

S.A.ENGINEERING COLLEGE, CHENNAI – 600 077

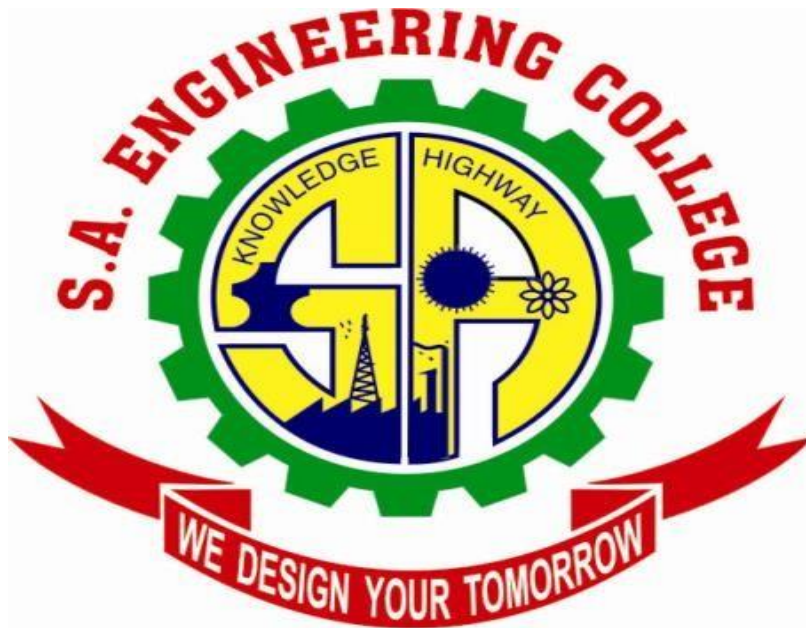
(An Autonomous Institution, Affiliated to Anna University, Chennai)

REGULATIONS 2020A (With Amendments)

CHOICE BASED CREDIT SYSTEM

Common to all **B.E. / B.Tech.** Degree Programmes

(For the Students admitted from the Academic Year 2021-2022 onwards)



VISION

To transform our institution into quality technical education centre imparting updated technical knowledge with character building.

MISSION

- To create an excellent teaching and learning environment for our staff and students to realize their full potential thus enabling them to contribute positively to the community.
- To significantly enhance the self-confidence level for developing creative skills of staff and students.

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Common to all B.E / B.Tech Degree Programmes

(For the Students admitted from the Academic Year 2021-2022 onwards)

DEGREE OF BACHELOR OF ENGINEERING / BACHELOR OF TECHNOLOGY

The amendments to Regulations 2020 hereunder are effective from the Academic Year 2021-2022 and are applicable to students admitted to S.A. Engineering College (Autonomous), Chennai -600 077, from the Academic year 2021-2022 onwards. The regulations hereunder subject to amendments as may be made by the Academic Council of the College from time to time. Any or all such amendments will be effective from such date and to such batches of students as may be decided by the Academic Council.

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In the following 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, Mechanical Engineering, etc.
- iii) **“Course”** means a theory or practical course that is normally studied in a semester, like Chemistry, Physics, etc.
- iv) **“Head of the Institution”** means the Principal of the College.
- v) **“Head of the Department (HOD)”** means Head of the Department concerned.
- vi) **“Controller of Examinations (COE)”** means the authority in the college who is responsible for all activities of the Assessments and End Semester Examinations.
- vii) **“University”** means the affiliating University, Anna University, Chennai.

2. ADMISSION

2.1 Candidates seeking admission to the FIRST semester of EIGHT semesters B.E. / B.Tech. Degree Programme:

The candidates should have passed the Higher Secondary Examinations(10+2) of Curriculum (Academic Stream) prescribed by the Government of Tamil Nadu with Mathematics, Physics and Chemistry as three of the four subjects of study or any examination of any other University or authority accepted by the Syndicate of Anna University as equivalent thereto.

(OR)

The candidates 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

(i) The candidates who possess the Diploma in Engineering / Technology awarded by the State Board of Technical Education, Tamil Nadu or its equivalent are eligible to apply for Lateral entry admission to the third semester of B.E. / B.Tech. as per the rules fixed by Government of Tamil Nadu.

(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 Curriculum.

3. DURATION OF THE PROGRAMME

3.1 **Minimum Duration:** The programme will extend over a period of four years for HSC students and three years for lateral Entry Students leading to the Degree of Bachelor of Engineering (B.E.) / Bachelor of Technology (B.Tech.) of the Anna University. The four academic years will be divided into eight semesters for HSC students and three years will be divided into six semesters for lateral entry students with two semesters per year.

3.2 **Maximum Duration:** The student shall complete all the passing requirements of the B.E. / B.Tech. degree programme within a maximum period of 7 years (6 years for lateral entry); these periods reckoned from the commencement of the semester to which the student was first admitted to the programme.

3.3 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.

3.4 The Head of the Institution may conduct additional classes for improvement, special coaching, conduct of model test, etc., over and above the specified periods.

3.5 The total period for completion of the programme reckoned from the commencement of the first semester to which the student was admitted shall not exceed the maximum period specified in clause 3.2 irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.

4. B.E. / B.Tech. PROGRAMMES OFFERED

Candidates shall be admitted to one of the following branches of study and obtain a Degree of B.E. / B.Tech. of Anna University, Chennai.

B.E.	Civil Engineering
B.E.	Computer Science and Engineering
B.E.	Electrical and Electronics Engineering
B.E.	Electronics and Communication Engineering
B.E.	Mechanical Engineering
B.Tech.	Artificial Intelligence and Data Science
B.Tech.	Computer Science and Business Systems
B.Tech.	Information Technology

5. STRUCTURE OF PROGRAMMES

5.1 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:

- i. **Humanities, Social Sciences and Management Courses (HSM)** courses include Technical English, Engineering Ethics and Human Values, Communication skills, Principles of Management, etc.
- ii. **Basic Sciences (BS)** courses include Mathematics, Physics, Chemistry, etc.
- iii. **Engineering Sciences (ES)** courses include Engineering practices, Engineering Graphics, Basics of Electrical / Electronics / Mechanical / Computer Engineering, Instrumentation, etc.
- iv. **Professional Core (PC)** courses include the core courses relevant to the chosen specialization/branch.

- v. **Professional Elective (PE)** courses include the elective courses relevant to the chosen specialization/branch.
- vi. **Open Elective (OE)** courses include the courses from other branches or own branch which a student can choose from the list specified in the curriculum of the students admitted to B.E./B.Tech. Programmes.
- vii. **Employability Enhancement Courses (EEC)** includes Project Work and/or Internship, Seminar, Professional Practices, Case Study and Industrial/Practical Training.
- viii. **Audit Courses (AC)** are non-credit courses that include the courses such as Constitution of India, Environmental Science and Engineering, etc.

5.1.1 Personality and Character Development

All students shall enroll, on admission, in any one of the personality and character development programmes (NSS/NSO) and undergo training for about 40 hours and attend a camp of about six days. The training shall include classes on hygiene and health awareness and also training in first-aid etc.

National Service Scheme (NSS) will have social service activities in and around the College / Institution.

National Sports Organization (NSO) will have sports, Games, Drills and Physical exercises.

5.3 Number of courses per semester

Each semester curriculum shall normally have a blend of lecture courses not exceeding **7 Theory courses and laboratory Integrated Theory Courses** and **4 Laboratory courses** and **Employability Enhancement Course(s)**. However, the total number of courses per semester shall not exceed 10. Each Course shall have credits assigned as per Clause 5.5.

5.4 Electives

Students shall opt for professional elective courses or open elective courses from fifth semester onwards. Open electives are the elective courses offered by a department to other branches and professional electives are courses offered by a department to the students of their own branches only. He/she shall opt for elective courses from the list provided in the curriculum of their department in consultation with the Faculty Advisor/Class Advisor/Head of the Department.

5.5 Credit Assignment

Each course is assigned certain number of credits based on the following:

CONTACT PERIOD PER WEEK	CREDITS
1 Lecture Period	1
1 Tutorial Periods	1
2 Laboratory Periods (also for EEC courses like / Seminar / Project Work /Case study / etc.)	1

5.6 Online Courses

Students may be permitted to credit **TWO online courses** (which are provided with certificate from organization like NPTEL, SWAYAM etc.) subject to a maximum of six credits from **Fifth semester** onwards and the same will be included for the calculation of GPA. The courses that are opted in online mode shall also be as per clause 5.13 Advancement of Courses. A committee comprising of subject experts along with Head of the Department shall analyze the quality and need of the course for approval. If approved, a faculty from the department shall be assigned to monitor the assessments for continuous evaluation. The details regarding online courses taken up by students should be sent to the Controller of Examinations, one month before the commencement of End Semester Examination. The approved list of online courses will be provided by the Department with the approval of Academic Council from time to time (To offer new online courses).

5.7 Self-Study Courses

The students with **CGPA of 8.0** and above with no standing arrears upto sixth semester shall opt for maximum of **four self-study courses** (Three credits each) during seventh and eighth semester only. No formal lecture periods for self-study courses shall be provided. However, the Head of the Department should nominate a faculty for continuous monitoring and evaluation of the students who opted for self- study course.

5.8 Value Added Courses

The 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. One / Two credit courses shall be offered by a Department with the prior approval from the Head of the Institution. The details of the syllabus, time table and faculty may be sent to the Controller of Examinations after approval from the **Head of the Institution** concerned before the course is offered. **Students can take a maximum of two one credit courses / one two credit course** during an academic year. The credits earned through this shall be over and above the total credit requirements prescribed in the curriculum for the award of the degree and will not be counted for GPA evaluation.

DURATION OF THE VALUE ADDED COURSE	CREDITS
30 Hours – 44 Hours	1
45 Hours and Above	2

5.9 Industrial Training / Internship

5.9.1 The students may undergo Industrial training for a minimum period of two weeks continuously during the summer/winter vacation.

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 College shall be submitted to the Head of the Department. The attendance certificate shall be forwarded to the COE, through the Head of the Institution by the Head of the Department for processing results.

5.9.2 If Industrial Training/ Internship is not prescribed in the curriculum, the student may undergo Industrial Training/ Internship optionally and the credit earned will be indicated in the Grade Sheet. In such cases, Industrial Training / Internship need to be undergone continuously from one organization or with a combination one two week and one four week from one/two organizations. However, 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 and the Certificate of completion of Industrial Training / Internship shall be forwarded to the COE.

DURATION OF THE TRAINING/INTERNSHIP	CREDITS
2 WEEKS *	1
4 WEEKS	2
6 WEEKS	3

* 1 WEEK = 40 INTERNSHIP HOURS

5.10 Industrial Visit

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

5.11 Project Work

Every student shall be required to undertake a suitable project in industry / research organization/department in consultation with the Head of the Department and the faculty

guide and submit the project report thereon at the end of the semesters in which the student registered, on dates announced by the College/Department.

5.12 Audit Courses

The student shall study audit courses prescribed in the curriculum and it will be mentioned in the Grade Sheet. However, it will not be considered for computation of CGPA.

5.13 Advancement of Courses

The students, who completed their final semester courses (except project work) in advance, shall be permitted to carry out their final semester Project Work for six months in an industry/research organization. These students shall undergo the eighth semester courses other than the Project Work in the sixth and seventh semesters as per clause 5.6, provided they do not have current arrears and have a CGPA of 7.50 and above at the end of Semester IV. The Head of Department, in consultation with the faculty handling the said courses shall forward the proposal recommended by the Head of Institution to the Controller of Examinations through the Head of the Department for approval at least 4 weeks before the commencement of the sixth semester of the programme for approval.

5.12 Medium of Instruction

The medium of instruction is English for all courses, examinations, seminar presentations and project / thesis / dissertation reports.

6 COURSE ENROLLMENT AND REGISTRATION

6.1 A Faculty advisor/Class Advisor assigned from the department shall be responsible for the course enrollment and registration of students every semester as per the curriculum. They are also responsible to provide the details of courses offered by the department or by other department in case of open electives. The student can also register for courses for which he/she has failed in the earlier semesters.

6.2 The registration details of the candidates may 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 in the institution unless a **minimum 10** students register for the course. However, if the students admitted in the associated Branch and Semester is less than 10, this minimum will not be applicable.

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

6.2.1 Courses of the current semester

6.2.2 The core (Theory/Lab /EEC) courses that the student has not cleared in the

previous semesters.

6.2.3 Elective courses which the student failed (either the same elective or a different elective instead).

6.2.4 Courses advanced to Semester VI and VII from Semester VIII (as per clause 5.13).

6.2.5 The student shall register for the project work in the final year only.

7 ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER

7.1 A Candidate who has completed course registration shall be eligible to enroll for **examination of any course only if, he/she shall secure not less than 75% of attendance (after rounding off to the nearest integer) in that course.**

7.2 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 at least 75% of the classes.**

7.3 However, a candidate who secures overall attendance between 65% and 74% in the current semester due to medical reasons (prolonged hospitalization/accident/specific illness) may be permitted to appear for the current semester examinations subject to the condition that the candidate shall submit the medical certificate issued by a registered medical practitioner. The same shall be forwarded to the Controller of Examinations for record purposes with the attestation of Head of the Institution.

7.4 A candidate who secures overall attendance between 65% and 74% in the current semester due to **participation in any Co-curricular /Extra Curricular activities may be permitted to appear for the current semester examinations** subject to the condition that the candidate shall submit the participation certificate attested by the Head of the Institution and the same shall be considered as "ON DUTY" (OD). The same shall be forwarded to the Controller of Examinations for record purposes.

7.5 Candidates who **secure less than 65% attendance in all courses** shall not be permitted to write any examination at the end of the semester and not permitted to move to the next semester. They are required to repeat the incomplete semester in the next academic year, as per the prescribed norms.

8 CLASS ADVISOR

There shall be a class advisor for each class. The class advisor will be one among the course-instructors or subject handling faculty of that class. He / She will be appointed by the HoD of the department concerned. The responsibilities for the class advisor 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 help the 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 class committee.
- To attend to the students' welfare activities like awards, medals, scholarships and industrial visits.

FACULTY ADVISOR

There shall be a Faculty advisor for every 15-20 students. The faculty advisor may be one among the course-instructors of the class. He / She will be appointed by the HoD of the department concerned. The responsibilities for the faculty advisor shall be:

- To act as the channel of communication between the HoD and the parents of the respective student.
- To counsel/mentor the allotted students, guide and motivate them towards a successful career
- To collect and maintain various statistical details of students in proctor cards in regular intervals.
- To monitor the academic performance of the students
- To track the daily attendance of their respective students and if they found absent the reason to be recorded in the Students Leave Report available in the department office.
- To encourage the students to participate in extra and co-curricular activities.

9 CLASS COMMITTEE

9.1 Every class shall have a class committee consisting of faculty handling the subjects of the class concerned, student representatives and one chairperson who is not teaching the class. It is a part of IQAC with the overall goal of improving the teaching- learning process. Responsibilities of the class committee include:

9.1.1 Solving problems experienced by students in the class room and in the laboratories.

9.1.2 Clarifying the regulations of the degree programme and the details of rules therein which should be displayed on college Notice-Board.

9.1.3 Informing the student representatives, the academic schedule including the dates of assessments and the syllabus coverage for each assessment.

9.1.4 Informing the student representatives the details of Regulations regarding weightage used for each assessment. In the case of practical courses (laboratory / drawing / project work / seminar etc.) the breakup of marks for each experiment / exercise / module of work, should be clearly discussed in the class committee meeting and informed to the students.

9.1.5 Analyzing the performance of the students of the class after each test and finding the ways and means of solving problems, if any.

9.1.6 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.
- 9.3.1 At least 4 student representatives (usually 3 boys and 3 girls, as applicable to individual departments) shall be included in the class committee.
- 9.3.2 The Chairperson of the class committee may invite the Class advisor and the Head of the Department to the class committee meeting.
- 9.3.3 The Head of the Institution may participate in any class committee of the institution.
- 9.4 The chairperson is required to prepare the minutes of every meeting, submit the same to the 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 that to be addressed by the management, the same shall be brought to the notice of the Management by the Head of the Institution.
- 9.5 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 intimate 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

Each common theory course offered to more than one programme or same programme, shall have a "Course Committee" comprising all the faculty teaching 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 faculty teaching 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 test(s).

11 SYSTEM OF EXAMINATION

11.1 Performance in each course of study shall be evaluated based on (i) Continuous internal assessment throughout the semester and (ii) Examination at the end of the semester.

11.2 Each course, both theory and practical (including project work & viva voce Examinations) shall be evaluated for a maximum of 100 marks.

11.2.1 For all theory courses, the continuous 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, the continuous internal assessment will carry **50 marks** while the End Semester examination will carry **50 marks**.

11.2.3 For all laboratory courses, the continuous internal assessment will carry **60 marks** while the End Semester examination will carry **40 marks**.

11.2.4 The continuous internal assessment for the project work will carry **40 marks** while the End Semester examination will carry **60 marks**.

11.3 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.

11.4 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.

11.5 For the End Semester examination in practical courses including project work the internal and external examiners shall be appointed by the Controller of Examinations of the institution and for theory courses, examiners for question paper setting shall be appointed by the Controller of Examinations of the institution.

12 PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

For all theory, laboratory courses, theory courses with laboratory component and project work the continuous assessment shall be awarded as per the procedure given below:

12.1 THEORY COURSES

Two assessments shall be conducted during the semester by the Department / College concerned. 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.

Assessment I(100 Marks)		Assessment II(100 Marks)		Total
Individual Assignment / Case Study/ Seminar / Mini Project	Written Test	Individual Assignment / Case Study /Seminar / Mini Project	Written Test	Internal Assessment
40	60	40	60	200

Each internal assessment is to be considered for 100 marks and will have to be distributed in two parts viz., Individual Assignment/Case study/Seminar/Mini project and Written 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.

12.2 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 are 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.

Internal Assessment(100 Marks)	
Evaluation of Laboratory Observation, Record	Model Lab Exam
75	25

12.3 THEORY COURSES WITH LABORATORY COMPONENT

If there is a theory course with laboratory component, there shall be two assessments: the first assessment (maximum mark is 100) will be similar to assessment of theory course and the second assessment (maximum mark is 100) will be similar to assessment of laboratory course respectively. The weightage of first assessment shall be **40%**, and the second assessment be **60%**. **The weighted average of these two assessments shall be converted into 50 marks and rounded to the nearest integer.**

Assessment I (40% weightage) (Theory Component)		Assessment II (60% weightage) (Laboratory Component)		Total Internal Assessment
Individual Assignment / Case Study/Seminar / Mini Project	Written Test	Evaluation of Laboratory Observation, Record	Lab Model Exam	
40	60	75	25	200

12.4 PROJECTWORK

The student shall register for Project Work-I in pre-final semester and Project Work- II in final semester as prescribed in the curriculum. Project work may be allotted to a single student or to a group of students not exceeding 4 per group. Project Work-II may/may not be a continuation of Project Work-I. If Project Work II is not a continuation of Project Work I, then the topic and constitution of the project team members need not be the same.

12.4.1 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 member possessing (i) PG degree or (ii) Ph.D. degree.

12.4.2 The Project Work-II carried out in industry/academic/research institutions need not be a continuation of Project Work-I. In such cases, the Project Work-II shall be jointly supervised by a supervisor of the department and an expert as a joint supervisor from the organization 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.

12.4.3 The Head of the Department 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, the review committee shall have the supervisor, the coordinator from industry and the project coordinator from the Department.

There shall be three reviews during the semesters VII and VIII 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 **40 marks** and rounded to the nearest integer (as per the scheme given in 12.4.4).

12.4.4 The project report shall carry a maximum of **20 marks**. The project report shall

be submitted as per the approved guidelines as given by the Head of the Institution. Same marks shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 40 marks. Marks are awarded to each student of the project group is based on the individual performance in the viva-voce examination.

Project Reviews(40)			End semester Examinations(60)				
ReviewI	ReviewII	ReviewIII	Project Report(20)		Viva-Voce(40)		
10	15	15	Internal	External	Internal	External	Supervisor
			10	10	10	20	10

12.4.5 If a student fails to submit the project report on or before the specified deadline or the student has submitted the project report but did not appear for the viva-voce examination, it will be considered as fail in the Project Work and the student shall re-register for the same in the subsequent semester.

12.5 OTHER EMPLOYABILITY ENHANCEMENT COURSES

- (a) The seminar / Case study 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 Head of the Institution 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 (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 candidate shall submit a 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. 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.

12.6 ASSESSMENT FOR VALUE ADDED COURSE

The one / two credit course shall carry **100 marks** and shall be evaluated through **continuous assessments only**. Assessments shall be conducted during the semester by the Department or the concerned organization conducting the course. 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 monitor the evaluation process. The list of students along with the

marks and the grades earned may be forwarded to the Controller of Examinations for necessary action at least one month before the commencement of End Semester Examinations.

12.7 ASSESSMENT FOR ONLINE COURSES

Students may be permitted to credit two online courses (which are provided with certificate) subject to a maximum of six credits. The approved list of online courses will be provided by the department with approval from Head of the Institution from time to time. Each **online course (12 Week Duration) of 3 credits can be considered instead of one core/elective course**. The student needs to obtain certification for inclusion in the statement of marks and calculation of CGPA. If the student fails to obtain the certification in online mode, he/she shall do the course along with the regular students in the forthcoming semester and **the course shall be evaluated through the End Semester Examination only conducted by Controller of Examinations of the Institution with the prior approval from Head of the Institution**.

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 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 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). In order to ensure the above, Academic Audit is to be done for every course taught during the semester. For the internal assessments conducted for each course as per details provided in Clause 12, 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 REQUIREMENTS FOR APPEARING FOR 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 Examinations] with a minimum of 45% of the marks prescribed for the End-semester Examination, and acquired the relevant number of credits, shall be declared to have passed the course. This is applicable for both theory and practical courses (including project work).

14.2 If a student fails to secure a pass in theory/laboratory courses in the current semester examination, he/she is allowed to write arrear examinations for the consecutive semesters and their internal marks shall be carried over for all subsequent attempts till the student secures a pass. However, if a student fails to secure a pass in a course even after three consecutive arrear attempts, the student shall be declared to have passed the examination if he/she secures a minimum of 50% marks prescribed for the End semester examinations alone.

14.1 If a student fails to secure a pass in a laboratory course, **the student shall register** for the course again.

14.2 If a student fails to secure a pass in project work, **the student shall register** for the course again.

14.3 The passing requirement for the courses which are assessed only through purely internal assessments (EEC courses except project work), is 50% of the internal assessment (continuous assessment) marks only.

15 AWARD OF LETTER GRADES

All assessments of a course will be evaluated on absolute marks basis. However, for the purpose of reporting the performance of a candidate, letter grades, each carrying certain number of points, will be awarded as per the relative grading principle.

The relative grading is applicable ONLY those students who have passed the examination as per the passing requirements enumerated above. For those students who have not passed the examination, U grade shall be awarded. For those students who have passed the course, the relative grading shall be done using the Software AURG developed by Anna University for relative grading.

The performance of a student shall 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
W (Withdrawal)	0

For a given course, if the students' strength is greater than 30, the relative grading method shall be adopted. However, if the students' strength is less than 30, then the fixed grading method shall be followed with the grade range as specified below.

Range of Marks	91 - 100	81 - 90	71- 80	61 – 70	56 - 60	50 - 55	<50
Letter Grade	O	A +	A	B +	B	C	U
Grade Points	10	9	8	7	6	5	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", and "C".

'SA' denotes shortage of attendance (as per clause 7.5) and hence prevented from writing the end semester examinations. 'SA' will appear only in the resultsheet.

"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 Marks Sheet as well as in Result Sheet). In both cases the student has to appear for the End Semester Examinations.

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 For the Co-curricular activities such as National Service Scheme (NSS) / NSO, a satisfactory / not satisfactory grading will appear in the mark sheet. Every student shall put in a minimum of 75% attendance in the training and attend the camp compulsorily. The training and camp 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. A satisfactory grade in the above co-curricular activities is compulsory for the award of degree.

15.2 The grades O, A+, A, B+, B, and C obtained for the one credit course shall figure in the Mark sheet under the title '**Value Added Courses**'. The Courses for which the grades are U, SA **will not figure in the mark sheet.**

Grade sheet

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

15.2.1 The college in which the candidate has studied.

15.2.2 The list of courses enrolled during the semester and the grades scored.

15.2.3 The Grade Point Average (GPA) for the semester and

15.2.4 The Cumulative Grade Point Average (CGPA) of all courses enrolled from first semester onwards.

GPA for a semester is the ratio of the sum of the products of the number of credits for courses acquired and the corresponding points to the sum of the number of credits for the courses acquired in the semester.

CGPA will be calculated in a similar manner, considering all the courses registered from first semester. **U** grade 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 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.

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

16.1.1 Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.

16.1.2 Successfully completed the course requirements, appeared for the End-Semester

examinations and passed all the subjects prescribed in all the 8 semesters within a maximum period of 7 years and 6 years in the case of Lateral Entry) reckoned from the commencement of the first (third in the case of Lateral Entry) semester to which the candidate was admitted.

16.1.3 Successfully passed any additional courses prescribed by the curriculum whenever readmitted under regulations R-2020A (With Amendments) (vide clause 18.3)

16.1.4 Successfully completed the NSS / NSO requirements.

16.1.5 No disciplinary action pending against the student.

16.1.6 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). Withdrawal from examination (vide Clause 17) will not be considered as an appearance.

16.2.1.1 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). Withdrawal from examination (vide Clause 17) will not be considered as an appearance.

16.2.1.2 Should have secured a CGPA of not less than **8.50**.

16.2.1.3 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.

16.2.1.4 Should NOT have been prevented from writing end semester examination due to lack of attendance in any semester.

16.2.2 FIRST CLASS

16.2.2.1 Student who satisfies the following conditions shall be declared to have passed the examination in **First class**:

16.2.2.1.1 Should have passed the examination in all the courses of all eight semesters (6 semesters in the case of Lateral Entry) **within Six years.** (Five years in the case of Lateral Entry)

16.2.2.1.2 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 six years (five years in the case of lateral entry) for award of First class.

16.2.2.1.3 Should have secured a CGPA of not less than **6.50**.

16.2.3 SECOND CLASS

All other students (not covered in clauses 16.2.1 and 16.2.2) who qualify for the award of the degree (vide Clause 16.1) shall be declared to have passed the examination in **Second Class**.

16.3 A candidate 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 and 18)

16.4 Photocopy /Revaluation

A candidate can apply for photocopy of his/her semester examination answer paper in a theory course, within 2 weeks from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of Institutions. 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 Institutions. Revaluation is not permitted for practical courses and for project work.

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

16.5 Review

Candidates 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 Controller of Examination through the Head of the Institution.

Candidates 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 Chairman, sports board and 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 Controller of Examination through the Head of the Institution with required documents.

17.2 Withdrawal application is valid if the student is otherwise eligible to write the examination and if it is made within TEN days prior to the commencement of the examination in that course or courses and recommended by the Head of the

Institution and approved by the Controller of Examinations.

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 will figure both in Marks Sheet as well as in Result Sheet. **Withdrawal essentially requires the student to register for the course/courses.** The student has to register for the course, fulfill the attendance requirements (vide clause 7), earn continuous assessment marks and attend the end semester examination. However, withdrawal shall not be construed as an appearance for the eligibility of a candidate for First Class with Distinction.

17.4 Withdrawal is permitted for the end semester examinations in the final semester only if the period of study the student concerned does not exceed 5 years.

18 PROVISION FOR AUTHORISED BREAK OF STUDY

18.1 A student is permitted to go on 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 candidate may apply for additional break of study not exceeding another one year by paying prescribed fee for break of study. If a candidate 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 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 rejoining the programme.

18.3 The candidate is 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 in the prescribed format to 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.

18.4 The authorized break of study would not be counted towards 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 3.2 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' (Clause18.1)

19 DISCIPLINE

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 University / College. The Head of Institution shall constitute a disciplinary committee consisting of Head of 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 to Head of the Institution.** In case of any serious disciplinary action which leads to suspension or dismissal, then a committee shall be constituted including one representative from Anna University, Chennai. In this regard, the member will be nominated by the University on getting information from the Head of the Institution.

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

20 REVISION OF REGULATIONS, CURRICULUM ANDSYLLABI

The Institution may from time to time revise, amend or change the Regulations, Curriculum, Syllabus and scheme of examinations through the Board of Studies and Academic Council of the Institute.

