VINAYAKA MISSION'S RESEARCH FOUNDATION, SALEM (Deemed to be University)



BACHELOR OF TECHNOLOGY (B.TECH.) PART TIME - DEGREE PROGRAMME

UNDER FACULTY OF ENGINEERING AND TECHNOLOGY

REGULATIONS 2017 (FOR THE STUDENTS ADMITTED FROM 2017 – 18 ONWARDS)

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In exercise of the powers conferred by the Revised Memorandum of Association (RM2010) and Revised Bye-Laws (RB2010) of the Vinayaka Mission's Research Foundation (Deemed to be University) Salem, the Board of Management of the University hereby issue the following regulations pertaining to the undergraduate Programme and the award of the degree of Bachelor of Technology (B.Tech.) at this University.

1. TITLE AND COMMENCEMENT

These regulations shall be called "REGULATIONS FOR BACHELOR OF TECHNOLOGY (B.TECH.)- PART-TIME DEGREE PROGRAMME - R2017".

These regulations **come into force with effect from the Academic year 2017-18** and are subject to such modifications as may be approved by the apex bodies of the University from time to time.

2. PREAMBLE

The degree of Bachelor of Technology (B.Tech.) in Faculty of Engineering and Technology shall be awarded to a candidate who, as per these regulations, has successfully undergone the programme, passed the prescribed examinations and thereby qualified to receive the degree.

2.1. General Considerations and Teaching Approach

The tremendous growth of Science and Technology has made inroads in every sphere of human activity. It has created opportunities, challenges and opened new horizon in the pursuit of knowledge, career and accomplishments. Aspirants are crossing oceans in the pursuit of knowledge and for successful career. The globalization and subsequent opening of our economy have provided ample opportunities in the quest of knowledge to the students of our Nation. Hence a need has arisen to

provide flexible, need based, versatile and learner oriented Education / Knowledge to our students and make them competitive. If the present rigid academic system and the Institution oriented are continued to be imposed, the learners may not have the choice of courses of their liking and hence will not meet the requirements to strengthen their knowledge in specific areas needed for their career. In view of the above a move has to be initiated from Institution centric to learner oriented education system.

The Choice Based Credit System (CBCS) provides ample opportunity for multiple entries, large number of electives, flexible pace for earning credits, carryover of such credits, and choice of courses from other branches. Further it has the ability to accommodate diverse choices that the students may like to have. In view of the above advantages it has been decided to implement the CBCS from the academic year 2015-2016 onwards.

2.2. The objectives of CBCS:

- **2.2.1.** To enrich the horizon of knowledge of students by means of Core, Inter disciplinary, Extra disciplinary and Life/Job oriented courses.
- **2.2.2.** To ensure more interaction between the teacher and taught in class room and extra class room programmes.
- **2.2.3**. To offer flexibility in choosing the courses of study according to their needs and learning capacity.
- **2.2.4.** To enlighten the students on the rich culture of our nation and ethical values underlying real life situations.
 - **2.2.5.** To allow the advanced learner to earn extra credits.
- **2.2.6.** To maintain the total credits of each programme on a par with International standards.

3. DEFINITIONS AND NOMENCLATURE

In the Regulations, unless the context otherwise requires, certain terms used and their meanings are as under.

- **3.1.** "MHRD" means Ministry of Human Resources Development (Department of Secondary Education and Higher Education).
- **3.2**. "UGC" means The University Grants Commission established under Sec.4. of the University Grants Commission Act 1956 (Central Act 3 of 1956)
 - **3.3.** "AICTE" means All India Council of Technical Education
- **3.4.** "University" means Vinayaka Mission's Research Foundation (Deemed to be University) approved by the both MHRD and UGC.
 - **3.5.** "Vice Chancellor" means Vice Chancellor of Vinayaka Missions University
- **3.6.** "Board of Management or BoM" means Board of the Management, the highest governing body of the University

- **3.7**. "Academic Council or AC" means Academic Council the highest academic body of the University, chaired by the Vice Chancellor
- **3.8.** "Board of Studies or BoS" means Board of Studies of the University under the Faculty of Engineering and Technology
 - **3.9.** "CoE" means Controller of Examinations of the University
 - **3.10.** "AICEE" means All India Common Entrance Examination conducted by the University
 - **3.11.** "Dean" means Dean for the Faculty of Engineering and Technology of the University
- **3.12.** "BoF" means Board of Faculty, academic body of Engineering/ Technology Programmes / Colleges, constituted by the Vice Chancellor with the Dean as the Chairperson.
 - **3.13.** "Institution or College" means Engineering College constituted under University.
- **3.14.** "Programme" means Under Graduate Programme leading to the award of B.Tech. approved by the UGC and University.
- **3.15.** "Branch" means specialization or discipline of B.Tech. Degree Programme, such as Mechanical Engineering, Computer Science Engineering etc.
- **3.16.** "Course" means every paper/subject of study offered by various departments is called a course. (E.g. Data Structures, Thermodynamics etc.)
- **3.17**. "Credit" means Course work which is measured in units, based on hours conducted/week and content of course.
- **3.18.** "Head of Institution or HoI" means Principal of the Constituent Engineering colleges of the University
 - **3.19**. "HoD" means Head of the Department of the College.
- **3.20**."Curriculum and syllabus" mean the various components/subjects/papers studied in each programme that provides appropriate knowledge in the chosen branch is called curriculum. The curriculum and syllabus for study as prescribed by the Board of Studies (BoS) with the approval of the concern Board of Faculty (BoF) and Academic Council (AC) based on the UGC/AICTE regulations.
- **3.21**. "Teaching Staff or Teacher" means The Dean of Faculty, The Principal of the college, Professors, Associate Professors, Assistant Professors, Pro-term Lecturers and other like persons engaged in coaching the students and assisting the students in the conduct of studies and Research in the College/University;

4. REGISTRATION

- **4.1**. A candidate admitted in the Under Graduate Programme in the constituent Engineering Colleges of the University shall register with the University by remitting the prescribed fees along with the application form for registration dully filled in and forwarded to the Controller of Examinations of this University through the Head of the Institutions within the stipulated date.
- **4.2**. The name of the candidate must be registered in the University within three months from the date of admission.
- **4.3.** If the candidate fails to satisfy the above clause 4.2., the admission of the candidate stands cancelled and the permission for re-admission for such candidate will not be issued.

5. CONDITIONS FOR ADMISSION

5.1 Candidates seeking admission to the first semester (also known as Bridge semester) of the B.Tech. (Part-Time – 7 Semesters) degree programme shall be required to have passed the Diploma in Engineering / Technology in the relevant branch of specialization as shown below, awarded by the State Board of Technical Education, or any other authority accepted by the Academic Council of the VINAYAKA MISSIONS RESEARCH FOUNDATION (Deemed to be University), SALEM.

5.1.1 DEGREE AND BRANCH / QUALIFICATION FOR ADMISSION.

A candidate may be offered, at the time of admission, one of the following disciplines of study, subject to his / her eligibility and availability of the course.

	Degree and Branch			
Sl. No.	of Study	Qualification for Admission		
1.	B.Tech. in Civil Engineering	Diploma in Civil Engineering/ Civil Engineering in Sanitary Engineering / Civil and Rural Engineering		
2.	B.Tech. in Mechanical Engineering	Diploma in Mechanical Engineering / Metallurgy /Automobile Engineering / Mechanical and Rural Engineering / Machine Tool Maintenance and Repairs / Machine Design and Drafting /Refrigeration and Airconditioning / Production Engineering / Tool and Die Design		
3.	B.Tech. in Electrical and Electronics Engineering	Diploma in Electrical Engineering / Electrical and Electronics Engineering / Electronics Engineering / Electronics and Communication Engineering		
4.	B.Tech. in Electronics and Communications Engineering	Diploma in Electronics Engineering / Electronics and Communication Engineering / Electrical Engineering / Instrument Technology / Electronics with specialization in Instrumentation / Electrical and Electronics		

		Engineering	
_	B.Tech. in Computer	Diploma in Computer Science / Electronics and	
5.	Science and	Communication Engineering / Electrical and Electronics	
	Engineering	Engineering / Instrumentation Engineering.	

- **5.1.2.** The Courses of study shall include theory and practical courses as specified in the respective curriculum.
- **5.1.3** The medium of instruction is **English** for all courses, examinations, seminar presentations and project/thesis/dissertation reports.
- **5.2.3** The Curricula and Syllabi of all the U.G./Part-Time Programmes shall be approved by the Academic Council of University.
- **5.3.3** The number of credits to be earned for the successful completion of the Programme shall be as specified in the Curriculum of the respective Branch of U.G./Part-Time Programmes. (ANNEXURE 1)

5.2 ELIGIBILITY

Candidates seeking admission shall satisfy the following conditions:

- (i) Candidate should have completed the age of 17 years at the time of admission or would complete the age on or before 31st December of the year of admission to the first year B.Tech Part Time course.
- (ii) Eligibility conditions such as class obtained, marks and number of attempts shall be as prescribed by the Academic Council of the VINAYAKA MISSIONS RESEARCH FOUNDATION (Deemed to be University), SALEM from time to time.
- (iii) For the candidates who have studied abroad, equivalency of qualifications determined by the Association of Indian Universities, shall form the guidelines to determine the eligibility and should have passed in the subjects of Mathematics, Physics, Chemistry and English up to the 12th Standard level.
- (iv) Shall have been employed for at least two years **after qualifying for the Diploma**. The period being counted as on 1st January of the academic year in which admission is sought.
- (v) Notwithstanding the qualifying examination the candidate might have passed [vide clause 2.1] he/she shall have a minimum level of proficiency in Mathematics, Physics, Chemistry and the relevant branch of study as may be prescribed by the University from time to time.
- (vi) Shall have employment or work place within a radial zone of 90 Km from the University Campus.
- (vii) Shall have to satisfy the conditions of physical fitness as prescribed by the he Academic

Council of the University.

- (viii) The ruling of the Eligibility Committee shall be adapted for any criteria which are not covered in above provisions.
- (ix) Candidates who have passed any qualifying examination shall obtain an eligibility certificate from the University by remitting the prescribed fees along with the application form before seeking admission to the Institution.

5.3 SELECTION OF STUDENTS

- **5.3.1** The students will be selected and admitted only through All India Common Entrance Examinations, conducted by the University.
- **5.3.2** To be eligible for competitive entrance examinations conducted by the University, the candidate must have passed any of the qualifying examinations enumerated in the above.
- **5.3.3** The student will be selected finally based on the merit of the student appeared in the qualifying examinations and Entrance examinations / viva voce conducted by the University.
- **5.3.4** A candidate admitted to the course shall register with this VINAYAKA MISSIONS RESEARCH FOUNDATION (Deemed to be University), SALEM by remitting the prescribed fees along with the application form for registration duly filled in and forwarded to this university through the Head of the Institution within 90 days from the date of admission.

5.4 DURATION OF THE PROGRAMME

5.4.1 The duration of the programme shall be seven consecutive semesters, spread over 3.5 academic years, (one academic year consisting of 2 semesters). Each semester shall have a minimum of 75 working days, (week end or evenings) or 375 periods of 50 minutes each excluding the days of the end-semester examinations. The Head of the Department 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.

5.5 EXTENSION OF MAXIMUM DURATION

A student is ordinarily expected to complete the B.Tech. (Part – time - 7 semesters) degree programmes in seven semesters (three and half academic years) but in case of some emergent situations (medical reasons, natural calamities etc.), if the candidate could not complete the course requirements successfully, he/she has to pass the examinations in all the courses prescribed in the respective curriculum within a maximum period of 14 Semesters (7 academic years) reckoned from

the commencement of the first semester to which the candidate was admitted. This maximum period shall be 16 semesters in the case of women candidates.

5.6. COMMENCEMENT OF THE COURSE

The academic year commences from July month of every year. The Academic Term for every Student shall be a certified period of study extending over 3.5 academic years. For All Odd Semesters (1st, 3rd, 5th and 7th Semester) July to December. For All Even Semesters (2nd, 4th and 6th Semester) January to June.

5.7. WORKING DAYS IN AN ACADEMIC YEAR AND MODE OF STUDY

- **5.7.1.** Each Academic year shall consist of two semesters of not less than 75 working days or 12 working weeks.
- 5.7.2. The total number of working days and time schedule for this programme will be finalized by the concerned BoF and BoS every year

6. BREAK OF STUDY

- **6.1** 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 Principal **in advance**, but not later than the last date for registering for the End Semester Examinations of the semester in question, through the Head of the Department stating the reasons, therefore, and the probable date of rejoining the programme.
- **6.2** The candidate permitted to rejoin the Programme after the break shall be governed by the Curriculum and Regulations in force at the time of rejoining. Such candidates may have to do additional courses as prescribed by the Principal if the Regulation is changed.
- **6.3** The authorized break of study (for a maximum of one year) will not be counted for the duration specified for passing all the courses for the purpose of classification. However, additional break of study granted will be counted for the purpose of classification.
- **6.4.** 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 5.5** irrespective of the period of break of study in order that he/she may be eligible for the award of the degree.

6.5 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'.

7.0. REJOINING/DISCONTINUING AFTER THE BREAK

- **7.1.** For UG degree courses the Candidate having availed a break of study between 6 and 12 months shall apply for rejoining the course in the prescribed from as in (ANNEXURE II) by remitting the prescribed fee for condonation of break of study to the Academic Officer of this University through the Principal of the concerned college for issue of necessary permission to rejoin the course. The concerned Principal of the College shall not permit any candidate with a Break of study as stipulated above to rejoin the course without obtaining the prior permission from the authorities of the University.
- **7.2.** All the undergraduate students have to execute a declaration at the time of registration with this university in this regard in the prescribed form as in Annexure -III
- **7.3.** Any break of study beyond 3.5 years is considered as discontinuation of study. This is applicable for all the years of study of the under graduate degree courses. However, in exceptional cases, if a candidate having a break of study beyond 3.5 years but less than 7 years and the break of study is in six months one spell, the Board of Management, may on the recommendation of the Vice-Chancellor, permit the candidate to rejoin the course from the beginning of the year. The Candidate shall be permitted to rejoin at the beginning of the first year of the course (i.e.) the candidate has to re-do the course from the beginning and shall after fulfillment of the Regulations of this University to the programme concerned be admitted to the examinations. The candidate shall not be exempted in the subjects already passed.

8.0 READMISSION AFTER EXTENSION

If the candidates name is not registered with the University within three months from the cutoff date prescribed for the respective courses for admission without any valid reasons / ground for such non-registration, permission for re-admission for such candidates will not be issued by the University.

9. PROGRAM STRUCTURE

9.1. Curriculum

- **9.1.1.** The curriculum and the syllabus for the course pertaining to the B.Tech. Programme are given separately.
- **9.2.2.** The curriculum and the syllabus for the course shall be prescribed by the Academic Council based on the recommendation of concerned Board of faculty and Board of Studies.

9.2. Components of Curriculum

There will be five components in the B.Tech. curriculum which as follows:

S. No.	Components	Percentage covered in the curriculum in %
		Curriculum m /0
1.	Basic Science Courses	15 to 25
2.	General Courses	5 to 25
3.	Engineering Sciences and Technical Arts	15 to 25
	Courses	
4.	Core Courses	55 to 65
5.	Industry relevant Electives	5 to 10

Under these categories, theory and practical courses are offered. In the final year, the student will also undertake and complete a project work. The curriculum also includes Industrial training, Technical Seminar and Mini project.

9.2.1 Basic Science Courses

The Basic Science courses consists of Mathematics, Physics, Chemistry and Computer Literacy with Numerical Analysis

9.2.2 General Courses

The General courses includes Language / Communication Skills, Humanities and Social Sciences, Economics and Principles of Management, Soft Skills and Environment Science

9.2.3. Engineering Sciences and Technical Arts Courses

This courses having Engineering Graphics, Workshop Practice, Engineering Mechanics, Electrical Science I (Basic Electrical Engineering), Thermodynamics and Heat Engineering, Material Science and Engineering, Electrical Science II (Electronics and Instrumentation), Engineering System Design, Building Materials, Surveying and Transport Phenomena

9.2.4. Core Courses

Core courses consist of branch specific courses. A minimum of 10% of the core courses are made available as electives. Interdisciplinary/Industry relevant electives are also available (within 10% of the total electives).

9.2.5. Semester Curriculum

The curriculum of each semester shall normally be a blend of theory courses not exceeding 7 and practical courses not exceeding 4. The total number of courses per semester shall not exceed 10.

9.2.6. Medium of Instruction

The medium of instruction for lectures, examinations and project work is English, except for language courses other than English.

9.3. Course Evaluation

9.3.1. Credits

Course work is measured in units called credit hours or simply credits. The number of periods or hours of a course per week is the number of credits for that course. The details of credit allocation are follows:

Nature of the Course	Periods / Hours per Week	Credits
TO I	3	3
Theory	4	4
Laboratory	2 or 3	1
Special Laboratory	4 to 6	2
Theory + Laboratory	2 (Theory) + 1 or 2 (Laboratory)	3
Tutorial	1	1
Project Work (Seventh Semester)	18 (Minimum)	6

Mini project, Technical Seminar and Industrial Training are also given 1 to 2 credits depending on the amount of time allotted based on the specific requirement of the branch concerned.

9.3.2. Total Credits

The total number of credits a student earns during the course of study period called the total credits. For successful completion of B.Tech. programme, a student must earn 108-124. The branches of study approved by the University and its required minimum credit is given in Annexure – I.

9.4. Faculty Advisor

To help the students in planning their courses and for general guidance on the academic programme, the Head of the Department will allot a certain number of students to a teacher of the department who shall function as faculty advisor throughout their period of study. The faculty advisor shall advise the students and monitor the courses undergone by the students, check attendance and progress of the students and counsel them periodically. The faculty advisor may also discuss with the HOD and parents about the progress of the students

9.5. Class Committee

9.5.1. Every class will have a class committee constituted by the HOD. The members of the Class committee consisting of Chairperson (a teacher who is not normally teaching

any course for the class), all teachers handling courses for the class, Students (a minimum of 4 consisting of 2 boys and 2 girls on pro-rata basis)

9.5.2. Function of the Class Committee

The functions of the class committee shall include the following.

- 1. Clarify the regulations of the programme and the details of rules therein.
- 2. Inform the student representatives, the academic schedule including the dates of assessments and the syllabus coverage for each assessment.
- 3. Inform the student representatives the details of Regulations regarding weight age used for each assessment. In the case of practical courses (laboratory / drawing / project work / seminar etc.) the breakup of marks for each experiment / exercise / module of work, should be clearly discussed in the class committee meeting and informed to the students.
- 4. Analyze the performance of the students of the class after each test and initiate steps for improvement.
- 5. Identify slow learners, if any, and request the teachers concerned to provide additional help / guidance / coaching to such students.
- 6. Discuss and sort out problems experienced by students in the class room and in the laboratories.
- 7. The class committee shall be constituted within the first week of commencement of any semester.
- 8. The chairperson of the class committee may invite the faculty advisor and the Head of the Department to the meeting of the class committee.
 - 9. The principal may participate in any class committee meeting of the Institute.
- 10. The chairperson is required to prepare the minutes of every meeting, submit the same through the Head of the Department to the Principal within two days of the meeting and arrange to circulate the same among the students and teachers concerned. Points requiring action by the University shall be brought to the notice of the University by the Principal.
- 11. 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 as per the framework of the Regulations. Two or three subsequent meetings may be held in a semester at suitable intervals. During these meetings the student representatives shall meaningfully interact and express opinions and suggestions of the students of the class to improve the effectiveness of the teaching learning process.

9.6. Course Committee for Common Courses

Each common theory course offered to more than one class / branch by more than one teacher shall have a Course Committee comprising all the teachers teaching the common course with one of them nominated as Course Coordinator. The HOD will nominate the course committee for common course / courses handled in their department. The Principal will nominate the course committee for common courses handled in more than one department. This course committee will ensure that a common question paper is prepared for the tests / exams and uniform evaluation is carried out. The Course committee will meet a minimum of 3 times in each semester.

10. EXAMINATION

10.1. Commencement of Examinations

The University Examinations will be conducted twice in an academic year. The CoE would notify the dates of examinations to the candidates.

10.2. Requirements for Admission to Examinations

10.2.1. Attendance Requirements

- **10.2.1.1.** No candidate shall be permitted to appear for the Examination unless he/she put in 70% attendance in individual course(s) including laboratory course(s) inclusive of attendance in non-lecture teaching i.e. seminars, group discussions, and tutorials.
- **10.2.1.2.** If a candidate fails to satisfy the clause 10.2.1.1., they are required to repeat that incomplete course(s) in the next academic year whenever offered or complete the course(s) in the summer term if offered.

Note: All students are expected to attend all classes and secure 100% attendance. The above provision is made to allow for unavoidable reasons such as medical leave/ permitted participation in sports and Co-curricular activities.

- **10.2.2.** The Head of the Institutions of the Constituent Colleges has to furnish to the Controller of Examinations of this University, the attendance particulars specifying the number of working days attended by the candidate every 45 days both by E-mail and in hard copy form.
- **10.2.3.** Before commencement of examinations of the Semester the Head of the Institutions of the constituent colleges has to furnish the consolidated attendance particulars of the candidates for all subjects enrolled by him/her, specifying the number of days of attendance in each month for a period of one semester to the University, in the prescribed format.
 - **10.2.3.1**. The attendance particulars for the Examination session for the respective study period are to be submitted two weeks prior to the commencement of the Examination. As the candidate would have paid the fees for the particular Examination, it

could be presumed that he/she would attend the rest of the classes in the remaining two weeks after submission of attendance particulars to the University and appear for the Examination.

10.2.3.2. The days of suspension of a student on disciplinary grounds will be considered as days of absence for calculating the percentage of attendance, for individual courses.

10.2.4. Condonation of Lack of Attendance

- **10.2.4.1.** Condonation of shortage of attendance up to a maximum of 10% may be sanctioned by the Vice-Chancellor in deserving cases.
- **10.2.4.2.** A candidate lacking attendance shall submit an application in the prescribed form and remit the stipulated fee 15 days prior to the commencement of the examination.
- **10.2.4.3.** The Head of the Department and Head of the Institution should forward the candidate's request application with their endorsements to the Controller of Examinations who would put it up for the Vice-Chancellor's approval.
 - **10.2.4.4.** Application not forwarded through proper channel will not be entertained.
- **10.2.4.5.** Condonation of lack of attendance shall be taken up for consideration under the following circumstances:
- **10.2.4.6.** Any illness affecting the candidate (The candidate should submit Medical Certificate from a registered Medical Practitioner to the Dean/Principal of the faculty/college immediately after returning to college after treatment)
- **10.2.4.7.** Any unforeseen tragedy in the family. (The parent / guardian should give in writing the reason for the ward's absence to the Principal).
 - **10.2.4.8.** Any other leave the Head of Institution deems reasonable for Condonation.

10.2.5. Other Requirements for Admission to the Examinations

- **10.2.5.1.** Registration for all Eligible courses in the current semester and arrear examination where ever applicable
- **10.2.5.2.** In view of conducting two internal tests, retests should be permitted only very rarely for genuine reasons with the approval of HOD and Principal. Such tests will be conducted before the last day of instruction of the concerned semester. Retest is not permitted for model examination. Retest is not permitted for improvement.

10.2.5.3. A student prevented to register for any number courses in the end semester examinations for want of minimum attendance; he/she may be allowed to go to subsequent semester.

10.3. Provision for Withdrawal from Examination

A student may, for valid reasons (medically unfit / unexpected family situations), be granted permission to withdraw (after registering for the examinations) from appearing for examination in any course or courses of one semester examination during the entire duration of the degree programmes. One application only for withdrawal is permitted for the semester examination in which the withdrawal is sought. Withdrawal application will be valid only if the student is, otherwise, eligible to write the examination and the application for the withdrawal is made prior to the examination in the concerned course or courses. The application for withdrawal should be recommended by the Head of the Institution and approved by the Vice-Chancellor. Withdrawal will not be considered as appearance for the purpose of classification of degree.

10.4. Scheme of Examination

- **10.4.1.** The University shall ensure that the minimum number of hours for lecture /practical /seminar etc. in the subjects in each B.Tech. Examination as specified in the curriculum of the regulations.
- **10.4.2**. The University shall ensure that the students of the colleges, who do not fulfill the Regulation for Engineering/Technology (Minimum Standards of Education), will not be permitted to appear for the university examination.
- **10.4.3.** Each theory paper shall be of three hours duration. However, the subjects Engineering graphics and Machine drawing may be designed differently to suit the specific needs of the courses.

10.5. Methods of Evaluation

Evaluation may be achieved by the written test, practicals, mini project, seminars and viva voce tested methods. It is achieved by two processes

- **10.5.1.** Formative or Internal assessment (IA) is done through a series of tests and examinations conducted by the institution.
- **10.5.2.** Summative or University examinations are done by the university through examination conducted at the end of the specified course.

10.6. Internal Assessment

10.6.1. The IA shall be based on day to day assessment, evaluation of student assignment, preparation for seminar, Internal/model/online test etc.

- **10.6.1.1.** Internal assessment shall relate to different ways in which student's participation in learning participation in learning process during semesters in evaluated. For example, Preparation of subject for student's seminar, tutorial, problem solving exercise, Participation in Project in the Engineering/Technology, Proficiency in carrying out a practical or a skill in small research project, Multiple choice questions (MCQ) test after completion of a system/ teaching etc.
- **10.6.1.2.** Each Assessment mentioned is tested and recorded. Some of the assessment can be assigned as Home work/ Vacation work.
- **10.6.2.** The continuing assessment examinations for theory may be held frequently atleast three (Two Internal tests and one model test) times in a given semester and the marks of that examination shall be taken into consideration for the award of sessional marks.
- **10.6.3**. A minimum of One practical examinations shall be conducted during the semester and marks for that examination shall be taken into consideration for award of sessional marks.
 - **10.6.4.** Day to day records should be given importance during internal assessment.
 - **10.6.5.** Weight age for the internal assessment shall be 50% of the total marks in each subject
- **10.6.6.** The internal assessment marks (both in theory and Practical) should be submitted to the University endorsed by the Principal of the College 15 days prior to the commencement of the theory examinations.
- 10.6.7. No candidates shall be permitted to appear for the examination unless he/she secures 18 marks out of 50 marks as Internal Assessment in all courses registered in that semester.
 - 10.6.7.1 If a candidate fails to satisfy the clause 10.6.7, he/she is required to improve the IA in that course(s) in the next semester. Again if he fails to secure the minimum requirement and from third attempt onwards, Vice-Chancellor's decision will be final in this regard.

10.7. Internal Marks Distribution

10.7.1. Attendance Record and Marks for attendance

Every teacher is required to maintain an 'ATTENDANCE AND ASSESSMENT RECORD' for each course handled, which consists of students attendance in each lecture / practical / project work class, the test marks and the record of class work (topics covered).

This should be submitted to the Head of the Department periodically (at least 3 times in a semester) for checking the syllabus coverage and the records of test marks and attendance. The HOD after due verification will sign the above record. At the end of semester, the Record should be verified by the Principal. These records will be kept in safe custody by respective HOD for five years. The marks allocated for attendance is as follows:

% of Attendance	Marks
<= 75	0
76-80	1
81-85	2
86-90	3
91-95	4
96-100	5

10.7.2. Theory

The distributions of marks for theory are as follows

S. No	Components for	Duration of the	Marks	Question Paper Pattern
	Internal Assessment	test in minutes.	(max.)	
1.	Best two Internal Test Marks	90	30	Part A – (Short Answer) 10x2 =20 Marks Part B – 03x10 = 30 Marks (Descriptive – Either - OR Type) Total = 50 Marks
2	Assignment / Seminar/ Online test		15	
3.	Attendance	-	5 Max.	
	Total		50	

10.7.3. Practical

Every practical exercise / experiment in all practical courses will be evaluated based on the conduct of exercise / experiment and records maintained by the students. There will be atleast one model practical examination.

The criteria for awarding marks for internal assessment is as follows

Items	Marks (Maximum)
Observation & Record	20
Model Practical	25

Attendance	05 Max.
Total	50

10.7.4. Project Work

- 1. The evaluation of the project work done by the student will be carried out by a committee constituted by the Principal on the recommendation of HOD. For each programme one such review committee will be constituted.
- 2. The Review committee consists of three senior faculty members including one supervisor/Guide of the student, having expertise in the areas of project groupings such as Signal processing, Microelectronics, Mobile/Wireless Communication in the Department of Electronics and Communication Engineering (ECE) etc.
- 3. The student shall make a presentation at least three times, on the progress made by him/her before the review committee. There will be equal weightage for all three assessments (each for 100 marks maximum) and the total marks obtained will be reduced for 95 and the remaining 5 marks will be given for attendance vide clause 10.7.1.
- 4. The report of the committee will be submitted to the Head of the Department for review. The HoD based on the recommendation of the review committee will take the appropriate action to improve the skill/performance of the student on his/her project with the help of his/her project supervisor.

10.7.5. Technical Seminar & Mini Project

These courses will be evaluated internally.

10.7.5.1. Seminar

A staff can be allocated for the seminar. The maximum marks for a seminar course shall be 100. Two to three seminars each carrying 100 marks shall be conducted by staff concerned. It is recommended that the 3 seminar topics are chosen to ensure sufficient depth of understanding in a selected area. Total assessment marks obtained in the three assessments shall be reduced to 95 and with addition of 5 marks for attendance computed for 100. Weightage of marks for each seminar decided based on literature review, expression /Delivery and interaction.

10.7.5.2. Mini Project

A three member committee shall constitute by the Head of the Department having expertise in the areas of mini projects.

10.8. University Examinations

10.8.1. Theory Courses

- **10.8.1.**1. Theory papers will be prepared by the examiners as prescribed. Nature of questions will be Ten questions each carrying two marks in Part A and five questions Either Or type each carrying 16 marks in Part B. The Evaluation will be for 100 marks and the duration of the Examination is 3 hours. However, the Question paper pattern for the courses in Engineering Graphics and Machine Drawing may be designed differently to suit the specific needs of the courses.
- **10.8.1.2.** The model question paper for each subject is enclosed with Syllabus, which is given separately.

10.8.2. Practical Courses

- **10.8.2.1**. Practicals will be conducted in the laboratories. The objective will be to assess proficiency in skills, conduct of experiment, interpretation of data and logical conclusion.
- **10.8.2.2.** End Semester examination for practical courses will be conducted jointly by one internal examiner and one external examiner appointed by the Controller of Examinations.
- **10.8.2.3.** The evaluation will be for 100 marks and the weightage for End Semester practical course will be 50.
- **10.8.3.** The approval of the Appointment of examiners for theory, practical and Project work evaluation by the academic council of the university based on recommendation of the concerned BOF and BOS.

10.8.4. Malpractice

If a student indulges in malpractice in any internal test / model examination / end semester examination, he / she shall be liable for punitive action as prescribed.

10.8.5. Passing Requirements

- 10.8.5.1. A candidate who secures not less than 50% of total marks prescribed for the courses with a minimum of 45% prescribed for the end examination in both theory and practical courses including project work and 30% prescribed for the IA shall be declared to have passed the Examination.
- 10.8.5.2. For students scoring less than the minimum passing marks in the end semester examinations, the term "RA" against the concerned course will be indicated in the grade sheet. The student has to reappear in the subsequent end semester examinations for the concerned course as

arrears. The letter grade "RA" will be indicated in the grade sheet for courses for which the student has insufficient attendance.

- **10.8.5.2.1.** In case of a student having shortage of attendance the student shall redo the course as a summer term course or in the regular semester as the case may be required more discussion on summer course and register the course.
- **10.8.5.2.2.** For a student who is absent for theory/practical/ project viva-voce, the term "**AB**" will be indicated against the corresponding course. The student should reappear for the end semester examination of that course as arrear in the subsequent semester.
- 10.8.5.2.3. The letter grade "RA" will be indicated for the courses for which the student has been granted authorized withdrawal.
- 10.8.5.3. If a candidate fails to secure a pass in a particular course, it is mandatory that he/she shall register and reappear for the examination in that course during the subsequent semester when examination is conducted in that course; he/she should continue to register and reappear for the examinations in the failed subjects till he / she secures a pass.
- **10.8.5.4**. The internal assessment marks obtained by the candidate in the first appearance shall be retained and considered valid for all subsequent attempts till the candidate secures a pass. However, the candidate may request for improvement in Internal Assessment marks of previous semester subjects by paying prescribed fee through HoD and HoI.

10.8.10. Examiners

- **10.8.10.1.** No person shall be appointed as an examiner in any of the subjects of the Professional examination leading to and including the projects for the award of the B.Tech degree unless he/she has atleast five year experience in teaching, a doctorate degree of a recognized university or an equivalent qualification in the particular subject as per recommendation of the council on teachers.
 - **10.8.10.2.** External examiners shall not be from the same institution.
 - **10.8.10.3.** External examiners shall have rotation at an interval of 3 years.
 - **10.8.10.4.** There is a separate set of examiners for each constituent engineering college of the University with internal examiners from the concerned college.

10.8.11. Submission of Laboratory Record Note Books

10.8.11.1. At the time of practical each candidate shall submit to the Examiners in his/her laboratory record note books duly certified by the Head of the Department /Institution as the bonafide record of the work done by the candidate.

- **10.8.11.2.** The practical record shall be evaluated by the concerned Internal Examiner
- **10.8.11.3.** In respect of failed candidates the marks awarded for records at previous examinations will be carried over for the subsequent examination or the candidates shall have the option to improve his/her performance by submission of fresh records.

11. RESULTS & READMISSION TO EXAMINATION

- 11.1. The University may ensure that the results of the examinations are published in time so that the student who successfully completes B.Tech. Examination can complete the course in within stipulated time prescribed by the regulation.
- **11.2.** A student who fails in the Examination shall be allowed to appear next higher Semester examination.
 - **11.2.1.** The student may carry over his/her subject(s) as Arrear(s) till his/her end of the course. But he/she should register all the subjects in each and every semester.
- 11.3. If the University may under exceptional circumstances, partially or wholly cancel any examination conducted by it, shall intimate to the Academic Council of the University and arrange for conduct the re-examination in those subjects within the period of 30 days from the date of such cancellation.

11.4. Grace Marks

Grace marks will be awarded after the approval of the Vice-Chancellor based on the recommendation of the Result Passing Board constituted by the Vice-Chancellor.

11.5. Methods for Redressal of Grievances in Evaluation of Answer Scripts

11.5.1. Students who are not satisfied with the grades awarded can seek redressal by the methods given below

S. No.	Redressal Sought	Methodology
1.	Request for photocopy of answer script.	To apply to CoE within 5 days of declaration of result along with the payment of the prescribed fee.
2.	Request for revaluation of answer script.	To apply to CoE within 5 days of receipt of photocopy of answer script along with the payment of the prescribed fee and recommendation of respective subject handler and HoD and forwarded through HoI.

12. CLASSIFICATION OF PERFORMANCE

Classification of performance of students in the examinations pertaining to the courses in a programme is done on the basis of numerical value of Cumulative Grade Point Average (CGPA). The concept of CGPA is based on Marks, Credits, Grade and Grade points assigned for different mark ranges. The following Table shows the relation between the range of marks, Grades and Grade points assigned.

Grade	Grade Points(GP)	Range of percentage of Marks	Class
O++	10	95 - 100	
O +	9.5	90 - 94	FIRST CLASS WITH
О	9	85 -89	DISTINCTION
A + +	8.5	80 - 84	
A +	8	70 - 79	
A	7	60 - 69	FIRST CLASS
B +	6	55 - 59	SECOND CLASS
В	5.5	51 - 54	
С	5	40 - 50	MINIMUM PASS
AB			REAPPEAR
RA			

A student is deemed to have passed and acquired the corresponding credits in a particular course if he/she obtained any one of the following grades: `O + +', `O +', `O', `A + +', `A + ', `A + ', `B +', `B' and `C' mentioned above with an aggregate percentage merely of 50 for MINIMUM PASS.

The grade 'RA' denotes Failed in the particular subject(s) which requires Reappearance (RA) for that particular course in the subsequent examinations. The grade 'RA' will figure in Result sheets and Grade Sheets.

The grade 'RA' denotes Failed in the particular subject(s) because of insufficient attendance which requires Reappearance (RA) for that particular course in the subsequent examinations. The grade 'RA' will figure in Result sheets and Grade Sheets.

The letter grade 'AB' denotes Eligible to write the particular subject(s) but absent for that subject(s) which requires Reappearance (RA) for that particular course in the subsequent examinations.

12.1. Semester Grade Point Average (SGPA)

On completion of a semester, each student is assigned a Semester Grade Point Average which is computed as below for all courses registered by the student during that semester.

Semester Grade Point Average (SGPA) =
$$\sum (C_i \times G_i) / \sum C_i$$

Where C_i is the credit for a course in that semester and G_i is the Grade Point earned by the student for that course. The SGPA is rounded off to two decimals.

12.2. Cumulative Grade Point Average (CGPA)

The overall performance of a student at any stage of the Degree programme is evaluated by the Cumulative Grade Degree programme is evaluated by the Cumulative Grade Point Average (CGPA) up to that point of time.

Cumulative Grade Point Average (CGPA) =
$$\sum_{j} \left\{ \frac{\sum_{i} (c_{ij} * c_{ij})}{\sum_{i} c_{ij}} \right\}$$

Where 'j' indicates the semester number, 'i' indicates the course number in the semester 'j', C the credit for a course in any semester and G is the grade point earned by the student for that course. The CGPA is rounded off to two decimals.

12.3. Issue of Grade sheets

- **12.3.1.** Separate grade sheet for each semester will be given to the students by the CoE after the publication of the results.
- **12.3.2.** After the completion of the programme a consolidated grade sheet will be issued to the student by the office of the CoE.

13. CRITERIA FOR A PASS

A student shall be declared to be eligible for the award of the B. Tech. Degree provided the student has successfully completed the course requirements and has passed all the prescribed

examinations in all the Seven Semesters (Five Semesters for lateral entry) within a maximum period of 7 years (6 years for lateral entry) reckoned from the commencement of the first semester to which the candidate was admitted.

14. CLASSIFICATION OF SUCCESSFUL CANDIDATES

- **14.1.** A successful candidate who secures **8 or above of the CGPA** in aggregate and passing all the subjects in his/ her first appearance will be declared to have passed in **First class with Distinction**.
 - **14.1.1.** Authorized break of study and authorized withdrawal examination are permissible.
- **14.2.** A successful candidate who secures **7 CGPA** in aggregate and passing all the subjects within maximum of Nine semesters for regular will be **declared to have passed in First class**.
 - **14.2.1.** Authorized break of study and authorized withdrawal examination are permissible.
- 14.3. Candidates who have passed all the subjects as per regulations and not falling under the clauses 14.1 and 14.2. shall be declared to have passed in second class.
 - 14.3.1. A student who is absent for the end semester examination in a course / project work Viva Voce after having registered for the same will be considered to have appeared for that examination for the purpose of classification.

15. RANKING

Students obtaining top 3 positions or top 10% in CGPA ranking (whichever is higher) in a branch will be considered as a rank holder. They should have passed all the prescribed courses in the first appearance and should have obtained a CGPA of ≥ 8 . The student should also have a clean record of discipline during the period of study. Special certificates will be given to rank holders. There should be at least five candidates to rank in particular discipline.

16. AWARD OF DEGREE

The award of Degree will be approved by the Academic Council of the University. The degree and consolidated Grade Sheet will be issued by Vinayaka Missions University.

17. DISCIPLINE

Every student is required to be disciplined and maintain decorum both inside and outside the college campus. They should not indulge in any activity which can bring down the reputation of the University or College. The Principal shall constitute a disciplinary committee consisting of Principal, Two Head of Department (of which one should be from the faculty of the student) to enquire into acts of indiscipline and notify the Academic Council about the disciplinary action taken.

18. MODIFICATIONS OF REGULATIONS

These regulations are subject to modifications from time to time as per the decisions of the apex body of the University.

ANNEXURE - I B.TECH. DEGREE PROGRAMMES OFFERED AND ITS MINIMUMU PRESCRIBED TOTAL CREDITS FOR AWARDING THE DEGREE

Sl.	Name of	Name of the Branch	Minimum Total
No.	the Degree		Credits Required
1.	B.Tech.	Civil Engineering	124
2.	B.Tech.	Computer Science and Engineering	108
3.	B.Tech.	Electrical and Electronics Engineering	115
4.	B.Tech.	Electronics and Communications Engineering	109
5.	B.Tech.	Mechanical Engineering	119