

HINDUSTHAN COLLEGE OF ENGINEERING AND TECHNOLOGY

(An Autonomous Institution Affiliated to Anna University)

Coimbatore, Tamil Nadu, India

REGULATIONS 2020 (Choice Based Credit System)

For

Master of Engineering (M.E.)

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In this Regulation, unless the context otherwise specifies:

- I. “**Programme**” means Degree Programme. e.g. M.E., Degree Programme
- II. “**Specialization**” means a discipline of the Post Graduate Degree Programme like Structural Engineering, Engineering Design, etc.
- III. “**Course**” means a Theory or Practical subject that is normally studied in a semester, like Applied Mathematics, Advanced Thermodynamics, High Voltage Lab., etc.
- IV. “**Controller of Examinations (COE)**” means the Authority of the College who is responsible for all activities of the Internal and End Semester Examinations of the Autonomous College.
- V. “**Head of the Institution**” means the Principal of the College.
- VI. “**Head of the Department**” means Head of the Department Concerned.
- VII. “**University**” means ANNA UNIVERSITY, CHENNAI.

2. ADMISSION PROCEDURE

- 2.1 Students for admission to the first semester of the Post Graduate Degree Programme shall be required to have passed an appropriate qualifying Degree Examination of Anna University or any examination of any other University or Authority accepted by the Syndicate of Anna University, Chennai as equivalent there to.
- 2.2 The Syndicate of the University may decide to restrict admission in any particular year to students having the subset of qualifications prescribed at the time of admission.
- 2.3 Notwithstanding the qualifying examination the student might have passed, he/she shall have a minimum level of proficiency in the appropriate Programme / courses as prescribed by the Syndicate of the University from time to time.
- 2.4 Eligibility conditions for admission such as the marks, class obtained, the number of attempts in the qualifying examination and physical fitness shall be as prescribed by the Syndicate of the University from time to time.

3. PROGRAMMES OFFERED AND MODE OF STUDY

3.1 PROGRAMMES OFFERED

A student may be offered admission to any one of the following programme of study approved by the University and offered in our Autonomous College.

1. M.E. (Full Time)

3.2. MODES OF STUDY:

3.2.1 Full-Time:

Students admitted under 'Full-Time' should be available in the College during the entire duration of working hours (From Morning to Evening on Full-Time basis) for the Curricular, Co-curricular and Extra-curricular activities.

The Full-time students should not attend any other Full-time programme(s) / course(s) or take up any Full-Time job / Part-Time job during working hours in any Institution or Company during the period of Full- Time programme. Violation of the above rules will result in cancellation of admission to the PG programme.

4. STRUCTURE OF THE PROGRAMMES

4.1 Categorization of Courses

Every Post Graduate Degree Programme will have a Curriculum with Syllabi consisting of theory and practical courses that shall be categorized as follows:

- i. **Foundation Courses (FC)** may include Mathematics or other basic courses
- ii. **Program Core Courses (PCC)** include the core courses relevant to the chosen specialization/branch.
- iii. **Program Elective Courses (PEC)** include the elective courses relevant to the chosen specialization / branch.
- iv. **Research Methodology and IPR Courses (RMC)** to understand the importance and the process of creation of patents through research.
- v. **Open Elective Courses (OEC)** shall provide an opportunity to study a course from any discipline that includes the courses relevant to the chosen specialization, the courses that enhance soft and managerial skills, and the courses a student can choose from the curriculum of other M.E. / M. Tech. programmes. Registration for any one of these courses is compulsory to students in III semester for M.E.
- vi. **Employability Enhancement Courses (EEC)** include Project Work, Internship, Seminar, Professional Practices, Case Study and Industrial / Practical Training.

- vii. **Audit courses (AC)** expose the students to Unnat Bharathi Abhiyan, Constitution of India, Disaster Management, Yoga, English for Research Paper Writing, Value Education, Pedagogy Studies, Stress Management, Sanskrit for Technical Knowledge and Personality Development through Life Enlightenment Skills, Registration for any of these courses is mandatory to students in II and III Semester.

4.2 Courses per Semester

The Curriculum of a semester shall normally have a blend of Lecture courses and Practical courses including Employability Enhancement Courses, Professional Elective, Open Elective. Each course may have credits assigned.

4.3 Credit Assignment

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

| Contact period per week | Credits |
|--|---------|
| 1 Lecture Period / 1 Tutorial Period | 1 |
| 3 Practical Periods (Laboratory) | 1.5 |
| 2 Seminar Periods/ 2 Project Work Periods etc. | 1 |

4.4 Project Work

The Project work is an important component of Post-Graduate programmes. The Project work for M.E., consists of Phase – I and Phase – II. The Phase – I is to be undertaken during III semester and Phase– II, which is a continuation of Phase – I is to be undertaken during IV semester for M.E.

- 4.4.1 The Project work for M.E., (for Phase II Project work) shall be pursued for a minimum of 16 weeks during the final semester.
- 4.4.2 The Project work shall be carried out under the supervision of a “qualified teacher” in the Department concerned. In this context “qualified teacher” means a faculty member possessing (i) PG degree with a minimum of 3 years of teaching experience or (ii) Ph.D.degree.
- 4.4.3 A student may, however, in certain cases, be permitted to work on projects in an Industrial / Research Organization, on the recommendations of the Head of the Department. In such cases, the Project work shall be jointly guided by a supervisor of the department and an expert

as 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.

4.5. Industrial Training /Internship

4.5.1 The students may undergo Industrial training for a period as specified in the curriculum during the summer / winter vacation. In this case, the training has to be undergone continuously for the entire period.

The students may undergo Internship at a Research organization / University/ industry (after due approval from the Departmental Consultative Committee) for the period prescribed in the curriculum during the summer / winter vacation, in lieu of Industrial training.

4.5.2 Industrial Training / Internship is not prescribed in the curriculum, the student may undergo Industrial Training / Internship optionally and the credits earned will be indicated in the Mark Sheet. A student can earn a maximum of one credit in one Industrial Training / Internship. However, if the number of credits earned is 1 or 2, these credits shall not be considered for classification of the degree. The student is only allowed to undergo a maximum of 4 weeks Industrial Training / Internship during the entire duration of study.

| DURATION OF TRAINING / INTERNSHIP | CREDITS |
|--|----------------|
| 2 Weeks | 1 |
| 4 Weeks | 2 |

4.6 Additional Credits

A Student can earn a maximum of 10 extra credits over and above the total credits. This may be earned through 1 credit / 2 credit courses such as value added courses / Online courses / Self Study Courses / EEC.

4.7 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/COE.**

- 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** at least one month before the course is offered. **Students can take a maximum of two one credit courses / one two credit course** during the entire duration of the Programme.

4.8 Online Courses

Students may be permitted to take Online Courses /Self Study Courses (which are provided with certificate) with prior approval of Departmental Consultative Committee, Dean Academics and Office of the Controller of Examinations. In case of credits earned through online mode from a **NPTEL, MOOC and Edx** shall be mentioned in the marksheet over and above the credits considered for the award of the degree.

4.9 Medium of Instruction

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

4.10 Credit Transfer Courses

a.) Students may be permitted to take upto 10% online courses (only theory) in III semester [1 or 2 courses] with prior approval of Departmental Consultative Committee, Dean Academics and Office of the Controller of Examinations.

b.) The Students are permitted to undergo **ONE Professional Elective Course** in NPTEL/SWAYAM/MOOCs etc. with the prior approval of Departmental Consultative Committee, Dean Academics and Office of the Controller of examinations. The student shall take up Assessments and End Semester Examinations conducted by NPTEL/SWAYAM/MOOCs and transfer the grades and credits.

c.) The students are permitted to undergo the **ONE Open Elective course** in NPTEL/SWAYAM/ MOOCs etc. with the prior approval of Departmental Consultative Committee, Dean Academics and Office of the Controller of examinations. The Student shall take up Assessments and End Semester Examinations conducted by NPTEL/SWAYAM/MOOCs and transfer the credits.

5. DURATION OF THE PROGRAMMES

5.1 The minimum and maximum period for the completion of the P.G. Programmes are given below:

| Programme | Min. No.of Semesters | Max. No. of Semesters |
|-------------------|-----------------------------|------------------------------|
| M.E., (Full-Time) | 4 | 8 |

5.2 Each semester shall normally consist of 85 working days (including practical exams). The Head of the Department shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus, covering the full content of the syllabus for the course being taught.

5.3 The total duration for completion of the programme reckoned from the commencement of the first semester to which the student was admitted shall not exceed the maximum duration specified in clause 5.1 irrespective of the period of break of study (vide clause 17) or prevention (vide clause 7.4) in order that the student may be eligible for the award of the degree (vide clause 15).

5.4 The Curriculum of P.G. Programmes has been designed to have the credits in the range specified below for the various programmes for the award of the degree.

| PROGRAMME | PRESCRIBED CREDITS |
|-------------------|---------------------------|
| M.E., (Full time) | 70 |

6. COURSE ENROLLMENT AND REGISTRATION

6.1 Each student, on admission, shall be assigned to a Faculty Advisor (vide clause 8), who shall advise and counsel the student about the details of the academic programme and the choice of courses, considering the student's academic background and career objectives.

6.2 After registering for a course, a student shall attend the classes, satisfy the attendance requirements, earn Continuous Assessment marks and appear for the End Semester Examinations.

6.2.1 Each student on admission shall register for **all the courses prescribed in the curriculum in the student's first Semester of study.**

- 6.2.2 Instead of two elective in the curriculum, the student may be permitted to choose a maximum of 2 courses from other PG programmes with the approval of the Head of the Department offering such courses.
- 6.2.3 A student who has passed all the courses prescribed in the curriculum for the award of the degree shall not be permitted to re-enroll to improve the student's marks in a course or the aggregate marks / CGPA.

6.3 MINIMUM CREDITS TO REGISTER FOR PROJECT WORK

Minimum credits for various programmes shall be as follows:

Table 1

| PROGRAMME | MINIMUM NO. OF CREDITS TO BE EARNED |
|------------------|--|
| M.E., | 20 (for Phase – I) |

- 6.3.1 If the student has not earned the requisite minimum credits, the student cannot enroll for the Project work (Phase I in the case of M. E / M. Tech.) In such a case, the student can enroll for the project work in a subsequent semester, after earning the minimum credits specified.

6.4 Flexibility to add or Drop courses

- 6.4.1 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. However, if the student wishes, the student is permitted to earn more than the total number of credits prescribed in the curriculum of the student's programme within the minimum duration of the programme.
- 6.4.2 From the II to final semesters, the student has the option of registering for additional courses or dropping existing courses. The total number of credits that a student can add or drop is limited to 6, subject to a maximum of 2 courses.

6.5 Redoing a Course

Redoing a course means reregistering for a course, attending all classes, fulfilling the attendance requirements as per clause 7, earning fresh Continuous Assessment marks and appearing for End Semester Examinations. A student has to redo a course in the following conditions.

- 6.5.1 If a student is prevented from writing end semester examination of any core course due to

lack of attendance, the student has to register for that course again when offered next and redo the course.

- 6.5.2 If a student is prevented from writing the end semester examination of any professional/open elective course due to lack of attendance, the student can opt to register for the same course again when offered next and redo the course, or he/she can opt to register for a different professional / open elective course when it is offered, attend classes, fulfill the attendance requirements as per clause 7, secure Continuous Assessment marks and appear for End Semester Examinations.
- 6.5.3 If a student fails to secure a pass in any theory or Laboratory course (including elective theory), he/she is given a maximum of three arrear attempts to complete the course as per Clause 11.2. If the student still fails to secure a pass, he/she shall register for the same when offered next and redo the course.
- 6.5.4 If the course in which the student fails to secure a pass even after three arrear attempts in a professional/open elective course, then the student can opt for a different professional/ open elective course, register for the same when it is offered, attend classes, fulfill the attendance requirements as per clause 7, secure Continuous Assessment marks and appear for End Semester Examinations.
- 6.5.5 The student who fails in any Project work / Seminar / Internship / Career Development Skills / Professional Practices / Case Study and Industrial / Practical Training shall register for the same in the subsequent semester and redo the course. In this case, the student shall attend the classes and fulfill the attendance requirements as per clause 7.

7. REQUIREMENTS FOR APPEARING FOR THE END SEMESTER EXAMINATION OF A COURSE

A student who has fulfilled the following conditions (vide clause 7.1 and 7.2) shall be deemed to have satisfied the attendance requirements for appearing for the end semester examination of a particular course.

- 7.1** Ideally every student is expected to attend all periods and earn 100% attendance. However, the student shall secure not less than 75% attendance, course wise, taking into account the number of periods required for that course, as specified in the curriculum.
- 7.2** If a student secures attendance between 65% and less than 75% in any course in the current semester, due to medical reasons (hospitalization / accident / specific illness) or due to

participation in the College / University / State / National / International level Sports events, with prior permission from the Chairman, Sports Board and Head of the Department concerned, the student shall be given exemption from the prescribed attendance requirement and the student shall be permitted to appear for the end semester examination of that course. In all such cases, the students should submit the required documents on joining after the absence to the Head of the Department through the Faculty Advisor. It is mandatory for the HOD to verify and certify the genuineness of the case before recommending the same to the Principal.

All other students who have secured attendance between 65% and less than 75% upto maximum of three courses shall apply for condonation in the prescribed format with prescribed fee of Rs.2000/- per course so as to permit them to attend the ESE.

- 7.3** A student shall normally be permitted to appear for the end semester examination of the course if the student has satisfied the attendance requirements (vide Clause 7.1 – 7.2) and has registered for the examination in those courses of that semester by paying the prescribed fee.
- 7.4** Students who do not satisfy clause 7.1 and 7.2 and who secure **less than 65%** attendance in a course will not be permitted to write the end semester examination of that course. The student has to register and redo the course when it is offered next as per Clause 6.5. If the course in which the student has been prevented is a professional / open elective, the student can opt to redo the same course or opt for different professional / open elective course as per Clause 6.5.2.
- 7.5** If a student has shortage of attendance in all the registered courses, he/she should not be permitted to move to the higher semester and has to repeat the current semester in the subsequent year.
- 7.6** In the case of reappearance (Arrear) registration for a course, the attendance requirement as mentioned in Clauses 7.1 - 7.3 is not applicable. However, the student has to register for examination in that course by paying the prescribed fee.
- 7.7** A student who has already appeared for a course in a semester and passed the examination is not entitled to reappear for the same course for improvement of letter grades /marks.

8. FACULTY ADVISOR

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

The responsibilities of the faculty advisor shall be:

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

9 COURSE COMMITTEES

9.1 COMMON COURSE COMMITTEE

A theory course handled by more than one teacher shall have a "Common Course Committee", comprising of all teachers teaching that course. One of the teachers shall be nominated as Course Coordinator by the Head of Department, duly approved by the Dean Academic Courses.

The first meeting of the Common Course Committee shall be held within fifteen days from the date of formation of the committee. The nature and weightage of the continuous assessments shall be decided in the first meeting, within the framework of the Regulations. Two or three subsequent meetings in a semester may be held at suitable intervals. In addition the "Common Course Committee" shall meet to ensure uniform evaluation of continuous assessments after arriving at a common scheme of evaluation for the assessments (vide clause 10).

Wherever feasible, the common course committee shall prepare a common question paper for the continuous assessment tests also. The question paper for the end semester examination is common and shall be set by the Course Coordinator, in consultation with all the teachers.

9.2 MULTIPLE COURSES COMMITTEE

“Multiple Courses Committee” comprises of all teachers handling courses of a particular semester, including common course teachers and two student representatives from the course concerned. One of the above teachers, nominated by the Head of the Department shall coordinate the activities of this committee. The functions of this committee are as follows:

The first meeting of the Multiple Courses Committee shall be held within fifteen days from the date of formation of the committee. The nature and weightage of the continuous assessments shall be decided in the first meeting, within the framework of the Regulations. Two or three subsequent meetings in a semester may be held at suitable intervals. During these meetings, the student members shall meaningfully interact and express their opinions and suggestions of all the students to improve the effectiveness of the teaching-learning process. It is the responsibility of the student representatives to convey the proceedings of these meetings to all the students.

9.3 OVERALL MONITORING COMMITTEE

In addition, there shall be an overall monitoring committee for each semester of a programme, which comprises of (i) the Head of the department (convener), (ii) the Faculty Advisors of the programme and (iii) Multiple Course Coordinator. This overall monitoring committee shall meet periodically to discuss academic related matters, progress and status of the students of the semester concerned.

- 9.3.1 The overall monitoring committee can also invite some of the students of the semester concerned for any of the committee meetings if necessary.

10 ASSESSMENT PROCEDURES FOR AWARDING MARKS

All PG (M.E., (Full time)) Programmes consist of Theory Courses, Laboratory Courses and Employability Enhancement Courses. Employability Enhancement Courses include Project Work, Seminar, Professional Practices, Case Study and Industrial / Practical Training.

Appearance in End Semester Examination is mandatory for all courses including Theory, Laboratory, Theory Courses with Laboratory Component and Project work.

Performance in each course of study shall be evaluated based on

- i) Continuous assessments throughout the semester and
- ii) End Semester Examination at the end of the semester.

If any student happened to fail in theory cum practical course he/she has to re appear for the theory courses only.

(i.e.) Each course shall be evaluated for a maximum of 100 marks as shown below:

| S.No | Category of course | Continuous Assessments | End-Semester Examinations |
|-------------|---|-------------------------------|----------------------------------|
| i. | Theory Courses(FC, PC, IC and PE) | 40 Marks | 60 Marks |
| ii. | Theory Courses with Laboratory Component / Laboratory Courses | 50 Marks | 50 Marks |
| iii. | Project Work | 50 Marks | 50Marks |
| iv. | All other EEC Courses | 100 Marks | - |
| v. | Audit Courses | 100 Marks | |

Every teacher is required to maintain an ‘ATTENDANCE AND ASSESSMENT RECORD’ for every semester, which consists of attendance marked in each theory / Laboratory/EEC class, the assessment marks and the record of class work (topics covered), separately for each course handled by the teacher. 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 assessment marks and attendance. The Head of the Department will affix his/her signature and date after due verification.

The Dean-Academic and his team shall check the syllabus covered, attendance of the students and with his comments along with the log books are sent to the HOD of the concerned department. At the end of the semester, the record should be verified by an Audit team headed by Dean-Academics and return to Head of the Department who shall keep this document in safe custody (for four years). The records of attendance and assessment of both current and previous semesters should be available for any inspection at any time.

10.1 ASSESSMENT FOR THEORY COURSES

For Theory Courses out of 100 marks, the maximum marks for Continuous Assessment is fixed as 40 and the End Semester Examination carries 60 marks.

The End Semester Examinations for theory courses will be of 3 hours duration and shall normally be conducted between October and December during the odd semesters and between April and June during the even semesters. End semester Examination is a mandatory requirement for passing the course and every student should appear for the examination for theory, theory course with laboratory, laboratory courses and project work.

DISTRIBUTION OF MARKS

M.E. Programmes

| S. No. | Category | Maximum Marks |
|--------------|--|---------------|
| 1. | Assignment/Technical quiz/Research articles/Presentation or latest advancement in the field | 20 |
| 2. | Attendance | 5 |
| 3. | Internal tests (All the TWO internal test marks are averaged to TEN marks and FIVE marks for mid semester examination) | 15 |
| Total | | 40 |

Question Paper pattern for Internal Test – M.E. Programmes

| |
|---|
| Maximum Marks : 50 |
| Part A : 6 x 2 = 12 marks |
| Part B : 2 x 14 = 28 marks (Either or Pattern) |
| Part C : 1 x 10 = 10 marks (Either or Pattern) |

Question Paper pattern of Mid semester Exam and ESE for M.E.

| |
|--|
| Maximum Marks : 100 (No. of Questions x Mark = Total marks) |
| Part A : 10 x 2 = 20 marks |
| Part B : 5 x 14 = 70 marks (Either or Pattern) |
| Part C : 1 x 10 = 10 marks (Compulsory question) |

10.2 ASSESSMENT FOR LABORATORY COURSES

For Laboratory Courses out of 100 marks, the maximum marks for Continuous Assessment is fixed as 50 and the End Semester Examination carries 50 marks. Every laboratory exercise / experiment shall be evaluated based on the student's performance using rubrics during the laboratory class and the student's records maintained. There shall be at least one assessment test.

Practical Courses (Common for all PG programmes)

| S. No. | Category | Maximum Marks |
|--------|---|---------------|
| 1. | Average marks of all experiments based on Rubrics | 25 |
| 2. | Assessment Test marks (It should be conducted for 50marks and converted to 25marks) | 25 |
| | Total | 50 |

The End semester examinations for Laboratory courses will be of 3 hours duration and shall normally be conducted between October and December during the odd semesters and between April and June during the even semesters.

10.3 ASSESSMENT FOR THEORY COURSES WITH LABORATORY COMPONENT

| S. No. | Category | Maximum Marks |
|--------|---|---------------|
| 1. | Average of two Internal tests mark conducted each for 50 marks reduced to 10marks | 10 |
| 2. | The sum of Mid semester marks reduced to 5marks | 5 |
| 3. | All Experiment marks should be converted to 5marks. Then the end semester exam will be conducted for 50marks and converted to 20marks (20+5=25marks). | 25 |
| 4. | Attendance | 5 |
| 5. | Assignment | 5 |
| | Total | 50 |

10.4 ASSESSMENT FOR PROJECTWORK

The evaluation of Project Work for Phase I and Phase II in the case M.E., shall be done independently in the respective semesters and marks shall be allotted as per the weightages given in Clause 10.4.1.

The Project work shall be evaluated for a maximum of 100 marks of which 50 marks will be through internal assessment. There should be three reviews for each phase in the case of M.E. (Phase I and Phase II) to be conducted separately with Internals 50 marks and External 50 marks. The committee for the conduct of reviews shall be constituted by the Head of the Department. The marks are to be distributed as detailed below.

| Project work | Internal (50 Marks) | | | External (50 Marks) | | |
|------------------------|---------------------|-----------|------------|-------------------------------|------------------------|----------|
| | Review I | Review II | Review III | Project Evaluation (External) | Viva – Voce (20 Marks) | |
| | | | | | External | Internal |
| Phase – I & Phase - II | 10 | 20 | 30 | 30 | 10 | 10 |

10.4.1 There shall be three assessments (each 100 marks) during the semester by a review committee. The student shall make presentation on the progress made before the committee. The Head of the Department shall constitute the review committee consisting of supervisor, project coordinator and another faculty member from the Department for each branch of study. The total marks obtained in the three assessments shall be reduced to 50 marks and rounded to the nearest integer.

10.4.2 The Project Report prepared according to approved guidelines as given by the Academic Courses, Anna University and duly signed by the supervisor(s), Project Co-ordinator and the Head of the Department and shall be submitted to the Head of the Department.

10.4.3 The evaluation of the Project work Phase - I and Phase - II (M.E.) shall be based on the project report submitted in each of the Phase – I and Phase - II semesters respectively and a Viva-Voce Examination by a team consisting of the supervisor, Internal examiner (other than the supervisor) and External Examiner. The internal/external examiners will be appointed by the COE for Phase – I and Phase – II project evaluation.

10.4.4 If the student fails to obtain 50% of the internal assessment marks in the Phase–I and Phase–II he / she will not be permitted to submit the report for that particular semester and has to re-enroll for the same in the subsequent semester.

10.4.5 The deadline for submission of final Project Report is 20 calendar days from the last working day of the semester in which project / thesis / dissertation is done. However, the Phase-I of the Project report in the case M.E., shall be submitted within a maximum period of 10 calendar days from the last working day of the semester as per the academic calendar published by the COE(Autonomous).

10.4.6 If a student fails to submit the project report on or before the specified deadline, student is deemed to have failed in the Project Work and shall re-enroll for the same in a subsequent semester. This applies to both Phase–I and Phase–II in case of M.E.,

In case of students of M.E., not completing Phase - I of Project work successfully, the students can undertake Phase - I again in the subsequent semester. In such cases, the students can enroll for Phase-II, only after successful completion of Phase I.

10.4.7 A copy of the approved project report after the successful completion of viva-voice examinations shall be kept in the library of the College / Institution.

10.5 ASSESSMENT FOR SEMINAR / PROFESSIONAL PRACTICES / CASESTUDY:

The seminar / Case study shall carry 100 marks and shall be evaluated through continuous assessment 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 consisting of one coordinator and two members appointed by the 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%).

10.6 ASSESSMENT FOR INDUSTRIAL / PRACTICAL TRAINING / INTERNSHIP / SUMMER/MINI PROJECT

10.6.1 Practical training / Industrial Attachment / Summer Project if specified in the Curriculum shall not exceed the maximum duration of 4 weeks and should be organized by the Head of the Department for every student.

10.6.2 The Industrial / Practical Training shall carry 100 marks and shall be evaluated through continuous assessment only as per Table 2. At the end of Industrial / Practical training / Internship / Summer Project, the student shall submit a brief report on the training undergone and a certificate from the organization concerned. The evaluation will be made based on this report and a Viva-Voce Examination, conducted internally by a three member Departmental Committee consisting of one co-ordinator and two members constituted by the Head of the Department. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list (with grade) and sent to Controller of Examinations by the Head of the Department.

10.6.3 The Industrial / Practical Training **which is not part of the curriculum (Clause 4.5.2)**, shall carry 100 marks and shall be evaluated **through internal assessment only** as per Table 2. At the end of Industrial / Practical training / internship / Summer Project, the student shall submit a certified report (evaluated out of 100 marks by a mentor/guide) from the organization where the student has undergone training.

The Viva-Voce Examination will be conducted by a three member committee constituted by the Head of the Department. The committee comprises of one expert from an industry/organization and two members (co-ordinator and member) from the Department. Certificates (issued by the Organization) submitted by the student shall be attached to the mark list (with grade) and sent to Controller of Examinations by the Head of the Department.

Table 2

| INTERNSHIP / INDUSTRIAL TRAINING | | |
|---|---------------------|------------------|
| EVALUATION | | |
| REPORT | PRESENTATION | VIVA VOCE |
| 40 | 30 | 30 |

10.7 ASSESSMENT FOR VALUE ADDED COURSES

The one credit course shall carry 100 marks and shall be evaluated through **continuous assessments only**. Two Assessments shall be conducted during the semester by the Department concerned. The total marks obtained in the tests shall be reduced to 100 marks and rounded to the nearest integer. 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 (if available), coordinator and a senior Faculty member nominated by the Head of the Department shall monitor the evaluation process. The grades shall be assigned to the students by the above committee based on their relative performance.

10.8 ASSESSMENT FOR ONLINE COURSE from NPTEL, MOOC, Edx

Students may be permitted to credit online courses (which are provided with certificate) with the approval of HOD of the department subject to a maximum of three credits. This online course of 3 credits can be considered over and above the credits for the award of degree. The Head of the Department may identify a faculty member as coordinator for the course, who is responsible for evaluation process. For the successful students the subject details will be mentioned in the marksheet under the heading online courses.

11 PASSING REQUIREMENTS

11.1 The Passing requirement for a student in a course is determined based on the marks obtained both in Continuous Assessment and End Semester Examinations. If the student gets <50% of total marks then, the student will be awarded only RA (Reappearance) grade. All other grades will be decided by the faculty concerned. While fixing the grades, the mean mark shall be at the middle of the 'A' grade range. A student who earns a minimum of 6 grade points in a course is declared to have successfully passed the course.

11.2 If a student fails to secure a pass in theory courses and laboratory courses in the current semester examination, he/she is allowed to write arrear examinations for the next three consecutive semesters and their internal marks shall be carried over for the above mentioned period of three consecutive semesters.

11.3 If a candidate fails in the end semester examinations of Phase I, he/she has to resubmit the Project Report within 30 days from the date of declaration of the results. If he / she fails in the end semester examination of Phase II of M.E., he/she shall resubmit the Project Report within 30 days from the date of declaration of the results. The resubmission of the project report and the subsequent viva- voce examination will be considered as reappearance with payment of exam fee. In case if a student fails to resubmit the project report within the stipulated period and fails in the subsequent viva-voce examination, the student shall register for the course again, in the subsequent semester.

11.4 The passing requirement for the courses which are assessed only through continuous assessment (EEC courses except project work), shall be fixed as minimum 50% and rest of the grades are decided by the faculty concerned.

11.5 Supplementary Examinations

After the publication of FINAL Semester ESE and the corresponding revaluation results if a student has **arrear in only one course** for the entire programme, he/she will be permitted to take up the supplementary examination within one month after the publication of the revaluation results.

12 REQUEST FOR PHOTO COPY OF THE VALUED ANSWER SCRIPT / REVALUATION

A student can apply for viewing of valued answer script and / or revaluation of his / her semester examination answer paper in theory courses, within FIVE working days from the

declaration of results, and on the dates specified by the Controller of Examinations on payment of a prescribed fee along with proper application to the Controller of Examinations. The Controller of Examinations shall arrange for viewing / revaluation and the revaluation result shall be published soon after the revaluation process is completed.

13. AWARD OF LETTER GRADES

13.1. The performance of a student will be reported using letter grades, each carrying certain points as detailed below:

| Letter Grade | Grade Points |
|--------------------------------|--------------|
| O (Outstanding) | 10 |
| A + (Excellent) | 9 |
| A (VeryGood) | 8 |
| B + (Good) | 7 |
| B (Average) | 6 |
| RA (Reappearance Registration) | 0 |
| WD(Withdrawal) | 0 |
| AB (Absent) | 0 |

‘RA’ denotes Reappearance. Registration is required for that particular course.

‘W’ indicates withdrawal from the course.

‘AB’ indicates Absent in the course.

‘WH’ indicates malpractice of any kind (withheld).

13.2 The grades O, A+, A, B+, B obtained for the one credit course shall figure in the Mark sheet under the title ‘Value Added Courses’.

14. GPA AND CGPA CALCULATION

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

- the list of courses registered during the semester and the grades scored.
- the Grade Point Average (GPA) for the semester and
- the Cumulative Grade Point Average (CGPA) of all courses registered from first semester onwards.

During each semester, the list of courses registered and the grades scored in each course are used to compute the Grade Point Average (GPA). GPA is the ratio of the sum of the products of the number of credits of courses registered and the grade points corresponding to the

grades scored in those courses, taken for all the courses, to the sum of the number of credits of all the courses in the semester.

After the results are declared, grade sheet will be issued to each student which will contain the following details. Grade Point Average (**GPA**) of a Semester (**SGPA**) and Cumulative Grade Point Average (**CGPA**) of a programme are calculated as follows.

$$SGPA = \frac{\text{Sum of the product of the GP by the corresponding credits of the courses offered in that semester}}{\text{Sum of the credits of the courses of that semester}}$$

$$i.e., SGPA = \frac{\sum_i C_i GP_i}{\sum_i C_i}$$

$$CGPA \text{ of the entire programme} = \frac{\text{Sum of the product of the GPs by the corresponding credits of the courses offered for the entire programme.}}{\text{Sum of the credits of the courses of the entire semester}}$$

$$i.e., CGPA \text{ of the entire programme} = \frac{\sum_n \sum_i C_{ni} GP_{ni}}{\sum_n \sum_i C_{ni}}$$

Where,

C_i is the credit fixed for the course I in the any semester

GP_i is the grade point obtained for the course i in any semester

n refers to the semester in which such courses are credited

Note: **RA** grade will be excluded for calculating **GPA** and **CGPA**

14.2 The credits earned through one / two credit courses shall not be considered for calculating GPA and CGPA.

14.3 If a student studies more number of electives than required as per the student's programme curriculum, the courses with higher grades alone will be considered for calculation of CGPA.

15 ELIGIBILITY FOR THE AWARD OF DEGREE

15.1 A student shall be declared to be eligible for the award of the PG Degree (M.E.) provided the student has

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

a. M.E.,(Full time)

Successfully completed the course requirements, appeared for the End-Semester examinations and passed all the subjects prescribed in all the 4 semesters within a maximum period of 4 years reckoned from the commencement of the first semester to which the candidate was admitted.

- ii. Successfully passed any additional courses.
- iii. No disciplinary action pending against the student.
- iv. The award of Degree must have been approved by the Syndicate of the University.

15.2 CLASSIFICATION OF THE DEGREE AWARDED

15.2.1 FIRST CLASS WITH DISTINCTION:

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

M.E., (Full Time)

- Should have passed the examination in all the courses of all the four semesters in the student's First Appearance within **three** years, 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**
- Should NOT have been prevented from writing End Semester Examination due to lack of attendance in any of the courses.

15.2.2 FIRST CLASS:

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

M.E., (Full Time)

- Should have passed the examination in all the courses of all four semesters **within three years** , which includes one year of authorized break of study (if availed) or prevention from writing the End Semester Examination due to lack of attendance (if applicable).
- Should have secured a CGPA of not less than **7.00**

15.2.3 SECOND CLASS:

All other students (not covered in clauses 15.2.1 and 15.2.2) who qualify for the award of the degree (vide Clause 15.1) shall be declared to have passed the examination in **Second Class**.

15.2.4 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 (except approved withdrawal from end semester examinations as per clause 16) for the purpose of classification.

16 PROVISION FOR WITHDRAWAL FROM EXAMINATION:

- 16.1** A student may, for valid reasons, (medically unfit / unexpected family situations / sports approved by HOD/physical director) 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 COE through HOD with required documents.
- 16.2** 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 examination in that course or courses and also recommended by the Head of the Department.
- 16.3** Notwithstanding the requirement of mandatory TEN working days' notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- 16.4** If a student withdraws a course or courses from writing end semester examinations, he/she shall register the same in the subsequent semester and write the end semester examination(s).
- 16.5** Withdrawal shall not be considered as an appearance for deciding the eligibility of a student for First Class with Distinction.
- 16.6** Withdrawal is permitted for the End Semester Examinations in the final semester only if the period of study the student concerned does not exceed 3 years for **M.E.**,

17 BREAK OF STUDY FROM A PROGRAMME

- 17.1** A student is permitted to go on break of study for a fixed period of one year as a single break in the entire course of study.
- 17.2** The student applies for break of study, the student shall apply to the COE through HOD in advance, in any case, not later than the last date of the first assessment period. The application (downloaded from website) duly filled by the student shall be submitted through the Head of the Department.
- 17.3** The students permitted to rejoin the programme after break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of rejoining. The students rejoining in new Regulations shall apply to the COE through HOD in

the prescribed format at the beginning of the readmitted semester itself for prescribing additional/equivalent courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.

17.4 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 5.1 irrespective of the period of break of study in order that the student may be eligible for the award of the degree (vide clause 15).

17.5 In case there is any period of break of study more than the permitted duration of break of study, the student shall be permitted to continue the programme only if the approval is obtained from the COE through Head of the Department before the end of the semester in which the student has taken break of study.

17.6 If a student has not reported to the department for a period of two consecutive semesters without any intimation, the name of the student shall be deleted permanently from the college enrollment. Such students are not entitled to seek readmission under any circumstances.

17.7 PROVISION OF SCRIBE:

- The Appointment of scribes for the students with disabilities shall be done by the Controller Office. In this connection the student shall submit her/his requisition through proper approval of HoD and Principal to CoE office well in advance prior to the examinations. (at least 15 days before the commencement of Examinations).
- However, students injured during the study holidays and in between the examination period and not able to write, on producing medical certificate from Civil Surgeon will be given Scribe.

18 FOR STUDENTS REJOINING THE PROGRAMME

A student who is required to repeat the study of any semester for want of attendance/ progress/conduct or who desires to rejoin the course after a period of discontinuance or who upon his/her own request is permitted by the authorities to repeat the study of any semester, may join the semester which he/she is eligible or permitted to join, only at the time of its normal commencement for a regular batch of students and after obtaining the approval from Directorate of Technical Education (DoTE) and Anna University, Chennai. No student will however be enrolled in more than one semester at any time.

In that case he/she has to come under the regulation which is being followed in that Academic year.

19 FOR TRANSFER STUDENTS

Students transferred from other Institutions may be admitted on obtaining the approval from DOTE and Anna University, Chennai. In that case he/she has to come under the regulation which is being followed in that Academic year and also should obtain equivalence from the Controller of Examinations.

20 DISCIPLINE

20.1 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/ Department. The Head of the Institution shall constitute a disciplinary committee consisting of Head of the Institution, Head of the departments to which the student concerned belongs, and the Head of another department to enquire into acts of indiscipline and notify the Institution about the disciplinary action recommended for approval. In case of any serious disciplinary action which leads to suspension or dismissal, then a committee shall be constituted by the COE of the college for taking final decision.

20.2 If a student indulges in malpractice in any of the examinations, the student shall be liable for punitive action as prescribed by the University from time to time.

21 REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

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

CHAIRMAN BOS

DEAN

PRINCIPAL