BANNARI AMMAN INSTITUTE OF TECHNOLOGY, SATHYAMANGALAM REVISED REGULATIONS 2018 (CHOICE BASED CREDIT SYSTEM)

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

Regulation 2018 has been prepared in accordance with the guidelines given by the University Grants Commission, All India Council for Technical Education and affiliating University incorporating the features of the Choice Based Credit System (CBCS). The Regulation 2018 is applicable to the candidates admitted to the Bachelor of Engineering (B.E.) / Bachelor of Technology (B.Tech.) Degree Programmes of the Institution in the academic year 2018-2019 for Regular admission (Academic year 2019-2020 for Lateral Entry) and subsequently.

The regulations hereunder are subjected to amendments as may be decided by the Academic Council of the Institution from time to time. Any or all such amendments will be effective from such date and to such batches of students (including those already in the middle of the programme) as may be decided by the Academic Council.

1. ADMISSION

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

1.1 Regular Admission

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

Higher Secondary Examination (10 +2) of curriculum (Regular Academic Stream) prescribed by the Government of Tamil Nadu with Mathematics, Physics, and Chemistry as three of the four subjects of the study prescribed under Part-III or any other examinations of any Board or University or authority accepted by the Syndicate of the University / Directorate of Technical Education (DoTE), Chennai as equivalent thereto.

(or)

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

1.2 Lateral Entry Admission

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

(or)

1.2.2 The candidates who possess the Bachelor Degree in Science (B.Sc.) (10+2+3 stream) with Mathematics as a subject in B.Sc. is eligible to apply for Lateral Entry admission to the third semester of B.E./B.Tech. Programmes, as per the eligibility criteria prescribed by the Directorate of Technical Education from time to time. Such candidates shall undergo two additional Engineering subject(s) one each in third and fourth semesters, as bridge courses.

2. PROGRAMMES OFFERED

A candidate may be offered admission to any one of the programmes offered by the Institution for the candidates specified in Clause 1.1 and as per the eligibility criteria of DoTE for the candidates under Clause 1.2 from the list given below:

B. E. Programmes

- i. Aeronautical Engineering
- ii. Agriculture Engineering
- iii. Automobile Engineering
- iv. Biomedical Engineering
- v. Civil Engineering
- vi. Computer Science and Engineering
- vii. Electronics and Communication Engineering
- viii. Electrical and Electronics Engineering
- ix. Electronics and Instrumentation Engineering
- x. Information Science and Engineering
- xi. Mechanical Engineering
- xii. Mechatronics

B. Tech. Programmes

- i. Artificial Intelligence and Data Science
- ii. Artificial Intelligence and Machine Learning
- iii. Biotechnology
- iv. Computer Science and Business Systems
- v. Computer Technology
- vi. Fashion Technology

vii. Food Technology

viii. Information Technology

ix. Textile Technology

3. STRUCTURE OF THE PROGRAMME

- 3.1 Every programme shall have a distinct curriculum with syllabi consisting of theory, laboratory, project, soft-skills and personality development courses, as prescribed by the respective Boards of Studies, broadly categorized under:
 - (i) **Basic Science** courses including Mathematics, Physics, Chemistry and further specialization in these subjects
 - (ii) **Basic Engineering** courses including Engineering Graphics, Engineering Practices, Basics of Electrical, Electronics, Civil, Mechanical Engineering, Engineering Mechanics and Computer Programming.
 - (iii) **Humanities and Social Science** courses including Language Courses, Management Courses, Soft Skills and Professional Ethics.
 - (iv) Professional Courses include Discipline Core Courses, Professional Electives, and Open Electives.
 - (v) **Employability Enhancement Courses** (**EEC**) includes Project Work and /or Internship, Seminar, Industrial /Practical Training, Value Added and Certificate Courses.

The medium of instruction is English for all the Courses, Examinations, Seminar Presentation, Projects and any other courses that a student registers for.

3.2 Each course is normally assigned a certain number of credits based on the following

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

3.3 All the B.E. / B.Tech. Students will study Communicative English I during the First Semester. In the Second Semester, they will be divided into two streams based on their English language proficiency assessed in the Continuous Assessment during semester I, in which the upper segment will be provided an option to enroll and study

- Communicative English II / German / Japanese / French / Chinese / Hindi while the lower segment will study Communicative English II.
- Students can opt for the electives (Core / Professional) from his / her own discipline courses, during V to VII Semesters, if he/she satisfies the prerequisite for that particular course.
- 3.5 However, out of nine electives, every student shall be required to opt for, a minimum of one and subject to a maximum of three courses as open elective from the list of electives of the branch / branches other than his / her branch of specialisation, if he/she satisfies the prerequisite for that particular course.
- Students can also opt for **one-credit courses** of 15 to 20 hour duration, which will be offered by the experts from the industry on specialised topics. Students can opt for such **one-credit courses** during the semesters I to VI as and when these courses are offered. A student will also be permitted to register the **one-credit courses** offered by other Departments, provided the student has fulfilled the necessary pre-requisites or the courses that may not require any pre-requisites. Under no circumstances, the same one credit course shall be repeated in subsequent semesters in any Department / Centre for the same batch of the students and a maximum batch size for a given course shall not exceed 40. In case of disciplines with multiple divisions (intake more than 60) different course(s) shall be offered to other batch(es) of students.

On successful completion of one credit courses, Credits will be indicated in the Grade Sheet, but will not be considered for computing the Cumulative Grade Point Average (CGPA). However, if a student wishes to avail the exemption from any one of the Electives (other than open elective) of the Semester VII, he / she can do so by exercising his / her option in writing to the respective Head of the Department during the beginning of the VII Semester, following the equivalence norm, that one **regular elective** (in the **VII Semester**) is equivalent to **three one-credit courses** completed by the student during the previous semesters, III to VI. Details of the one credit courses offered by the department shall be forwarded to the Office of the Controller of Examinations. However one credit courses completed during I to II semesters shall

- be maintained in the Grade sheet as "Additional credits earned" (not considered for the computation of SGPA/CGPA).
- 3.7 A student can register for Self-Study Elective(s) over and above the electives from any branch of Engineering / Technology at the rate of one per semester starting from V semester onwards provided he/she maintains a Cumulative Grade Point Average (CGPA) of 8.50 or above till the previous semesters with no current arrears. Credits will be indicated for such courses in the grade sheets (additional credits) but will not be considered for computing the CGPA.
- 3.8 A Student may be permitted to credit two online courses with the approval of the Departmental Consultative Committee constituted by the Head of the Department, subject to a maximum of six credits. The student needs to obtain certification or credit to become eligible for writing the Semester End Examinations to be conducted by the CoE. A student can get exemption for a maximum of 6 credits during the entire programme (in lieu of Core elective or Open elective).

For online courses the following grading pattern is applicable in case of credit transfer and CGPA calculations

| Range of percentage of total marks | Letter Grade | Grade Point |
|------------------------------------|--------------|----------------|
| 91 - 100 | О | 10 |
| 81 - 90 | A+ | 9 |
| 71 - 80 | A | 8 |
| 61 - 70 | B+ | 7 |
| 51 - 60 | В | 6 |
| 40-50 | С | 5 |
| < 40 | U | 0 |
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3.9 Industrial Training / Internship

The students may undergo Industrial training / Internship optionally for a period as specified in the table during summer / winter vacation and the credits earned will be indicated in the Mark Sheet. If the student earns three credits in Industrial Training / Internship, the student may drop one Professional Elective. In such cases, Industrial Training / Internship need to be undergone continuously from one organization only. However, if the number of credits earned is 1 or 2, these credits shall not be considered for classification of the degree. The students may also undergo Internship at Research organization / University (after due approval from the Department Consultative Committee) during summer / winter vacation, in lieu of Industrial training.

| Duration of Training / Internship | Credits |
|-----------------------------------|---------|
| 2 Weeks | 1 |
| 4 Weeks | 2 |
| 6 Weeks | 3 |

3.10 Socially Relevant Projects

A Student may be permitted to carry out a socially relevant project during semester II to semester VI in consultation with the Faculty Guide and submit the project report, in the prescribed format, at the end of the Semester for the valuation.

On successful completion of socially relevant project work, one credit will be indicated in the grade sheet (Additional credits), but these credits will not be considered for computing the CGPA.

4. VALUE ADDED COURSES

A Student can opt for the Value Added Courses offered by the various Department / Centres from Semester II to VII. Head of the Department / Centre shall submit the list of such courses, duly approved / ratified by the Academic Council, to the Controller of Examinations to administer the examination process. A separate Certificate will be issued on successful completion of the course by the Head - Skills and Innovative Practices.

5. DURATION OF THE PROGRAMME

- 5.1 A regular student (admitted after 10+2) or equivalent is normally expected to satisfactorily fulfil the requirements for award of the degree B.E. / B.Tech. within four academic years (8 semesters) from the date of admission but in any case not more than 7 years (14 Semesters); lateral entry students shall fulfil such requirements within three academic years (6 semesters) from the date of admission but in any case not more than six years (12 Semesters) leading to the award of Degree of Bachelor of Engineering (B.E.) / Bachelor of Technology (B.Tech.) of Anna University, Chennai.
- 5.2 The total period for completion of the programme from the commencement of the semester, to which the student was admitted, shall not exceed the maximum period (Clause 5.1), regardless to the break-of-study (vide Clause 15) or period of prevention in order.
- 5.3 Each semester shall consist of minimum 90 working days. Head of the Department shall ensure that every faculty member teaches the subject / course as prescribed in the approved curriculum and syllabi.
- 5.4 Special Theory / Practical Sessions may be conducted for students who require additional inputs over and above the number of periods normally specified (Remedial Classes), as decided by the Head of the Department, within the specified duration of the Semester / Programme.

6. COURSE ENROLLMENT AND REGISTRATION

- 6.1 Each student, on admission shall be assigned to a Faculty Advisor (vide Clause 8) who shall advise / counsel the student about the details of the academic programme and the choice of course(s) considering the student's academic background and career objectives.
- 6.2 Every student shall enroll for the courses of the succeeding semester, in the current semester. However, the student shall confirm the enrollment by registering for the courses within the first five working days after the commencement of the semester concerned.
- 6.3 After registering for a course, a student shall attend the classes, satisfy the attendance requirements, earn Continuous Assessment marks and appear for the Semester End Examinations.

- 6.3.1 Each student, on admission to the programme, shall register for all the courses prescribed in the curriculum in the first Semester of study (III Semester for students admitted under lateral entry stream).
- 6.3.2 The enrollment for all the courses of the Semester II will commence 10 working days prior to the last working day of Semester I. The student shall confirm the enrollment by registering for the courses within the first five working days after the commencement of the Semester II. In case, if a student fails to register in course(s), he/ she may be permitted to register the same, as specified in the Clause 6.5, in the subsequent semesters or when it is offered.
- 6.3.3 The enrollment for the courses of the Semesters III to VIII will commence 10 working days prior to the last working day of the preceding semester. The student shall enroll for the courses with the guidance of the student's Faculty Advisor. If a student wishes, the student may drop or add courses (vide Clause 6.4) within **five** working days after the commencement of the semester concerned and complete the registration process duly authorized by the Faculty Advisor.

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 a student wishes, the student is permitted to earn more than the total number of credits prescribed in the curriculum by opting for one- credit courses, self study electives or additional courses.
- 6.4.2 From the III to VII semesters (from IV to VII Semesters in case of lateral entry students), 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 8, subject to a maximum of 2 courses in a given Semester. In such cases, the attendance requirement as stated in Clause 7 is mandatory.
- 6.4.3 The student shall register Project work I in semester VII and Project work II in semester VIII only.

6.5 Reappearance Registration

- 6.5.1 If a student fails in a theory course, the student shall do reappearance registration (Examination) for that course in the subsequent semesters or when it is offered next.
- 6.5.2 On registration, a student may attend the classes for the reappearance registration courses, if the student wishes, and the attendance requirement (vide Clause 7) is not compulsory for such courses.
- 6.5.3 However, if a student wishes to improve his/ her continuous assessment, in the second attempt during reappearance, he/she shall satisfy the Clause 6.5.5 and appear for continuous assessment as given for that particular course.
- 6.5.4 If the theory course, in which the student has failed, is either a professional elective or an open elective, the student may register for the same or any other professional elective or open elective course, respectively in the subsequent semesters. However, the change of elective courses is permitted only once.
- 6.5.5 In this case (Clause 6.5.4), the student shall attend the classes, satisfy the attendance requirements (vide Clause 7), earn Continuous Assessment marks and appear for the Semester End Examination.
- 6.5.6 The student who fails in any continuous assessment courses (Laboratory/ Project work / Seminar or any other HSS/EEC courses) shall register for the same in the subsequent semesters or when offered next, and **repeat** the course as per Clause 6.5.5.
- 6.5.7 If a student is prevented from writing the Semester End examination of a course or several courses due to lack of attendance, the student has to register for that / those course(s) again, when offered next, attend the classes and fulfill the requirements as per Clause 6.5.5 & 6.5.6. If the course, in which the student has 'lack of attendance', is a Core Elective or an Open Elective, the student may register for the same or any other Core Elective or Open Elective course(s) respectively in the subsequent semesters and appear in the examination as per Clause 6.5.5.
- 7. REQUIREMENTS FOR APPEARING FOR THE SEMESTER END 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 Semester End Examination of a particular course.

Every student is expected to attend all the periods and earn 100% attendance. However, a student shall secure not less than 80% overall attendance.

- 7.2 If a student, secures overall attendance between 70% and 79%) in the current semester due to medical reasons (prolonged hospitalization / accident / specific illness) or participation in Institution/ University/ State/ National/ International level extra and co-curricular activities, with prior permission from the Head of the Department, shall be permitted to appear for the current semester examinations subject to the condition that the student shall submit the medical certificate / participation certificate attested by the Head of the Institution (along with condonation form). Such certificates along with the condonation forms shall be forwarded to the Office of the Controller of Examinations for verification and permission to attend the examinations. However, during the entire programme of study, a student can avail such condonation in any two semesters only.
- 7.3 A student shall normally be permitted to appear for Semester End Examination of the course(s) if the student has satisfied the attendance requirements (vide Clause 7.1 7.2) and has registered for examination in those courses of that semester by paying the prescribed fee.
- 7.4 Students who do not satisfy Clause 7.1 and 7.2 and who secure less than 70% overall attendance would not be permitted to move to the higher semester and has to repeat the current semester in the next academic year as per the norms prescribed.
- 7.5 In the case of reappearance (Arrear) registration for a course, the attendance requirement as mentioned in Clauses 7.1 7.3 is not applicable. However, the student has to register for examination in that course by paying the prescribed fee.
- 7.6 A student who has already appeared for a course in a semester and passed the examination is not entitled to reappear in the same course for improvement of grades.

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 will attach a certain number of students to a Faculty member of the Department who shall function as Faculty Advisor for those students. The Faculty Advisor shall advise and guide the students in registering of courses, reappearance of courses, monitor their attendance and progress and counsel them periodically. The Faculty Advisor also discusses with or informs the parents about the progress / performance of the students concerned.

The responsibilities of the faculty advisor shall be:

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

9. COMMITTEES

9.1 Common Course Committee

9.1.1 A theory course handled by more than one faculty including the discipline with multiple divisions (greater than or equal to 2) shall have a "Common Course Committee" comprising of all members of faculty teaching that course with one of the members as the Course Coordinator, nominated by the Head of the Institution (Head of the Department in the case of multiple divisions of a discipline) and student representatives (one per specialization or division) registered for that course in the current semester.

First meeting of the Common Course Committee shall be held within fifteen days from the date of commencement of the semester. Two 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.

9.1.2 In addition, Common Course Committee (without the student representatives) shall meet to ensure uniform evaluation through the common question papers during Continuous Assessment and Semester End Examinations.

9.2 Class Committee Meeting

For all the courses taught, prescribed in the curriculum, Class Committee meeting shall be convened thrice in a semester (first meeting within 15 days from the commencement of the semester and other two meetings at equal interval after the first meeting) comprising members of the faculty handling all the courses and two student representatives from the class.

One of the members of the faculty (preferably not handling any courses to that class), nominated by the Head of the Department, shall coordinate the activities of the Committee. 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 other students.

10. SYSTEM OF EXAMINATION

- 10.1 Performance in each course of study shall be evaluated based on (i) Continuous Assessment throughout the semester and (ii) Semester End examination at the end of the semester for the regular courses or as given in the Clause 17. However, the final examination in the case of certificate / value added courses may be conducted, as and when the course is completed, through the office of the Controller of Examinations.
- 10.2 Each course, both theory and laboratory including project work, shall be evaluated as per the Scheme of Assessment given in Clause 17.
- 10.3 The Semester End Examinations shall normally be conducted after satisfying the Clause 5.2.
- 10.4 For the Semester End examinations, both theory and project work, the internal and external examiners (from Academia) shall be appointed by the Controller of Examinations as per the guidelines given by the Examination cum Evaluation committee of the Institute.

11. PASSING REQUIREMENTS AND PROVISIONS

- 11.1 The Passing requirement for a student in a course is determined based on the marks obtained both in Continuous Assessment and Semester End Examinations. A student who secures not less than 50% of total marks prescribed for the course [Continuous Assessment + Semester End University Examinations] with a minimum of 45% of the marks prescribed for the end-semester University Examination, shall be declared to have passed the course and acquired the relevant number of credits.
 - 11.1.1 If a student fails to secure a pass in a particular course, i.e., failing to obtain minimum marks, as stated above, it is mandatory that he/she shall reappear for the examination in that course in the subsequent semester(s) whenever the examinations are conducted for that course, till he/she secures a 'Pass'. Continuous Assessment (CA) marks obtained by the student in the first appearance shall be retained and considered valid for one subsequent attempt, except Clause 6.5.4, 6.5.5, 6.5.6 and 6.5.7. However, from the third attempt onwards, the student shall be declared to have passed the course if he/she secures a minimum of 50% in the course prescribed during the Semester End Examinations.
- 11.2 If a candidate fails in the seventh semester examinations of Project work 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 Semester End examination of Project work II, he/she shall resubmit the Project Report within 60 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 a student fails in the resubmission of a project report and subsequent viva-voce examination, the student shall register for the course again, when offered next.
- 11.3 The passing requirement for the courses which are assessed only through continuous assessment (Laboratory and EEC courses except project work), shall be fixed as minimum 50% and the remaining grades are decided as per clause 12.4. If a candidate fails in EEC courses (Except Project work), he/she has to register and repeat the course within 30 days from the date of declaration of the results. In case a student fails to register within 30 days, he/she shall register for the course again, when offered next.

11.4 The minimum number of total credits to be earned by a student to qualify for the award of Degree in the various branches of study as prescribed by the respective Boards of Studies is given below:

| | Minimum Credits | | |
|--|----------------------|------------------|--|
| Branch of Study | Regular Admission | Lateral Entry | |
| B.E. Programmes | | | |
| Aeronautical Engineering | 163 | 126 | |
| Agriculture Engineering | 163 | 125 | |
| Automobile Engineering | 161 | 124 | |
| Biomedical Engineering | 163 | 124 | |
| Civil Engineering | 163 | 125 | |
| Computer Science and Engineering | 163 | 125 | |
| Electronics and Communication Engineering | 163 | 122 | |
| Electrical and Electronics Engineering | 162 | 123 | |
| Electronics and Instrumentation Engineering | 161 | 122 | |
| Information Science and Engineering | 163 | 122 | |
| Mechanical Engineering | 161 | 122 | |
| Mechatronics | 162 | 124 | |
| B.Tech. Programmes | | | |
| Artificial Intelligence and Data Science | 161 | 123 | |
| Artificial Intelligence and Machine Learning | 163 | 126 | |
| Biotechnology | 163 | 125 | |
| Computer Science and Business Systems | 163 | 119 | |
| Computer Technology | 161 | 119 | |
| Fashion Technology | 163 | 125 | |
| Food Technology | 161 | 123 | |
| Information Technology | 161 | 123 | |
| Textile Technology | 162 | 124 | |

11.5 Student Migration and Credit Transfer: Normalization of the Credits will be carried out in consultation with the Board of Studies of the programme concerned and approved by the Head of Institution, if a student migrates from other Autonomous institutions to Bannari Amman Institution of Technology or rejoins from previous regulation to this regulation.

11.6 A student shall be declared to have qualified for award of B.E/B.Tech. Degree if he/she successfully completes the course requirements (vide Clause 7, 10 and 11) and passed all the prescribed courses of study of the respective programme (listed in Clause 2), within the duration specified in Clause 5.1.

12. ASSESSMENT AND AWARD OF LETTER GRADES

- 12.1 The assessment shall be based on the performance in the Semester End Examinations and / or Continuous Assessment, carrying marks as specified in Clause 17. Letter Grades (based on Credit Point and Grade Point) are awarded to the students based on the performance in the evaluation process.
- 12.2 Credit Point is the product of Grade Point and number of credits for a course and Grade Point is a numerical weight allotted to each letter grade on a 10-point scale (as specified in the Clause 12.4), while the Letter Grade is an index of the performance of a student in a said course.

12.3 Condition for Relative Grading

The minimum number of students for applying relative grading system is 30. If the students' strength is less than 30 then absolute grading system shall be followed with the grade range as specified below. The relative grading system shall not be applied for laboratory, project works and continuous assessment courses.

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

12.4 The performance of a student will be reported using Letter Grades, each carrying certain points as detailed below: A student who earns a minimum of 5 grade points in a course is declared to have successfully passed the course.

| Letter Grade | Grade Points |
|-----------------------------|---------------------|
| O (Outstanding) | 10 |
| A + (Excellent) | 9 |
| A (Very Good) | 8 |
| B + (Good) | 7 |
| B (Average) | 6 |
| C (Satisfactory) | 5 |
| U (Reappearance) | 0 |
| W (Withdrawal) | 0 |
| AB (Absent) | 0 |
| SA (Shortage of Attendance) | 0 |

'U' ---Reappearance is required for that particular course

'SA' --- shortage of attendance (Clause 7) and hence prevented from writing Semester End examination.

12.5 After completion of the evaluation process, Semester Grade Point Average (SGPA), and the Cumulative Grade Point Average (CGPA) is calculated using the formula:

$$SGPA/CGPA = \frac{\sum_{1}^{n} C_{i} * g_{i}}{\sum_{1}^{n} C_{i}}$$

Where

 C_i : Credit allotted to the course.

 g_i : Grade Point secured corresponding to the course.

n : number of courses successfully cleared during the particular semester in the case of SGPA and all the semesters, under consideration, in the case CGPA.

12.6 A student who does not appear for the Semester End Examinations in a course, after registering for the same, shall be deemed to have appeared for that examination for the purpose of classification (Subject to Clause 14 and 15).

- 12.7 For the non credit courses grades shall be indicated as given in the Clause 17 and shall not be counted for the computation of SGPA/CGPA.
 - For the co-curricular activities such as NCC / NSS / NSO / YRC etc..., a completed status will appear in the grade 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 before registering for the fifth semester courses. A completed status in the co-curricular activities is compulsory for the award of a degree.
- 12.8 Revaluation: A student, who seeks the re-valuation of the answer script, is directed to apply through proper application to the Controller of Examinations in the prescribed format through the Head of the Department. The Controller of Examinations shall arrange for the revaluation and declare the results. Revaluation is not permitted to the courses other than theory courses. In the case of theory courses with laboratory component, a student can seek revaluation for the theory component only, following the procedure stated above.

12.9 Eligibility for the Award of Degree

A student shall be declared to be eligible for the award of the B.E. / B.Tech. Degree 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.
- ii. Successfully completed the course requirements, appeared for the End-Semester examinations and passed all the courses prescribed in all the 8 semesters within a maximum period of 7 years for regular / 6 years for lateral reckoned from the commencement of the first semester to which the candidate was admitted.
- iii. Successfully completed the NCC / NSS / NSO / YRC / Extra-curricular/ Co-curricular requirements.
- iv. No disciplinary action is pending against the student.
- v. The award of Degree must have been approved by the Syndicate of the University.

12.10 Conduct of Special Examination

The special or make-up exams may be conducted for the students who missed the regular examination due to participation / representing the institute in various activities and the schedule may be included in the academic calendar. The special or make-up exams may be conducted after the completion of end-semester examinations and prior to starting of the next semester.

13. CLASSIFICATION OF THE DEGREE AWARDED

For the purpose of the 'Award of Degree', the duration of completion of the programme shall be the total duration taken by a student for completing first time registration of all the required courses and satisfying Clause 11, regardless to the period of Break-of-study as per Clause 15 and satisfy any one of the conditions required as given below.

- **13.1 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 (six semesters for lateral entry students) in the student's First Appearance within five years, which includes authorized break of study of one year. Withdrawal from examination (vide Clause 15) 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 semester end examination due to lack of attendance in any of the courses.
- **13.2 First Class**: A student who satisfies the following conditions shall be declared to have passed the examination in **First class**:
 - Should have passed the examination in all the courses of all eight semesters (six semesters for lateral entry students) within five years, which includes one year of authorized break of study (if availed) or prevention from writing the Semester End Examination due to lack of attendance (if applicable).
 - Should have secured a CGPA of **not less than 6.50**
- 13.3 Second Class: All other students (not covered in clauses 13.1 and 13.2) who qualify for the award of the degree shall be declared to have passed the examination in Second Class.

14. WITHDRAWAL FROM THE EXAMINATION

- 14.1 A student may, for valid reasons, be granted permission by the Head of the Department to withdraw from appearing in the examination in any course(s) only once during the entire duration of the degree programme. The application shall be sent to the office of the Controller of Examinations through the Head of the Institution with required documents.
- 14.2 Withdrawal application shall be valid only, if the student is eligible to write the examination as per Clause 7 and, if it is made within 10 working days before the commencement of the semester end examination in that course or courses and also recommended by the Head of the Department.
- 14.3 Notwithstanding the requirement of mandatory 10 working days' notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- 14.4 If a student withdraws a course or courses from writing semester end examinations, he/she shall register the same in the subsequent semester and write the semester end examination(s).
- 14.5 Withdrawal shall not be considered as an appearance in the examination for the eligibility of a student for First Class with Distinction or First Class.
- 14.6 Withdrawal is permitted for the semester end examinations in the final semester, only if the period of study of the student concerned does not exceed 5 years as per clause 13.1 & 13.2.

15. AUTHORIZED BREAK OF STUDY FROM A PROGRAMME

- 15.1 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.
- 15.2 A student is normally not permitted to break the period of study temporarily. However, if a student happens to discontinue the programme temporarily during the middle of programme of study, for reasons such as personal accident or hospitalization due to ill health or in need of health care, he/she shall apply to the Head of the Institution in advance, in any case, not later than the last date for registering for the semester examination, through the Head of the Department stating the reasons for the break-of-study (for one academic semester or 6 months, whichever is earlier). However, a student detained for want of minimum attendance requirement

- as per Clause 7 shall not be considered as permitted 'Break of Study' and Clause 15.3 is not applicable for such case.
- 15.3 The student is permitted to rejoin the programme after the break / 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 Dean Academics in the prescribed format through the Head of the Department 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.
- 15.4 Authorized break of study will be counted towards the duration specified for passing all the courses (vide Clause 5.1 and 5.2) and for the purpose of classification of Degree (vide Clause 13).
- 15.5 The total period for completion of the programme reckoned from the commencement of the first semester to which the student is admitted shall not exceed the maximum period specified in Clause 5.1, irrespective of the period of break of study in order that he / she may be eligible, for the award of the degree (vide Clause 13).
- 15.6 In case of valid reasons (as stated in Clause 15.2) extended break-of-study may be granted by the Head of the Institution for a period not more than one year in addition to the earlier authorized break of study.
- 15.7 If a student does not report back to the Institute, even after the extended Break of Study, the name of the student shall be deleted permanently from the college enrollment. Such students are not entitled to seek readmission under any circumstances.

16. IMPLEMENTATION OF HONOURS / MINOR DEGREE

The following guidelines shall be implemented for the B.E. / B. Tech. students who have been admitted from the academic year 2021-2022.

16.1B.E. / B.Tech. Honours (specialization in the same discipline):

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

16.2 B.E. / B.Tech. Honours

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

16.3 B.E. / B.Tech. (minor in other specialisation)

The student should have earned additionally a minimum of 18 credits in any one of the verticals of other B.E/B.Tech. programmes

- 16.4 Students can earn maximum of 6 credits in online mode (SWAYAM platform), out of these 18 credits with the approval of the Departmental Consultative Committee constituted by the Head of the Department.
- 16.5 B.E./B. Tech. (Hons) Specialization in the same discipline, B.E./B.Tech. Honours and B.E. / B.Tech. Minor in other specialization degrees will be optional for students.
- 16.6 For categories 16.1 and 16.2, the students will be permitted to register for the courses from V Semester onwards provided the marks earned by the students until III semester should be of CGPA 7.50 and above and cleared all the courses in the first attempt.
- 16.7 For category 16.3, the students will be permitted to register the courses from Semester V onwards provided the marks earned by the students until Semester III is CGPA 7.50 and above.
- 16.8 If a student decides not to opt for Honours, after completing a certain number of additional courses, the additional courses studied shall be considered instead of the Professional Elective courses which are part of the curriculum. If the student has studied more number of such courses than the number of Professional Elective courses required as per the curriculum, the courses with higher grades shall be considered for the calculation of CGPA. Remaining courses shall be printed in the grade sheet, however, they will not be considered for the calculation of CGPA.
- 16.9 If a student decides not to opt for Minor degree, after completing a certain number of courses, the additional courses studied shall be considered instead of Open Elective courses which are part of the curriculum. If the student has studied more number of such courses than the number of open electives required as per the

curriculum, the courses with higher grades shall be considered for calculation of CGPA. Remaining courses shall be printed in the grade sheet, however, they will not be considered for calculation of CGPA.

16.10 Classification of the Degree Awarded

The conditions for First Class with Distinction, First Class, and Second Class are same as Clause except the following classification.

First Class: A student who satisfies the following conditions shall be declared to have passed the examination in First class for the purpose of the 'Award of Degree', of B.E. / B.Tech. Honors (specialization in the same discipline) and B.E. / B.Tech. Honors

➤ Should have secured a CGPA of not less than 7.50.

17. SCHEME OF ASSESSMENT

Courses offered under B.E. / B.Tech. Programmes are assessed as given below:

| Ι | THEORY COURSES Continuous Assessment Distribution of marks for Continuous Assessment: Periodical Test I (12) Periodical Test II (12) Innovative Practices (16) | Marks 40 |
|----|---|--------------|
| | Semester End Examination Total Marks | 60 100 |
| II | THEORY COURSES WITH LAB COMPONENT Continuous Assessment Distribution of marks for Continuous Assessment: Periodical Test I (15) Periodical Test II (15) Innovative Practices (20) (Laboratory Assessment & Report) | Marks 50 |
| | Semester End Examination | 50 |
| | (QP pattern as per (I)) | |
| | Total Marks | 100 |
| Ш | LABORATORY COURSES Continuous Assessment Distribution of marks for Continuous Assessment: Conduct of Experiment i. Preparation (20) ii. Experiment and Analysis of Results (20) iii. Record (10) Test - Cycle I (25) Test - Cycle II (25) | Marks 100 |
| | Total Marks | 100 |
| IV | PROJECT WORK I Continuous Assessment Distribution of marks for Continuous Assessment: <u>Review I</u> Literature Survey (5) Identification of topic and Justification (5) Work plan (10) <u>Review II</u> Approach & Results (15) Conclusion (15) | Marks 50 |

| | Semester End Examination | |
|------|--|-------|
| | <i>Report</i> [#] (20) | 50 |
| | Presentation (20) | 50 |
| | Viva voce (10) | |
| | Total Marks | 100 |
| V | PROJECT WORK II | Marks |
| | Continuous Assessment | 50 |
| | Distribution of marks for Continuous Assessment: | |
| | <u>Review I</u> | |
| | Progress (10) | |
| | <u>Review II</u> | |
| | Approach & Results (10) | |
| | <u>Review III</u> | |
| | Conclusion & Final Presentation (10) | |
| | Report (15) | |
| | Publication of Paper in Conferences / Journals (5) | |
| | Semester End Examination | |
| | Presentation (30) | 50 |
| | Viva voce (20) | 400 |
| | Total Marks | 100 |
| VI | LANGUAGE ELECTIVE | Marks |
| | (CONTINUOUS ASSESSMENT ONLY) | |
| | Test 1 | |
| | Listening (5) | |
| | Speaking (10) | 25 |
| | Reading (5) | |
| | Writing (5) | |
| | Test 2 | |
| | Listening (5) | |
| | Speaking (10) | 25 |
| | Reading (5) | |
| | Writing (5) | |
| | Oral Exam | 50 |
| | Total Marks | 100 |
| VII | ONE-CREDIT COURSE | Marks |
| | (CONTINUOUS ASSESSMENT ONLY) | |
| | Test I | 50 |
| | Quiz/ Assignment | 50 |
| | Total Marks | 100 |
| VIII | INDUSTRIAL TRAINING/ INTERNSHIP | Marks |

Reports / Record Note / Integrated Lab Manual to be retained for 1 year for Academic Audit, by respective Department

| | (CONTINUOUS ASSESSMENT ONLY) | |
|----|--|-------|
| | Assessment by Industry | 30 |
| | Viva-voce | 20 |
| | Presentation | 30 |
| | Case Study / Report | 20 |
| | Total Marks | 100 |
| IV | SOFT SKILLS | Marks |
| IX | (CONTINUOUS ASSESSMENT ONLY) | |
| | Test I | 25 |
| | Test II | 25 |
| | Final Examination | 50 |
| | Total Marks | 100 |
| | Grades (Excellent / Good / Satisfactory) | |
| X | VALUE ADDED / CERTIFICATE COURSES | Marks |
| | (CONTINUOUS ASSESSMENT ONLY) | |
| | Test I | 25 |
| | Test II | 25 |
| | Final Evaluation / Test | 50 |
| | Total Marks | 100 |
| | Grades (Excellent / Good / Satisfactory) | |
| XI | ENGINEERING GRAPHICS | Marks |
| | Continuous Assessment | 100 |
| | Distribution of marks for Continuous Assessment: | |
| | Exercise (Minimum 10 Exercises/Modelling) | 60 |
| | Model Examination | 40 |
| | Total Marks | 100 |
| | | |

Optional Test: A student becomes eligible to appear for an optional test conducted after the Periodical Test II, only under the following circumstances: (i) absent for Test I or Test II or both on account of medical reasons (hospitalization/accident/specific illness), or (ii) participation in the College / University / State / National / International level Sports events and activities with prior permission from the Head of the Institution and (iii) on satisfying the conditions (i) or (ii), the student should have registered for the Optional Test, through the concerned member of faculty who handles the course or through the respective Head of the Department, submitted to the Controller of Examinations. Such Optional Tests are not conducted for the courses under the categories III, IV, V, VI, VII, VIII, IX, X and XI listed above.

18. FIELD / INDUSTRIAL VISIT / INTERNSHIP

In order to provide the experiential learning to the students, Head of the Department shall take efforts to arrange at least two industrial visits / field visits. The students may also undergo in-plant training / internship during summer / winter vacation between III and VII semesters.

19. PERSONALITY AND CHARACTER DEVELOPMENT

Every student shall be required to undergo a minimum of 40 hours of Personality Development Programmes viz, NSS / NCC / YRC / YOGA / Sports and Games / Technical and Non-technical Club activities. The attendance of the personality and character development courses / events shall be maintained on the regular basis by the club co-ordinator and made available in the Office of the Controller of Examinations before the commencement of Semester examinations of Semester I to Semester IV.

20. DISCIPLINE

A student is expected to follow the rules and regulations laid down by the Institute and the affiliating University, as published from time to time. Any violations, if any, shall be treated as per the procedures stated thereof.

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

21. REVISION OF REGULATIONS, CURRICULUM AND SYLLABI

The Institution reserves the right to revise/amend/change the Regulations, Curriculum, Syllabi, Scheme of Examinations and date of implementation and to introduce Additional Electives, Open Electives, One Credit Courses and Value Added Courses through the Academic Council.