

# **K.L.N. COLLEGE OF ENGINEERING**

**Pottapalayam – 630 612, Sivagangai District**

**(An Autonomous Institution, Affiliated to Anna University, Chennai)**



**Estd: 1994**

## **REGULATIONS 2020**

**For Under Graduate Program**

### **CHOICE BASED CREDIT SYSTEM**

**(For the students admitted from the academic year 2022 – 2023)**

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Pottapalayam – 630 612, Sivagangai District, Tamilnadu

*(An Autonomous Institution, Affiliated to Anna University, Chennai)*

## **REGULATIONS 2020**

### **CHOICE BASED CREDIT SYSTEM (CBCS)**

#### **COMMON TO ALL B.E. / B.TECH. FULL-TIME PROGRAMMES**

**(For the students admitted from the academic year 2022 – 2023)**

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**K.L.N. COLLEGE OF ENGINEERING**  
Pottapalayam – 630 612, Sivagangai District, Tamilnadu  
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**REGULATIONS 2020**  
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**(For the students admitted from the academic year 2022 – 2023)**

**VISION:**

To become a Centre of Excellence in Technical Education and Research in producing Competent and Ethical professionals to the society

**MISSION:**

To impart Value and Need based curriculum to the students with enriched skill development in the field of Engineering, Technology, Management and Entrepreneurship and to nurture their character with social concern and to pursue their career in the areas of Research and Industry.

**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. **“Discipline”** means specialization or branch of B.E./B.Tech. Degree Programme, like Mechanical Engineering, Information Technology, etc.
- iii. **“Course”** means theory or practical subject that is normally studied in a semester, like Mathematics, Physics, etc.
- iv. **“College / Institution”** means K.L.N. COLLEGE OF ENGINEERING.
- 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. **“Chairman, BoS”** means Chairman of Board of Studies of each Department.
- viii. **“Head of the Institution”** means the Principal of the College.
- ix. **“Head of the Department”** means head of the Department concerned.
- x. **“University”** means ANNA UNIVERSITY, CHENNAI.

**2 ADMISSION**

**2.1 Candidates seeking admission to the first semester of the eight semester B.E. / B.Tech. Degree Programme:**

Should have passed the Higher Secondary Examinations of (10+2) Curriculum (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 University or authority accepted by the Syndicate of the University / Directorate of Technical Education as equivalent thereto.

**(OR)**

Should have passed the Higher Secondary Examination of Vocational stream (Vocational groups in Engineering / Technology) as prescribed by the Government of Tamil Nadu.

## 2.2 Lateral Entry Admission (LEA)

(i) The candidates who possess the Diploma in Engineering / Technology awarded by the State Board of Technical Education, Tamilnadu or its equivalent are eligible to apply for Lateral entry admission to the third semester of B.E. / B.Tech. in the branch corresponding to the branch of study.

(OR)

(ii) The candidates who possess the Degree in Science (B.Sc.,) (10+2+3 stream) with Mathematics as a subject at the B.Sc. Level are eligible to apply for Lateral entry admission to the third semester of B.E. / B.Tech. Such candidates shall undergo two additional Engineering subject(s) in the third and fourth semesters as prescribed by the Chairperson, Academic Council.

## 3 PROGRAMMES OFFERED

Details of programmes being offered by the Institution are listed below:

### B.E. Degree Programmes

1. Mechanical Engineering
2. Electrical and Electronics Engineering
3. Electronics and Communication Engineering
4. Computer Science and Engineering
5. Computer Science and Engineering (Cyber Security)
6. Computer Science and Engineering (Internet of Things)
7. Automobile Engineering
8. Electronics and Instrumentation Engineering

### B.Tech. Degree Programme

1. Information Technology
2. Artificial Intelligence and Data Science

## 4 STRUCTURE OF THE PROGRAMMES

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) framework. The content of each course is designed based on the Course Outcomes (CO).

### 4.1 Categorization of Courses

Every B.E./B.Tech. Programme will have a curriculum with syllabi consisting of theory and practical courses that shall be categorized as follows:

- Humanities and Social Sciences / Management Elective (HS)** courses include Technical English, Environmental Science and Engineering, Engineering Ethics, human values, Communication Skills, Total Quality Management etc.
- Basic Sciences (BS)** courses include Mathematics, Physics, Chemistry, etc.
- Engineering Sciences (ES)** courses include Industrial Practices, Engineering Graphics, Basics of Electrical / Electronics / Mechanical / Computer Engineering, Instrumentation etc.
- Professional Core (PC)** courses include the core courses relevant to the chosen specialization/branch.
- Professional Elective (PE)** courses include the elective courses relevant to the chosen specialization / branch.
  - Professional Elective Courses are listed in groups called verticals that represent a particular area of specialization / diversified group.
  - Students are permitted to choose all the Professional Electives from a particular vertical or from different verticals.

- vi. **Open Elective (OE)** courses include the courses from other branches which a student can choose from the list specified in the curriculum of B.E. / B. Tech. Programmes.
- vii. **Employability Enhancement Courses (EEC)** includes Project Work, Internship, Creative and Innovative Project, Seminar, Professional Practices, Industrial/Practical Training.
- viii. **Mandatory Courses (MC)** include Personality and Character development and the courses recommended by the regulatory bodies such as AICTE, UGC, etc

#### 4.2 **Personality and Character Development**

All students shall enroll, on admission, in any one of the personality and character development programmes (NSS/NSO/YRC) and undergo training / conduct activities for about **80** hours and attend a camp of about seven days. The training shall include classes on hygiene and health awareness and also training in first-aid. Alternately, activities of science, literature and arts also help for personality and character development. So, students shall conduct and participate actively in Science Club / Literary Forum / Fine Arts activities for 80 hours and participate in at least ONE event.

- **National Service Scheme (NSS)** will have social service activities in and around the College.
- **National Sports Organization (NSO)** will have sports, games, drills and physical exercises.
- **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.

- **Science Club** shall organize activities of popularization of science and scientific temper through activities related to astronomy, works of great scientists from India and abroad, observing National Science Day, etc.
- **Literary Club** shall organize colourful literary events to propagate good humanist values, morals and ethics reflected in the literature.
- **Fine Arts Club** like music, painting and documentary films with social themes shall be encouraged.

The list of Students undergone training or participated actively in Science Club / Literary Forum / Fine Arts activities shall be forwarded to the Controller of Examinations for the purpose of record.

#### 4.3 **Mandatory Three Week Induction Programme**

Induction Programme is mandatory and shall be conducted for first year students during first semester. The students are expected to undergo this three week induction programme comprising of physical activity, creative arts, universal human values, proficiency modules, lectures by eminent people, visits to local areas and familiarization to department/branch and innovations immediately after admission. Relevant documents shall be maintained by Head/Student Care Centre or in the Principal Office. The completion of the Induction Programme shall be printed in the consolidated Grade Sheet as "COMPLETED"

#### 4.4 **Number of courses per semester**

Curriculum of a semester shall normally have a blend of 5 or 6 lecture courses and laboratory courses not exceeding 3. In addition, Employability Enhancement Course(s) may also be included. Each course may have credits assigned as per Clause 4.5. However, the total number of courses per semester shall not exceed 10 (including EEC). Pre-final semester may have 4 to 6 theory courses and laboratory courses not exceeding 2. The final semester may have only Project Work.

#### 4.5 Credit Assignment

Each course is assigned with certain number of credits based on the following Table 4.1

**Table 4.1 Credit Assigned for Contact Periods**

Contact Period Per Week	Credit(s)
1 Lecture Period	1
1 Tutorial Period	1
2 Practical Periods (Laboratory / Seminar / Project Work / etc.)	1

#### 4.6 Industrial Training / Internship

The students may undergo any one Industrial Training / Internship either 2 or 4 weeks continuously during summer / winter vacation to earn 1 or 2 credits over and above the total credit requirement prescribed in the curriculum for the award of the degree. The students may also undergo internship at Research Organisation / University. Recommendation from concerned Head of the Department and prior approval from the standing committee of Academic Council should be obtained. If a student has undergone Industrial Training / Internship for the duration of 2 weeks / 4 weeks, then 1/2 credit(s) shall be assigned.

#### 4.7 Industrial Visit

Every student is expected to go for at least one Industrial Visit starting from the second year of the Programme. The Head of the Departments shall ensure that necessary arrangements are made in this regard.

#### 4.8 Value Added Courses

All the students have to undergo atleast one Value Added Course to earn 1 or 2 credits over and above the total credit requirement prescribed in the curriculum for the award of the degree. One-Credit / Two-Credit courses can be offered by the departments **from third year of the programme**, with the prior approval from the Chairperson, Academic Council.

The Value Added Courses offered should not be a course listed in the curriculum of any programme offered in the Institution. The details of the syllabus, time table and faculty should be approved by the Chairperson, Academic Council. Students can earn a maximum of 2 credits through this Value Added Courses during the entire duration of the Programme. The credits shall be assigned as per the Table 4.2.

**Table 4.2 Credit Assigned for Value Added Course**

S.No.	Category	L	T	P	C
i.	Theory Course	1	0	0	1
		2	0	0	2
ii.	Laboratory Courses	0	0	4	2
		0	0	2	1
iii.	Theory integrated Laboratory Course	1	0	2	2

#### 4.8.A Skill Based Courses

Students shall optionally undergo industry relevant skill based courses. These skill based experiential learning courses will be offered in two categories as purely Laboratory Based Courses and Theory Integrated Laboratory Courses with the credits assigned as per Table 4.3.

**Table 4.3 Credit Assigned for Skill Based Courses**

S.No.	Category	L	T	P	C
i.	Laboratory Courses	0	0	4	2
		0	0	2	1
ii	Theory integrated Laboratory Course	1	0	2	2

These courses are handled by the industry persons or the industry trained faculty members along with one mentor from the firm. Student shall enroll for one course in a semester under this scheme from Semester V to VII. A student may accumulate up to 6 credits through such courses, and such credits will be considered in lieu of the Professional Elective and/or Open Elective courses.

#### **4.9 Online Courses**

**4.9.1** Students may be permitted to undergo online courses (which are provided with certificates) with the approval of Head of the Department.

**4.9.2** Students may be permitted to credit online courses instead of three elective courses subject to a maximum of three credits for each course. The approved list of online courses will be provided by Chairperson, Academic Council from time to time. Head of the Department recommends the list of online courses after ensuring that the student has not studied such course and would not repeat it again as Professional Core / Professional Elective / Open Elective Course. The details of online courses taken by the students should be sent to the CoE through Head of the Department within one month from the commencement of the classes.

Copies of the online course certificates should be submitted to CoE through Head of the Department.

#### **4.10 Medium of Instruction**

The medium of instruction is English for all courses, examinations, seminar, presentations and project reports. However, for the courses Heritage of Tamils & Tamils and Technology, the medium of instruction is Tamil and English.

#### **4.11 B.E. / B. Tech. (Hons.) and B.E. / B. Tech. Minor with specialisation in another discipline**

B.E / B.Tech. (Hons.) and B.E. / B.Tech. Minor with specialisation in another discipline will be optional for students and the students shall be permitted to select any one of them only.

##### **4.11.1 B.E. / B.Tech. (Hons.)**

- The students should have completed additional courses and earned minimum of 18 credits from a specified group of Professional Electives (vertical) or from any of the verticals of the same programme.
- The Students should have passed all the courses prescribed in the curriculum and additional courses in the first attempt.
- The Students should have earned a minimum of 7.50 CGPA taking into account of all the courses prescribed in the curriculum and additional courses.
- The Students can earn maximum of 6 credits in online mode (SWAYAM – NPTEL platform), out of these 18 credits as approved by Academic Council.
- The students, including Lateral Entry, will be permitted to register the courses from Semester V onwards provided the students have earned a minimum CGPA of 7.50

until Semester III and have cleared all the courses in the first attempt.

- f. If a student decides not to opt for Honours, after completing certain number of additional courses, the additional courses studied shall be considered instead of the Professional Elective courses which are part of the curriculum. If the student has studied more number of such courses than the number of Professional Elective courses required as per the curriculum, the courses with higher grades shall be considered for the calculation of CGPA. Remaining courses shall be printed in the Grade Sheet, however, they will not be considered for calculation of CGPA and the same shall be indicated in a foot note appropriately.
- g. If the student has failed in the additional courses or faced shortage of attendance, the courses will not be printed in the Grade Sheet and will not be considered for CGPA calculation and classification of degree.

#### 4.11.2 B.E. / B.Tech. Minor with specialisation in another discipline

- a. The student should have earned additionally a minimum of 18 credits in any one of the verticals of other B.E. / B.Tech. programmes.
- b. The Students can earn maximum of 6 credits in online mode (SWAYAM - NPTEL platform), out of these 18 credits as approved by Academic Council.
- c. The students, including Lateral Entry, will be permitted to register the courses from Semester V onwards provided the students have earned a minimum CGPA of 7.50 until Semester III.
- d. If a student decides not to opt for Minor, after completing certain number of courses, the additional courses studied shall be considered instead of Open Elective courses which are part of the curriculum. If the student has studied more number of such courses than the number of Open Electives required as per the curriculum, the courses with higher grades shall be considered for calculation of CGPA. Remaining courses shall be printed in the Grade Sheet, however, they will not be considered for calculation of CGPA and the same shall be indicated in a foot note appropriately.
- e. If the student has failed in the additional courses or faced shortage of attendance, the courses will not be printed in the Grade Sheet and will not be considered for CGPA calculation and classification of degree.

#### 4.12 Mandatory Courses

The student shall study the mandatory courses (Non Credit Courses) prescribed in the curriculum and it will be mentioned in the Grade Sheet.

### 5 DURATION OF THE PROGRAMMES

- 5.1 A student is normally expected to complete the B.E. / B.Tech. Programme as shown in the Table 5.1.

**Table 5.1 Duration of the Programmes**

<b>Admission Stream</b>	<b>Minimum Duration (Years / Semesters)</b>	<b>Maximum Duration (Years / Semesters)</b>
Regular	4 / 8	7 / 14
Lateral Entry	3 / 6	6 / 12

- 5.2 Each semester shall normally consist of 75 working days or 540 periods of 50 minutes each. The Head of the Institution shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught.

- 5.3 The Head of the Institution may conduct additional classes for improvement, special coaching, conduct of model test 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 6) by the students, following method shall be used.

$$\text{Percentage of Attendance} = \frac{\text{Total no. of periods attended in all the courses per semester}}{(\text{No. of periods / week as prescribed in the curriculum}) \times 15} \times 100$$

taken together for all courses of the semester

- 5.4 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 (vide Clause 18) in order that he/she may be eligible for the award of the degree (vide Clause 16).
- 5.5 The minimum prescribed credits required for the award of the degree shall be within the limits specified in the Table 5.2.

**Table 5.2 Credit Range for the Programmes**

<b>Degree Programme</b>	<b>Prescribed credit range</b>
B.E. / B.Tech.	165 – 175

## **6 COURSE ENROLLMENT AND REGISTRATION**

- 6.1 The Department is responsible for registering the courses that each student is proposing to undergo in the ensuing semester. Each student has to register for all courses to be undergone in the curriculum of a particular semester (with the facility to drop courses to a maximum of 6 credits (vide Clause 6.2)). The student shall register for courses for which the student has failed in the earlier semesters.

The registration details of the candidates shall be approved by the Head of the Institution and forwarded to the Controller of Examinations. This registration is for undergoing the course as well as for writing the End Semester Examinations. No Elective course shall be offered by any department unless a minimum 10 students register for the course. However, if the students admitted in the Programme are less than 10, this minimum will not be applicable.

The courses that a student registers in a particular semester may include

- i. Courses of the current semester
- ii. Courses dropped in the lower semesters
- iii. The core (Theory / Theory cum Practical / Practical / EEC) courses that the student has not cleared in the previous semesters
- iv. Elective courses which the student failed (either the same elective or a different elective instead)

The maximum number of credits that can be registered in a semester is 36. However, this does not include the number of Re-appearance (U) and Withdrawal (W) courses registered by the student for the appearance of Examination.

### **6.2 Flexibility to Add or Drop Courses**

- 6.2.1 A student has to earn the total number of credits specified in the curriculum of the respective Programme of study in order to be eligible to obtain the degree.
- 6.2.2 From the III to VIII semesters, the student has the option of dropping existing courses except professional core course and practical course. The total number of credits that a student can drop is limited to 6.

### **6.2.3 Omitted**

**6.2.4** The student shall register for the project work in the VIII semester only.

**6.2.5** From the V to VIII semesters, the student has the option of registering for additional courses in a semester. With regard to enrolling for B.E. / B.Tech. (Hons.) or B.E. / B.Tech. Minor with specialization in another discipline, the total number of credits that a student can add in a semester is limited to 9, subject to a maximum of 3 courses. Maximum number of credits enrolled in a semester (including Honours and Minor) shall not exceed 36. The online courses registered for B.E. / B.Tech. (Hons.) and B.E. / B.Tech. Minor with specialization in another discipline shall be over and above this 36 credits.

## **7 ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER**

**7.1** A Candidate who has fulfilled the following conditions shall be deemed to have satisfied the requirements for completion of a semester. Ideally every student is expected to attend all classes of all the courses and secure 100% attendance. However, in order to give provision for certain unavoidable reasons such as Medical / participation in sports, the student is expected to attend atleast 75% of the classes. Therefore, he / she shall secure not less than 75% (after rounding off to the nearest integer) of overall attendance as calculated as per Clause 5.3.

**7.2** However, a candidate who secures overall attendance between 65% and 74% in the current semester due to medical reasons (prolonged hospitalization / accident / specific illness) / Participation in Sports events may be permitted to appear for the current semester examinations subject to the condition that the candidate shall submit the medical certificate / sports participation certificate attested by the Head of the Institution. The same shall be maintained in the Principal Office for record purposes.

**7.3** Candidates who secure less than 65% overall attendance shall not be permitted to write the End Semester Examinations and not be permitted to move to the next semester. They are required to repeat the incomplete semester in the next academic year, as per the norms prescribed.

### **7.4 Reappearance Registration**

The attendance requirement is not compulsory for the reappearance registration courses. The Internal Assessment mark is valid for the next three consecutive semesters.

### **7.5 Repeating the Course**

When the Student repeats the course, the student shall attend the classes, satisfy the attendance requirements, earn Internal Assessment marks and appear for the End Semester Examinations.

## **8 COUNSELLING SYSTEM**

Every program will have academic mentors, class coordinators and student counselors to monitor and improve the academic performance of the students.

### **8.1 Academic Mentor**

There shall be one academic mentor for each batch of students. He / She will be appointed by the Head of the department concerned. Academic mentor is the chairperson of the class committee. The responsibility of Academic mentor shall be

- To act as the channel of communication between the HOD and the students of the respective class.
- To collect and maintain various statistical details of students.
- To act as chairperson of the class committee in planning and conduct of the class

committee meetings.

- To monitor the academic performance of the students including attendance and to inform the members of class committee.
- To focus on the students' welfare activities like awards, medals, scholarships and industrial visits.

## **8.2 Class Coordinator**

There shall be one class coordinator for one class. He / She will be appointed by the Head of the department concerned. The responsibility of the Class coordinator shall be

- To act as the channel of communication between counselors and Academic mentor of the respective class.
- To make arrangements for class committee meeting.
- To arrange coaching classes for the weak students.
- To monitor the academic performance and attendance of the entire class.

## **8.3 Student Counselor**

To help the students in planning their courses of study and for general advice on the academic programme, the Head of the Department will attach a certain number of students to a teacher of the Department, who shall function as student counsellor for those students throughout their period of study. The student counsellor shall advise the students in registering of courses, authorize the process, monitor their attendance and progress and counsel them periodically. If necessary, the student counsellor may also discuss with or inform the parents about the progress / performance of the students concerned.

The responsibilities of the student counsellor shall be

- To inform the students about the various facilities and activities available to enhance the student's curricular and co-curricular activities.
- To guide student enrolment and registration of the courses.
- To authorize the final registration of the courses at the beginning of each semester.
- To monitor the academic and general performance of the students including attendance and to counsel them accordingly.
- To collect and maintain the academic and co-curricular records of the students.

## **9 CLASS COMMITTEE**

**9.1** Every class shall have a class committee consisting of teachers of the class concerned, student representatives and a chairperson / Academic Mentor who is not teaching the class. The functions of the class committee include

- Solving problems experienced by students in the class room and in the laboratories.
- Clarifying the regulations of the degree programme and the details of rules therein particularly (Clause 5 and 7) which should be displayed on college Notice-Board.
- Informing the student representatives about the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
- Informing the student representatives about the details of Regulations regarding weightage used for each assessment. In the case of practical courses (Theory cum practical / practical / drawing / project work / seminar etc.) the breakup of marks for each experiment / exercise / module of work, should be clearly discussed in the class committee meeting and informed to the students.
- Analyzing the performance of the students of the class after each test and finding the ways and means of solving problems, if any.
- Identifying the weak students, if any, and requesting the teachers concerned to

provide some additional help or guidance or coaching to such weak students.

- 9.2 The class committee for a class under a particular branch is normally constituted by the Head of the Department. However, if the students of different branches are mixed in a class (like the first semester which is generally common to all branches), the class committee is to be constituted by the Head of the Institution.
- 9.3 The class committee shall be constituted within the first week of each semester.
- 9.4 At least 4 student representatives (usually 2 boys and 2 girls) shall be included in the class committee.
- 9.5 The Chairperson / Academic Mentor invites the Class Coordinator(s), Course Handlers and The Head of the Department to the class committee meeting.
- 9.6 The Head of the Institution may participate in any class committee of the institution.
- 9.7 The chairperson / Academic Mentor is required to prepare the minutes of every meeting, submit the same to Head of the Institution within two days of the meeting and arrange to circulate it among the students 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.
- 9.8 The first meeting of the class committee shall be held within one week from the date of commencement of the semester, in order to inform the students 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 Chairperson shall put on the Notice Board the cumulative attendance particulars of each student at the end of every such meeting to enable the students to know their attendance details to satisfy the Clause 7 of this Regulation.

During these meetings the student members representing the entire class, shall meaningfully interact and express the opinions and suggestions of the other students of the class in order to improve the effectiveness of the teaching-learning process.

## **10 COURSE COMMITTEE FOR COMMON COURSES**

- 10.1 A Theory/Practical course handled by more than one teacher shall have a "Course Committee" comprising of all teachers teaching that course. One of the senior teachers shall be nominated as Course Coordinator by the Course Coordination Committee (CCC) duly approved by the Head of the Department.
- 10.2 The Common Course Committee meeting shall be held before fifteen days from the date of commencement of the semester. The nature and weightage of the internal assessments shall be decided in the meeting, within the framework of the Regulations. During the meetings, the Program Assessment Committee recommendations will be considered to improve the effectiveness of the teaching-learning process.
- 10.3 For common courses, the question paper for the end semester examination is common. The course committee for common courses shall prepare a common question paper for the internal assessment tests also.

## **11 SYSTEM OF EXAMINATION**

- 11.1 Performance in each course of study shall be evaluated based on (i) Internal Assessment throughout the semester and (ii) End Semester Examination.
- 11.2 Each course theory, theory with laboratory component and laboratory (including Project Work / Mini Project) shall be evaluated for a maximum of 100 marks.

- 11.2.1** For all theory courses, the internal assessment will carry 40 marks while the End Semester examination will carry 60 marks.
- 11.2.2** For all theory courses with laboratory component and laboratory courses with theory component, the internal assessment will carry 50 marks while the End Semester examination will carry 50 marks.
- 11.2.3** For all laboratory courses, the internal assessment will carry 60 marks while the End Semester examination will carry 40 marks.
- 11.2.4** The internal assessment for the Project Work / Mini Project will carry 60 marks while the End Semester examination will carry 40 marks.
- 11.3** Industrial training and seminar shall carry 100 marks and shall be evaluated through internal assessment only.
- 11.4** The End Semester 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.
- 11.5** 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.
- 11.6** For the End Semester Examination of theory cum practical and practical courses including Project Work / Mini Project, the internal and external examiners shall be appointed by the Controller of Examinations.

## **12 PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT**

For all theory, theory with laboratory component and laboratory courses including Project Work / Mini Project, the assessment of courses is given in Table 12.1.

**Table 12.1 Assessment of Courses**

<b>S.No.</b>	<b>Category of Course</b>	<b>Continuous Assessments</b>	<b>End Semester Examinations</b>
i.	Theory Courses	40 Marks	60 Marks
ii.	Laboratory Courses	60 Marks	40 Marks
iii.	Theory courses with Laboratory Component	50 Marks	50 Marks
iv.	Project Work / Mini Project	60 Marks	40 Marks
v.	All other EEC Courses	100 Marks	-

### **12.1 Theory Courses**

Three tests shall be conducted during the semester by the Exam Management Cell (EMC) in a centralized manner. One improvement test is allowed at the end of the semester. All the tests shall be evaluated for 100 marks. Assignment / Case Study / Seminar / Mini Project for each assessment (three assessments) shall be given and evaluated for 100 marks each.

The average of three Assignment / Case Study / Seminar / Mini Project shall be arrived to 40 marks and the average of best three tests shall be arrived to 60 marks. The internal assessment marks of 100 (Assignment / Case Study / Seminar / Mini Project – 40 marks, Written Test – 60 marks) shall be converted into a maximum of 40 marks and rounded to the nearest integer. The Internal Assessment of theory courses is given in Table 12.2.

**Table 12.2 Internal Assessment of Theory Courses**

Assessment I (100 Marks)		Assessment II (100 Marks)		Assessment III (100 Marks)	
Assignment / Case Study / Seminar / Mini Project	Written Test	Assignment / Case Study / Seminar / Mini Project	Written Test	Assignment / Case Study / Seminar / Mini Project	Written Test
40	60	40	60	40	60

**12.2 Laboratory Courses**

The maximum marks for Internal Assessment shall be 60 in case of laboratory courses. Every practical exercise / experiment shall be evaluated based on conduct of experiment / exercise and records maintained. There shall be at least two tests namely midterm test and model exam. The criteria for arriving at the Internal Assessment marks of 60 are as follows: 75 marks shall be awarded for successful completion of prescribed experiments done in the laboratory and 25 marks shall be awarded for midterm test and for model exam. The total marks shall be converted into a maximum of 60 marks and rounded to the nearest integer. The Internal Assessment of laboratory courses is given in Table 12.3.

**Table 12.3 Internal Assessment of Laboratory Courses**

S.No.	Category	Marks
i.	Evaluation of Laboratory observation, Record	75
ii.	Test (Midterm + Model exam)	25

**12.3 Theory Courses with Laboratory Component**

The 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 12.4.

**Table 12.4 Assessment of Theory Courses with Laboratory Component  
(Internal Assessment and End Semester Examination)**

L	T	P	C	Internal Assessment		End Semester Examination
2	1	2	4	Theory (25%)	Laboratory (25%)	Theory (35%) Laboratory (15%)
1	0	4	3	Laboratory (25%)	Theory (25%)	Laboratory only (50%)
1	0	2	2	Laboratory (25%)	Theory (25%)	Laboratory only (50%)
2	0	2	3	Theory (25%)	Laboratory (25%)	Theory (25%) Laboratory (25%)
3	0	2	4	Theory (25%)	Laboratory (25%)	Theory (35%) Laboratory (15%)
2	0	4	4	Theory (25%)	Laboratory (25%)	Theory (15%) Laboratory (35%)

Three tests for Theory Component shall be conducted during the semester by the Exam Management Cell (EMC) in a centralized manner and shall be evaluated for 100 marks each. Assignment / Case Study / Seminar / Mini Project for each assessment (3 assessments) shall be given and evaluated for 100 marks each.

The average of three Assignment / Case Study / Seminar / Mini Project and the average of three tests shall be considered for calculating the Internal Assessment of Theory Component. The evaluation of laboratory observation, record and model exam shall be considered for calculating the Internal Assessment of Laboratory Component. The weighted average shall be converted into 50 marks for Internal Assessment as per Table 12.4. The Internal Assessment of Theory Courses with Laboratory Component is given in Table 12.5.

**Table 12.5 Internal Assessment of Theory Courses with Laboratory Component**

Theory Component						Laboratory Component (100 Marks)	
Assessment I (100 Marks)		Assessment II (100 Marks)		Assessment III (100 Marks)			
Assignment / Case Study / Seminar / Mini Project	Written test	Assignment / Case Study / Seminar / Mini Project	Written test	Assignment / Case Study / Seminar / Mini Project	Written test	Evaluation of Laboratory observation, Record	Model Exam
40	60	40	60	40	60	75	25

#### 12.4 Project Work / Mini Project

- Project Work / Mini Project may be assigned to a single student or to a group of students not exceeding 4 per group.
- Project Work / Mini Project shall be carried out under the supervision of a “qualified teacher” (possessing PG Degree or Ph.D Degree) in the department concerned.
- The maximum marks for Internal Assessment is fixed as 60 and the End Semester Examination (project report evaluation and viva-voce examination) carries 40 marks for Project Work / Mini Project.
- The Head of the Department shall constitute a review committee for each programme. There shall be a minimum of three members in the review committee.
- The project **supervisor** will be one of the members of the review committee.
- There shall be **three assessments** during the semester by the review committee. The student shall make presentation on the progress made before the committee. The total marks obtained in the three reviews shall be arrived to 60 marks.
- The project report shall be evaluated for 10 marks by the External Examiner. The project report shall be submitted as per the approved guidelines as given by Chairperson, Academic Council. Same mark shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 30 marks. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.
- The Internal Assessment and End Semester Examinations mark for Project Work / Mini Project is given in Table 12.6.

**Table 12.6 Assessment of Project Work / Mini Project**

Internal Assessment (60 Marks)			End Semester Examination (40 Marks)			
Review 1	Review 2	Review 3	Report Evaluation	Viva – Voce		
			External Examiner	External Examiner	Internal Examiner	Supervisor
20	20	20	10	10	10	10

- If a student fails to submit the project report on or before the specified deadline, he/she is deemed to have failed in the Project Work and shall re-register for the same in a subsequent semester.
- 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 the student attend and fails in the end semester examination of Project Work of B.E. / B.Tech., he/she shall attend the end semester examination again within 60 days from the date of declaration of results. The subsequent viva-voce examination will be considered as re-appearance 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.

- Students shall also undertake a start-up activity for the development of products as part 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 start-up report, which includes the concepts and process flow of the developed product, publications and patents, if any. The evaluation of the start-up is as per the evaluation of Project Work as given in Table 12.5.

## **12.5 Other Employability Enhancement Courses**

Employability Enhancement Courses (EEC) except Professional Communication Laboratory, Project Work / Mini Project are evaluated through Internal Assessment only. If a student has earned U grade in the Internal Assessment of these courses, the student shall register for the course again in the subsequent semester, fulfil the norms to earn pass in the course. However, attendance requirement need not be satisfied.

### **(a) Assessment for Technical Seminar / Professional Practices / Creative and Innovative Project**

The Technical Seminar / Professional Practices / Creative and Innovative Project shall carry 100 marks and shall be evaluated through internal assessment only. Every student is expected to present a minimum of 2 technical seminars / demonstrations per semester before the evaluation committee and for each technical seminar, marks can be equally apportioned. The three member committee appointed by Head of the Department will evaluate the seminar and at the end of the semester the marks can be consolidated and taken as the final mark. The evaluation shall be based on the seminar paper / report (40%), presentation (40%) and response to the questions asked during presentation (20%).

### **(b) Assessment for Industrial / Practical Training / Internship / Summer Project**

The Industrial / Practical Training / internship / Summer Project 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 a certificate from the organization where the student has undergone training and a brief report about the training. The evaluation will be made based on this report, presentation and a Viva-Voce Examination conducted internally by a three member Departmental Committee constituted by the Head of the Institution. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list and sent to Controller of Examinations by the Head of the Department. The evaluation shall be based on the seminar paper / report (40%), presentation (40%) and response to the questions asked during presentation (20%).

## **12.6 Assessment for Value Added Courses and Skill Based Courses**

### **12.6.1 Assessment for Value Added Courses**

- The one / two credit course shall carry 100 marks and shall be evaluated through internal assessments only. Two Assessments shall be conducted during the semester by the Department concerned.
- The duration of assessment is one hour each. The total marks obtained in the tests shall be reduced to 100 marks and rounded to the nearest integer. The Head of the Department may identify a faculty member as coordinator for the course.
- 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 monitor the evaluation process. The grades shall be assigned to the students by the above committee based on their relative performance. The coordinator for the course is responsible for maintaining and processing the records with regard to assessment

marks and results.

- The passing requirement for value added courses shall be 50% of the marks prescribed for the course (Internal Assessment only).
- The list of students along with the marks and the grades earned may be forwarded to the Controller of Examinations for appropriate action at least one month before the commencement of End Semester Examinations.

### 12.6.2 Assessment for Skill Based Courses

The evaluation of the Skill Based Courses is fully internal and shall be jointly done by the course coordinator from the institution and the mentor from the firm.

- If the course involves certification from the firm/company, then 20% of the total marks will be included in the internal assessment marks, 30% will be included from the marks provided by the firm and 50% shall be evaluated by the respective Course Coordinators of the college by conducting appropriate theory and / or laboratory tests.
- If there is no certification from the firm / company, then 50% will be included from the marks provided by the firm and 50% shall be evaluated by the respective Course Coordinators of the college by conducting appropriate theory and / or laboratory tests.

### Procedure to drop Professional Elective / Open Elective course(s) and computation of Grade Point

A student may accumulate up to 6 credits through such courses, and such credits will be considered in lieu of the Professional Elective and / or Open Elective Courses. In this regard, a student is permitted to drop either 1 or 2 Professional Elective / Open Elective course(s) as per the procedure given in Table 12.7.

**Table 12.7 Procedure to drop Professional Elective / Open Elective course(s)**

No. of courses	Total No. of credits earned	Courses to be printed in the Grade Sheet	No. of Professional Elective / Open Elective can be dropped	No. of credits considered for GPA/CGPA calculation
1	1 / 2	1	-	-
2	3 / 4	2	1	3
3	3 / 4 / 5	3	1	3
	6	3	2	6

- The credits earned by the student of the successfully completed Skill Based Courses shall be recorded in the Grade Sheet.
- If a student has not successfully completed the Skill Based Courses during the semesters V, VI and VII, then the same shall not be recorded in the Grade Sheet.
- If a student earns 2 credits in Semester V and then enroll for another 2 credits in Semester VI, then he / she is permitted to drop one Professional Elective/ Open Elective course in Semester VI. Further, if the student earns 4 credits upto Semester VI and enrolls for another 2 credits in Semester VII, then he / she is permitted to drop an additional Professional Elective / Open Elective course in the VII semester.
- If the student has enrolled for skill based courses but has not successfully earned 3 or 6 credits and also dropped 1 or 2 PE / OE courses in anticipation of pass, then he / she has to enroll the PE / OE (as the case may be) to meet the total credit requirements to earn the degree.

### Method for computation of Grade Point of dropped PE / OE courses

The method of computation of Grade Point for the dropped PE / OE courses is given below:

1. If a student has successfully completed two Skill Based Courses, then the

computation of Grade Point for one PE / OE course dropped in lieu of those two Skill Based Courses is as follows.

$$\text{Grade Point} = (2 \text{ Credits} \times \text{higher Grade Point obtained} + 1 \text{ Credit} \times \text{lower Grade Point obtained}) / 3 \text{ Credits}$$

For example, for two courses of two credit each, if the grades obtained are,

Course 1 - C grade - 5 points

Course 2 - O grade - 10 points

Then, the grade point of the dropped course for the calculation of CGPA is obtained as:  $(1 \times 5 + 2 \times 10) / 3 = 8.33$ .

One PE / OE course shall be dropped for 3 credits with grade point computed as above.

2. If a student has successfully completed three Skill Based Courses, then the computation of Grade Point for dropping two PE / OE in lieu of those three skill based courses is as follows.

For three courses of two credit each,

Computation of Grade Point of each of the two dropped PE / OE courses for the calculation of CGPA = Average Grade Point of three Skill Based Courses.

Two PE / OE courses shall be dropped of 3 credits each, with grade point computed as above.

## 12.7 Assessment for Online Courses

Students may be permitted to credit online courses (which are provided with certificate), subject to a maximum of nine credits. The online course(s) of 3 or 4 credits (12 weeks or 8 weeks + 4 weeks or 8 weeks + 8 weeks) can be considered instead of one elective course. Credit transfer is applicable for maximum of three elective courses for the entire course of study.

The students who opt for B.E. / B.Tech. (Hons.) or B.E. / B.Tech. (Minor with specialisation in another programme) can transfer 6 more credits through online courses. These online courses shall be chosen from the SWAYAM - NPTEL platform, provided the offering organisation conducts regular examination and provides marks. The duration of the course and the credits earned are given in Table 12.8.

**Table 12.8 Duration of the Course and No. of Credits**

No. of Weeks	No. of Credits earned
4	1
8	2
12	3
16	4

After successful completion of the online course conducted by organization (SWAYAM - NPTEL), the student has to register the same course in the Institution along with other courses. The course shall be evaluated through Internal Assessment (40 Marks) conducted by Swayam - NPTEL mentor and End Semester Examination conducted by CoE (60 Marks). Grade earned by the student through end semester exam and Internal Assessment shall be considered for CGPA calculation and the same shall be printed in the Grade Sheet.

If a student earns 1 credit through 4 weeks Swayam - NPTEL course and 2 more credits through 8 weeks Swayam – NPTEL course then he / she can drop one Professional Elective or one Open Elective and the total Grade Point of the dropped course can be evaluated as per the following example.

Course 1 (Swayam - NPTEL - 4 weeks) - C grade - 5 points

Course 2 (Swayam - NPTEL - 8weeks) - O grade - 10 points

Then, the Grade Point of the dropped course for the calculation of Grade Point is obtained as  $(1 * 5 + 2 * 10) / 3 = 8.33$ .

If a student has successfully completed two 8 weeks courses only, then he / she can drop only one Professional Elective / Open Elective. The computation of Grade Point for one PE / OE course dropped in lieu of those two Swayam - NPTEL courses is as follows.

$$\text{Grade Point} = (2 \text{ Credits} \times \text{higher Grade Point obtained} + 1 \text{ Credit} \times \text{lower Grade Point obtained}) / 3 \text{ Credits.}$$

For example, for two courses of two credits each, if the grades obtained are,

Course 1 - C grade - 5 points

Course 2 - O grade - 10 points

Then, the Grade Point of the dropped course for the calculation of CGPA is obtained as  $(1 \times 5 + 2 \times 10) / 3 = 8.33$ .

Even though a student successfully completes the Swayam - NPTEL course and also earns successful grade in the examinations conducted by CoE, if the credit earned is less than 3, then he / she cannot drop any PE / OE. The grade earned in the End Semester Examinations shall not be considered for CGPA calculation but the course and the grade earned shall be printed in Grade Sheet.

**12.8** Internal marks approved by the Head of the Institution shall be displayed by the respective HODs within 5 days from the last working day.

**12.9 Attendance Record**

Every teacher is required to maintain an 'ATTENDANCE cum 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). The records of attendance and assessment of both current and previous semesters should be available for inspection.

**13 REQUIREMENTS FOR APPEARING END SEMESTER EXAMINATIONS**

A candidate shall normally be permitted to appear for the End Semester Examinations for all the courses registered in the current semester (vide Clause 6) if he/she has satisfied the semester completion requirements (subject to Clause 7).

A candidate who has already appeared for any subject 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 candidate who secures not less than 50% of total marks prescribed for the course [Internal Assessment + End semester Examination] with a minimum of 45% of the marks prescribed for the End Semester Examination, shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for theory, theory with laboratory component and practical courses (including Professional Communication Laboratory / Project Work / Mini Project).

**14.2** If a student fails to secure a pass in any of the theory, theory with laboratory component and practical courses in the current Semester Examination, he / she shall register and appear for the End Semester Examination in the subsequent semester and their internal marks shall be carried over for the next three consecutive semesters only. If a student fails to secure a pass in a course even after three consecutive arrear attempts, the internal marks of that course will become invalid and the student will be evaluated only through the End Semester Examination for that particular course.

**14.3** The passing requirement for the courses which are assessed only through purely Internal Assessments (EEC except Professional Communication Laboratory / Project Work / Mini Project), is 50% of the Internal Assessment marks only.

**14.4 Photocopy / Revaluation**

A candidate can apply for photocopy of his / her semester examination answer paper in a theory course, within two weeks from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Department. The answer script is to be valued and justified by a faculty member, who handled the subject and recommend for revaluation with breakup of marks for each question. Based on the recommendation, the candidate 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 candidate concerned through the Head of the Institution. Revaluation is not permitted for practical courses and for Project Work / Mini Project.

A candidate can apply for revaluation of answer scripts for not exceeding 5 subjects at a time.

**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 / Mini Project. The performance of a student will be reported using letter grades, each carrying certain points as given in Table 15.1.

**Table 15.1 Award of Letter Grades**

<b>Letter Grade</b>	<b>Grade Points</b>
O (Outstanding)	<b>10</b>
A+ (Excellent)	<b>9</b>
A (Very Good)	<b>8</b>
B+ (Good)	<b>7</b>
B (Average)	<b>6</b>
C (Satisfactory)	<b>5</b>
U (Reappearance)	<b>0</b>
W (Withdrawal)	<b>0</b>
SA (Shortage of Attendance)	<b>0</b>

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 and hence prevented from writing End Semester Examination.

"U" denotes that the student has failed to pass in that course. "W" denotes withdrawal from the exam for the particular course. The grades U and W will figure both in Grade Sheet as well as in Result Sheet. If the grade W is given to course, the attendance requirement need not be satisfied.

### 15.1.1 Relative Grading

During the academic year 2022 – 2023, for all theory and theory cum practical courses, if the number of students who have enrolled that course is greater than 30 then relative grading shall be followed. For all other courses absolute grading shall be followed with the grade range given in Table 15.2.

From the odd semester of the academic year 2023 - 2024, in any of the theory courses or theory courses with laboratory component, if the number of students who have passed that course is greater than 30 then relative grading shall be followed. For all other courses absolute grading shall be followed with the grade range given in Table 15.2.

Only the marks of the passed students shall be uploaded in the software given by Anna University, Chennai for grade generation under relative grading.

### 15.1.2 Absolute Grading

In all theory and theory cum practical courses, if the number of students who have passed is less than or equal to 30 then absolute grading shall be followed with the grade range given in Table 15.2.

For all the laboratory courses, Project Work and Mini Project, absolute grading shall be followed irrespective of the number of students who have passed the course.

For all other courses like Value Added Courses, Skill Based Courses, Employability Enhancement Courses except Professional Communication Laboratory, Project Work / Mini Project which are evaluated through Internal Assessment only, absolute grading procedure shall be followed irrespective of the number of students who have passed the course.

The Mark Ranges for absolute grading is given in Table 15.2.

**Table 15.2 Mark Ranges for Absolute Grading**

<b>Letter Grade</b>	<b>Grade Points</b>	<b>Mark Ranges</b>
O (Outstanding)	<b>10</b>	91- 100
A+(Excellent)	<b>9</b>	81-90
A (Very Good)	<b>8</b>	71-80
B+ (Good)	<b>7</b>	61-70
B (Average)	<b>6</b>	56-60
C (Satisfactory)	<b>5</b>	50-55
U (Reappearance)	<b>0</b>	<50

- 15.2** For the Co-curricular activities such as National Service Scheme (NSS) / NSO / YRC / Science Club / Literary Club / Fine Arts Club, a satisfactory / not satisfactory grading will appear in the Grade Sheet if the student secures 75% attendance in any one of these activities. The training and camp or events of the club 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 second year.

Successful completion of any one of the above co-curricular activities is compulsory for the award of degree.

### 15.3 Grade Sheet

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

- The list of courses enrolled during the semester and the grade scored.
- The list of courses studied for Honour, Minor and any other additional courses in which 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).
- The Cumulative Grade Point Average (CGPA) of all courses enrolled 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.) or B.E. / B.Tech. Minor with specialisation in another discipline vide Clause 4.11, grades scored in the six additional courses shall be taken into account for the computation of CGPA.

GPA for a semester is the ratio of the sum of the products of the number of credits for courses cleared and the corresponding Grade Points to the sum of the number of credits for the courses cleared in the semester.

CGPA will be calculated in a similar manner, considering all the courses registered from first 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
- $GP_i$  is the Grade 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.

**15.4** 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 with specialisation in another discipline 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 semester VIII.

**15.5** The grades O, A+, A, B+, B, C obtained for the 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 U, SA will not figure in the Grade Sheet.

**15.6** The CGPA earned shall be converted into percentage of marks as follows.  
Percentage of Marks = CGPA x 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.
- Successfully completed the course requirements, appeared for the End Semester Examinations and passed all the courses prescribed in all the 8 semesters within a maximum period of 7 years (6 years in the case of Lateral Entry) reckoned from the

commencement of the first semester (third in the case of Lateral Entry) to which the candidate was admitted.

- iii. Successfully passed any additional courses prescribed by the Chairperson, Academic Council whenever readmitted under new regulations.
- iv. Successfully completed the Value Added Course.
- v. Successfully completed the NSS / NSO / YRC / Science Club / Literature Club / Fine Arts Club requirements.
- vi. No disciplinary action pending against the student.

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 (6 semesters in the case of Lateral Entry) in the student's First Appearance within **five years** (four years in the case of Lateral Entry), which includes authorized break of study of one year. Withdrawal from examination 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 (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.
- Details are given in the Table 16.1.

#### **B.E. / B.Tech. (Hons.) :**

- Should have earned additional 18 credits from a specified group of Professional Electives (vertical) or from any of the verticals of the same programme.
- Should have secured a CGPA of not less than 8.50 considering curriculum courses.
- Should have secured a CGPA of not less than 8.50 considering all the courses prescribed in the curriculum and the additional courses.

#### **B.E. / B.Tech. Minor with specialisation in another discipline**

- Should have earned additional 18 credits in any one of the verticals of other B.E. / B.Tech. programmes.
- Should have secured a CGPA of not less than 8.50 considering curriculum courses.
- Should have secured a CGPA of not less than 8.50 considering all the courses prescribed in the curriculum and the additional courses.

**Table 16.1 Details of Classification of the Degree (First Class with Distinction)**

Degree (i)	Duration of programme (ii)	Duration permitted (iii)	Additional credits above the requirement of curriculum (iv)	CGPA (v)	Pass in (vi)	Break of study (vii)	Prevention due to lack of attendance (viii)	Withdrawal from writing end semester examination (ix)
B.E. / B.Tech. (Regular)	4 years	5 years	-	8.50	First attempt	One year authorized break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E. / B.Tech. Lateral Entry	3 years	4 years	-	8.50	First attempt	One year authorized break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E. / B.Tech. (Hons.)	3/4 years (Lateral Entry and Regular respectively)	4/5 years (Lateral Entry and Regular respectively)	18 credits from more than one verticals of the same programme	8.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E. / B.Tech. Minor with specialisation in another discipline	3/4 years (Lateral Entry and Regular respectively)	4/5 years (Lateral Entry and Regular respectively)	18 credits from any one vertical of the other programme	8.50	First attempt	One year authorized break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt

### 16.2.2 First Class

A student who satisfies the following conditions shall be declared to have passed the examination in **First Class**,

- Should have passed the examination in all the courses of all eight semesters (6 semesters in the case of Lateral Entry) within **five years** (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 (four years in the case of Lateral Entry) for award of First Class.
- Should have secured a CGPA of not less than **6.50**.
- Details are given in the Table 16.2.

#### **B.E. / B.Tech. (Hons.) :**

- Should have earned additional 18 credits from a specified group of Professional Electives (vertical) or from any of the verticals of the same programme.

- Should have secured a CGPA of not less than **7.50** considering curriculum courses
- Should have secured a CGPA of not less than 7.50 considering all the courses prescribed in the curriculum and additional courses.

#### **B.E. / B.Tech. Minor with specialisation in another discipline**

- Should have earned additional 18 credits in any one of the verticals of other B.E. / B.Tech. programmes.
- Should have secured a CGPA of not less than **6.50** considering curriculum courses.
- Should have secured a CGPA of not less than 6.50 considering all the courses prescribed in the curriculum and additional courses.

**Table 16.2 Details of Classification of the Degree (First Class)**

Degree (i)	Duration of programme (ii)	Duration permitted (iii)	Additional credits above the requirement of curriculum (iv)	CGPA (v)	Pass in (vi)	Break of study (vii)	Prevention due to lack of attendance (viii)	Withdrawal from writing end semester examination (ix)
B.E. / B.Tech. (Regular)	4 years	5 years	-	6.50	-	One year authorized 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 authorized break of study included in the Duration permitted (iii)	included in the Duration permitted (iii)	-
B.E. / B.Tech. (Hons.)	3/4 years (Lateral Entry and Regular respectively)	4/5 years (Lateral Entry and Regular respectively)	18 credits from more than one verticals of the same programme	7.50	First attempt	One year authorised break of study included in the Duration permitted (iii)	Not permitted	Will not be considered as an attempt
B.E. / B.Tech. Minor with specialisation in another discipline	3/4 years (Lateral Entry and Regular respectively)	4/5 years (Lateral Entry and Regular respectively)	18 credits from any one vertical of the other programme	6.50	-	One year authorized break of study included in the Duration permitted (iii)	included in the Duration permitted (iii)	-

#### **16.2.3 Second Class**

- Students who pursue B.E. / B.Tech.in Regular mode or Lateral Entry mode 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.

- Student earned additional 18 credits as per Clause 4.11.1 but not covered in 16.2.1 and 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 PE courses with higher grades, the student shall be awarded B.E. / B.Tech. in First Class only. Similarly, student earned additional 18 credits as per Clause 4.11.2 but not covered in 16.2.1 and 16.2.2 shall be awarded B.E. / B.Tech. Minor with specialization in Second Class. In such case if the student becomes eligible for First Class, while computing CGPA with the OE courses with higher grades and also desires, the student shall be awarded B.E. / B.Tech. in First Class only.

**16.2.4** 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 (except for the cases described in Clause 17 and 18).

### **16.3 Ranks awarded to Students**

Ranks are awarded to the students for each programme based on the following criteria.

- The total number of ranks awarded is Top 5 % of the students enrolled in the particular programme.
- The students who have scored greater than or equal to 8.50 CGPA will be eligible for rank calculations.
- Students should have passed the End Semester Examinations in all the courses of all the eight semesters (six semesters in case of LEA) in their first appearance without any break of study.

## **17 PROVISION FOR WITHDRAWAL FROM EXAMINATIONS**

**17.1** A student may, for valid reasons, (medically unfit / unexpected family situations / sports approved by Chairman, Sports Board, Anna University / Head of the Institution) be granted permission to withdraw from appearing for the End Semester Examination in any course or courses in ANYONE of the semester examinations during the entire duration of the degree programme.

**17.2** Withdrawal application shall be valid only if the student is otherwise eligible to write the examination (Clause 7) and if it is made within TEN working days before the commencement of the End Semester Examinations(s) in that course or courses and recommended by the Head of the Department, approved by Head of the Institution and sent to 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 Internal Assessment marks.

**17.2.1** Notwithstanding the requirement of mandatory 10 days notice, 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 course / courses will figure both in Grade Sheet as well as in 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 Examinations.

**17.5** If a student applies for withdrawal from Project Work, he / she will be permitted for the withdrawal only after the submission of 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 AUTHORIZED BREAK OF STUDY FROM A PROGRAMME**

**18.1** A student is permitted to go on authorized 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 rejoin the programme in a subsequent year, permission may be granted based on the merits of the case provided he / she applies to the Chairperson, Academic Council in advance, but not later than the last date for registering for the End Semester Examination of the semester in question, through Head of the Department, stating the reasons therefore and the probable date of rejoining the programme.

**18.3** The student(s) 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 student(s) rejoining in new Regulations shall apply to the Chairperson, Academic Council in the prescribed format through Head of the Department 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 Regulation 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 authorized break of study for one year. The student shall join the job / start-up / entrepreneurship only after getting approval of the same by the Chairperson, Academic Council with due proof to that effect.

**18.8** No fee is applicable to students during the Break of Study period.

## **19 DISCIPLINE AND BEHAVIOUR**

**19.1** Every student is required to observe disciplined and decorous behavior both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the Institution and the University. The Head of the Institution shall constitute a disciplinary committee consisting of Head of the Institution, Two Heads of Department of which one should be from the faculty of the student, to enquire into acts of indiscipline and notify about the disciplinary action recommended for approval. In case of any serious disciplinary action which leads to suspension or dismissal, then a special committee shall be constituted by the Head of the Institution for taking the final decision and same be communicated to the University.

**19.2** If a student indulges in malpractice in any of the End Semester Examination / Internal Examination he / she shall be liable for punitive action as prescribed by the Institution from time to time.

**20 REVISION OF REGULATIONS, CURRICULUM AND SYLLABI**

The Institution may from time to time revise, amend or change the Regulations, Curriculum, Syllabus and Scheme of Examinations with the approval of Academic Council.