescribed in clause 5.1 and 5.1.1.
- iii. Successfully passed any additional courses prescribed by the Director, Centre for Academic Courses whenever the student is readmitted under Regulations R-2021 from the earlier Regulations.
- iv. Successfully completed the NCC / NSS / NSO / YRC / Science Club / Literature Club / Fine Arts Club requirements.
- v. No disciplinary action pending against the student.
- vi. The award of Degree must have been approved by the Syndicate of the University.

# 16.2 CLASSIFICATION OF THE DEGREE AWARDED 16.2.1 FIRST CLASS WITH DISTINCTION:

A student who satisfies the following conditions shall be declared to have passed the examination in **First class with Distinction**:

- Should have passed the examination in all the courses of all the eight semesters (10 Semesters in case of Mechanical (Sandwich) and 6 semesters in the case of Lateral Entry) in the student's First Appearance within five years (S ix years in the case of Mechanical (Sandwich) and Four years in the case of Lateral Entry). Withdrawal from examination (vide Clause 17) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.50.
- One-year authorized break of study (if availed of) is included in the five years (Six years in the case of Mechanical (Sandwich) and four years in the case of lateral entry) for award of First class with Distinction.
- Should not have been prevented from writing end semester examination in any of the courses of the Curriculum making up the total credit requirement.

 A student who satisfies norms given in clause 4.10 becomes eligible for classification of the degree with B.E./B.Tech. (Hons) and B.E./B.Tech. minor. Details are provided in Table:

Degree (i)	Duration of program me (ii)	Duration permitted (iii)	Additiona I credits above the requireme nt of curriculu m (iv)	CG PA (v)	Pass in (vi)	Break of study (vii)	Preventi on to write end semester examinat ion	Withdraw al from writing end semester examinat ion (viii)
B.E./ B.Tech. (Regular)	4 years	5 years	-	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitte d	Will not be considere d as an attempt
B.E./ B.Tech. (sandwic h)	5 years	6 years	-	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitte d	Will not be considere d as an attempt
B.E./ B.Tech. Lateral Entry	3 years	4 years	-	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitte d	Will not be considere d as an attempt
B.E./ B.Tech. (Hons)	3/4/5 years (Lateral entry, Regular, Sandwich respectiv ely)	4/5/6 years (Lateral entry, Regular, Sandwich respectiv ely)	18 credits from more than one verticals of the same program	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitte d	Will not be considere d as an attempt

			me					
	3/4/5	4/5/6	18					
	years	years	credits			One year		Will not
B.E./	(Lateral	(Later al	from any			authorised	Not	be
B.Tech.	entry,	entry,	one	8.50	First	break of study	permitte	considere
minor	Regular,	Regular,	vertical of	0.50	attempt	included in	d	d as an
IIIIIIIII	Sandwich	Sandwich	the other			the Duration	u	
	respectiv	respectiv	program			permitted (iii)		attempt
	ely)	ely)	me					

### **16.2.2 FIRST CLASS:**

A student who satisfies the following conditions shall be declared to have passedthe examination in **First class:** 

- Should have passed the examination in all the courses of all eight semesters
   (10 Semesters in case of Mechanical (Sandwich) and 6 semesters in the
   case of Lateral Entry) within five years. (Six years in case of Mechanical
   (Sandwich) and Four years in the case of Lateral Entry).
- One-year authorized break of study (if availed of) or prevention from writing the End Semester examination due to lack of attendance (if applicable) is included in the duration of five years (Six years in case of Mechanical (Sandwich) and four years in the case of lateral entry) for award of First class.
- Should have secured a CGPA of not less than 6.50.
- A student who satisfies norms given in clause 4.10 becomes eligible for classification of the degree with B.E./B.Tech. (Honours) and B.E./B.Tech. minor.

Details are provided in Table

Degree (i)	Duration of program me (ii)	/iiii\	Additional credits above the requirement ofcurriculum (iv)	$\langle \lambda \lambda \rangle$	Pass in (vi)	Break of study (vii)	Prevention towrite end semester examinatio n	Withdrawal from writing end semester examination (viii)
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B.E./ B.Tech. (Regular)	4 years	5 years	-	6.50		One year authorised breakof study included in the Duration permitted (iii)	Included in the Duration permitted (iii)	-
B.E./ B.Tech. (sandwich	5 years	6 years	-	6.50		One year authoris ed break of study included in the Duration permitted (iii)	Included in the Duration permitted (iii)	-
B.E./ B.Tech. Lateral Entry	3 years	4 years	-	6.50		One year authorise d break of study included in the Duration permitted (iii)	Included in the Duration permitted(iii)	-
B.E./ B.Tech. (Hons)	3/4/5 years (Later al entry, Regul ar, Sandwich respectiv ely)	4/5/6 years (Lateral entry, Regular, Sandwich respectivel y)	18 credits from more than one verticals of the same programme	7.50	First attem pt	One year authoris ed break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E./ B.Tech. minor	3/4/5 years (Latera I entry, Regula r, Sandwich respect	4/5/6 years (Lateral entry, Regular, Sandwich respectivel y)	18 credits from any one vertical of the other programme	6.50	-	One year authorised break of study included in the Duration	Included in the Duration permitted (iii)	-

l i	ively)			permitted	
				(iii)	

- **16.2.3** Students who pursue B.E./B.Tech. in Regular mode or lateral entry mode or B.E./B.Tech. minor in specialisation of another discipline and who are not covered in clauses 16.2.1 and 16.2.2 and who qualify for the award of the degree (vide Clause 16.1) shall be declared to have passed the examination in **Second Class**.
- **16.2.4** A student who is absent in the End Semester Examination in a course / project workafter having registered for the same shall be considered to have appeared in that examination (except approved withdrawal from end semester examinations as per clause 15) for the purpose of classification.
- **16.2.5** Student earned additional 18 credits as per Clause 4.10 (i) and (ii) but does not satisfy the conditions mentioned in 16.2.1 or 16.2.2 shall not be awarded B.E./B.Tech. (Hons.) In such case if the student becomes eligible for First Class, while computing CGPA with the Professional Elective / Open Elective courses with higher grades the student shall be awarded B.E. / B.Tech. in First Class only.
- **16.3** A student who is absent in end semester examination in a course / project work after having registered for the same shall be considered to have appeared in that examination for the purpose of classification. (subject to clause 17).

# 16.4 Photocopy / Revaluation

A student can apply for photocopy of his/her semester examination answer paper in a theory course, as per the guidelines of the COE, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Institutions. The answer script is to be valued and justified by a faculty member, who has handled the subject and recommend for revaluation with the breakup of marks for each question. Based on the recommendation, the student can register for the revaluation through proper application to the Controller of Examinations. The Controller of Examinations will arrange for the revaluation and the results will be intimated to the student concerned through the Head of the Institutions. Revaluation is not permitted for practical courses and EEC courses. A student can apply for revaluation of answer scripts for not exceeding 5 subjects at a time.

### 16.5 Review

Students not satisfied with Revaluation can apply for Review of his/ her examination

answer paper in a theory course, within the prescribed date on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Institution. Students applying for Revaluation only are eligible to apply for Review.

# 17. PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION

- **17.1** A student may, for valid reasons, (medically unfit/unexpected family situations/sports approved by the Chairman, Sports Board and the HOD) be granted permission to withdraw from appearing for the end semester examination in any course or courses in ANY ONE of the semester examinations during the entire duration of the degree programme. The application shall be sent to the COE through the Head of the Institutions with required documents.
- 17.2 Withdrawal application is valid if the student is otherwise eligible to write the examination (Clause 7) and if it is made within TEN days after the date of the examination(s) in that course or courses and recommended by the Head of the Institution and approved by the Controller of Examinations. For a student to withdraw from a course / courses, he/she should have registered for the course, fulfilled the attendance requirements (vide clause 7) and earned continuous assessment marks.
- **17.2.1** Notwithstanding the requirement of mandatory 10 days, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- 17.3 In case of withdrawal from a course / courses, the courses will figure both in the Grade Sheet as well as in the Result Sheet. However, withdrawal shall not be considered as an appearance for the eligibility of a student for First Class with Distinction.
- **17.4** If a student withdraws from writing end semester examinations for a course or courses, he/she shall register for the same in the subsequent semester and write the end semester examination(s).
- 17.5 If a student applies for withdrawal from Project Work, he/she will be permitted for the withdrawal only if the student has submitted the project report before the deadline. However, the student may appear for the viva-voce examination within 60 days after the declaration of results for Project Work and the same shall not be

considered as reappearance.

**17.6** Withdrawal is permitted for the end semester examinations in the final semester, as per clause 16.2.1.

# 18. PROVISION FOR AUTHORISED BREAK OF STUDY

- **18.1** A student is permitted to go on authorised break of study for a maximum period of one year as a single spell.
- **18.2** Break of Study shall be granted only once for valid reasons for a maximum of one year during the entire period of study of the degree programme. However, in extraordinary situation the student may apply for additional break of study not exceeding another one year. If a student intends to temporarily discontinue the programme in the middle of the semester for valid reasons, and to re-join the programme in a subsequent year, permission may be granted based on the merits of the case provided he / she applies to the Director, Student Affairs in advance, but not later than the last date for registering for the end semester examination of the semester in question, through the Head of the Institution stating the reasons therefore and the probable date of re-joining the programme.
- **18.3** The candidates permitted to rejoin the programme after break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of rejoining. The students rejoining in new Regulations shall apply to the Director, Academic Courses in the prescribed format through Head of the Institution at the beginning of the readmitted semester itself for prescribing additional courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.
- **18.3.1**Total number of credits to be earned by the student shall be more than or equal to the total number of credits prescribed in the curriculum in force. If the credit assigned for L T P of the courses are not same in two Regulations under consideration, then equivalence shall be arrived as per the credit assignment followed in the Regulations in force.
- **18.4** The authorized break of study is included in the duration specified for passing all the courses for the purpose of classification (vide Clause 16.2).
- **18.5** The total period for completion of the Programme reckoned from, the commencement of the first semester to which the candidate was admitted shall not

exceed the maximum period specified in clause 5.1 irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.

- **18.6** If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'Break of Study' (Clause 18.1).
- **18.7** If a student in Full Time mode wants to take up a job / start-up / entrepreneurship during the period of study he/she shall apply for authorised break of study for one year. The student shall join the job / start-up / entrepreneurship only after getting approval of the same by the Director, Centre for Academic Courses with due proof to that effect.
- **18.8** No fee is applicable to students during the Break of Study period.