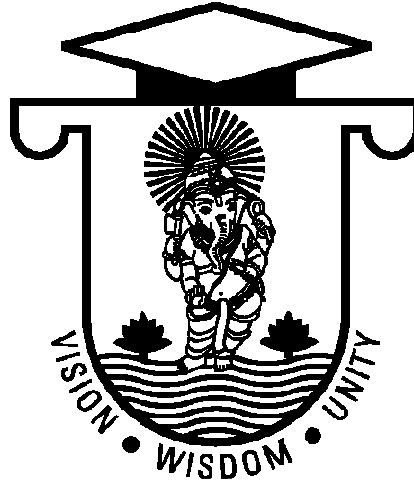


VINAYAKA MISSIONS UNIVERSITY

(Deemed to be University under Section 3 of UGC Act, 1956)

SALEM, INDIA



BACHELOR OF ENGINEERING/ TECHNOLOGY (B.E./B.TECH.)

DEGREE PROGRAMME - FULL TIME

UNDER FACULTY OF ENGINEERING AND TECHNOLOGY

REGULATIONS 2016

(FOR THE STUDENTS ADMITTED FROM 2016-17 ONWARDS)

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(Deemed to be University under Section 3 of UGC Act, 1956)
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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 Missions University, Salem, the Board of Management of the University hereby issue the following revised regulations pertaining to the undergraduate Programme and the award of the degree of Bachelor of Engineering/Bachelor of Technology (B.E./B.TECH.) at this University.

1. TITLE AND COMMENCEMENT

These revised regulations shall be called "REGULATIONS FOR BACHELOR OF ENGINEERING/ BACHELOR OF TECHNOLOGY (B.E./B.TECH.)-FULL TIME DEGREE PROGRAMME – (R2016).

These revised regulations come into force with effect from the Academic year 2016-2017 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 Engineering /Bachelor of Technology (B.E./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 methodologies 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 the CBCS has been implemented from the academic year 2012-2013 onwards.

2.2. The objectives of CBCS

- To enrich the horizon of knowledge of students by means of Core, Inter disciplinary, Extra disciplinary and Life/Job oriented courses.
- To ensure more interaction between the teacher and taught in class room and extra class room programmes.
- To offer flexibility in choosing the courses of study according to their needs and learning capacity.
- To enlighten the students on the rich culture of our nation and ethical values underlying real life situations.
- To allow the advanced learner to earn extra credits.
- To maintain the total credits of each programme on a par with International standards.
- To expose the students to the world of social commitment through specially designed components of study like NSS/NCC/ Sports and Games.

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.
- 3.2. "UGC" means University Grants Commission.
- 3.3. "AICTE" means All India Council for Technical Education
- 3.4. "University" means Vinayaka Missions University. Deemed to be University declared under section 3 of UGC Act, 1956.
- 3.5. "Vice Chancellor or VC" means Vice Chancellor of the 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 Degree B.E./B.TECH. approved by the UGC and University.
- 3.15. "Branch" means specialization or discipline of B.E./B.Tech. Degree Programme, such as Mechanical Engineering, Information Technology, etc.
- 3.16. "Course" means every paper/subject of study offered by various departments.
- 3.17. "Credit" is the 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 college of the University
- 3.19. "HoD" means Head of the Department of the College.
- 3.20. "Curriculum and Syllabus" mean the various components/courses studied in each programme that provides appropriate knowledge in the chosen branch. The curriculum and syllabus for study is 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 teaching the students and assisting the students in the conduct of studies and Research in the College/University.

4. ELIGIBILITY FOR ADMISSION

4.1. First year Admission The candidate seeking admission to the first semester B.E./B.TECH or M.TECH/MBA(integrated) degree programme should have passed the Higher secondary examination or the Indian School Certificate Examination which is equivalent to 10+2 Higher Secondary Examination (with Physics, Chemistry, Biology/Mathematics or any other elective subject, with English) OR Should have passed the Higher Secondary Examination of Vocational stream (Vocational groups in Engineering/ Technology and mathematics as one of the subjects of study) as prescribed by the concerned State Government OR should possess the Diploma in Engineering/ Technology awarded by the State Board of Technical Education, or any other authority accepted by the Academic council of the university as equivalent thereto.

4.2. Lateral Entry Admission

The candidate seeking admission to the third semester B.E./B.TECH or M.E/M.TECH/MBA(integrated) of the programme should have passed a Diploma in Engineering / Technology awarded by the State Board of Technical Education, or its equivalent are eligible to apply for Lateral entry admission to the third semester OR B.Sc. examination of an Indian University with Mathematics as the subject and further that he/she has passed the earlier qualifying examination with the subjects Physics, Chemistry, Biology/Mathematics and English

4.3. The Academic council of the university from time to time may include any other examination which in scope and standard is found to be equivalent to the intermediate technical examination of an Indian University/Board, taking Physics, Chemistry and Biology/ Mathematics including practical test in each of these subjects and English. The candidates also shall satisfy the conditions regarding the minimum marks, age and physical fitness as may be prescribed by the Academic council of the university from time to time.

The candidates with disability should produce the Disability Certificate issued by the duly constituted District Medical Board.

5. ADMISSION

The students applying for admission to this programme of this University shall be selected on the basis of merit through the "ALL INDIA COMMON ENTRANCE EXAMINATION (AICEE)" conducted by the University. The Admission Procedure for the AICEE conducted by the University for this Programme is given by the academic council of University.

Non Resident / Foreign Nationals can be admitted up to 15% of total seats as per norms and guidelines of the University. They are exempted from the AICEE stated above, but their merit will be ascertained based on their performance in qualifying examination approved by the University.

6. REGISTRATION

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.

7. DURATION OF THE PROGRAMME

The Duration of B.E/B.TECH programme shall extend over the period of 4 years for first semester admitted candidates and 3 years for Lateral Entry Candidates.

The Duration of Integrated M.E/M.TECH/MBAProgramme shall extend over the period of 5 years for first semester admitted candidates and 4 years for Lateral Entry Candidates.

8. EXTENSION OF MAXIMUM DURATION

The candidates who fail to complete the year-wise programme as mentioned in clause 7 would be permitted to complete the programme within a period of 8 years (7 years for Lateral Entry candidates) from the date of admission to the course. Those who fail to complete within the extended period shall be discharged from the course.

9. COMMENCEMENT OF THE COURSE

The academic year for the programme shall commence in the month of June/July every year except first year. The first year will commence in the month of August.

10. WORKING DAYS IN AN ACADEMIC YEAR

Each Academic year shall consist of two semesters of not less than 90 working days or 450 periods of 50 minutes each in one semester.

11. MIGRATION

11.1. Migration/Transfer of students from one Engineering college/University to another Engineering college/University may be granted on any genuine ground subject to the availability of vacancy in the college where migration is sought and fulfilling the other requirements.

11.2. The provision of combination of attendance shall be granted to a transfer for admission to the Examinations of this University on satisfactory fulfilment of the regulations of the University.

11.3. The Rules/Guidelines for Migration/Transfer of the students for this Programme is decided by the committee consisting of three members from the constituent colleges and two from the office of the Controller of examinations.

11.4. All Migrations/Transfer are subject to the approval of the Academic Council based on the recommendation of the Vice-Chancellor.

12. BREAK OF STUDY

12.1. Break of study may be permitted for genuine reasons like serious health problems and calamitous family situations. The Vice chancellor is vested with the power to permit the break and rejoining the course for which the candidate must apply in the prescribed form enclosing necessary supporting documents and fees through his/her Head of the Institution (HoI).

12.2. Only one break of study for UG degree courses will be allowed for the entire duration of the course. Any further break of study shall entail the candidate to be de-registered and his/her admission will stand cancelled.

12.3. If a 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

13. PROGRAM STRUCTURE

13.1. Every student shall undergo a period of certified study extending over 4 academic years allocated into 8 semesters (3 academic years allocated into 6 semester for lateral entry students) with the duration of six months period from the date of commencement of his/her study for the subjects comprising the Engineering/Technical curriculum to the date of completion of the examination.

13.2. Curriculum

The curriculum and the syllabus for the course shall be prescribed by the Academic Council based on the recommendation of concern Board of faculty and Board of Studies.

13.2.1.1 Components of Curriculum

There will be five components in the B.E./B. Tech. curriculum as follows

| Sl. No. | Components | Percentage covered in the curriculum in % |
|---------|---|---|
| 1. | Basic Science Courses | 15 to 25 |
| 2. | General Courses | 5 to 25 |
| 3. | Engineering Sciences and Technical Arts Courses | 15 to 25 |
| 4. | Core Courses | 55 to 65 |
| 5. | Industry relevant Electives | 10 to 20 |

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.

13.2.2 Basic Science Courses

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

13.2.3 General Courses

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

13.2.4 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

13.2.5 Core Courses

Core courses consist of branch specific courses. A minimum of 10% of the core courses are made available as electives.

13.2.6 Interdisciplinary/Industry relevant electives are also available (within 10% of the total electives).

13.3 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.

13.4 Medium of Instruction

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

13.5 Course Evaluation

13.5.1 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 |
|--------------------------------|-----------------------------------|---------|
| Theory | 3 | 3 |
| | 4 | 4 |
| Laboratory | 2 or 3 | 1 or 2 |
| Theory + Laboratory | 2 (Theory) + 1 or 2 (Laboratory) | 3 |
| Project Work (Eighth 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.

13.5.2 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.E./B.TECH. programme, a student must earn 194-200 credits if it is a Regular (8 semesters) programme and 141-151 credits if it is a Lateral Entry (6 semesters) programme. The branches of study approved by the University and minimum credits required is given in Annexure – III.

13.6 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

13.7 Class Committee

The class committee shall be constituted within the first week of commencement of every semester.

Every class will have a class committee constituted by the HOD. The members of the Class committee consisting of Chair- person (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)

13.7.1 Functions of the Class Committee

The functions of the class committee shall include the following:

- I. Clarify the regulations of the programme and the details of rules therein.
- II. Inform the student representatives, the academic schedule including the dates of assessments and the syllabus coverage for each assessment.

- III. Inform the student representatives the details of Regulations regarding weightage used for each assessment. In the case of practical courses (laboratory / drawing / project work / seminar etc.,) the breakup of marks for each experiment / exercise / module of work, should be clearly discussed in the class committee meeting and informed to the students.
- IV. Analyse the performance of the students of the class after each test and initiate steps for improvement.
- V. Identify slow learners, if any, and request the teachers concerned to provide additional help / guidance / coaching to such students.
- VI. Discuss and sort out problems experienced by students in the class room and in the laboratories.
- VII. The chairperson of the class committee may invite the faculty advisor and the Head of the Department to the meeting of the class committee.
- VIII. The principal may participate in any class committee meeting of the Institution.
- IX. 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.
- X. 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.

13.7.2 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.

14 EXAMINATION

14.1 Commencement of Examinations

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

14.2 Requirements for Admission to Examinations

14.2.1 No candidate shall be permitted to appear for the Examination unless he/she secures 75% of overall attendance in that semester.

14.2.1.1 If a candidate fails to satisfy the clause 14.2.1., he/she is required to repeat that incomplete course(s) in the next academic year whenever offered or complete the course(s) in the vacation 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. The days of suspension of a student on disciplinary grounds will be considered as days of absence for calculating the percentage of attendance.

14.2.2 No candidate shall be permitted to appear for the Examination unless he/she secures 18marks out of 50 marks in Internal Assessment in all courses registered in that semester.

14.2.2.1 If a candidate fails to satisfy the clause 14.2.2., 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, from third attempt onwards, only university marks alone will be considered.

14.2.3 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 after 45 days of starting and before commencement of examination of the semester both by E-mail and in hard copy form.

14.2.4 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.

14.2.5 Lack of Attendance

A student who has an attendance less than 75% in a course during odd/even semester, will not be allowed to appear for the immediate odd/even semester examination in that course. In such a case, the candidate should repeat that course during the next odd / even semester thereby losing one year

14.2.6 Condonation

A student who has an attendance between 65 and 74% will be allowed to write the end semester examination provided he pays the condonation fees as prescribed by the University from time-to-time. A student shall be allowed to pay condonation fees only twice during the entire duration of his / her study in the University.

14.2.6.1 Condonation of lack of attendance shall be taken up for consideration under the following circumstances:

- I.** 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)

II. Any unforeseen tragedy in the family. (The parent / guardian should give in writing the reason for the ward's absence to the Principal).

III. Participation in NCC / NSS / YRC and other co-curricular activities representing the college or University. (The Head of the Institution should permit the candidate to participate and instruct the concerned officers in charge of the student's activities in their college to endorse the leave.)

IV. Any other leave the Head of Institution deems reasonable for Condonation.

14.2.7 Other Requirements for Admission to the Examinations

Registration for all Eligible courses in the current semester and arrear examination where ever applicable

In view of conducting two internal tests mentioned in clause 14.7.2, retests should be permitted very rarely only for genuine reasons mentioned in clause 14.2.6.1 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.

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.

14.3 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 under Clause 20.

14.4 Scheme of Examination

14.4.1 The University shall ensure that the required number of hours for lecture / practical / seminar etc., in the subjects of B.E./B.TECH., Examination as specified in the curriculum of the regulations.

14.4.2 The University shall ensure that the students of the colleges, who do not fulfil the Regulation for Engineering/Technology (Minimum Requirement of Education), will not be permitted to appear for the University Examination.

14.4.3 Each theory paper shall be of three hours duration. However, the subjects like Engineering graphics and Machine drawing may be designed differently to suit the specific needs of the courses.

14.5 Methods of Evaluation

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

14.5.1 Formative or Internal Assessment (IA) is done through a series of tests and examinations conducted by the institution.

14.5.2 Summative or University examinations are done by the university through examinations conducted at the end of the specified course.

14.6 Internal Assessment

I. Weightage for the internal assessment shall be 50% of the total marks in each subject.

II. Day to day records should be given importance during internal assessment.

III. The internal assessment marks for all courses should be submitted to the University endorsed by the Principal of the College within a week after the last working day.

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

14.6.2 Internal assessment shall relate to different ways in which student's participation in learning process during semesters. 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.

14.6.3 Each Assessment mentioned in clause 14.6.1. is Examined and recorded. Some of the assessment can be assigned as Home work/ Vacation work.

14.6.4 The continuing assessment examinations for theory may be held frequently at least three (Two Internal tests and one model Examination) times in a given semester and the marks of that examination shall be taken into consideration for the award of sessional marks.

14.6.5 A minimum of one practical examination shall be conducted during the semester and marks for that examination shall be taken into consideration for award of internal marks.

14.6.6 No candidate shall be permitted to appear for the Examination unless he/she secures 18 marks out of 50 marks in Internal Assessment in all courses registered in that semester.

14.6.6.1 If a candidate fails to satisfy the clause 14.6.6., 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, from third attempt onwards, only university marks alone will be considered.

14.7 Internal Marks Distribution

14.7.1 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 classes, 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 mentioned in the table

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

14.7.2 Theory

The distributions of marks for theory are as follows

| S. No | Components for Internal Assessment | Duration of the test in minutes. | Marks (max.) | Question Paper Pattern |
|-------|--|----------------------------------|--------------|--|
| 1. | Best two out of three Internal Test – I,II & III | 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 (as per Clause 14.7.1.) | - | 5 | |
| | Total | | 50 | |

14.7.3 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 at least 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 (as per clause 14.7.1) | 05 |
| Total | 50 |

14.7.4 Online Test

Each online test contains Ten Objective / Multiple Choice type questions from each subject of the current semester with one minute time for each question. It requires to be done on the Computer. Students will login with specific password (different password for different batches) Students will start answer by clicking any one of the answer, at the end students can view the score then & there.

14.7.5 Project Work

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. The Review committee consists of three senior faculty members including one supervisor/Guide of the student, having expertise in the areas of project

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 90 and the remaining 10 marks will be given for attendance vide clause 14.7.1.

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.

14.7.6 Technical Seminar & Mini Project / Industrial Training / Value added course

These courses will be evaluated internally.

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 the selected area. Total 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 is decided based on literature review, expression / Delivery and interaction.

Mini Project / Industrial Training / Value added course

These courses shall be evaluated by the examiner(s) appointed by the HoI. The examiner(s) shall normally be the supervisor/guide/ course handler. A three member committee shall be constituted by the Head of the Department having expertise in the areas of mini projects.

14.8 University Examinations

14.8.1 Theory Courses

Theory papers will be prepared by the examiners as prescribed. Nature of question paper will be that it will have 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.

14.8.2 Practical Courses

Practical will be conducted in the laboratories. The objective will be to assess proficiency in skills to conduct experiment, interpretation of data and logical conclusion. This will be evaluated jointly by one internal examiner and one external examiner appointed by the Controller of Examinations.

End Semester examination for practical courses will be conducted jointly by one internal examiner and one external examiner appointed by the Controller of Examinations.

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.

Note : The approval of the panel of examiners for theory, practical and Project work evaluation will be by the academic council of the university based on recommendations of the concerned Board of Faculty (BOF) and Board of Studies (BOS).

14.9 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 by the University in general.

14.10 Supplementary Examination

After the publication of Eighth semester results, a supplementary exam will be offered to students who have failed or absent in any courses in eighth semester but eligible to write the semester examinations. Interested students should register for the supplementary exams required by them. Controller of Examinations (CoE) will publish a schedule of supplementary examinations after the last date of registering for the supplementary examinations. The pattern of evaluation will be the same as that of end semester examinations.

A student who has appeared and passed any course is not permitted to re-enroll / reappear in the course / exam for the purpose of improvement of the Grades.

The examinations are to be designed with a view to ascertain whether the candidate has acquired the necessary knowledge, minimum skills along with clear concepts of the fundamentals which are necessary for him/her to carry out his/her professional day to day work competently. Evaluation will be carried out on an objective basis.

There shall be two main examinations in a year to be held not later than 6 months after the publication of its results excepting at the end of the eighth semester where supplementary examination enabling the final year students to appear for the arrear subjects.

14.11 Passing Requirements

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 36 % prescribed for the IA shall be declared to have passed the Examination.

For students scoring less than the passing minimum 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.

In case of a student having **shortage of attendance the student shall redo** the course as a vacation term course (Clause 14.12) or in the regular semester as the case may be required more discussion on summer course and register the course.

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.

The letter grade "RA" will be indicated for the courses for which the student has been granted authorized withdrawal as per clause 14.3.

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 re- appear for the examinations in the failed subjects till he / she secures a pass.

The Internal Assessment marks for all the courses including practicals are valid for a minimum of 2 attempts in the end semester examinations, including the first appearance. However, from the third attempt onwards if a candidate fails to obtain pass marks (IA + End Semester Examination) then the passing requirement shall be as follows:

The candidate should secure at least 50% of the maximum marks prescribed for the course in the University examinations alone irrespective of Internal Assessment marks obtained, in addition to 50% in the total Internal Assessment and End semester marks.

14.12 Vacation Term Course

14.12.1 A Vacation term course may be offered by a department on the recommendation of the Head of the Department and the approval of the Principal.

14.12.2 Vacation term courses are offered only to those students who had taken the courses earlier and had obtained RA Grades including students who could not appear in university examinations due to shortage of attendance in the semester.

No student should register for more than three courses during a Vacation term.

Vacation term courses will be announced by the Principal at the end of the even semester before the commencement of the end semester examinations. A student will have to register within the time stipulated in the announcement by paying the prescribed fees.

The number of contact hours and the assessment procedure for the vacation term course will be the same as the regular semester course.

Withdrawal from a vacation term course and examination is not permitted.

14.13 Examiners

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.E./B.TECH. degree unless he/she has at least 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.

Eligibility qualifications and having at least five years of total teaching experience in the subject concerned in a college affiliated to a recognized university at a faculty position.

External examiners shall not be from the same institution.

External examiners shall rotate at an interval of 3 years.

There is a separate set of examiners for each constituent engineering college of the University with internal examiners from the concerned college.

Submission of Laboratory Record Note Books

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.

The practical record shall be evaluated by the concerned Internal Examiner

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.

15. RESULTS & READMISSION TO EXAMINATION

15.1 The University may ensure that the results of the examinations are published in time so that the student who successfully completes B.E./ B.TECH., Examination can complete the course within stipulated time prescribed by the regulation.

15.2 A student who fails in the Examination shall be allowed to appear next higher Semester examination

15.3 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.

15.4 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 to conduct the re-examination in those subjects within the period of 30 days from the date of such cancellation.

15.5 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.

15.6 Methods for Redressal of Grievances in Evaluation of Answer Scripts

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 revaluation of answer script. | To apply to CoE within 5 days of declaration of result along with the payment of the prescribed fee. |

16. 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 | FIRST CLASS WITH DISTINCTION |
| O + | 9.5 | 90 - 94 | |
| O | 9 | 85 - 89 | |
| A ++ | 8.5 | 80 - 84 | |
| A + | 8 | 70 - 79 | |
| A | 7 | 60 - 69 | FIRST CLASS |
| B + | 6 | 55 - 59 | SECOND CLASS |
| B | 5.5 | 51 - 54 | |
| C | 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 as mentioned in clause 14.11.

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.

16.1 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.

$$\text{Semester Grade Point Average (SGPA)} = \frac{\sum(C_i \times G_i)}{\sum C_i}$$

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.

16.2 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.

$$\text{Cumulative Grade Point Average (CGPA)} = \frac{\sum_j \left\{ \frac{\sum_i (C_{ij} * G_{ij})}{\sum_i C_{ij}} \right\}}$$

17. CRITERIA FOR AWARD OF DEGREE

A student shall be declared to be eligible for the award of the B.E/B.TECH. Degree provided the student has successfully completed the course requirements and has passed all the prescribed examinations in all the Eight semesters (Six semester for lateral entry) within a maximum period of 8 years (6 years for lateral entry) reckoned from the commencement of the first semester to which the candidate was admitted.

18. CLASSIFICATION OF SUCCESSFUL CANDIDATES

18.1 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**.

18.1.1 Authorized break of study vide Clause 12 and authorized withdrawal examination vide clause 14.3 are permissible

18.2 A successful candidate who secures **7 CGPA** in aggregate and passing all the subjects within maximum of ten semesters for regular and a maximum of eight semesters for lateral entry students will be declared to have **passed in First class**.

18.3 Authorized break of study vide Clause 12 and authorized withdrawal examination vide clause 14.3. are permissible.

18.4 Candidates who have passed all the subjects as per regulations and **not falling under the clauses 18.1 and 18.2. shall be declared to have passed in second class.**

18.5 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.

19. 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.

20. 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.

21. INDUSTRIAL VISIT

Every student is expected to undertake at least one Industrial visit in a semester, starting from the Third semester of the Programme. The Faculty Advisor in consultation with the Head of the Department will organize the visit. Faculty should accompany the students during Industrial visits.

22. PERSONALITY AND CHARACTER DEVELOPMENT

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

23. 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 Heads of Departments (of which one should be from the faculty advisor of the student) to enquire into acts of indiscipline and notify the Academic Council about the disciplinary action taken.

24. SPECIAL PROVISIONS

24.1 Option for Elective Courses

A student can have the option of taking 3 elective courses from other departments.

24.2 Accelerated course registration (Self-study courses)

Students who maintain a SGPA 8 and above in each semester continuously and have passed all courses are eligible to opt for extra credit elective courses from the Fifth Semester

onwards. The three elective courses of the Eighth semester can be taken in the earlier semesters (maximum one per semester) by the students. This will enable the students to be completely free from theory courses in the Eighth Semester and can pursue internship / industrial projects on a full time basis.

25. Integrated M.E/M.Tech/MBA

Students who maintain a SGPA 8 and above in each semester continuously and have passed all courses are eligible to opt for Integrated M.E / M.TECH / MBA from fifth semester onwards. Those who have opted for above programme will take one extra elective course from respective branch of study from fifth semester to seventh semester. Thereby he completes all requirements of the eighth semester of the B.E/B.Tech programme except project work.

In eighth semester, he starts with PG programme six subjects, ninth semester six subjects & project phase-1 and tenth semester three subjects & project phase-2.

26. 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

ADDITIONAL COURSES TO BE STUDIED BY THE B.Sc. GRADUATES ADMITTED TO THIRD SEMESTER B.E. / B.Tech. UNDER LATERAL ENTRY SCHEME

1. The following two additional courses are prescribed for the B.Sc. Graduates
 - 1.1. The First course 'Engineering Graphics' having the 3 credit to be studied either in their Fourth semester or Sixth semester of study.
 - 1.2. The Second course to be studied during the Third or Fifth semester of their study.
 - 1.2.1. The candidate can register for any ONE of the following courses as applicable to their branch of study

1.2.1.1. For Non Circuit Branches:

| S. No. | Course Title | L | T | P | C |
|--------|--|---|---|---|---|
| 1. | Engineering Mechanics | 3 | 1 | 0 | 4 |
| 2. | Essential Electrical and Electronics Engineering | 4 | 0 | 0 | 4 |

1.2.1.2. For Circuit Branches

1. For Branches under Electrical Department

| S. No. | Course Title | L | T | P | C |
|--------|--|---|---|---|---|
| 1. | Circuit Theory | 3 | 1 | 0 | 4 |
| 2. | Essential Civil and Mechanical Engineering | 4 | 0 | 0 | 4 |

2. For Branches under Information and Communication (I & C) Department

| S. No. | Course Title | L | T | P | C |
|--------|--|---|---|---|---|
| 1. | Electric Circuits and Electron Devices | 3 | 1 | 0 | 4 |
| 2. | Essential Electrical and Electronics Engineering | 4 | 0 | 0 | 4 |

1.2.2. Non Circuit and Circuit Branches

The following branches are called Non Circuit Branches

| S.No. | Non- Circuit Branches | Circuit Branches |
|-------|----------------------------|---|
| 1. | Aeronautical Engineering | Electrical and Electronics Engineering |
| 2. | Automobile Engineering | Electronics and Communication Engineering |
| 3. | Biotechnology | Biomedical Engineering |
| 4. | Chemical Engineering | Mechatronics Engineering |
| 5. | Civil Engineering | Computer Science and Engineering |
| 6. | Solar and Alternate Energy | Information Technology |
| 7. | Mechanical Engineering | |

ANNEXURE-II

DECLARATION

..... Son of / Daughter of
.....
Residing at
and admitted to in I year of.....

(Name of the College) do hereby solemnly affirm and sincerely state as follows.

I declare that I shall abide by the Rules and Regulations
(Course) including prescribed by the Vinayaka Missions University, Salem for the regulations for re-
admission after the break of study.

Date:

Signature of the Candidate

Counter signed

Dean/Principal/Director

(Office date seal)

ANNEXURE-III

B.E. / B.Tech. DEGREE PROGRAMMES OFFERED AND ITS PRESCRIBED TOTAL CREDITS FOR AWARDING THE DEGREE

| Sl. No | Degree | Name of the Branch | I year Admitted | LES |
|---------------|---------------|---|------------------------|------------|
| 1 | B.E | Aeronautical Engineering | 200 | 151 |
| 2 | B.E | Automobile Engineering | 200 | 151 |
| 3 | B.E | Biomedical Engineering | 196 | 148 |
| 4 | B.E | Civil Engineering | 194 | 145 |
| 5 | B.E | Computer Science and Engineering | 196 | 148 |
| 6 | B.E | Electrical and Electronics Engineering | 195 | 145 |
| 7 | B.E | Electronics and Communication Engineering | 196 | 148 |
| 8 | B.E | Mechanical Engineering | 200 | 151 |
| 9 | B.E | Mechatronics Engineering | 195 | 147 |
| 10 | B. TECH | Biotechnology | 194 | 141 |
| 11 | B.TECH | Information Technology | 194 | 146 |