

ACADEMIC REGULATIONS

&

COURSE STRUCTURE

For

M.Tech. Regular Two Year Master Degree Program

(For the batches admitted from the academic Year 2019-2020)

(Choice Based Credit System)

VBIT- R19



VIGNANA BHARATHI INSTITUTE OF TECHNOLOGY

(AUTONOMOUS)

Aushapur(V), Ghatkesar (M), Medchal Dist., Hyderabad, Telangana 501301

**VIGNANA BHARATHI INSTITUTE OF TECHNOLOGY
(AUTONOMOUS)**

Aushapur(V), Ghatkesar (M), Medchal Dist., Hyderabad, Telangana 501301

PRELIMINARY DEFINITIONS AND NOMENCLATURES

AICTE: Means All India Council for Technical Education, New Delhi.

Autonomous Institute: Means an institute designated as Autonomous by University Grants Commission (UGC), New Delhi in concurrence with affiliating University (Jawaharlal Nehru Technological University, Hyderabad)

Academic Autonomy: Means freedom to an institute in all aspects of conducting its academic programs, granted by UGC for Promoting Excellence.

Academic Council: The Academic Council is the highest academic body of the institute and is responsible for the maintenance of standards of instruction, education and examination within the institute. Academic Council is an authority as per UGC regulations and it has the right to take decisions on all academic matters including academic research.

Academic Year: It is the period necessary to complete an actual course of study within a year. It comprises two main semesters i.e., (one odd + one even) and one supplementary semester.

Branch: Means specialization in a program like B.Tech degree program in Electronics & Communication Engineering, B.Tech degree program in Computer Science and Engineering etc.

Board of Studies (BOS): BOS is an authority as defined in UGC regulations, constituted by Head of the Institution for each of the departments separately. They are responsible for curriculum design and updation in respect of all the programs offered by a department.

Backlog Course: A course is considered to be a backlog course, if the student has obtained a failure grade (F) in that course.

Basic Sciences: The courses offered in the areas of Mathematics, Physics, Chemistry etc., are considered to be foundational in nature.

Commission: Means University Grants Commission (UGC), New Delhi.

Choice Based Credit System: The credit based semester system is one which provides flexibility in designing curriculum and assigning credits based on the

course content and hours of teaching along with provision of choice for the student in the course selection.

Compulsory course: Course required to be undertaken for the award of the degree as per the program.

Continuous Internal Examination: It is an examination conducted towards internal assessment.

Core: The courses that are essential constituents of each engineering discipline are categorized as professional core courses for that discipline.

Course: A course is a subject offered by a department for learning in a particular semester.

Credit: A credit is a unit that gives weight to the value, level or time requirements of an academic course. The number of 'Contact Hours' in a week of a particular course determines its credit value. One credit is equivalent to one lecture/tutorial hour per week.

Credit point: It is the product of grade point and number of credits for a course.

Cumulative Grade Point Average (CGPA): It is a measure of cumulative performance of a student over all the completed semesters. The CGPA is the ratio of total credit points secured by a student in various courses in all semesters and the sum of the total credits of all courses in all the semesters. It is expressed up to two decimal places.

Curriculum: Curriculum incorporates the planned interaction of students with instructional content, materials, resources, and processes for evaluating the attainment of Program Educational Objectives.

Department: An academic entity that conducts relevant curricular and co-curricular activities, involving both teaching and non-teaching staff, and other resources in the process of study for a degree.

Detention in a Course: Student who does not obtain minimum prescribed attendance in a course shall be detained in that particular course.

Elective Course: A course that can be chosen from a set of courses. An elective can be Professional Elective and / or Open Elective.

Evaluation: Evaluation is the process of judging the academic performance of the student in her/his courses. It is done through a combination of continuous internal assessment and semester end examinations.

Grade: It is an index of the performance of the students in a said course. Grades are indicated by alphabets.

Grade Point: It is a numerical weight allotted to each letter grade on a 10 - point scale.

Honours: An Honours degree typically refers to a higher level of academic achievement at an undergraduate level.

Institute: Means Vignana Bharathi Institute of Technology, Hyderabad unless indicated otherwise by the context.

Pre-requisite: A specific course or subject, the knowledge of which is required to complete before student register another course at the next grade level.

Professional Elective: It indicates a course that is discipline centric. An appropriate choice of minimum number of such electives as specified in the program will lead to a degree with specialization.

Program: Means, UG degree program: Bachelor of Technology (B.Tech); PG degree program: Master of Technology (M.Tech) / Master of Business Administration (MBA).

Project work: It is a design or research based work to be taken up by a student during his/her final year to achieve a particular aim. It is a credit based course and is to be planned carefully by the student.

Registration: Process of enrolling into a set of courses in a semester of a program.

Regulations: The regulations, common to all B.Tech programs offered by Institute, are designated as “VBIT Regulations - R19” and are binding on all the stakeholders.

Semester: It is a period of study consisting of 15 to 18 weeks of academic work equivalent to normally 90 working days. Odd semester commences usually in July and even semester in December of every year.

Semester End Examinations: It is an examination conducted for all courses offered in a semester at the end of the semester.

University: Means Jawaharlal Nehru Technological University Hyderabad (JNTUH), Hyderabad, is an affiliating University.

Academic Regulations for M.Tech. Regular Students
with effect from Academic Year 2019-20 (R19)

1. Post-Graduate Degree Programs in Engineering & Technology (PGP in E & T)
VBIT offers Two Years (Four Semesters) full-time Master of Technology (M. Tech.) Degree programs, under Choice Based Credit System (CBCS) at its campus in different branches of Engineering and Technology with different specializations.
2. Eligibility for Admissions
 - i. Admission to the PGPs shall be made subject to eligibility, qualification and specializations prescribed by the Institute from time to time, for each specialization under each M.Tech program.
 - ii. Admission to the post graduate program shall be made on the basis of either the merit rank or Percentile obtained by the qualified student in the relevant qualifying GATE Examination/ the merit rank obtained by the qualified student in an entrance test conducted by Telangana State Government (PGECET) for M.Tech. programs / an entrance test conducted by JNTUH/ on the basis of any other exams approved by the University, subject to reservations as laid down by the Govt. from time to time.
 - iii. The medium of instructions for all PG Programs will be ENGLISH only.
3. M.Tech. Program (PGP in E & T) Structure
 - i. The M.Tech Programs in VBIT are of Semester pattern, with Four Semesters consisting of two academic years, each academic year having Two Semesters (First/Odd and Second/Even Semesters). Each Semester shall be of 20 weeks duration (inclusive of Examinations), with a minimum of 80 instructional days per Semester.
 - ii. The student shall not take more than four academic years to fulfill all the academic requirements for the award of M.Tech. degree from the date of

commencement of first year first semester, failing which the student shall forfeit the seat in M.Tech. Program.

iii. UGC/AICTE specified definitions/descriptions are adopted appropriately for various terms and abbreviations used in these PG academic regulations, as listed below:

iv. Semester Scheme

Each Semester shall have 'Continuous Internal Evaluation (CIE)' and 'Semester End Examination (SEE)'. Choice Based Credit System (CBCS) and Credit Based Semester System (CBSS) are taken as 'references' for the present set of Regulations. The terms 'SUBJECT' and 'COURSE' imply the same meaning here and refer to 'Theory Subject', or 'Lab Course', or 'Design/Drawing Subject', or 'Seminar', or 'Comprehensive Viva', or 'Project', or 'Technical Paper Writing' as the case may be.

v. Credit Courses

All subjects/courses are to be registered by the student in a semester to earn credits which shall be assigned to each subject/course in an L: T: P: C (Lecture Periods: Tutorial Periods:

Other student activities like study tour, guest lecture, conference/workshop participations, technical paper presentations, and identified mandatory courses, if any, will not carry credits.

vi. Subject Course Classification

All subjects/courses offered for the Post-Graduate Program in E & T (M.Tech Degree Program) are broadly classified as follows. The Institute has followed in general the guidelines issued by AICTE/UGC.

4. Course Registration

i. A 'Faculty Advisor or Counselor' shall be assigned to each specialization, who will advise on the Post Graduate Program (PGP), its Course Structure and Curriculum, Choice/Option for Subjects/ Courses, based on his competence, progress, pre-requisites and interest.

- ii. The Academic Section of the College invites 'Registration Forms' from students within 15 days from the commencement of class work through 'ON-LINE SUBMISSIONS', ensuring 'DATE and TIME Stamping'. The ON-LINE Registration Requests for any 'CURRENT SEMESTER' shall be completed BEFORE the commencement of SEEs (Semester End Examinations) of the 'PRECEDING SEMESTER'.
- iii. A Student can apply for ON-LINE Registration, ONLY AFTER obtaining the 'WRITTEN APPROVAL' from his Faculty Advisor, which should be submitted to the College Academic Section through the Head of Department (a copy of it being retained with Head of Department, Faculty Advisor and the Student).
- iv. If the Student submits ambiguous choices or multiple options or erroneous entries during ONLINE Registration for the Subject(s) / Course(s) under a given/ specified Course Group/ Category as listed in the Course Structure, only the first mentioned Subject/ Course in that Category will be taken into consideration.
- v. Subject/ Course Options exercised through ON-LINE Registration are final and CANNOT be changed, nor can they be inter-changed; further, alternate choices also will not be considered. However, if the Subject/ Course that has already been listed for Registration by the University in a Semester could not be offered due to unforeseen or unexpected reasons, then the Student will be allowed to have alternate choice either for a new Subject, if it is offered, or for another existing Subject (subject to availability of seats). Such alternate arrangements will be made by the Head of Department, with due notification and time-framed schedule, within the FIRST WEEK from the commencement of Class-work for that Semester.

5. Attendance Requirements

- i. The programs are offered on the basis of a unit system with each subject being considered a unit.
- ii. Attendance in all classes (Lectures/Laboratories/Seminar) is compulsory. The minimum required attendance in each theory including the attendance of mid-term examination / Laboratory etc. is 75%. Two periods of attendance for each theory

subject shall be considered, if the student appears for the mid-term examination of that subject. A student shall not be permitted to appear for the Semester End Examinations (SEE), if his attendance is less than 75%.

- iii. A student's seminar report and seminar presentation will be eligible for evaluation, only if he ensures a minimum of 75% of his attendance in seminar presentation classes during that semester.
- iv. Condoning of shortage of attendance (between 65% and 75%) up to a maximum of 10% (considering the days of attendance in sports, games, NCC, NSS activities and Medical grounds) in each subject of a semester shall be granted by the College Academic Committee.
- v. A student can use medical condemnation facility only two times in the entire period of 4 semesters in the span of 2 years M.Tech program. Medical certificate along with the fitness need to be submitted within 3 working days on returning to the class work.
- vi. Attendance for N.C.C. Camps or Inter Collegiate or Inter University or Inter State or International matches or debates or Educational excursion or such other Inter University activities as approved by the authorities, involving journeys outside the city in which the college is situated will not be counted as absence. However, such absence should not exceed two weeks of the period of instruction, in a semester. Students participating in the above events shall take prior permission from the authorities. Absence not exceeding one week, for activities like N.S.S., Inter-University Competitions and debates will be condoned if the candidate is sponsored by the University for such Activities. In any case overall class attendance alone (not including other considerations) should not be less than 65% in any subject
- vii. Shortage of Attendance below 65% in any subject shall in no case be condoned. A Student, whose shortage of attendance is not condoned in any subject(s) in any semester, is considered detained in that subject(s) and is not eligible to write Semester End Examination(s) of such subject(s) in that semester, and he has to

seek re-registration for those subject(s) in subsequent semesters, and attend the same as and when offered.

- viii. A student fulfills the attendance requirement in the present semester, shall not be eligible for readmission into the same class. A prescribed fee per subject shall be payable for condoning shortage of attendance.
- ix. A student shall put in a minimum required attendance in at least three theory subjects in I Year I semester for promotion to I Year II Semester.

6. Academic Requirements

- i. The following academic requirements have to be satisfied, in addition to the attendance requirements mentioned in item no. 5. The performance of the candidate in each semester shall be evaluated subject-wise, with a maximum of 100 marks per subject / course (theory / practical), on the basis of Internal Evaluation and Semester End Examination.
- ii. A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to each subject/course, if he secures not less than 40% of marks (28 out of 70 marks) in the Semester End Examination, and a minimum of 50% of marks in the sum total of CIE (Continuous Internal Evaluation) and SEE (Semester End Examination) taken together; in terms of Letter Grades and this implies securing 'B' Grade or above in a subject.
- iii. A student shall be deemed to have satisfied the academic requirements and earned the credits allotted to a subject/ course, if he secures not less than 50% of the total marks. The student is deemed to have failed, if he (i) does not attend the comprehensive vivavoce as per the schedule given, or (ii) does not present the seminar as required, or (iii) does not present the Technical Paper Writing as required. In such a case, he may reappear for comprehensive viva-voce in supplementary examinations and for seminar/ technical paper writing, in the subsequent semesters, only once by registering and paying fee.
- iv. A student shall register for all subjects for total of 68 credits as specified and listed in the course structure for the chosen specialization, put in required the attendance and fulfill the academic requirements for securing 68 credits obtaining

a minimum of 'B' Grade or above in each subject, and all 68 credits securing Semester Grade Point Average (SGPA) 6.0 (in each semester) and final Cumulative Grade Point Average (CGPA) (i.e., CGPA at the end of PGP) \geq 6.0, to complete the PGP successfully.

- v. Note: (1) The SGPA will be computed and printed on the marks memo only if the candidate passes in all the subjects offered and gets minimum B grade in all the subjects.
- vi. CGPA is calculated only when the candidate passes in all the subjects offered in all the semesters
- vii. Marks and Letter Grades obtained in all those subjects covering the above specified 68 credits alone shall be considered for the calculation of final CGPA, which will be indicated in the Grade Card /Marks Memo of second year second semester.
- viii. If a student registers for extra subject(s) (Audit courses in the parent department or other departments/ branches of Engineering) other than those listed subjects totaling to 68 credits as specified in the course structure, the performance in extra subject(s) (although evaluated and graded using the same procedure as that of the required 68 credits) will not be taken into account while calculating the SGPA and CGPA. For such extra subject(s) registered, percentage of marks and Letter Grade alone will be indicated in the Grade Card/Marks Memo, as a performance measure, subject to completion of the attendance and academic requirements as stated in items 5 and 6.
- ix. When a student is detained due to shortage of attendance in any subject(s) in any semester, no Grade allotment will be made for such subject(s). However, he is eligible for re-registration of such subject(s) in the subsequent semester(s), as and when next offered, with the academic regulations of the batch into which he is re-registered, by paying the prescribed fees per subject. In all these re-registration cases, the student shall have to secure a fresh set of internal marks and Semester End Examination marks for performance evaluation in such subject(s), and SGPA/CGPA calculations.

- x. A student eligible to appear for the Semester End Examination in any subject, but absent from it or failed (failing to secure 'B' Grade or above), may reappear for that subject at the supplementary examination as and when conducted by registering and paying fee. Only two attempts are allowed for any subject. In such cases, his Internal Marks assessed earlier for that subject will be carried over, and added to the marks secured in the supplementary examination, for the purpose of evaluating his performance in that subject.
- xi. A Student who fails to earn 68 credits as per the specified course structure, and as indicated above, within four academic years from the date of commencement of his first year first semester, shall forfeit his seat in M.Tech. program and his admission shall stand cancelled.

7. Evaluation - Distribution and Weightage of Marks

- i. The performance of a student in each semester shall be evaluated subject- wise (irrespective of credits assigned) for a maximum of 100 marks. The M.Tech. project work (major project) will also be evaluated for 100 marks.
- ii. For the theory subjects 70 marks shall be awarded for the performance in the Semester End Examination and 30 marks shall be awarded for Continuous Internal Evaluation (CIE). The Continuous Internal Evaluation shall be made based on the average of the marks secured in the two Mid-Term Examinations conducted, first Mid-Term examinations in the middle of the Semester and second Mid-Term examinations during the last week of instruction. Each Mid-Term Examination shall be conducted for a total duration of 120 minutes with Part 'A' as compulsory consisting of 5 questions carrying 3 marks each (15 marks), and Part 'B' with 3 questions to be answered out of 5 questions, each question carrying 5 marks (15 marks).

The details of the Question Paper pattern for Semester End Examination (Theory) are given below:

The Semester End Examination will be conducted for 70 marks. It consists of two parts.

- a. Part A for 20 marks, ii). Part B for 50 marks.

- b. Part A is compulsory and consists of 5 questions, one from each unit and carrying 4 marks each.
 - c. Part B consists of 5 questions carrying 10 marks each. There will be two questions from each unit and only one should be answered.
- iii. For practical subjects, 70 marks shall be awarded for performance in the Semester End Examinations and 30 marks shall be awarded for day-to-day performance as Internal Marks. These 30 marks are divided into 10 for performing experiment, 5 for observations, 5 for record writing and 5 for first MID, 5 for second MID. In every lab class student is evaluated for performing the experiment, observations and record writing and the marks are entered in the server along with attendance on the same day. Average all the Lab classes marks are taken at the end of the semester for computing CIE marks.
- iv. For conducting laboratory end examinations of all PG Programs, one internal examiner and one external examiner are to be appointed by the Principal of the College and this is to be informed to the Director of Evaluation within two weeks, before commencement of the lab end examinations. The external examiner should be selected from outside the College concerned. No external examiner should be appointed from any other College which is run/ partnered by the same Management. 70 marks are divided into 20+25+25. 20 for write-up of experiment, 25 marks for demonstrating results, and 25 marks for viva.
- v. There shall be Mini project and seminar presentations during I year II semester. For seminar, a student shall collect the literature on the advanced topic in relevant fields and critically review the literature and submit it to the department in a form of report (20 pages) and shall make an oral presentation (60 minutes) before the Department Academic Committee consisting of Head of the Department, seminar coordinator and two other senior faculty members of the department. One must be from outside department. For each Seminar there will be only internal evaluation for 100 marks. Division of the marks is 30 marks for report preparation and 70 marks for presentation. A candidate has to secure a minimum of 50% (50) of marks to be declared successful. If he fails to obtain the minimum mark, he has to

reappear for the seminar during the supplementary examinations by registering and paying fee. Maximum number of such attempts are as CAC approval. The word 'Seminar' implies presentation of Technical Report presentation/ discussion on the state of Art of Technology.

- vi. The seminar shall cover concepts of abstract, introduction, material and methods, conclusion, references, acknowledgement etc of advanced topics in a branch of Engineering through the medium of attending seminars/ referring to peer reviewed journals, which will enhance the skill of writing technical reports. The students shall not be required to give oral presentation of technical paper. The report shall be presented as a printed document for evaluation. Evaluation shall be made solely by the teacher, but may be moderated by committees appointed by the Head of the Department as per Institute rules.
- vii. Student must undergo atleast 8 week Industrial Internship between II and III semester gap and submit certificate. This Internship is mandatory but does not carry any marks or credits.
- viii. There shall be a Teaching Practice in II year I Semester for 100 marks. Project guide teaching in class atleast in 10 class hours and records observations. Based on this project guide awards marks for 30. For remaining 70 marks, external examiner evaluates based on the record maintained by the project guide and personal interaction for atleast 30 minutes.
- ix. There shall be a Comprehensive Viva-Voce in II year I Semester for 100 marks. The Comprehensive Viva- Voce is intended to assess the student's understanding of various subjects he has studied during the M.Tech. course of study. The Head of the Department shall be associated with the conduct of the Comprehensive Viva-Voce through a Committee. The Committee shall consist of Head of the Department, one senior faculty member and an external examiner. The external examiner shall be appointed by the Principal of the college concerned and this is to be informed to the Director of Evaluation within two weeks. The external examiner should be selected from outside the College. No external examiner should be appointed from any other College which is run/ partnered by the same

Management. There shall be two parts in this. First part is online quiz with multiple/ fill-in the blanks type of 70 questions and 70 minutes covering all the subjects of the discipline. Another 30 marks are through oral viva-voce. A candidate has to secure a minimum of 50% of marks in each part to be declared successful. If he fails to obtain the minimum marks, he has to reappear for the viva-voce during the supplementary examinations by registering and paying fee. Maximum number of such attempts are as CAC approval..

- x. Every candidate shall be required to submit a thesis or dissertation on a topic approved by the Project Review Committee.
- xi. A Project Review Committee (PRC) shall be constituted with the Head of the Department as Chairperson, Project Supervisor and one senior faculty member of the Departments offering the M. Tech. program.
- xii. Registration of Project Work: A candidate is permitted to register for the project work after satisfying the attendance requirement in all the subjects, both theory and practicals.
 - a. After satisfying above, a candidate has to present in Project Work Review I, in consultation with his Project Supervisor, the title, objective and plan of action of his project work to the Project Work Review Committee (PRC) for approval within four weeks from the commencement of Second year First Semester. Only after obtaining the approval of the PRC can the student initiate the Project work.
 - b. If a candidate wishes to change his supervisor or topic of the project, he can do so with the approval of the PRC. However, the PRC shall examine whether or not the change of topic/supervisor leads to a major change of his initial plans of project proposal. If yes, his date of registration for the project work starts from the date of change of Supervisor or topic as the case may be.
 - c. A candidate shall submit his project progress report in two stages at least with a gap of three months between them.
 - d. The work on the project shall be initiated at the beginning of the II year and the duration of the project is two semesters. A candidate is permitted to submit

Project Thesis only after successful completion of all theory and practical courses with the approval of PRC not earlier than 40 weeks from the date of approval of the project work. For the approval of PRC the candidate shall submit the draft copy of thesis to the Head of the Department and make an oral presentation before the PRC.

- xiii. The Project Work Review II in II Year I Sem. carries internal marks of 100. Evaluation should be done by the PRC for 70 marks (before end of III semester) and the Supervisor will evaluate the work for the other 30 marks. The Supervisor and PRC will examine the Problem Definition, Objectives, Scope of Work, Literature Survey in the same domain and progress of the Project Work. A candidate has to secure a minimum of 50% of marks to be declared successful in Project Work Review II. If he fails to obtain the minimum required marks, he has to reappear for Project Work Review-II as and when conducted.
- xiv. The Project Work Review III in II Year II Sem. carries 100 internal marks. Evaluation should be done by the PRC for 70 marks (in two stages with a gap of two months) and the Supervisor will evaluate it for the other 30 marks. Out of this 5 marks will be for publishing the work in UGC recognized journal. The PRC will examine the overall progress of the Project Work and decide whether or not the Project is eligible for final submission. A candidate has to secure a minimum of 50% of marks to be declared successful in Project Work Review III. If he fails to obtain the required minimum marks, he has to reappear for Project Work Review III as and when conducted. For Project Evaluation (Viva Voce) in II Year II Sem. there are external marks of 100 and it is evaluated by the external examiner. The candidate has to secure a minimum of 50% marks in Project Evaluation (Viva-Voce) examination.
- xv. Project Work Reviews II and III shall be conducted in phase I (Regular) and Phase II (Supplementary). Phase II will be conducted only for unsuccessful students in Phase I. The unsuccessful students in Project Work Review II (Phase II) shall reappear for it at the time of Project Work Review III (Phase I). These students shall reappear for Project Work Review III in the next academic year at

the time of Project Work Review II only after completion of Project Work Review II, and then Project Work Review III follows. The unsuccessful students in Project Work Review III (Phase II) shall reappear for Project Work Review III in the next academic year only at the time of Project Work Review II (Phase I). However, only one such extra attempt is allowed for each review.

- xvi. After approval from the PRC, a soft copy of the thesis should be submitted for ANTIPLAGIARISM check and the plagiarism report should be submitted to the Institute and be included in the final thesis. The Thesis will be accepted for submission, if the similarity index is less than 30%. If the similarity index has more than the required percentage, the student is advised to modify accordingly and re-submit the soft copy of the thesis after one month. The maximum number of re-submissions of thesis after plagiarism check is limited to THREE. The candidate has to register for the Project work and work for two semesters. After three attempts, the admission is liable to be cancelled. The college authorities are advised to make plagiarism check of every soft copy of theses before submissions.
- xvii. Three copies of the Project Thesis certified by the supervisor shall be submitted to the College/School/Institute, after submission of a research paper related to the project work in a UGC approved journal. A copy of the submitted research paper shall be attached to thesis.
- xviii. The thesis shall be adjudicated by an external examiner selected by the Institute. For this, the Department of the College/School/Institute shall submit a panel of three examiners from among the list of experts in the relevant specialization as submitted by the supervisor concerned and Head of the Department.
- xix. If the report of the external examiner is unsatisfactory, the candidate shall revise and resubmit the Thesis. If the report of the examiner is unsatisfactory again, the thesis shall be summarily rejected. Subsequent actions for such dissertations may be considered, only on the specific recommendations of the external examiner and /or Project work Review Committee. No further correspondence in this matter will be entertained, if there is no specific recommendation for resubmission.

- xx. If the report of the examiner is satisfactory, the Head of the Department shall coordinate and make arrangements for the conduct of Project Viva- Voce examination. The Project Viva- Voce examination shall be conducted by a board consisting of the Supervisor, Head of the Department and the external examiner who adjudicated the Thesis. The candidate has to secure a minimum of 50% of marks in Project Evaluation (Viva-Voce) examination.
 - xxi. If he fails to fulfill the requirements as specified above, he will reappear for the Viva-Voce examination only after three months. In the reappeared examination also, if he fails to fulfill the requirements, he will not be eligible for the award of the degree, unless he is asked to revise and resubmit his project work by the board within a specified time period (within four years from the date of commencement of his first year first semester).
 - xxii. The Project Viva-Voce External examination marks must be submitted to the entered in the server on the day of the examination.
 - xxiii. In every valuation and distribution of weightages proper mapping to Bloom's Taxonomy levels is adopted
8. Re-Admission/Re-Registration
- i. Re-Admission for Discontinued Student
A student, who has discontinued the M.Tech. degree program due to any reason whatsoever, may be considered for 'readmission' into the same degree program (with the same specialization) with the academic regulations of the batch into which he gets readmitted, with prior permission from the authorities concerned, subject to item 6.6.
 - ii. If a student is detained in a subject (s) due to shortage of attendance in any semester, he may be permitted to re-register for the same subject(s) in the same category (core or elective group) or equivalent subject, if the same subject is not available, as suggested by the Board of Studies of that department, as and when offered in the subsequent semester(s), with the academic regulations of the batch into which he seeks re-registration, with prior permission from the authorities concerned, subject to item 3.2

iii. A candidate shall be given one chance to re-register for a maximum of two subjects, if the internal marks secured by a candidate are less than 50% and failed in those subjects. A candidate must re-register for failed subjects within four weeks of commencement of the class work and secure the required minimum attendance. In the event of the student taking this chance, his Continuous Internal Evaluation (internal) marks and Semester End Examination marks obtained in the previous attempt stand cancelled.

9. Examinations and Assessment - The Grading System

i. Grades will be awarded to indicate the performance of each student in each Theory Subject, or Lab/Practicals, or Seminar, or Technical Paper Writing or Project, etc., based on the % of marks obtained in CIE + SEE (Continuous Internal Evaluation + Semester End Examination, both taken together) as specified in Item 7 above, and a corresponding Letter Grade shall be given.

ii. As a measure of the student's performance, a 10-point Absolute Grading System using the following Letter Grades (UGC Guidelines) and corresponding percentage of marks shall be followed:

% of Marks Secured in a Subject / Course	Letter Grade As per UGC Guidelines	Grade Point
More than or equal to 90%	O (Outstanding)	10
80 and less than 90%	A+ (Excellent)	9
70 and less than 80%	A (Very Good)	8
60 and less than 70%	B+ (Good)	7
50 less than 60%	B (Average)	6
Below 40%	F (Fail)	0
Absent	Ab	0

iii. A student obtaining F Grade in any Subject is deemed to have 'failed' and is required to reappear as 'Supplementary Candidate' for the Semester End

Examination (SEE), as and when conducted. In such cases, his Internal Marks (CIE Marks) in those subjects will remain as obtained earlier.

- iv. A student has not appeared for the examinations; ‘Ab’ Grade will be allocated to him for any subject and shall be considered ‘failed’ and will be required to reappear as ‘Supplementary Candidate’ for the Semester End Examination (SEE), as and when conducted.
- v. A Letter Grade does not imply any specific marks percentage; it is only the range of percentage of marks.
- vi. In general, a student shall not be permitted to repeat any Subject/ Course (s) only for the sake of ‘Grade Improvement’ or ‘SGPA/ CGPA Improvement’.
- vii. A student earns Grade Point (GP) in each Subject/ Course, on the basis of the Letter Grade obtained by him in that Subject/ Course. The corresponding ‘Credit Points’ (CP) are computed by multiplying the Grade Point with Credits for that particular Subject/ Course.

Credit Points (CP) = Grade Point (GP) x Credits For a Course

- viii. The student passes the Subject/ Course only when he gets GP ≥ 6 (B Grade or above).
- ix. The Semester Grade Point Average (SGPA) is calculated by dividing the Sum of Credit Points ($\sum CP$) secured from ALL Subjects/ Courses registered in a Semester, by the Total Number of Credits registered during that Semester. SGPA is rounded off to TWO Decimal Places. SGPA is thus computed as

$$SGPA = \frac{\sum C_i G_i}{\sum C_i}$$
 where $i = 1$ to N subjects of that semester, Credits for that subject and G grade point obtained

where ‘ i ’ is the Subject indicator index (taking into account all Subjects in a Semester), ‘ N ’ is the no. of Subjects ‘REGISTERED’ for the Semester (as specifically required and listed under the Course Structure of the parent Department), C_i is the no. of Credits allotted to the i^{th} Subject, and G_i represents the Grade Points (GP) corresponding to the Letter Grade awarded for that i^{th} Subject.

- x. The Cumulative Grade Point Average (CGPA) is a measure of the overall cumulative performance of a student over all Semesters considered for registration. The CGPA is the ratio of the Total Credit Points secured by a student in ALL registered Courses in ALL Semesters, and the Total Number of Credits registered in ALL the Semesters. CGPA is rounded off to TWO Decimal Places. CGPA is thus computed from the I Year Second Semester onwards, at the end of each Semester, as per the formula

$$CGPA = \frac{\sum C_i G_i}{\sum C_i} \quad \text{where } i = 1 \text{ to } M \text{ subjects of all the semesters including current semester, Credits for that subject and } G \text{ grade point obtained}$$

where 'M' is the TOTAL no. of Subjects (as specifically required and listed under the Course Structure of the parent Department) the Student has 'REGISTERED' for from the 1st Semester onwards upto and inclusive of the present Semester (obviously $M > N$), 'i' is the Subject indicator index (taking into account all Subjects from 1 to current Semesters), C_i is the no. of Credits allotted to the i^{th} Subject, and G_i represents the Grade Points (GP) corresponding to the Letter Grade awarded for that i^{th} Subject. After registration and completion of I Year I Semester however, the SGPA of that Semester itself may be taken as the CGPA, as there are no cumulative effects.

Illustration SGPA/ CGPA computation

Course / Subject	Credits	Letter Grade	Grade Points	Credit Points
Course 1	4	A	8	32
Course 2	3	O	10	30
Course 3	4	C	5	20
Course 4	4	B	6	24
Course 5	3	A+	9	27
Course 6	2	C	5	10
Course 7	2	B	6	12
Course 8	2	C	5	10

TOTAL	24			165
-------	----	--	--	-----

$$SGPA = 165/24 = 6.87$$

10. Award of Degree and Class

i. If a student who registers for all the specified Subjects/ Courses as listed in the Course Structure, satisfies all the Course Requirements, and passes the examinations prescribed in the entire PG Program (PGP), and secures the required number of **68** Credits (with $CGPA \geq 6.0$), shall be declared to have 'QUALIFIED' for the award of the M.Tech. Degree in the chosen Branch of Engineering and Technology with the specialization that he was admitted into.

ii. Award of Class

After a student has earned the requirements prescribed for the completion of the program and is eligible for the award of M.Tech. Degree, he shall be placed in one of the following three classes based on the CGPA:

Class Awarded	CGPA
First Class with Distinction	≥ 8.0
First Class	≥ 6.5 but < 8.0
Second Class	≥ 6.0 but < 6.5

iii. A student with final CGPA (at the end of the PGP) < 6.00 shall not be eligible for the Award of Degree

11. Withholding of Results

If the student has not paid the dues, if any, to the University or if any case of indiscipline is pending against him, the result and degree of the student will be withheld and he will not be allowed into the next semester.

12. Transitory Regulations

i. A student who has been detained in any semester of I Year due to lack of attendance, shall be permitted to join the same semester of I Year of subsequent

year and he is required to complete the study of M.Tech program within the stipulated period of four academic years from the date of first admission in I Year I semester. The Academic Regulations under which a student has been readmitted shall be applicable to that student from that semester.

- ii. Candidate detained due to shortage of attendance in one or more subjects is eligible for re-registration of maximum of two earlier or equivalent subjects at a time as and when offered.
- iii. The candidate who fails in any subject will be given two chances to pass the same subject in the same regulations; otherwise, he has to identify an equivalent subject and fulfill the academic requirements of that subject as per new Academic Regulations applicable at that time.
- iv. For student readmitted to new Regulations, the maximum credits that a student acquires for the award of the degree, shall be the sum of the total number of credits secured in previous regulations of his/her study including current Regulations.
- v. If a student readmitted to new Regulations, has any subject with 80% of syllabus common with his/her previous regulations, that particular subject in new regulations will be substituted by another subject to be suggested by the Institute.

13. General

- i. **Credit:** A unit by which the course work is measured. It determines the number of hours of instructions required per week. One credit is equivalent to one hour of teaching (lecture or tutorial) or two hours of practical work/field work per week.
- ii. **Credit Point:** It is the product of grade point and number of credits for a course.
- iii. Wherever the words “he”, “him”, “his”, occur in the regulations, they shall include “she”, “her”.
- iv. The academic regulation should be read as a whole for the purpose of any interpretation.
- v. In case of any doubt or ambiguity in the interpretation of the above rules, the decision of the Institute is final.

- vi. The Institute may change or amend the academic regulations or syllabi at any time and the changes or amendments made shall be applicable to all the students with effect from the dates notified by the Institute.

14. Malpractices

	Nature of Malpractices	Punishment
	If the candidate:	
1 (a)	Possesses or keeps accessible in examination hall, any paper, note book, programmable calculators, Cell phones, pager, palm computers or any other form of material concerned with or related to the subject of the examination (theory or practical) in which he is appearing but has not made use of (material shall include any marks on the body of the candidate which can be used as an aid in the subject of the examination)	Expulsion from the examination hall and cancellation of the performance in that subject only
1 (b)	Gives assistance or guidance or receives it from any other candidate orally or by any other body language methods or communicates through cell phones with any candidate or persons in or outside the exam hall in respect of any matter.	Expulsion from the examination hall and cancellation of the performance in that subject only of all the candidates involved. In case of an outsider, he will be handed over to the police and a case is registered against him.
2	Has copied in the examination hall from any paper, book, programmable calculators, palm computers or any other form of material relevant to the subject	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared

	of the examination (theory or practical) in which the candidate is appearing.	including practical examinations and project work and shall not be permitted to appear for the remaining examinations of the subjects of that Semester/year. The Hall Ticket of the candidate is to be cancelled.
3	Impersonates any other candidate in connection with the examination.	The candidate who has impersonated shall be expelled from examination hall. The candidate is also debarred and forfeits the seat. The performance of the original candidate who has been impersonated, shall be cancelled in all the subjects of the examination (including practicals and project work) already appeared and shall not be allowed to appear for examinations of the remaining subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat. If the imposter is an outsider, he will be handed over to the police and a case is registered against him

4	Smuggles in the Answer book or additional sheet or takes out or arranges to send out the question paper during the examination or answer book or additional sheet, during or after the examination.	Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.
5	Uses objectionable, abusive or offensive language in the answer paper or in letters to the examiners or writes to the examiner requesting him to award pass marks.	Cancellation of the performance in that subject.
6	Refuses to obey the orders of the Chief Superintendent / Assistant – Superintendent / any officer on duty or misbehaves or creates disturbance of any kind in and around the examination hall or organizes a walk out or instigates others to walkout, or threatens the officer in charge or any person on duty in or outside the examination hall of any injury to his person or to any of his	In case of students of the college, they shall be expelled from examination halls and cancellation of their performance in that subject and all other subjects the candidate(s) has (have) already appeared and shall not be permitted to appear for the remaining examinations of the subjects of that semester/year. The candidates also

	<p>relations whether by words, either spoken or written or by signs or by visible representation, assaults the officer-in-charge, or any person on duty in or outside the examination hall or any of his relations, or indulges in any other act of misconduct or mischief which result in damage to or destruction of property in the examination hall or any part of the College campus or engages in any other act which in the opinion of the officer on duty amounts to use of unfair means or misconduct or has the tendency to disrupt the orderly conduct of the examination.</p>	<p>are debarred and forfeit their seats. In case of outsiders, they will be handed over to the police and a police case is registered against them.</p>
7	<p>Leaves the exam hall taking away answer script or intentionally tears of the script or any part thereof inside or outside the examination hall.</p>	<p>Expulsion from the examination hall and cancellation of performance in that subject and all the other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred for two consecutive semesters from class work and all examinations. The continuation of the course by the candidate is subject to the academic regulations in connection with forfeiture of seat.</p>

8	Possess any lethal weapon or firearm in the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat.
9	If student of the college, who is not a candidate for the particular examination or any person not connected with the college indulges in any malpractice or improper conduct mentioned in clause 6 to 8	Student of the colleges expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and project work and shall not be permitted for the remaining examinations of the subjects of that semester/year. The candidate is also debarred and forfeits the seat. Person(s) who do not belong to the College will be handed over to police and, a 8police case will be registered against them
10	Comes in a drunken condition to the examination hall.	Expulsion from the examination hall and cancellation of the performance in that subject and all other subjects the candidate has already appeared including practical examinations and

		project work and shall not be permitted for the remaining examinations of the subjects of that semester/year.
11	Copying detected on the basis of internal evidence, such as, during valuation or during special scrutiny.	Cancellation of the performance in that subject and all other subjects the candidate has appeared including practical examinations and project work of that semester / year examinations.
12	If any malpractice is detected which is not covered in the above clauses 1 to 11 shall be reported to the College / University for further action to award suitable punishment	

15. Malpractices identified by squad or special invigilators

- i. Punishments to the candidates as per the above guidelines.
- ii. Punishment for College: (if the squad reports that the college is also involved in encouraging malpractices)
 - a. A show cause notice shall be issued to the College by the university
 - b. Impose a suitable fine on the college by the university
 - c. Withdrawing the autonomous status

16. Examination setup, systems, question paper preparation, conducting examinations, valuations, results display/announcement, student grievances redressal mechanism is same as B.Tech program.

17. In case of any ambiguity or unidentified cases prevailing and applicable university rule(s) will be applied.