



**VIVEKANANDHA COLLEGE OF ENGINEERING FOR WOMEN**  
(An Autonomous Institution Affiliated to Anna University- Chennai)



**REGULATIONS 2013**

B.E. / B.Tech. Degree (8-Semester) Full-time Programme

**CREDIT SYSTEM**

**Degree of Bachelor of Engineering / Bachelor of Technology**

The following regulations are applicable to the students admitted to B.E. / B.Tech. Degree programme in the Institution from the academic year 2013-2014.

**1. Preliminary Definitions and Nomenclature**

In these regulations, unless the context otherwise requires:

- i. **“Programme”** means Undergraduate Degree Programme B.E. / B.Tech., Degree Programme.
- ii. **“Discipline”** means specialization or branch of B.E. / B.Tech., Degree Programme, like Computer Science and Engineering, Information Technology, etc.
- iii. **“Course”** means theory or practical subject that is normally studied in a semester, like Mathematics, Physics, etc.
- iv. **“Controller of Examinations”** means authority of the Institution who is responsible for all activities of the End Semester Examinations (ESE) of the Institution.
- v. **“Head of the Institution”** means the Principal of the College / Institution who is responsible for all the academic activities of that College / Institution and for implementation of relevant rules of this Regulation.
- vi. **“Head of the Department”** means the Head of the Discipline concerned.
- vii. **“Institution”** means Vivekanandha College of Engineering for Women.
- viii. **“University”** means Anna University, Chennai.

**2. Programme offered and Admission requirements**

**2.1. Programme offered**

- B.E. (Computer Science and Engineering)
- B.E. (Electronics and Communication Engineering)
- B.E. (Electrical and Electronics Engineering)
- B.Tech. (Information Technology)
- B.Tech. (Biotechnology)

## **2.2. Admission requirements**

### *2.2.1. Candidates seeking admission to the first semester of the eight semesters B.E. / B.Tech.*

#### *Degree Programme:*

Should have passed the Higher Secondary (10+2) Examinations of Curriculum (Academic Stream) prescribed by the Government of Tamilnadu with Mathematics, Physics and Chemistry as three of the four courses 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.

(OR)

Should possess a Diploma in Engineering / Technology awarded by the State Board of Technical Education, Tamilnadu or any other authority accepted by the Syndicate of the Anna University, as equivalent thereto.

Note: The eligibility criteria for admission shall be as prescribed by the Syndicate of Anna University from time to time.

### *2.2.2. Lateral entry admission*

Candidates who possess 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)

Candidates who possess a Bachelor Degree in Science (B.Sc.) (10+2+3 stream) with Mathematics as a subject at the degree 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 subjects, one in the third or fifth and the other in the fourth or sixth semesters respectively as prescribed by the respective discipline (Refer Annexure - I).

## **3. Structure of the Programme**

3.1. *Every Programme will have curricula with syllabi consisting of theory and practical courses categorized as:*

- i. General core courses comprising Mathematics, Basic Sciences, Engineering Sciences, Humanities and Engineering.
  - ii. Core courses of Engineering / Technology.
  - iii. Elective courses for specialization in particular fields.
  - iv. Workshop Practice, Computer Practice, Engineering Graphics, Laboratory Courses, In-plant Training, Project Work / Mini-project, Internship Training, Seminar Presentation, Industrial Visit etc.
  - v. NCC / NSS / NSO / YRC / RRC activities for character development.
- 3.2. The curriculum and syllabi of all the Undergraduate Programme shall be approved by the Academic Council of the Institution. The number of credits to be earned for the successful completion of the Programme shall be as specified in the curriculum of the respective specialization of the Undergraduate Programme.
- 3.3. There shall be a certain minimum number of core courses and sufficient number of elective courses that can be selected by the student. The blend of different courses shall be so designed that the student, at the end of the Programme, would have been trained not only in her relevant professional field but also would have developed as a rounded personality with social consciousness.
- 3.4. *Each course is normally assigned a certain number of credits:*
- i. One credit for each lecture period allotted per week
  - ii. One credit for each tutorial period allotted per week
  - iii. One credit for each seminar / practical session / project work / Mini-project of 2 periods per week and 2 credits for 3 or 4 periods of practical session per week
  - iv. One credit for 2 weeks, two credits for 4 weeks and three credits for 6 weeks of industrial training during semester vacations.
- 3.5. Each semester curriculum shall normally have a blend of lecture courses not exceeding 7 and practical courses not exceeding 4. However, the total number of courses per semester shall not exceed 9.
- 3.6. For the award of the degree, a student has to earn certain minimum total number of credits specified in the curriculum.

<b>Programme</b>	<b>Prescribed Credits</b>
B.E. / B.Tech.	195 to 205

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

#### **4. Duration of the Programme**

- 4.1. A student is ordinarily expected to complete the B.E. / B.Tech. Degree programme in 8 semesters (four academic years) but, in any case not more than 14 semesters for H.Sc. candidates and not more than 12 semesters for lateral entry Diploma / B.Sc. candidates.
- 4.2. Each semester shall normally consist of 75 working days or 500 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 full content of the specified syllabus for the course is covered in classroom teaching and homework.
- 4.3. The Head of the Institution may arrange for additional classes for improvement, conduct of test etc., over and above the specified periods. But for the purpose of calculation of attendance requirement or writing the ESEs (vide Clause 5) by the students, 500 periods conducted within the specified academic schedule alone shall be taken into account and the overall percentage of attendance shall be calculated accordingly. The ESEs will ordinarily follow immediately after the last working day of the semester starting from first semester as per academic schedule prescribed from time to time.
- 4.4. 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 as specified in Clause 4.1, irrespective of the period of break of study (vide Clause 19.3), in order that she may be eligible for the award of the Degree (vide Clause 15).

#### **5. Attendance requirements for completion of the semester**

- 5.1. *A candidate who has fulfilled the following conditions shall be deemed to have satisfied the requirements for completion of a semester:*
  - 5.1.1. Ideally, every student is expected to attend all classes and secure 100% attendance. However, in order to give provision for certain unavoidable reasons such as medical / participation in sports / personal, the student is expected to attend at least 75% of the classes during any semester commencing from first semester. Therefore, she shall secure an overall attendance not less than 75% (after rounding off to the nearest integer), taking into account the total number of periods attended by the candidate in a semester within 75 working days in all courses put together, against the total number of periods in all courses offered during the semester (vide clause 4.3).
  - 5.1.2. However, a candidate who secures an overall attendance between 65% and 74% in that current semester due to medical reasons (prolonged hospitalization / accident / specific

illness) / participation in sports events, may be permitted to appear for the current ESEs, subject to the condition that the candidate shall submit the medical certificate / sports participation certificate / related other certificate attested by the Head of the Institution.

- 5.1.3. Candidate who secures an overall attendance less than 65% shall not be permitted to appear for the current ESEs. She cannot move to the next semester and is required to repeat the incomplete semester in the next academic year, as per the norms prescribed.

## **6. Counsellor**

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 (15 to 20) to a teacher of their respective department, who shall act as a counsellor for those students throughout their period of study. Such counsellors shall advise the students and monitor their attendance, academic performance and progress, encourage co-curricular, extra-curricular activities of students and counsel them periodically on all matters pertaining to hostel / transport / health, etc. If necessary, the counsellor may also meet / discuss with or inform the parents about the progress / grievances of the students.

## **7. Class Advisor**

There shall be a Class Advisor for each class from the first semester till the end of the Programme. The Class Advisor will be one among the course instructors of the class, at least in the first semester. He / She will be appointed by the concerned Head of the Department. The Class Advisor is the ex-officio member and the convener of the Class Committee. The responsibilities for the Class Advisor are:

- i. To act as the channel of communication between the Head of the Department and the students of the respective Class.
- ii. To collect and maintain various statistical details of the students.
- iii. To help the chairperson of the Class Committee in planning and conduct of the Class Committee meetings.
- iv. To monitor the academic performance of the students including attendance and to inform the Class Committee.
- v. To monitor the students' activities / achievements like awards, medals, scholarships, industrial visits, etc.

## 8. Class Committee

- 8.1. Every class shall have a class committee consisting of Class Advisor, teachers of the class, student representatives and a senior faculty as chairperson who is not handling any courses for the class. It is like the 'Quality Circle' (more commonly used in industry), with the overall goal of improving the teaching-learning process. The functions of the Class Committee include:
- i. Solving problems experienced by students in the classroom and laboratories.
  - ii. Clarifying the regulations of the Degree Programme and the details of rules therein, particularly, Clause 4 and 5 which should be displayed on Institution Notice-Board.
  - iii. Informing the student representatives, the academic schedule including the dates of Continuous Assessment (CA) and the syllabus coverage for each assessment.
  - iv. Informing the student representatives the details of regulations regarding weight-age given for each assessment. In the case of practical courses (laboratory / drawing / Project Work / Mini-project, 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.
  - v. Analyzing the performance of the students of the class after each term test and finding ways and means of solving the problems, if any.
  - vi. Identifying the weak students, if any, and requesting the teachers concerned to provide additional classes or consultation or guidance to such weak students.
- 8.2. The Class Committee for a class under a particular branch is normally constituted by the Head of the Department. However, if the students of different branches are mixed in a class (like the first semester, which is generally common to all branches), the Class Committee is to be constituted by the Head of the Institution.
- 8.3. At least 6 student representatives shall be included in the Class Committee.
- 8.4. The Chairperson of the Class Committee may invite the Head of the Department to the Class Committee meeting, if required.
- 8.5. The Head of the Institution may participate in any of the Class Committee meeting.
- 8.6. 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 make arrangements 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 Management's notice by the Head of the Institution.

- 8.7. The first Class Committee meeting shall be held one week after the date of commencement of the semester, in order to inform the students about the nature and weight-age of assessments within the framework of the regulations. A minimum of three meetings should be conducted in a semester. The Class Advisor shall display the cumulative attendance particulars of each student on the Notice Board, at the end of every such meeting to enable the students to know their attendance details to satisfy the Clause 5 of this Regulation. During these meetings, the student members representing the entire class, shall meaningfully interact and express the opinions and suggestions of the other students of the class in order to improve the effectiveness of the teaching-learning process.

## **9. 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 uniform evaluation of the tests. Wherever feasible, the Course Committee may also prepare a common question paper for the CA test.

## **10. System of Examination**

- 10.1. Performance in each course of study shall be evaluated based on (i) CA throughout the semester (ii) ESEs.
- 10.2. Each course such as Theory, Practical, Project and Mini-project shall be evaluated for a maximum of 100 marks. Further the CA and ESE will carry 50 marks each. Project Work may be allotted to a group of 2 to 4 students.
- 10.3. The ESE for Theory and Practical courses of 3 hours duration shall ordinarily be conducted between October/December and April/June during the odd and even semesters respectively. Supplementary Examinations (SE) may also be conducted, at such times, for the benefit of the students as decided by the Institution. The SE shall be conducted for 7<sup>th</sup> and 8<sup>th</sup> semester courses to the students who admitted under R2013 and R2014 after the publication of 8th semester result.

- 10.4. The ESE for Project Work / Mini-project shall consist of evaluation of the final report submitted by the student or students of the project group (not exceeding 4 students) by an External Examiner followed by a Viva-Voce Examination conducted separately for each student by a committee consisting of an External Examiner, an Internal Examiner and the Supervisor of the project group.
- 10.5. The Internal and External Examiners for the ESEs in theory / practical courses, including Project Work shall be appointed by the Controller of Examinations.
- 10.6. ESE Question paper patterns for B.E. / B.Tech. Degree programme are enclosed in Annexure – II, Annexure – III and Annexure – IV.

## **11. Assessment**

*The CA and ESE marks shall be awarded as per the procedure given below:*

### **11.1. Theory Courses**

- i. The CA will consist of i) a minimum of 2 quizzes ii) a minimum of 2 assignments and iii) two term tests per semester.
- ii. Two term tests each carrying 50 marks shall be conducted during the semester by the Department concerned. The marks obtained in the two tests are added with average quiz marks out of 40 and average assignment marks out of 60. The total marks out of 200 shall be reduced for 50 marks.

### **11.2. Practical Courses**

*Every practical exercise / experiment shall be evaluated based on the performance of the student as follows:*

- i. Pre – lab test 10%
- ii. Implementation and output 70%
- iii. Post – lab test 20%

The total marks for all the experiments are reduced for 50 marks.

### **11.3. Project Work / Mini-project**

- i. The Project Work / Mini-project report shall carry maximum of 20 marks (same marks shall be awarded to every student in the project group), while, the Viva-Voce examination shall carry 30 marks (marks are awarded to each student of the project group based on the individual performance in the Viva-Voce examination).



- ii. The Head of the Department shall constitute a Review Committee consisting of Supervisor, Project Coordinator and another faculty member from the Department for each branch of study for the Project Work / Mini-project. There shall be three assessments during the semester by a review committee each carrying 100 marks. The earned assessment marks out of 100 shall be reduced accordingly as shown in the table below. The student shall make presentation on the progress made before the review committee.
- iii. There will be a Viva-Voce examination at the end of the semester conducted by a committee consisting of the Supervisor, one Internal Examiner and one External Examiner. The Internal and External Examiner shall be appointed by the Controller of Examinations from the Panel of Examiners submitted by the Head of the Department. The CA marks are awarded based on the three reviews as indicated below:

Continuous Assessment (50)			End Semester Examinations (50)			
Review I	Review II	Review III	Report Evaluation (20)	Viva - Voce (30)		
			External	Internal	External	Supervisor
10	20	20	20	10	10	10

- iv. If a candidate fails to appear for the Viva-Voce Examination after submitting the report on Project Work / Mini-project on the date, she will be marked as absent for the Project Work / Mini-project. Such candidate has to register again and clear the Project Work / Mini-project in a subsequent semester. Failure / absence in the final Viva-Voce examination results in re-registration of the Project Work / Mini-project.
- Note: CA marks shall be displayed by the respective Head of the Department within 5 days from the last working day.

#### 11.4. Attendance and Assessment 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 record of class work (topics covered) and the test marks 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 sign after due verification. At the end of the semester, the record shall be verified by the Head of the Institution who will keep this document under safe custody (for three years). The inspection or audit team appointed by the University or Accreditation body may inspect the records of attendance and assessment of both current and previous semesters.

## **12. Requirements for appearing in the End Semester Examination**

A candidate shall normally be permitted to appear for the ESE of any semester commencing from first semester, if she has satisfied the semester completion requirements (subject to Clause 5) and has registered for examination in all courses of the semester. Registration is mandatory for End Semester Examinations as well as arrear examinations, failing which the candidate will not be permitted to move to the higher 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 / marks.

## **13. Award of Letter Grades, Grade Points, Performance analysis Committee and Passing requirements**

### **13.1. Letter Grade and Grade Point**

*Each student, based on her performance, will be awarded a final letter grade and grade point as given in the table infra for each course at the end of each semester by the following:*

- (a) Relative Grading System for theory courses having CA and ESE
- (b) Absolute Grading System for all other courses including Laboratory courses, Project Work / Mini-project and Courses carrying only CA marks.
- (c) If the class strength is less than or equal to 10 in a theory course, then, absolute grading shall be adopted instead of the class-wise relative grading system.

### **13.2. Relative Grading System**

*In relative grading system, the grades are awarded to the students based on their performance relative to the other as detailed below:*

- 13.2.1. For each course, the total mark, M (where M is equal to CA marks secured + ESE marks secured) is computed for each student. For each course the statistical

parameters mean ( $\mu$ ), and standard deviation ( $\sigma$ ) of the distribution of marks is arrived as given below.

$$\mu_i = \sum_{j=1}^n \frac{M_j}{n} \quad \text{and} \quad \sigma_i = \sqrt{\frac{\sum_{j=1}^n (M_j - \mu_i)^2}{n}}$$

where

$M_j$  = Total marks of each student in a particular course and

$n$  = No. of students who have appeared for the examination in that particular course.

- 13.2.2. The above statistical parameters are revised by eliminating outliers  $M_j$  in the range  $[M_j > (\mu_i + 2\sigma_i), M_j < (\mu_i - 2\sigma_i)]$  and the revised statistical parameters; mean ( $\mu$ ) and standard deviation ( $\sigma$ ) are computed using the above relationships, considering the updated number of students.
- 13.2.3. The letter grade and the grade point for the courses are generally awarded based on the statistical parameters, mean ( $\mu$ ) and standard deviation ( $\sigma$ ) of the distribution of marks as detailed below:

<b>Total Mark M secured by the student ( M = CA+ESE)</b>	<b>Grade</b>	<b>Relative Grade point GP</b>
$M \geq \mu + 1.65\sigma$	S	10
$\mu + 0.85\sigma \leq M < \mu + 1.65\sigma$	A	9
$\mu \leq M < \mu + 0.85\sigma$	B	8
$\mu - 0.6\sigma \leq M < \mu$	C	7
$\mu - 1.2\sigma \leq M < \mu - 0.6\sigma$	D	6
$\mu - 1.8\sigma \leq M < \mu - 1.2\sigma$	E	5
$M < \mu - 1.8\sigma$	U	0
Withdrawal from Examination	W	0

- 13.2.4. While applying relative grading, if the minimum marks corresponding to “E” grade happens to be less than 50, then that mark will be set as the minimum mark required to pass the course. Similarly, when the class average is high, marks above 50 may result in “U” grade. Under such circumstances, the student will be awarded “E” grade and declared pass.

### 13.3. Absolute Grading System

In absolute grading system, the letter grade and grade points are awarded to each student based on the percentage of marks secured by her in Laboratory courses, Project Work / Mini-project and courses carrying only CA marks, as detailed below.

Range of percentage of total marks	Letter Grade	Grade Point, GP
90 to 100	S	10
80 to 89	A	9
70 to 79	B	8
60 to 69	C	7
55 to 59	D	6
50 to 54	E	5
0 to 49 or less than 50% in final examination	U	0
Withdrawal	W	0

“U” denotes reappearance / absent

“W” denotes withdrawal from the final examination

### 13.4. Performance Analysis Committee

The Performance Analysis Committee chaired by the Head of the Institution and consisting of the Controller of Examinations and all the Heads of the Departments will, by collective wisdom, decide the scaling factors for different grades and minimum pass mark for ESE alone if found necessary, so as to ensure that the clustering and differentiation of students are made in a reasonable manner for each course separately.

### 13.5. Passing Requirements

- i. A candidate who secures grade point 5 or more in any Course of study will be declared to have passed that Course.
- ii. A candidate, who is absent for the ESE or withdraws from ESE or secures a letter grade U (Grade point 0) in any course carrying CA and ESE marks, will retain the already earned CA marks for two subsequent appearances in the Examination of that Course and thereafter she will be solely assessed by the ESE carrying the entire marks of that Course. That candidate shall be declared to have passed the

examination, if she secures a minimum of 50% marks in the ESEs alone irrespective of the CA marks obtained.

### 13.6. Cumulative Grade Point Average

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

- i. The Institution in which the candidate has studied.
- ii. The list of courses enrolled during the semester and the grades scored.
- iii. The Grade Point Average (GPA) for the semester.
- iv. The Cumulative Grade Point Average (CGPA) of all courses enrolled from first semester onwards.

13.6.2. GPA for a semester is the ratio of the sum of products of the number of credits acquired for courses and their corresponding grade points to the sum of the number of credits acquired for all the courses in the semester and is calculated using the formula.

$$GPA = \frac{\text{Sum of [Credits acquired x Grade points in the given semester]}}{\text{Sum of Credits acquired in the given semester}}$$

13.6.3. CGPA will be calculated considering all the courses registered from the first semester. “U” and “W” grades will be excluded for calculating GPA and CGPA and is calculated using the formula.

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

where

$C_i$  – is the credits assigned to the course.

$GP_i$  – is the point corresponding to the grade obtained for the given 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.

## **13.7. Arrear Examinations**

### **13.7.1. For courses under Relative Grading System**

- a. *Examination in a course conducted exclusively as an arrear examination:*

If a student appears in the above arrear examination, then her grade in that course will be on par with the grade allotted for the same score in that course in the immediate preceding regular examination.

- b. *Examination in a course conducted as a regular examination for a batch of regular students and as an arrear examination for a batch of other students:*

If a student appears in an arrear examination, the examination being conducted along with a batch of regular students, then her grade in that course will be based on the grade allotted to the same score in that course applicable to the above batch of regular students.

### **13.7.2. For courses under Absolute Grading System**

If a student appears in an arrear examination for the above courses, the grade and grade point will be awarded according to absolute grading system based on the percentage of marks secured in that course.

## **14. Revaluation**

A candidate can apply for a photocopy of her answer book to the Controller of Examinations through the Head of the Institution within one week from the date of declaration of results, on payment of a prescribed fee. She can apply for revaluation of the same within one week from the date of receiving of the photocopy and on payment of a prescribed fee. A candidate can apply for revaluation of answer scripts only after obtaining their photocopies and for subjects not exceeding 5 at a time. The Controller of Examinations will arrange for the revaluation and the results will be published. Revaluation is not permitted for practical courses, seminars, practical training and Project work / Mini-project.

## **15. Eligibility for Award of the Degree**

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

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

- ii. Successfully completed the course requirements and has passed all the subjects prescribed in all the 8 semesters within a maximum period of 8 years reckoned from the commencement of the first semester to which the candidate was admitted.
- iii. Successfully completed any additional courses prescribed by the Board of studies, whenever, any candidate is readmitted under new regulations.
- iv. The award of Degree must have been approved by the Syndicate of the University.

## **16. Classification of the Degree awarded**

### **16.1. First Class with Distinction**

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

- i. Should have passed the ESE in all the courses of all the eight semesters (six semesters for lateral entry) in her First Appearance within four years (three years for lateral entry students). Withdrawal from examination (vide Clause 17) will not be construed as an appearance.
- ii. Should have secured a CGPA of not less than 8.50
- iii. Should NOT have been prevented from writing ESE due to lack of attendance in any of the semesters.

One year authorized break of study (if availed of) is permitted in addition to four years for award of First class with Distinction.

### **16.2. First Class**

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

- 16.2.1. Should have passed the ESE in all the courses of all eight semesters (six semesters for lateral entry) within five years (four years for lateral entry students), which includes one year of authorized break of study (if availed) or prevention from writing the ESE due to lack of attendance (if applicable). Withdrawal from examination (vide Clause 17) will not be construed as an appearance.
- 16.2.2. Should have secured a CGPA of not less than 6.50.

### **16.3. Second Class**

All other candidates (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**.

- 16.4. A candidate who is absent in ESE 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.

### **17. Provision for withdrawal from End Semester Examination**

- 17.1. A candidate may, for valid reasons, (medically unfit / unexpected family situations) be granted permission to withdraw from appearing for the examination in any course or courses in any one of the semester examination during the entire duration of the degree programme. Also, only one application for withdrawal is permitted for that semester examination in which withdrawal is sought.
- 17.2. Withdrawal application shall be valid only if the candidate is otherwise eligible to write the examination (Clause 5) and if it is made within TEN days before the commencement of the examination in that course or courses and also recommended by the Head of the Department.
- 17.3. Notwithstanding the requirement of mandatory TEN days notice, applications for withdrawal for special cases under extraordinary conditions will be considered on the merit of the case.
- 17.4. Withdrawal shall not be construed as an appearance for deciding the eligibility of a candidate for First Class with Distinction and First Class.
- 17.5. Withdrawal is NOT permitted for arrear examinations of the previous semesters.

### **18. Industrial visit**

Every student is required to undergo one industrial visit in a semester starting from the third semester of the Programme and the visit will be arranged by the Class Advisor with the approval from the Head of the Department.

### **19. Provision for authorized break of study**

- 19.1. A candidate is normally not permitted to temporarily break the period of study. However, if a candidate happens to discontinue the programme temporarily in the middle of duration of study for valid reasons (such as accident or hospitalization due to prolonged ill health) and to rejoin the programme in a later semester she shall apply to the Head of the Institution in advance, in any case, not later than the last date for registering for the semester in question, through the Head of the Department stating the reasons.



- 19.2. The candidate permitted to rejoin the programme after the break shall be governed by the Curricula and regulations in force at the time of rejoining.
- 19.3. The authorized break of study will not be counted towards the duration specified for passing all the courses for the purpose of classification (vide Clause 16.2.1 and 16.2.2).
- 19.4. 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 in order that she may be eligible for the award of the degree (vide clause 16).
- 19.5. If any student is detained for want of requisite attendance, progress and good conduct, the period spent in that semester shall not be considered as permitted 'Break of Study' and Clause 19.3 is not applicable for this case.
- 19.6. In case of any valid reasons for extension of Break of Study, such extended Break of Study may be granted by the approval of the Head of the Institution for a period not more than 1 year in addition to the earlier authorized Break of Study. Such extended break of study shall be counted for the purpose of classification of degree (vide clause 16.2).
- 19.7. If the candidate has not reported back to the department, even after the extended Break of Study, the name of the candidate shall be deleted permanently from the college enrollment. Such candidates are not entitled to seek readmission under any circumstances.

## **20. Personality and character development**

All students shall enroll, on admission, in any one of the personality and character development programme (like the NCC / NSS / NSO / 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 Cadet Corps (NCC)** will have about 20 parades.
- **National Service Scheme (NSS)** will have social service activities in and around the Institution.
- **National Sports Organization (NSO)** will have sports, Games, Drills and Physical exercises.
- **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. 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.

## **21. Discipline**

Every student is required to observe disciplined and decorous behavior both inside and outside the Institution and not to indulge in any activity which will tend to bring down the prestige of the Institution. The Head of the Institution shall constitute a disciplinary committee consisting of the Head of the Institution, two Heads of Department of which one should be from the faculty of the student to enquire in to the acts of indiscipline and to recommend the disciplinary action. In case of any serious disciplinary action which leads to suspension or dismissal, then the standing disciplinary committee of the Institution shall take the final decision.

## **22. Academic Malpractice**

Academic malpractice shall be viewed seriously and punished appropriately in order to discourage students indulging such an activity. Each case shall be enquired by a 'Malpractice Committee' constituted by the Institution and suitable punishments awarded, if the malpractice is proven. If a student indulges in malpractice in any of the CA Tests, all the examinations written in that period shall be awarded zero marks in all subjects registered in that semester. If a student indulges in malpractice in the ESEs, all the regular courses in which the student was eligible to write and attended the ESEs of that semester and arrear examinations registered and attended shall be awarded 'U' grade, as a punishment. Their ESE / arrear exam earned marks will be reset to zero. Their CA remains same. They will be permitted to clear those courses in a subsequent arrear exam but not conducted for or during that semester period.

## **22. Revision of Regulation and Curriculum**

The Academic Council of the Institution may from time to time revise, amend or change the regulations, curriculum, syllabi and scheme of examinations, if found necessary.

## ANNEXURE- I

### Additional courses to be studied by the B.Sc. graduates admitted to the III semester B.E. / B.Tech. Under Lateral Entry Scheme

The following additional courses are prescribed for the B.Sc. graduates:

- a. The course to be studied either in the III semester or V semester of study.

S.No.	COURSE CODE	COURSE TITLE	L	T	P	C
1.	U14GE101	Engineering Graphics	2	0	3	4

- b. The courses to be studied either in the IV or VI semester of study as applicable to their discipline.

- i. **For Non-Circuit Branches:** (Biotechnology)

S.No.	COURSE CODE	COURSE TITLE	L	T	P	C
1.	U14BT201	Biochemistry	3	0	0	3
2.	U14BT202	Cell Biology	3	0	0	3

- ii. **For Circuit Branches:** (Computer Science and Engineering, Electrical and Electronics Engineering, Electronics and Communication Engineering & Information Technology)

S.No.	COURSE CODE	COURSE TITLE	L	T	P	C
1.	U14GE202	Engineering Mechanics	3	1	0	4
2.	U14CS203	Object Oriented Programming	3	0	0	3

Note: L – Lecture; T – Tutorial; P – Practical; C – Credit.

## ANNEXURE – II

### Question Paper Pattern for End Semester Examinations for B.E. / B.Tech.

Total Marks: 100

Duration: 3 hrs

#### Part – A (20 Questions)

Answer ALL Questions

20x1=20

(Objective type testing conceptual / logical thinking with every wrong answer carrying 0.25 negative marks.)

#### Part – B (10 Questions)

Answer ALL Questions

10x2=20

(Objective type testing lower order analytical skills and requiring short calculations / brief analysis, with every wrong answer carrying 0.5 negative marks.)

#### Part – C (6 Questions)

Answer either “a” or “b” from each question, but not both

6x10=60

(Problems / questions testing the ability for higher order analysis / synthesis / concepts.)

Six questions will be asked in the **Either or Pattern**. The first four questions will be from each unit (first unit to fourth unit) and the remaining two questions from fifth unit, which is not covered in the two term tests.

## ANNEXURE – III

### Question Paper Pattern for Engineering Graphics

- Five questions will be asked in the **Either or Pattern** covering all units of the syllabus.
- All questions will carry equal marks of 20 each making a total of 100.
- Students shall answer the questions by using only standard drafting instruments.

## ANNEXURE – IV

### Question Paper Pattern for English for Communication I & II

#### English for Communication I

##### Term Test 1

##### Question Paper Pattern for Test 1

Paper	Details	Marks	Outcome
Reading 1 hour	Reading: 7 parts – 45 items.	45 marks	Shows whether the student can read and understand the main points from graphs or charts, messages and emails, and can use vocabulary and structure correctly.
Listening (about 40 minutes, including transfer time)	4 parts – 30 items	30 marks	Shows the student's ability to follow and understand a range of spoken materials including interviews and discussions on everyday life.

##### Term Test 2

##### Question Paper Pattern for Test 2

Paper	Details	Marks	Outcome
Reading and Writing (1 hour 30 minutes)	Reading: 7 parts – 45 items.	45 marks	Shows whether the student can read and understand the main points from graphs or charts, messages and emails, and can use vocabulary and structure correctly.
	Writing: 2 tasks.	Task 1 – 10 marks Task 2 – 20 marks	Student is required to be able to produce two short pieces of writing: an internal communication, such as a note or a message, and some business correspondence, such as an email / letter.

##### Question Paper Pattern for End Semester Examination

Paper	Details	Marks	Outcome
Reading and Writing (1 hour 30 minutes)	Reading: 7 parts – 50 items.	50 marks	Shows whether the student can read and understand the main points from graphs or charts, messages and emails, and can use vocabulary and structure correctly.
	Writing: 2 tasks.	Task 1 – 10 marks Task 2 – 10 marks	Student is also required to be able to produce two short pieces of writing: an internal communication, such as a note or a message and some business correspondence, such as an email/ letter.
Listening - about 40 minutes	4 parts – 30 items	30 marks	Requires the student to be able to follow and understand a range of spoken materials including interviews and discussions on everyday life.

## English for Communication II

### Term Test 1

#### Question Paper Pattern for Test 1

Paper	Details	Marks	Outcome
Reading 1 hour	Reading: 7 parts – 45 items.	45 marks	Shows whether the student can read and understand the main points from graphs or charts, messages and emails, and can use vocabulary and structure correctly.
Listening (about 40 minutes, including transfer time)	4 parts – 30 items	30 marks	Requires the student to be able to follow and understand a range of spoken materials including interviews and discussions about everyday life.

### Term Test 2

#### Question Paper Pattern for Test 2

Paper	Details	Marks	Outcome
Reading and Writing (1 hour 30 minutes)	Reading: 7 parts – 45 items.	45 marks	Shows whether the students can read and understand the main points from graphs or charts, messages and emails, and can use vocabulary and structure correctly.
	Writing: 2 tasks.	Task 1 – 10 marks Task 2 – 20 marks	Student is also required to be able to produce two short pieces of writing: an internal communication, such as a note or a message and some business correspondence, such as an email/ letter.

#### Question Paper Pattern for End Semester Examination

Paper	Details	Marks	Outcome
Reading and Writing (1 hour 30 minutes)  50% of the total marks will be taken	Reading: 7 parts – 50 items.	50 marks	Shows whether the student can read and understand the main points from graphs or charts, messages and emails, and can use vocabulary and structure correctly.
	Writing: 2 tasks.	Task 1 – 15 marks Task 3 – 30 marks	Student is also required to be able to produce two short pieces of writing: an internal communication, such as a note or a message, and some business correspondence, such as an email / letter.
Listening - about 40 minutes 25% of the total marks will be taken	4 parts – 30 items	30 marks	Requires the student to be able to follow and understand a range of spoken materials including interviews and discussions about everyday life.
Speaking (12 minutes per pair of students)  25% of the total marks will be taken	3 parts	25 marks	Requires the student to take part in conversation, asking and answering questions, and express freely opinions, when discussing business-related topics. Speaking test will be conducted face-to-face with 2 students at a time.

