



NPSBCET

New Prince Shri Bhavani
College of Engineering & Technology

(An Autonomous Institution)

Affiliated to Anna University | ISO 9001:2015 Certified | NAAC Accredited 'A+' Grade
Tambaram-Velachery Main Road, Santhosapuram, Chennai-600 073.

REGULATIONS 2023

CHOICE BASED CREDIT SYSTEM

Common to all

B.E. / B. TECH.

Full-Time UG Programmes

Vision:

Emergence as a recognized academic institution, contributing to technological and socio-economic development of the society.

Mission:

1. To develop the needed resources and infrastructure, and to establish a conducive ambience for the teaching- learning process.
2. To Engage Committed members of faculty who will infuse subject knowledge with latest teaching pedagogies
3. To ignite the desire for higher learning, research and entrepreneurship among students, and equip them to face the global challenges.
4. To engage the alumni professionals as productive partners with the current students to help enrich and enhance their student life.

Quality Policy:

We aim at excellence in Technical Education through continual improvements and are committed to provide responsible technocrats for effective nation building through +

- Imparting quality Education & Training.
- Developing students with a Disciplined and Integrated personality.
- Facilitating faculty and supporting staff to update their knowledge and skills to match the industrial and technological developments.

This regulation is applicable to the students admitted to B.E. / B. Tech. programmes at New Prince Shri Bhavani College of Engineering and Technology (Autonomous) from the academic year 2023 - 2024 onwards.

1. PRELIMINARY DEFINITIONS AND NOMENCLATURE

In these Regulations, unless the context otherwise specifies:

- a) **“University”** means ANNA UNIVERSITY, CHENNAI.
- b) **“Programme”** means a degree programme that is B.E. /B. Tech. degree programmes.
- c) **“Specialization/Branch/Discipline”** means specialization or branch of B.E. / B. Tech. degree programme, like Mechanical Engineering, Information Technology, etc.
- d) **“Course/Subject”** means a theory or practical subject that is normally studied in a semester, like Mathematics, Physics, etc.
- e) **“Chairman”** means the Head of the Department of the Board concerned.
- f) **“Head of the Institution”** means the Principal of the College/Institution.
- g) **“Head of the Department”** means head of the Department concerned.
- h) **“Dean-Academics”** means the authority of the college who is responsible for all the Academic activities for the implementation of relevant rules and Regulations.
- i) **“Controller of Examinations”** means the authority of the College, who is responsible for all activities of the Examinations Centre.
- j) **“College”** means New Prince Shri Bhavani College of Engineering and Technology (Autonomous).
- k) **“TAP”** means Training and Placement cell of the college.
- l) **“Regulation”** means a manuscript that contains the principles and standards designed to control or govern the conduct or provide direction at a more detailed level.
- m) **“DAC”** represents the Department Advisory Committee.
- n) **“PAC”** represents the Programme Assessment Committee.
- o) **“Choice Based Credit System (CBCS)”**: The CBCS provides choice for students to select from the prescribed courses (elective or soft skill courses).
- p) **“Credit”**: A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.
- q) **“Grade Point”**: It is a numerical weight allotted to each letter grade on a 10 Point scale.
- r) **“Grade Point Average (GPA)”**: It is a measure of performance of work done in a semester. It is the ratio of total credit points secured by a student in various courses registered in a semester and the total course credits taken during that semester.

- s) **“Cumulative Grade Point Average (CGPA)”**: It is a measure of overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters.

2. ADMISSION ELIGIBILITY CRITERIA

2.1 First Semester Admission

Candidates seeking admission to the first semester of the eight semesters B.E. / B. Tech. degree programme:

- (i) Should have passed the Higher Secondary Examinations of (10+2) Curriculum (Academic Stream) prescribed by the Government of Tamil Nadu and AICTE or authority accepted by the Syndicate of Anna University as equivalent thereto. They should also satisfy other eligibility rules as prescribed by the Anna University and Directorate of Technical Education, Government of Tamil Nadu, Chennai from time to time.

(OR)

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

2.2 Lateral entry Admission

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

(OR)

- (ii) The candidates who possess the Degree in Science (B.Sc.,) (10+2+3 stream) with Mathematics as a subject at the B.Sc. Levels are eligible to apply for Lateral entry admission to the third semester of B.E. /B. Tech.

Such candidates shall undergo two additional Engineering subject(s) in the third and fourth semesters as prescribed by the Board of Studies.

3. UG PROGRAMMES OFFERED

The following Programmes and Branches of study approved by Anna University, Chennai and All India Council for Technical Education, New Delhi, are offered by the College. Students who join a B. E. /B. Tech. Programmes, apart from this regular programme, if they wish, they have a choice to take up any one of the following three degree programmes, from the V semester onwards, provided they satisfy certain criteria as mentioned in clause 4.10.

- (i) B.E. /B. Tech. Honours degree
(ii) B.E. /B. Tech. with Minor degree with specialization in an another programme

List of UG Programmes Offered

Sl. No.	Programme	Branch
1.	B.E.	Civil Engineering
2.	B.E.	Computer Science and Engineering
3.	B.E.	Electrical and Electronics Engineering
4.	B.E.	Electronics and Communication Engineering
5.	B.E.	Mechanical Engineering
6.	B.E.	Computer Science and Engineering (Cyber Security)
7.	B. Tech.	Information Technology
8.	B. Tech.	Artificial Intelligence and Data Science

4. STRUCTURE OF THE PROGRAMMES

4.1 Categorization of Courses

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

- a. **Humanities and Social Sciences (HS)** courses include Technical English, Engineering Ethics and Human Values, Communication skills, Environmental Science and Engineering.
- b. **Basic Sciences (BS)** courses include Mathematics, Physics, Chemistry, etc.
- c. **Engineering Sciences (ES)** courses include Engineering practices, Engineering Graphics, Basics of Electrical / Electronics / Mechanical / Computer Engineering, Instrumentation, etc.
- d. **Professional Core (PC)** courses include the core courses relevant to the chosen specialization/branch.
- e. **Professional Electives (PE)** courses include the elective courses relevant to the chosen specialization/branch.
- f. **Open Electives (OE)** courses include the courses from other branches which a student can choose from the list specified in the curriculum of the students B.E./ B. Tech programmes.
- g. **Employability Enhancement Courses (EEC):** Internships, Comprehension, Technical Seminar, Professional Practices, Case Study and Industrial Training
- h. **Mandatory Non-credit Courses (MNC):** Exposes the students to courses such as Value Education, Yoga, Constitution of India, Essence of Indian Knowledge Traditional, Pedagogy Studies, Stress Management and Personality Development through Life Enlightenment Skills.

4.2 Personality and Character Development

All students shall enroll, on admission, in any one of the personality and character development programmes which are listed below. The students shall undergo training

for the specified number of hours as specified in the relevant programmes (50/100 hours and/or attend a camp as applicable). The training shall include classes on hygiene and health awareness and also training in first-aid too.

- (a) **National Service Scheme (NSS)** will have social service activities in and around the College / Institution.
- (b) **Youth Red Cross (YRC)** will have activities related to social services in and around College/Institutions. While the training activities will normally be during weekends, the camp will normally be during vacation period.
- (c) Apart from the above, the students shall enroll for professional Societies as per their choice and branch of study.

4.3 Mandatory Two-Week Induction Programme

The students immediately after admission should undergo a mandatory two-week induction programme comprising of yoga class, nurturing various human traits like trust, commitment, gratitude, care, humanity, responsibility, dedication, respect, self-confidence, creativity, gratitude, happiness, affection etc., universal human values, proficiency modules, lectures by eminent people, visits to local areas and familiarization to department/branch and innovations immediately after admission.

- Induction Programme is mandatory for the students pursuing the Undergraduate Programme.
- List of students who have successfully completed the Induction Programme shall be certified by the Head of the Institution.
- The completion of the Induction Programme shall be printed in the Grade Sheet as “COMPLETED”.
- In the case of students who have got admitted later and those who have not attended the Induction Programme at the time of joining the degree programme, it shall be conducted later and on completion, it shall be recorded in the grade sheet.
- No fee will be charged towards the conduct of the Induction Programme and for including in the STATEMENT OF GRADES for the successful completion

4.3.1 Mandatory Courses:

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

4.4 Number of Courses per Semester

The curriculum in each semester shall normally have a blend of theory courses, theory with lab components not exceeding 7 and Laboratory courses and Employability Enhancement Course(s) not exceeding 5. Each Employability Enhancement Course may have credits assigned as per clause 4.5. However, the total number of courses per

semester shall not exceed 12.

4.5 Credit Assignment

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

Contact Period Per Week	Credits
One Lecture Period	1
One Tutorial Period	1
Two Laboratory Periods	1

4.6 Industrial Training /Internship

The students shall undergo Industrial training/Internship for a period as specified in the Curriculum (vide clause 4.6.1) during summer / winter vacation. In this case the training has to be undergone continuously for the entire period.

The students shall undergo Internship at Research Organization / University after due approval from the Dean (Academics) for the period prescribed in the curriculum during summer / winter vacation, in lieu of Industrial training.

4.6.1 Internship duration and academic credentials

The following framework is proposed to give academic credit for the internship undergone by the students as part of the programme.

- A mandatory 1 credit for Internship in sixth semester may be counted for the award of the degree.
- 1 credit is equivalent to a minimum 2 weeks* of internship.
- Students may undergo a continuous period of 15 days online Internship or offline Internship (after due approval from Head of the Department and Dean – Academics); during their summer vacation of their academic session.

***1 Week = 40 Internship Hours**

4.6.2 Training and Placement credentials

- All the students joining the institute shall undergo training to enhance their industry readiness skill. This activity is taken care of by the Training and Placement cell (TAP) of the institute.
- Under this category every student shall have a minimum of exclusive 30 hours of training per semester to keep them industry ready at the end of the programme of study. This training starts from the 3rd semester and it continues till the end of 7th semester.
- The students will be evaluated through online tests in every semester

and their grades will be awarded according to their performance in the test. Based on the performance in these tests each student will be awarded the Placement Grade Point Average (PGPA). Thus, a student can earn 1 credit every semester up to 6th semester (A total of 4 credits).

4.7 Industrial Visit

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

4.8 Online Courses

- Students may be permitted to do online courses in the approved agencies. The list of agencies may be approved in the respective board of studies (which are provided with a certificate) with the recommendations of respective DAC.
- In case of credits earned through online mode from any institution approved by appropriate authorities of the college, the credits may be transferred after due approval of the Dean – Academics.
- List of approved agencies to undergo online courses is approved and available with Dean – Academics. MOOC and SWAYAM courses are approved by AICTE. Students are encouraged to enroll in these agencies for their on-line course with prior permission. The mapping of marks with grades is applicable, only if the student passes the course as per the guidelines of NPTEL.

Table 4: Mapping of Marks scored in NPTEL course and Credit earned

NPTEL Marks	Letter Grade
88 – 100	O
76 – 87	A+
64 – 75	A
52 – 63	B+
40 – 51	B

4.9 Project Work

Every student shall do a project in the field of his/her interest in guidance with a faculty of his/her department as part of his/her fulfilment of getting the degree. The project work shall be carried out in house or in any industry.

4.10 B.E. / B. Tech. Honors and B.E. / B. Tech. Minor degree programme

Eligibility for enrolling in B.E. / B. Tech. (Honours) degree or B.E. /B. Tech Honours degree with specialization in the same programme or B.E. /B. Tech. with Minor degree with specialization in an another programme: The students (who have joined first year in B.E. /B. Tech degree programme) should have earned a CGPA of 7.5 and above till third semester and should have passed all the courses in the First attempt itself. The lateral entry students should have passed all the subjects in the first attempt in third semester and earned a CGPA of 7.50 and above in that semester (Refer vide clause 16.2)

4.10.1 Eligibility for securing B.E. / B. Tech. (Honours) degree

- The students should have taken additional courses from any of the verticals of the same programme and earned a minimum of 18 credits from V semester onwards.
- Should have passed all the courses prescribed in the curriculum and additional courses in the first attempt.
- Should have earned a minimum of 7.50 CGPA taking into account all the courses prescribed in the curriculum for eight semesters and additional courses

4.10.2 Eligibility for securing B. E. / B. Tech. with Minor degree with specialization in another programme

- The student should have earned additionally a minimum of 18 credits from a specified group of Professional Electives (vertical) of the other programme from V semester onwards.
- Should have passed all the courses prescribed in the curriculum and additional courses.
- Should have earned a minimum of 7.50 CGPA taking into account all the courses prescribed in the curriculum for eight semesters and additional courses.

4.10.3 Out of these 18 credits to be earned by the students opting for either B. E. / B. Tech. (Honours) or B. E. / B. Tech. Minor degree programmes, can earn a maximum of 6 credits in online mode (like SWAYAM platform), with the approval of the respective HoD and Dean – Academics).

4.10.4 If a student decides to opt out from the Honours or minor degree programme, 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 of such courses than the number of Professional Elective courses required as per the curriculum for B. E. / B. Tech. degree (without Honours degree), the courses with higher grades shall be considered for the calculation of CGPA. Remaining courses shall be printed in the grade sheet and they will not be considered for calculation of CGPA.

4.10.5 Eligibility for award of B.E. / B. Tech. Honours and Minor degrees

- (i) B.E / B. Tech. Honours degree in the same discipline:
- The students should have earned additional courses (a minimum of 18 credits) from more than one specialization in the same programme.
 - Should have passed all the courses in the first attempt.
 - Should have earned a minimum CGPA of 7.50 at the end of the programme.
- (ii) B.E./ B. Tech. (Minor degree in other specialization)
- The student should have earned additionally a minimum of 18 credits from any one of the specializations of other B.E./B. Tech. programme as mentioned in 4.10.2

4.11 Medium of Instruction

The medium of instruction and assessment for the courses can be written test, mini project presentations and project / thesis / dissertation reports will be in English (except foreign language courses)

5. DURATION OF THE PROGRAMME

- 5.1 A student is ordinarily expected to complete the B.E. /B. Tech. Programme in 8 semesters (four academic years) but in any case, not more than 14 Semesters for HSC (or equivalent) candidates and not more than 12 semesters for Lateral Entry Candidates.
- 5.2 Each semester shall normally consist of 75 working days or 600 periods of 45 minutes each. The Head of the Institution shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught.
- 5.3 The Head of the Institution may conduct additional classes for improvement, special coaching, conduct of model tests etc., over and above the specified periods. But for the purpose of calculation of attendance requirement for writing the end semester examinations (as per clause 6) by the students, the following method shall be used.

$$\text{Percentage of attendance} = \left(\frac{\text{Total no. of periods attended in all the courses per semester}}{\text{(No. of periods / week as prescribed in the curriculum taken together for all courses of the semester) x 15}} \right) \times 100$$

The End Semester Examination will follow immediately after the last working day of the semester commencing from I semester as per the academic schedule prescribed from time to time.

- 5.4 The total period for completion of the programme reckoned from the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study (vide clause 18) in order that he/she may be eligible for the award of the degree (vide clause 16).

6. COURSE REGISTRATION

The institution is responsible for registering the courses that each student is proposing to undergo in the ensuing semester. Each student has to register for all courses to be undergone in the curriculum of a particular semester. The registration details of the student shall be approved by the Head of Institution and forwarded to the COE/ Controller of Examinations. This registration is for undergoing the course as well as for writing the End Semester Examinations.

The courses that a student registers in a semester may include

- i. Courses of the current semester (including Professional, Open Elective courses, Mandatory non- credit courses and Minor/Honours Degree courses).
- ii. Course(s) in which he/she has not been permitted to appear for the end semester examinations for want of the minimum required attendance, if such courses are offered in that semester.
- iii. Course(s) in which he/she has failed and required to reappear for the end semester examinations, carrying forward the continuous assessment marks earned in the last attempt.
- iv. The core (Theory /Lab /EEC) courses that the student has not cleared in the previous semesters.
- v. Elective courses which the student failed (either the same elective or a different elective instead).

6.1 Faculty Mentor Assignment

Each student, on admission shall be assigned to a Faculty Mentor (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 Course Registration Confirmation

Every student shall enroll for the course of the succeeding semester before the end of the current semester. However, the student shall confirm the enrolment by registering for the courses within the first five working days after the commencement of the concerned semester.

6.3 Elective Course Minimum Strength

Elective courses shall be offered by the department unless a minimum of 10 students register for that course, subject to the approval of the Head of the Department.

6.4 Course Enrolment Rules

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.

- 6.4.1** Each student on admission shall register for all the courses prescribed in the curriculum in the first semester of study.
- 6.4.2** The enrolment for all the courses of Semester II will commence 10 working days prior to the last working day of semester I. The student shall confirm the enrolment by registering for the courses within the first five working days after the commencement of semester II.
- 6.4.3** The enrolment 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 Mentor. If the student wishes, the student may drop or add courses (vide clause 6.6) within five working days after the commencement of the concerned semester and complete the registration process duly authorized by the Faculty Mentor.

6.5 Registration for Reappearance

- 6.5.1** If a student fails to secure a pass in any course(s), he/she has to register for reappearance for those courses in a subsequent semester, till he/she secures a pass in such courses. In such a case he/she can carry forward the continuous assessment marks earned in the last attempt, or can avail the option of reappearing in Continuous Assessment Tests for improving the continuous Assessment marks and appear for the end semester exam. This is subject to the fulfilment of clause 14.3. However, the attendance requirement is not compulsory for such courses.
- 6.5.2** If a student fails to secure a pass in any mandatory non- credit course(s), he/she has to register for reappearance for that course in the subsequent semester.
- 6.5.3** If a student is prevented from writing the end semester examination of a course due to lack of attendance, the student has to register for that course again, when offered next, attend the classes and fulfil the attendance requirements as per clause 7. If the course, in which the student has lack of attendance, is 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 when offered next.

7. ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER

- 7.1** A Candidate who has fulfilled the following conditions shall be deemed to have satisfied the requirements for completion of a semester. Ideally every student is expected to attend all classes of all the courses and secure **100%** attendance. However, he/she shall secure not less than **75%** (after rounding off to the nearest integer) of overall attendance as calculated as per clause 5.3.
- 7.2** However, a candidate who secures overall attendance between **65% and 74%** in the current semester due to medical reasons (prolonged hospitalization/ accident/

specific illness)/ Participation in Sports events may be permitted to appear for the current semester examinations subject to the condition that the candidate shall submit the medical certificate/ sports participation certificate attested by the Dean - Academics. The same shall be forwarded to the Controller of Examinations for record purposes. This concession can be availed only for any two semesters during the entire course of the study.

- 7.3** Candidates who secure less than **65%** overall attendance and candidates who do not satisfy the clause 6.1 and 6.2 shall not be permitted to write the End Semester Examination at the end of the semester and not permitted to move to the next semester. They are required to repeat the incomplete semester in the next academic year, as per the norms prescribed.

8. FACULTY MENTOR AND CLASS ADVISOR

8.1 Faculty Mentor

To help the students in planning their courses of study and for general advice on the academic programme, the Head of the Department will attach a certain number of students to a teacher of the Department who shall function as Faculty Mentor for those students throughout their period of study. The Faculty Advisor shall advise the students in registering and reappearing of courses, authorize the process, monitor their attendance and progress and counsel them periodically. The Faculty Mentor also discusses with or informs the parents about the progress /performance of the students concerned. The responsibilities for the faculty advisor shall be:

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

8.2 Class Advisor

There shall be a class coordinator for each class. He / She will be appointed by the HoD of the department concerned. The class coordinator is the ex-officio member of the class committee. The responsibilities for the class coordinator shall be:

- To act as the channel of communication between the HoD and the students of the respective class.
- To collect and maintain various statistical details of students.
- To help the chairperson of the class committee in planning and conduct of the class committee meetings.
- To monitor the academic performance of the students including attendance and to inform the class committee.
- To attend to the students' welfare activities like awards, medals, scholarships,

and industrial visits.

9. CLASS COMMITTEE

- 9.1 Every class shall have a class committee consisting of teachers of the class concerned, student representatives and a chairperson who is not teaching the class. It is like the 'Quality Circle' (more commonly used in industries) with the overall goal of improving the teaching- learning process. The functions of the class committee include
- Creating awareness on the vision, mission, PEOs, POs and PSOs of the Department.
 - Solving problems experienced by students in the classroom and in the laboratories.
 - Clarifying the regulations of the degree programme and the details of rules therein particularly (clause 5 and 6) which should be displayed on college and Department Notice- Board.
 - Informing the student representatives, the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
 - Informing the student representatives, the details of Regulations regarding weightage used for each assessment. In the case of practical courses (laboratory /drawing /project work /seminar etc.). The breakup of marks for each experiment
 - /exercise /module of work, should be clearly discussed in the class committee meeting and informed to the students.
 - Analyzing the performance of the students of the class after each test and finding the ways and means of solving problems, if any.
 - Identifying the weak students, if any, and requesting the teachers concerned to provide some additional help or guidance or coaching to such weak students.
- 9.2 The class committee for a class under a particular branch is normally constituted by the Head of the Department.
- 9.3 The class committee shall be constituted within the first week of each semester.
- 9.4 At least 4 student representatives (usually 2 boys and 2 girls) shall be included in the class committee **(OR)** all the students in a particular class shall be included in the class committee.
- 9.5 The Chairperson of the class committee may invite the Class adviser(s) and the Head of the Department to the class committee meeting.
- 9.6 The chairperson is required to prepare the minutes of every meeting, submit the same to the Head of the Institution within two days of the meeting and arrange to circulate it among the students and teachers concerned. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the Management by the Head of the Institution.
- 9.7 The first meeting of the class committee shall be held within one week from the date of

commencement of the semester, in order to inform the students about the nature and weightage of assessments within the framework of the Regulations. Two or three subsequent meetings may be held in a semester at suitable intervals. The Class Committee Chairperson shall put on the Notice Board the cumulative attendance particulars of each student at the end of every such meeting to enable the students to know their attendance details. During these meetings the student members representing the entire class, shall meaningfully interact and express the opinions and suggestions of the other students of the class in order to improve the effectiveness of the teaching-learning process.

10. COURSE COMMITTEE FOR COMMON COURSES

Each common theory course offered to more than one discipline or group shall have a "Course Committee" comprising all the teachers teaching the common course with one of them nominated as Course Coordinator. The nomination of the Course Coordinator shall be made by the Head of the Department /Head of the Institution depending upon whether all the teachers teaching the common course belong to a single department or to several departments.

The "Course committee" shall meet in order to arrive at a common scheme of evaluation for the test and shall ensure a uniform evaluation of the tests. Wherever feasible, the course committee may also prepare a common question paper for the internal assessment test(s).

11. SYSTEM OF EXAMINATION

11.1 Performance in each course of study shall be evaluated based on Continuous Assessment Test (CAT) throughout the semester and End Semester Examination (ESE) at the end of the semester.

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

Assessment Weightage Tabulation

Sl. No.	Type of the Course	Internal Assessment	End Semester Examination
1	Theory based courses	40%	60%
2	Laboratory based courses	60%	40%
3	Main Project work	60%	40%
4	Internship/ Mini Project	60%	40%
5	Seminar	100%	--
6	Employability Sills Courses	100%	--

11.3 The End Semester Examination (theory, laboratory and theory with laboratory) of 3 hours duration shall ordinarily be conducted between October and December during the odd

semesters and between April and June during the even semesters.

- 11.4** The End Semester Examination for project work shall consist of evaluation of the final report submitted by the student or students of the project group (of not exceeding 4 students) by an external examiner and an internal examiner, followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner, the supervisor of the project group and an internal examiner.
- 11.5** For the ESE in both theory and practical courses including project work, wherever necessary the internal and external examiners shall be appointed by the Controller of Examinations.

12. PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT

Each of the theory and laboratory courses (including project work) shall carry a maximum of 100 marks of which 40 marks will be through internal assessment and the End Semester Examination (ESE) will carry 60 marks for theory courses. And 60 marks will be through internal assessment and the End Semester Examination (ESE) will carry 40 marks for laboratory courses. For all theory, laboratory courses, theory courses with laboratory component and project work the continuous assessment shall be awarded as per the procedure given below.

12.1 Theory Courses

Theory Courses: Two assessments each carrying 50 marks and one model exam carrying 100 marks shall be conducted during the semester by the Department concerned. The assessments marks are converted to 25 marks and the model exam mark is converted to 30 marks. And all tests put together out of 100 along with the assignment marks for 30, shall be proportionately reduced for 40 marks and rounded to the nearest integer.

Continuous Assessment (40 Marks)				End Semester Examinations (60 Marks)
CAT 1	CAT 2	Model Exam	Assignment	End Semester Examinations
20 Marks	20 Marks	30 Marks	30 Marks	100 Marks
100 Marks				
Converted to 40 Marks				Converted to 60 Marks
Total 100 Marks				

12.2 Laboratory Courses

The maximum marks for Internal Assessment shall be 60 in case of practical courses. Every practical exercise/experiment shall be evaluated based on conduct of experiment /observation and records maintained. There shall be at least one test. The criteria for arriving at the Internal Assessment marks of 60 is as follows: 75 marks shall be awarded for successful completion of all the prescribed experiments done in the Laboratory and 25 marks for the test. The total mark shall be reduced to 60 and rounded to the nearest integer.

Continuous Assessment (60 Marks)		End Semester Examinations (40 Marks)
Observation, Record	Model Exam	End Semester Examinations
75 Marks	25 Marks	100 Marks
100 Marks		
Converted to 60 Marks		Converted to 40 Marks
Total: 100 Marks		

12.3 Theory Courses with Laboratory Component

Weightage of internal assessment and End Semester Examination marks will be 50% each. The distribution of the marks for the theory and laboratory components in the internal assessments and End Semester Examination for the courses with different credit distributions are given below. For internal assessment, for theory plus laboratory courses, the weighted average shall be converted into 50 marks. The procedure for the conduct of internal assessments for theory and laboratory components shall be as per the clause 12.1 and 12.2 respectively.

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

12.4 Project work: Project work may be allotted to a single student or to a group of students not exceeding 4 per group. The Head of the institution shall constitute a review committee for project work for each branch of study. There shall be three reviews during the semester by the review committee. The student shall make a presentation on the progress made by him / her before the committee. The total marks obtained in the three reviews shall be reduced for 60 marks and rounded to the nearest integer. The thesis and its evaluation shall carry a maximum of 10 marks. The thesis shall be submitted as per the approved guidelines as given by Board of Studies. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.

Project Work (Main)						
Continuous Assessment (60 Marks)			End Semester Examinations (40 Marks)			
Review 1	Review 2	Review 3	Report	Viva-voce Examination		
				Internal	External	Supervisor
30 Marks	30 Marks	40 Marks	20 Marks	30 Marks	30 Marks	20 Marks
Converted to 60 Marks			Converted to 40 Marks			
Total 100 Marks						

If a candidate fails to submit the project report on or before the specified deadline, he/she is deemed to have failed in the Project Work and shall re-enroll for the same in a subsequent semester.

- 12.5 Assessment for Mini Project:** Project work may be allotted to a single student or to a group of students not exceeding 4 per group. There shall be three reviews during the semester by the review committee. The student shall make a presentation on the progress made by him / her before the committee. The total marks obtained in the three reviews shall be reduced for 60 marks and rounded to the nearest integer. The thesis and its evaluation shall carry a maximum of 10 marks. The thesis shall be submitted as per the approved guidelines as given by Board of Studies. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.

Mini Project						
Continuous Assessment (60 Marks)			End Semester Examinations (40 Marks)			
Review 1	Review 2	Review 3	Report	Viva-voce Examination		
				Internal	External	Supervisor
30 Marks	30 Marks	40 Marks	20 Marks	30 Marks	30 Marks	20 Marks
Converted to 60 Marks			Converted to 40 Marks			
Total 100 Marks						

12.6 Assessment for Internship:

Internship						
Continuous Assessment (60 Marks)			End Semester Examinations (40 Marks)			
Report	Presentation Skills	Viva-voce	Report	Presentation Skills	Viva-voce Examination	
					Internal	External
40	40	20	40	40	10	10
Converted to 60 Marks			Converted to 40 Marks			
Total 100 Marks						

12.7 Assessment for Seminar: The seminar is to be considered as purely **INTERNAL** (with 100% internal marks only). They shall carry 100 marks and shall be evaluated through internal assessment only

Seminar (100 Marks)			
Content Quality	Presentation Skills	Report	Viva-Voce
20 Marks	30 Marks	30 Marks	20 Marks
Total 100 Marks			

12.8 Employability Enhancement Courses: Employability Skills Courses are to be considered as purely **INTERNAL** (with 100% internal marks only). For all the courses under Employability Enhancement Courses Category, the evaluation shall be done with 100% internal marks.

12.9 Attendance Record

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

13. REQUIREMENTS FOR APPEARING FOR END SEMESTER EXAMINATIONS

- A student shall normally be permitted to appear for the End Semester Examinations for all the courses registered in the current semester (vide clause 5) if he/she has satisfied the semester completion requirements (as per clause 6).
- Further, examination registration by a student is mandatory for all the courses in the current semester and all arrear(s) course(s) for the End Semester Examinations failing which, the student will not be permitted to move to the higher semester.
- A student who has already appeared for any course in a semester and passed the examination is not entitled to reappear in the same subject for improvement of grades.

14. PASSING REQUIREMENTS

14.1 A student who secures not less than 50% of total marks prescribed for the course

[Internal Assessment + End semester Examinations] with a minimum of 45% of the marks prescribed for the end-semester Examination, shall be declared to have passed the course and acquired the relevant number of credits. This is applicable for both theory and laboratory courses (including project work).

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

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

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

14.4 If a student is absent during the viva - voce examination, it would be considered as fail. If a student fails to secure a pass in Project Work-I, the student shall register for the course again in the subsequent semester and can-do Project Work-I and II together.

14.5 The passing requirement for the courses which are assessed only through purely internal assessments (EEC courses except Project Work and laboratory), is 50% of the internal assessment (continuous assessment) marks only.

14.6 A student can apply for revaluation of the student's semester examination answer paper in a theory course, as per the guidelines of the COE on payment of a prescribed fee along with prescribed application to the COE. The COE will arrange for the revaluation and the results will be intimated to the student. Revaluation is not permitted for laboratory courses and EEC courses.

15. AWARD OF LETTER GRADES

All assessments of a course will be evaluated on an absolute marks' basis. However,

for the purpose of reporting the performance of a candidate, letter grades, each carrying certain number of points, will be awarded as per the range of total marks (out of 100) obtained by the candidate in each subject as detailed below:

Grade Points

Letter Grade		Marks Range	Grade Points*
O	Outstanding	91 - 100	10
A +	Excellent	81 - 90	9
A	Very Good	71 - 80	8
B +	Good	61 - 70	7
B	Average	56 - 60	6
C	Satisfactory	50 - 55	5
U	Fail/ Reappearance	< 50	0
UA	Absent/ Unappeared	---	0
SA	Shortage of Attendance	---	0
W	Withdrawal	---	0
WH	Withheld	---	0

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

‘SA’ denotes shortage of attendance (as per clause 6.3) and hence prevention from writing the end semester examinations. **‘SA’** will appear only in the result sheet.

“U” denotes that the student has failed to pass in that course. **“W”** denotes **withdrawal** from the exam for the particular course. The grades SA and W will figure both in the Marks Sheet as well as in the Result Sheet. In both cases the student has to earn Continuous Assessment marks and appear for the End Semester Examinations. If the grade W is given to the course, the attendance requirement need not be satisfied. If the grade SA is given to a core **theory course**, the attendance requirement need not be satisfied, but if the grade SA is given to a EEC course (except Project Work) the attendance requirements (vide clause 6) should be satisfied.

15.1 Grade Sheet

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

- The college in which the candidate has studied
- The list of courses enrolled during the semester and the grade scored.
- The Grade Point Average (GPA) for the semester and
- The Cumulative Grade Point Average (CGPA) of all courses enrolled from first semester onwards.

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

credits for the courses acquired in the semester.

- GPA for a semester is the ratio of the sum of the products of the number of credits acquired for courses and the corresponding points to the sum of the number of credits acquired for the courses in the semester.
- CGPA will be calculated in a similar manner, considering all the courses registered from the first semester. RA grades will be excluded for calculating GPA and CGPA.

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

where C_i is the number of Credits assigned to the course

GP_i is the point corresponding to the grade obtained for each course

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

16. ELIGIBILITY FOR THE AWARD OF THE DEGREE

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

- Successfully gained the required number of total credits as specified in the curriculum corresponding to the student's programme within the stipulated time.
- Successfully completed the programme 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 and 6 years in the case of Lateral Entry) reckoned from the commencement of the first (third in the case of Lateral Entry) semester to which the candidate was admitted.
- Successfully passed any additional courses prescribed by the Dean (Academics) whenever readmitted under regulations R2023 (vide clause 18.3)
- No disciplinary action pending against the student.

16.2 CLASSIFICATION OF THE DEGREE AWARDED

16.2.1 First Class with Distinction

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

B.E. / B. Tech. (Regular and Lateral Entry)

- Should have secured a CGPA of not less than 8.50.
- One-year authorized break of study (if availed of) is included in the five years and four years in the case of lateral entry) for award of First class with Distinction.
- Should NOT have been prevented from writing end semester examinations due to lack of attendance in any of the courses.

B. E. / B. Tech. (Honours)

- The students B.E./ B. Tech. (Honours) specialization in the same discipline should

have passed the examination in all the courses of all eight semesters and 18 credits from more than one vertical of the same programme within four years and in six semesters in the case of Lateral Entry) within three years.

- Should have secured a CGPA of not less than 8.50.
- One-year authorized break of study (if availed of) is included in the five years and four years in the case of lateral entry) for award of First class with Distinction.
- Should NOT have been prevented from writing end semester examinations due to lack of attendance in any of the courses.

B. E. / B. Tech. Minor in other specialization

- The students B.E./ B. Tech. Minor in other specialization should have passed the examination in all the courses of all eight semesters and 18 credits from any one vertical of the other programme within four years and in six semesters in the case of Lateral Entry) within three years.
- Should have secured a CGPA of not less than 8.50.
- One-year authorized break of study (if availed of) is included in the five years and four years in the case of lateral entry) for award of First class with Distinction.
- Should NOT have been prevented from writing end semester examinations due to lack of attendance in any of the courses.

16.2.2 First Class

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

B. E. / B. Tech. (Regular and Lateral Entry)

- Should have secured a CGPA of not less than 6.50.
- One-year authorized break of study (if availed of) is included in the five years and four years in the case of lateral entry) for award of First class.
- May have been prevented from writing end semester examinations due to lack of attendance in any of the courses.

B. E. / B. Tech. (Honours)

- The students B.E./ B. Tech. (Honours) specialization in the same discipline should have passed the examination in all the courses of all eight semesters and 18 credits from more than one vertical of the same programme within four years and in six semesters in the case of Lateral Entry) within three years.
- Should have secured a CGPA of not less than 7.50.
- One-year authorized break of study (if availed of) is included in the five years and four years in the case of lateral entry) for award of First class with Distinction.
- Should NOT have been prevented from writing end semester examinations due

to lack of attendance in any of the courses.

B. E. / B. Tech. Minor in other specialization

- The students B.E./ B. Tech. Minor in other specialization should have passed the examination in all the courses of all eight semesters and 18 credits from any one vertical of the other programme within four years and in six semesters in the case of Lateral Entry) within three years.
- Should have secured a CGPA of not less than 7.50.
- One-year authorized break of study (if availed of) is included in the five years and four years in the case of lateral entry) for award of First class with Distinction.
- Should NOT have been prevented from writing end semester examinations due to lack of attendance in any of the courses.

16.2.3 Second Class

- For all the B. E./B. Tech. courses (regular and lateral entry), B.E./ B. Tech. Minor in other specialization degree students (not covered in clauses 16.2.1 and 16.2.2) who qualify for the award of the degree (vide Clause 16) shall be declared to have passed the examination in Second Class.
- Any student who has opted for B. E. / B. Tech. Honours or B. E. /B. Tech. Honours with specialization in the same programme, appearing End Semester Examinations for withdrawn course(s), he/she will be considered for Honours degree (Refer Clause 17.3)
- Any student who has earned additional 18 credits as per Clause 4.10 but does not satisfy the conditions mentioned in clause 16.1 shall not be awarded B.E. / B. Tech. Honours with specialization or B.E./ B. Tech. Honours. In such cases, the grade sheet will show the additional courses studied and those courses shall not be considered for CGPA computation and the student shall be awarded as per the clauses 16.2.2 and 16.2.3.

16.3 Photocopy/ Revaluation

A candidate can apply for a photocopy of his/her semester examination answer paper in a theory course, within 2 weeks from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of Institutions. The answer script is to be valued and justified by a faculty member, who handled the subject and recommended for review with breakup of marks for each question. Based on the recommendation, the candidate can register for the review through proper application to the Controller of Examinations. The Controller of Examinations will arrange for the review and the results will be intimated to the candidate concerned through the Head of the Institutions. Review is not permitted for practical courses and for project work. A candidate can apply for review of answer scripts for not exceeding 5 subjects at a time.

16.4 Review

Students not satisfied with Revaluation can apply for Review of his/her examination answer paper in a theory course, within the prescribed date on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of the Institution. Students applying for Revaluation only are eligible to apply for Review.

17. PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION

- 17.1** A student may, for valid reasons, (medically unfit/ unexpected family situations/ sports approved by Director, Physical Education and HOD) be granted permission to withdraw from appearing for the end-semester examination in any course or courses in ANYONE of the semester examinations during the entire duration of the degree programme. The application shall be sent to Dean (Academics), through the Head of the Department with required documents.
- 17.2** Withdrawal application is valid ONLY if the student is otherwise eligible to write the examination (Clause 6) and if it is made within TEN days prior to the commencement of the END SEMESTER examination in that course or courses and recommended by the Head of The Department.
- 17.2.1** Notwithstanding the requirement of mandatory 10 days, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- 17.3** In case of withdrawal in case of withdrawal from a course(s), the courses will figure both in the Grade Sheet as well as in the Result Sheet. However, withdrawal shall not be considered as an appearance for the eligibility of a student for First Class with Distinction.
- 17.4** If a student withdraws from writing end semester examinations for a course or courses, he/she shall register for the same in the subsequent semester and write the end semester examination(s).
- 17.5** If a student applies for withdrawal from Project Work, he/she will be permitted for the withdrawal only after the submission of a project report before the deadline. However, the student may appear for the viva voce examination within 30/60 days after the declaration of results for Project Work and the same shall not be considered as reappearance.

18 PROVISION FOR AUTHORIZED BREAK OF STUDY

- 18.1** A student is permitted to go on break of study for a Maximum period of one year as a single spell.
- 18.2** Break of Study shall be granted only once for valid reasons for a maximum of one year during the entire period of study of the degree programme. However, in an extraordinary situation the candidate may apply for additional break of study not exceeding another one year by paying a prescribed fee for break of study. If a candidate intends to temporarily discontinue the programme in the middle of the

semester for valid reasons, and to re-join the programme in a subsequent year, permission may be granted based on the merits of the case provided he / she applies to the Dean (Academics), but not later than the last date for registering for the end semester examination of the semester in question, through Head of The Department stating the reasons therefore and the probable date of re-joining the programme.

- 18.3** The student permitted to re-join the programme after break of study /prevention due to lack of attendance / more than 10 number of arrears, shall be governed by the Curriculum and Regulations in force at the time of rejoining. The students re-joining in new Regulations shall apply to the Dean (Academics) in the prescribed format through Head of the Institution duly forwarded by Head of the Department at the beginning of the readmitted semester itself for prescribing additional courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.
- 18.4** The authorized break of study would not be counted towards the duration specified for passing all the courses for the purpose of classification (vide Clause 17.1).
- 18.5** The total period for completion of the Programme reckoned from, the commencement of the first semester to which the candidate was admitted shall not exceed the maximum period specified in clause 5.1 irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.
- 18.6** If any student is prevented for want of required attendance, the period of prevention shall not be considered as authorized 'Break of Study' (Clause 17.1)

19 DISCIPLINE

- 19.1** Every student is required to observe disciplined and decorous behavior both inside and outside the college and not to indulge in any activity which will tend to bring down the prestige of the College. The Head of Institution shall constitute a disciplinary committee consisting of the Head of Institution, Two Heads of Department of which one should be from the faculty of the student, to enquire into acts of indiscipline.
- 19.2** If a student indulges in malpractice in any of the END SEMESTER/ INTERNAL EXAMINATION he /she shall be liable for punitive action as prescribed by the COLLEGE from time to time.

20 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.
