

**JERUSALEM COLLEGE OF ENGINEERING**  
**(An Autonomous Institution, Affiliated to Anna University, Chennai-25)**

**REGULATIONS 2019**

**CHOICE BASED CREDIT SYSTEM**

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

This **Regulation** is applicable to the students admitted to B.E./B.Tech. Programmes at Jerusalem College of Engineering (An Autonomous institution affiliated to Anna University, Chennai) from the academic year 2019-20 onwards.

**1. PRELIMINARY DEFINITIONS AND NOMENCLATURE**

In this Regulations, unless the context otherwise specifies:

- a. **“University”** means ANNA UNIVERSITY, CHENNAI.
- b. **“Institution”** means Jerusalem College of Engineering, Chennai.
- c. **“Programme”** means Degree Programme, that is B.E./B.Tech. Degree Programme.
- d. **“Discipline”** means specialization or branch of B.E./B.Tech. Degree Programme, like Civil Engineering, Information Technology etc.
- e. **“Course”** means a theory or practical subject that is normally studied in a semester, like Mathematics, Circuit Analysis etc.
- f. **“Head of the Institution”** means the Principal of the Institution.
- g. **“Dean – Academics”** means authority of the Institution who is responsible for all academic activities of the Academic programmes and for implementation of relevant rules of this Regulations pertaining to the Academic programmes
- h. **“Controller of Examinations”** means the authority of the Institution who is responsible for all Examination related activities.
- i. **“Dean – Student Affairs”** means authority of the Institution who is responsible for all student related activities and for ensuring discipline in the Institution.
- j. **“Head of the Department”** means Head of the Department concerned.

**2. ADMISSION**

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

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

**(OR)**

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

## **2.2 Lateral Entry Admission**

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

**(OR)**

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

## **3. PROGRAMMES OFFERED**

B.E / B. Tech programmes under the following faculty:

### **Faculty of Civil Engineering**

1. B.E.Civil Engineering

### **Faculty of Electrical Engineering**

1. B.E. Electrical and Electronics Engineering
2. B.E. Electronics and Instrumentation Engineering

### **Faculty of Information and Communication Engineering**

1. B.E.Computer Science and Engineering
2. B.E. Electronics and Communication Engineering
3. B.E. Biomedical Engineering
4. B.Tech. Information Technology

## **4. STRUCTURE OF 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 Communicative English, Technical English, Communication skills, Environmental Science, Soft Skills and Aptitude and Management Courses.

- b. **Basic Sciences (BS)** courses include Mathematics, Physics, Chemistry, Biology, 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 Elective (PE)** courses include the elective courses relevant to the chosen specialization/ branch.
- f. **Open Elective (OE)** courses shall provide an opportunity to study a course from any discipline that includes the courses relevant to the chosen specialization, the courses that enhance soft and managerial skills, the courses a student can choose from the curriculum of other B.E. / B. Tech. programmes and the courses offered by the Departments under the Faculty of Science and Humanities.
- g. **Employability Enhancement Courses (EEC)** include Project work, Internship, Comprehension and Technical Seminar, Professional Practices, Case Study and Industrial/Practical Training.
- h. **Non Credit Mandatory (NCM)** courses expose the students to Indian Constitution and Essence of Indian Traditional Knowledge. These courses are included in the curriculum and it is necessary for students to obtain a pass mark in these subjects. The study of these courses will be reflected in the respective Semester Grade Sheet.

There shall be a certain minimum number of Core courses and sufficient number of Elective courses that can be opted by the students. The blend of different courses shall be so designed that the student, at the end of the programme, would have been trained not only for his/her relevant field but also would have developed as a socially conscious human professional.

#### 4.2 **PERSONALITY AND CHARACTER DEVELOPMENT**

All students shall enroll, on admission, in any one of the personality and character development programmes (NSS/YRC) and undergo training for about 80 hours and attend a camp of about seven days. The training shall include classes on hygiene and health awareness and also training in first-aid.

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

**Youth Red Cross (YRC)** will have activities related to social services in and around the Institution.

While the training activities will normally be during weekends, the camp will normally be during vacation period.

Apart from the above, students may enroll for Professional Societies /Technical Clubs / Physical Education / Rotary Club / Linguistic Club etc.

#### 4.3 **MANDATORY TWO WEEK INDUCTION PROGRAMME**

Immediately after admission, the students are expected to undergo a mandatory two week induction programme comprising of physical activity, creative arts, universal

human values, proficiency modules lectures by eminent people, visits to local areas and familiarization of department / branch and innovations.

#### **4.4 NUMBER OF COURSES PER SEMESTER**

Each semester curriculum shall normally have a blend of lecture courses **not exceeding 7** and Laboratory courses and Employability Enhancement Course(s) **not exceeding 4**. Each Employability Enhancement Course may have credits assigned as per clause 4.5. However, the total number of courses per semester **shall not exceed 10**.

#### **4.5 CREDIT ASSIGNMENT**

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

<b>Contact period per week</b>	<b>Credits</b>
1 Lecture Period	1
2 Tutorial Periods	1
2 Laboratory Periods (Also for EEC courses like Seminar / Project Work / caseStudy)	1

The Contact Periods per week for Tutorials and Practical can only be in multiples of 2.

#### **4.6 INDUSTRIAL TRAINING / INTERNSHIP**

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

In lieu of Industrial training, students may undergo Internship at Industry / Research organizations / University (after due approval from Head of the Department) during the IV, V or VI semester breaks for a continuous period of 15 days to an Industry / Organization / University and one credit is allotted in the sixth semester based on a viva voce examination.

#### **4.7 INDUSTRIAL VISIT**

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

#### **4.8 VALUE ADDED COURSES**

Students may optionally undergo Value Added Courses and the credits earned through the Value Added Courses shall be over and above the total credit requirement prescribed in the curriculum for the award of the degree. One/Two credit courses shall be offered by a Department with the prior approval from the Dean – Academics. The details of the syllabus, timetable and faculty may be sent to the Dean - Academics after approval from the Head of the Department concerned. Students can take a maximum of two 'one credit courses' or one 'two credit course'. They shall be allowed to take one/two credit courses offered in other departments with the permission of the Head of the Department offering the course.

#### **4.9 ONLINE COURSES**

**4.9.1** Students may be permitted to credit **only one online course** of 3 credits with the approval of **Head of the Department** and **Dean-Academics**.

**4.9.2** Students may be permitted to credit one online course through MOOCs/Swayam (which are provided with certificate) subject to a maximum of three credits (6 weeks duration). The approved list of online courses will be provided by the Dean-Academics from time to time. In case of credits earned through MOOCs/Swayam, the credits (and equivalent grades) may be transferred after due approval from the Head of the Department and Dean Academics.

#### **4.10 PROJECT WORK**

The project work to be undertaken by students in the final year is divided into two phases. Phase 1 of the project is to be done in the seventh semester which is awarded 3 credits and Phase 2 of the project is to be done in the eighth semester which is awarded 9 credits. The total credits for project work in the final year is 12.

#### **4.11 MEDIUM OF INSTRUCTION**

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

### **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 540 periods of 50 minutes each. The Head of the Institution shall ensure that every teacher imparts instruction as per the number of periods specified in the syllabus and that the teacher teaches the full content of the specified syllabus for the course being taught.

**5.3** The Head of the Department may conduct additional classes with prior approval of Head of the Institution for improvement, special coaching, conduct of model test etc., over and above the specified periods. But for the purpose of calculation of attendance requirement for writing the end semester examinations (as per clause 6) by the students, following method shall be used.

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

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 calculated 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 student should also register for courses for which the student has failed in the earlier semesters.

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

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

- I. Courses of the current semester.
- II. The core (Theory/Lab /EEC) courses that the student has not cleared in the previous semesters.
- III. Elective courses which the student failed (either the same elective or a different elective instead).

## 7. ATTENDANCE REQUIREMENTS FOR COMPLETION OF THE SEMESTER

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

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

- 7.3 Candidates who **secure less than 65% overall attendance and candidates who do not satisfy the clause 7.1 and 7.2** shall not be permitted to write the End Semester Examination 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. CLASS ADVISOR

There shall be a class advisor for each class. The class advisor will be one among the (course-instructors) of the class. He / She will be appointed by the HoD of the department concerned. The class advisor is the ex-officio member and the Convener of the class committee. The responsibilities for the class advisor shall be:

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

## 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 class room and in the laboratories.
- **Clarifying the regulations of the degree programme and the details of rules therein particularly (clause 5 and 7) which should be displayed on college Notice-Board.**
- Informing the student representatives, the academic schedule including the dates of assessment tests and the syllabus coverage for each assessment test.
- Informing the student representatives, the details of Regulations regarding weightage used for each assessment test. 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 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 class committee.
- 9.5 The Chairperson of the class committee may invite the class advisor and the Head of the Department to the class committee meeting.
- 9.6 The Head of the Institution may participate in any class committee of the institution.
- 9.7 The chairperson is required to prepare the minutes of every meeting, submit the same to Head of the Institution through Head of the Department within two days of the meeting and arrange to circulate it among the students and teachers concerned. If there are some points in the minutes requiring action by the management, the same shall be brought to the notice of the Management by the Head of the Institution.
- 9.8 The first meeting of the class committee shall be held within one week from the date of commencement of the semester, in order to inform the students about the nature and weightage of assessments within the framework of the Regulations. Two or three subsequent meetings may be held in a semester at suitable intervals. **The Class Committee Chairman 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, students shall meaningfully interact and express their opinions and give suggestions 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 of all the faculty teaching the common course with one of them nominated as Course Coordinator. The nomination of the Course Coordinator shall be made by the Head of the Department / Head of the Institution depending upon whether all the faculty teaching the common course belong to a single department or to several departments. The 'Course committee' shall meet in order to arrive at a common scheme of evaluation for the test and shall ensure a uniform evaluation of the tests. Wherever feasible, the course committee may also prepare a common question paper for the internal assessment test(s).
11. **B.E., HONOURS**  
A student can opt for **B.E., Honours** degree provided he/she earns 20 additional credits from **Second year** through MOOCs, over and above the minimum requirement of credits and should not have obtained "SA" or "RA" grade in any of the courses.  
Prior approval from Head of the Department and Dean-Academics is mandatory to acquire the credits for the Honours degree and the details must be forwarded to Contriooller of Examinations for registration of the course.

## **12. SYSTEM OF EXAMINATION**

- 12.1** Performance in each course of study shall be evaluated based on
- (i) Continuous Assessment throughout the semester and
  - (ii) End-Semester Examination at the end of the semester.
- 12.2** Each course, both theory and practical (including project work & viva voce Examinations) shall be evaluated for a maximum of 100 marks. For all theory and practical courses including project work, the Continuous Assessment will carry **50 marks** while the End-Semester examination will carry **50 marks**.
- 12.3** Industrial training and Internship shall carry 100 marks and shall be evaluated through internal assessment only.
- 12.4** The End-Semester Examination (theory and practical) of 3 hours duration shall ordinarily be conducted between October and December during the odd semesters and between April and June during the even semesters.
- 12.5** The End-Semester Examination for project work shall consist of evaluation of the final report submitted by the student or students of the project group (of not exceeding 4 students) by an external examiner / internal examiner, followed by a viva-voce examination conducted separately for each student by a committee consisting of the external examiner / internal examiner and the supervisor of the project group.
- 12.6** For the End-Semester Examination in both theory and practical courses including project work the internal and external examiners shall be appointed by the Controller of Examinations.

## **13. PROCEDURE FOR AWARDING MARKS FOR INTERNAL ASSESSMENT**

For all theory and practical courses (including project work) the continuous assessment shall be for a maximum of 50 marks. The above continuous assessment shall be awarded as per the procedure given below:

### **13.1 THEORY COURSES**

Two tests (as per CBCS) each carrying 100 marks shall be conducted during the semester by the Department / Controller of Examinations. The marks obtained in each test is scaled to 25 marks and rounded to the nearest integer (This also implies equal weightage to the two tests). Both the test marks will be put together to arrive the 50 marks for the Continuous Assessment.

### **13.2 LABORATORY COURSES**

The maximum marks for Continuous Assessment shall be 50 in case of practical courses. Every practical exercise / experiment shall be evaluated based on conduct of experiment / exercise and records maintained. There shall be at least one test. The criterion for arriving at the Continuous Assessment marks of 50 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 scaled to 50 and rounded to the nearest integer.

**13.3 THEORY COURSES WITH LABORATORY COMPONENT**

If there is a theory course with Laboratory component, there shall be three tests: the first two tests (each 100 marks) will be from theory portions and the third test (maximum mark 100) will be for laboratory component. The sum of marks of first two tests shall be scaled to 60 marks and the third test mark shall be scaled to 40 marks. The sum of these 100 marks may then be arrived at for 50 and rounded to the nearest integer.

**13.4 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 presentation on the progress made by him / her before the committee. The total marks obtained in the three reviews shall be scaled to **50 marks** and rounded to the nearest integer (as per the scheme given in 14.4.1).

**13.4.1** The project report shall carry a maximum 10 marks. The project report shall be submitted as per the approved guidelines as given by Dean-Academics. Same mark shall be awarded to every student within the project group for the project report. The viva-voce examination shall carry 40 marks. Marks are awarded to each student of the project group based on the individual performance in the viva-voce examination.

Review I	Review II	Review III	End semester Examinations				
			Thesis Submission (10)		Viva-Voce (40)		
15	15	20	Internal	External	Internal	External	Supervisor
			5	5	10	20	10

**13.4.2** 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-register for the same in a subsequent semester.

**13.5 OTHER EMPLOYABILITY ENHANCEMENT COURSES**

**(a)** The seminar / Case study/ Comprehension and Technical Seminar is to be considered as purely INTERNAL (with 100% internal marks only). Every student is expected to present a minimum of 2 seminars per semester before the evaluation committee and for each seminar, marks can be equally apportioned. The three member committee appointed by Head of the Department will evaluate the seminar and at the end of the semester the marks can be consolidated and taken as the final mark. The evaluation shall be based on the seminar paper

(40%), presentation (40%) and response to the questions asked during presentation(20%).

- (b) The Industrial / Practical Training, Summer Project, Mini Project, Internship, shall carry 100 marks and shall be evaluated through internal assessment only. At the end of Industrial / Practical training / internship / Summer Project, the candidate shall submit a certificate from the organization where he / she has undergone training and a brief report. The evaluation will be made based on this report and a Viva-Voce Examination, conducted internally by a three member Departmental Committee constituted by the Head of the Institution based on the recommendations of Head of the Department. The certificates (issued by the organization) submitted by the students shall be attached to the mark list sent by the Head of the Institution to the Controller of Examinations.

**13.6 ASSESSMENT FOR VALUE ADDED COURSE**

The one / two credit course shall carry 100 marks and shall be evaluated through **continuous assessments only**. Two Assessments shall be conducted during the semester by the Department concerned. The total marks obtained in the tests shall be reduced to 100 marks and rounded to the nearest integer. A committee consisting of the Head of the Department, staff handling the course and a senior Faculty member nominated by the Head of the Institution shall monitor the evaluation process. The list of students along with the marks and the grades earned may be forwarded to the Controller of Examinations for appropriate action at least one month before the commencement of End Semester Examinations.

**13.7 ASSESSMENT FOR ONLINE COURSES**

Students may be permitted to credit one online course through MOOCs (which are provided with certificate) subject to a maximum of three credits (6 weeks duration) only with the approval of the Head of the Department and Dean Academics. The approved list of online courses will be provided by the Dean-Academics from time to time. This online course of 3 credits can be considered instead of one professional elective course. The grade equivalence of the online course will be decided by the Head of the Department prior to the approval of the online course, based on the contents of the online course and evaluation methodology.

- 13.8 Continuous Assessment marks approved by the Head of the Institution shall be displayed by the respective HODs.**

**13.9 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 and Head of the Institution 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 will be kept in safe custody (for five years) by the Head of the Institution.

**14. REQUIREMENTS FOR APPEARING FOR UNIVERSITY EXAMINATIONS**

A candidate shall normally be permitted to appear for the End-Semester Examinations for all the courses registered in the current semester (vide clause 6) if he/she has satisfied the semester completion requirements (subject to Clause 7). Further, registration is mandatory for all courses in the current semester as well as for arrear course(s) for the End-Semester Examinations, failing which the candidate will not be permitted to move to the higher semester and has to redo the semester.

A candidate who has already appeared for any subject in a semester and passed the examination is not entitled to reappear in the same subject for improvement of grades.

**15. PASSING REQUIREMENTS**

**15.1** A candidate who secures not less than 50% of total marks prescribed for the course [Continuous Assessment + End-Semester Examinations] with a minimum of 40% 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 practical courses (including projectwork).

**15.2** If a student fails to secure a pass in theory courses in the current semester examination, he/she is allowed to write arrear examinations in the consecutive semesters and their Continuous Assessment marks shall be carried over.

**15.3** If a student fails to secure a pass in a laboratory course, **the student has to register** for the course again in the consecutive semesters.

**15.4** If a student fails to secure a pass in project work, **the student has to register** for the course again, in the consecutive semesters.

**15.5** The passing requirement for the courses which are assessed only through purely internal assessments is 50% of the internal assessment (continuous assessment) marks only.

**15.6** A student can apply for revaluation of the student's semester examination answer paper in a theory course, within prescribed duration from the declaration of results, on payment of a prescribed fee along with prescribed application to the COE through the Head of the Institution. The COE will arrange for there valuation and the results will be intimated to the student concerned through the Head of the Institution. Revaluation is not permitted for laboratory course and project work.

## 16.

### AWARD OF LETTER GRADES

#### 16.1

All assessments of a course will be evaluated on absolute marks basis. However, for the purpose of reporting the performance of a candidate, letter grades, each carrying certain number of points, will be awarded as per the range of total marks (out of 100) obtained by the candidate in each subject as detailed below:

Letter Grade	Grade Points	Marks Range
O (Outstanding)	10	91 - 100
A+(Excellent)	9	81 - 90
A (VeryGood)	8	71 - 80
B+(Good)	7	61 - 70
B (Average)	6	50 - 60
RA (Reappear)	0	<50
SA (Shortage of Attendance)	0	
W (Withdrawal)	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". 'SA' denotes shortage of attendance (as per clause 7.3) and hence prevention from writing the end semester examinations. 'SA' will appear only in the result sheet.

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

If the grade RA is given to a core **theory course**, the attendance requirement need not be satisfied, but if the grade RA is given to a **Laboratory Course/ Project work / Seminar and any other EEC course**, the attendance requirements (vide clause 7) should be satisfied.

#### 16.2

For the Co-curricular activities such as National Service Scheme (NSS) / Youth Red Cross(YRC), a satisfactory / not satisfactory grading 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 during the first year of the Programme. However, for valid reasons, the Head of the Institution may permit a student to complete this requirement in the second year. **A satisfactory grade in the above co-curricular activities is compulsory for the award of degree.**

#### 16.3

The grades O, A+, A, B+, B obtained for the one credit course shall figure in the Grade Sheet under the title '**Value Added Courses**'. The Courses for which the grades are RA, SA **will not figure in the Grade Sheet.**

## 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 grades 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.

CGPA will be calculated in a similar manner, considering all the courses registered from first semester. RA grades will be excluded for calculating GPA and CGPA.

$$\text{GPA/CGPA} = \frac{\sum_{i=1}^n C_i \text{GP}_i}{\sum_{i=1}^n C_i}$$

where  $C_i$  is the number of Credits assigned to the course

$\text{GP}_i$  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.

## 17 ELIGIBILITY FOR THE AWARD OF THE DEGREE

17.1 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 subjects prescribed in all the 8 semesters within a maximum period of 7 years (6 years in the case of Lateral Entry) reckoned from the commencement of the first (third in the case of Lateral Entry) semester to which the candidate was admitted.
- iii. Successfully passed any additional courses prescribed by the Dean-Academics whenever readmitted under regulations R-2019 (vide clause 17.3)
- iv. Successfully completed the NSS / YRC requirements.
- v. No disciplinary action pending against the student.
- vi. The award of Degree must have been approved by the Syndicate of the University.

## **17.2 CLASSIFICATION OF THE DEGREE AWARDED**

### **17.2.1 FIRST CLASS WITH DISTINCTION**

- A student who satisfies the following conditions shall be declared to have passed the examination in First class with Distinction:
- Should have passed the examination in all the courses of all the eight semesters (6 semesters in the case of Lateral Entry) in the student's First Appearance within five years (Four years in the case of Lateral Entry). Withdrawal from examination (vide Clause 16) will not be considered as an appearance.
- Should have secured a CGPA of not less than 8.5.
- One year authorized break of study (if availed of) is included in the five years (four years in the case of lateral entry) for award of First class with Distinction.
- Should NOT have been prevented from writing End-Semester Examination due to lack of attendance in any semester.

### **17.2.2 FIRST CLASS:**

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

- Should have passed the examination in all the courses of all eight semesters (6 semesters in the case of Lateral Entry) **within Six years**. (Five years in the case of Lateral Entry)
- One year authorized break of study (if availed of) or prevention from writing the End-Semester examination due to lack of attendance (if applicable) is included in the duration of six years (five years in the case of lateral entry) for award of First class
- Should have secured a CGPA of not less than **7.0**

### **17.2.3 SECOND CLASS:**

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

- ### **17.3**
- A candidate who is absent in end semester examination in a course / project work after having registered for the same shall be considered to have appeared in that examination for the purpose of classification. (subject to clause 16 and 17)

#### **17.4 Photocopy /Revaluation**

A candidate can apply for photocopy of his/her semester examination answer paper in a theory course, within prescribed duration from the declaration of results, on payment of a prescribed fee through proper application to the Controller of Examinations through the Head of Institution. After getting the photocopy, if the student wants to apply for revaluation, the Controller of Examinations will arrange for the revaluation and the results will be intimated to the candidate concerned through the Head of the Institution. Revaluation is not permitted for practical courses and for projectwork.

A candidate can apply for revaluation of all answer scripts for which he / she appeared.

#### **17.5 Review**

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

#### **18. PROVISION FOR WITHDRAWAL FROM END-SEMESTER EXAMINATION**

**18.1** A student may, for valid reasons, (medically unfit / unexpected family situations sports approved by Head of the Institution and HOD) be granted permission to withdraw from appearing for the End-Semester Examination in any course or courses in **ANY ONE** of the semester examinations during the entire duration of the degree programme. The application shall be sent to Dean-Student Affairs through the Head of the Institution with required documents.

**18.2** Withdrawal application is valid if the student is otherwise eligible to write the examination (Clause 7) and if it is made within TEN days prior to the commencement of the examination in that course or courses and recommended by the Head of the Institution and approved by the Controller of Examinations.

**18.2.1** Notwithstanding the requirement of mandatory 10 days notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.

**18.2.2** In case of withdrawal from a course / courses (Clause 13) the course will figure both in Grade Sheet as well as in Result Sheet. Withdrawal essentially requires the student to register for the course/courses. The student has to register for the course, fulfill the attendance requirements (vide clause 7), earn Continuous Assessment marks and attend the end semester examination. However, withdrawal shall not be construed as an appearance for the eligibility of a candidate for First Class with Distinction.

**18.2.3** Withdrawal is permitted for the End-Semester Examinations in the final semester only if the period of study of the student concerned does not exceed 5 years as per clause 15.2.1.

**19. PROVISION FOR AUTHORISED BREAK OF STUDY**

**19.1** A student is permitted to go on break of study for a maximum period of one year as a single spell.

**19.2** Break of Study shall be granted only once for valid reasons for a maximum of one year during the entire period of study of the degree programme. However, in extraordinary situation the candidate may apply for additional break of study not exceeding another one year by paying prescribed fee for break of study. If a candidate intends to temporarily discontinue the programme in the middle of the semester for valid reasons, and to rejoin the programme in a subsequent year, permission may be granted based on the merits of the case provided he / she applies to the Dean- Student Affairs in advance, but not later than the last date for registering for the End-Semester Examination of the semester in question, through the Head of the Institution stating the reasons thereof and the probable date of rejoining the programme.

**19.3** The candidates permitted to rejoin the programme after break of study / prevention due to lack of attendance, shall be governed by the Curriculum and Regulations in force at the time of rejoining. The students rejoining in new Regulations shall apply to the Dean-Academics in the prescribed format through Head of the Institution at the beginning of the readmitted semester itself for prescribing additional courses, if any, from any semester of the regulations in-force, so as to bridge the curriculum in-force and the old curriculum.

**19.4** 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 15.2).

**19.5** 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.

**19.6** 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)

**20 DISCIPLINE**

**20.1** Every student is required to observe discipline 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 Dean – Student Affairs, Chairman of the discipline Committee, Two Heads of Department of which one should be from the faculty of the student, two Professors and his/her Class Advisor to enquire into acts of indiscipline and report to the Head of Institution for necessary action.

**20.2** If a student indulges in malpractice in any of the End-Semester / Continuous Assessment Examination he / she shall be liable for punitive action as prescribed by the Office of the Controller of Examinations from time to time.

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

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

**22 SPECIAL CASES**

In the event of any clarification in the interpretation of the above rules and regulations, they shall be referred to the Governing Council/Academic Council. The Governing Council/Academic Council will offer suitable interpretations / clarifications / amendments required for special case on such references and get them ratified in the next meeting of the Governing Council/Academic Council. The decision of the Governing Council will be final.

## **VISION OF THE DEPARTMENT**

Department of Information Technology strives to provide quality education, academic excellence based on ethical and societal values, exposing students to all concepts, so as to promote global competitiveness in higher education, multi-disciplinary research and entrepreneurship.

## **MISSION OF THE DEPARTMENT**

- To attain academic excellence through innovative practices in teaching and research methodologies.
- To produce globally competent information technologists and entrepreneurs.
- To motivate students to pursue higher education interlaced with communication skills leading to lifelong learning and societal transformations.
- To provide excellence in multi-disciplinary research and development activities rooted in ethical and moral values.

## **PROGRAM OUTCOMES (POs)**

1.**Engineering knowledge:** Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2.**Problem analysis:** Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

3.**Design/development of solutions:** Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4.**Conduct investigations of complex problems:** Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5.**Modern tool usage:** Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with an understanding of the limitations.

6.**The engineer and society:** Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7.**Environment and sustainability:** Understand the impact of the professional engineering solutions

in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

**8.Ethics:** Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

**9.Individual and team work:** Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

**10.Communication:** Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

**11.Project management and finance:** Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

**12.Life-long learning:** Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

### **PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)**

**PEO1:** To ensure graduates will be proficient in utilizing the fundamental knowledge of basic sciences, mathematics and Information Technology for the applications relevant to various streams of Engineering and Technology.

**PEO2:** To enrich graduates with the core competencies necessary for applying knowledge of computers and telecommunications equipment to store, retrieve, transmit, manipulate and analyze data in the context of business enterprise.

**PEO3:** To enable graduates to think logically, pursue lifelong learning and will have the capacity to understand technical issues related to computing systems and to design optimal solutions.

**PEO4:** To enable graduates to develop hardware and software systems by understanding the importance of social, business and environmental needs in the human context.

**PEO5:** To enable graduates to gain employment in organizations and establish themselves as professionals by applying their technical skills to solve real world problems and meet the diversified needs of industry, academia and research.

### **PROGRAM SPECIFIC OUTCOMES (PSOs)**

**PSO-I:** Proficiency to effectively integrate IT-based solutions for contemporary cross-functional applications.

**PSO-II:** Ability to analyze, design, implement and evaluate the information systems with ethics, to meet the local and global requirements for scientific and industry solutions.