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ಎಟೆಯುಅಧಿನಿಯಮೆ೬೬೪" ರಅಡಿಯಲ್ಲಿಕರ್ನಾಟಕಸರ್ಕಾರದಿಂದಸ್ಥಾಪಿತವಾದರಾಜ್ಯವಿಶ್ವವಿದ್ಯಾಲಯ

VISVESVARAYA TECHNOLOGICAL UNIVERSITY

State University of Government of Karnataka Established as per the VTU Act, 1994 "JnanaSangama" Belagavi-590018, Karnataka, India

Prof. B. E. Rangaswamy, Ph.D
REGISTRAR

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REF: VTU/BGM/Aca/BoS/2023/ 7580

DATE: 2 9 MAR 2023

NOTIFICATION

Subject: Regulations Governing the award of M.Tech (2022 scheme) regarding...

Reference: JBOS 10.02.2023 and 171st EC meeting Proceeding no. 2.2.1 dated: 23.02.2023

Pursuant to the aforesaid Executive Council Proceedings the Regulations Governing the award of a degree in Master of Technology under Outcome-based education and choice-based credit system (2022) are hereby notified.

These regulations are applicable to students who are admitted to the 1st semester (1st year) ofthe M.Tech., program from the academic year 2022-23. The previous regulations in this regard are treated as null and void.

Sd/-
Registrar

To,

All the Principals of Engineering Colleges where M.Tech., programs being offered,

Copy to

1. To the Hon'ble Vice-Chancellor through the secretary to VC for information
2. The Registrar (Evaluation) for information
3. The Director (I/c) ITI SMU VTU Belagavi for information and make arrangements to upload it on the VTU web portal.
4. The Special Officer QPDS Examination section VTU Belagavi
5. Office Copy

REGISTRAR

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REGULATIONS GOVERNING

THE DEGREE OF MASTER OF TECHNOLOGY (M.Tech.,)
Under Outcome Based Education (OBE) &
Choice-Based Credit System (CBCS) Scheme
Effective from the academic year 2022-23

09.07.2023

CONTENTS		
Regulation Clause	Title	Page Number

09.07.2023

Definitions of Keywords: The followings are the definitions/descriptions that have been followed for the different terms used in the Regulations of M.Tech., Programs:

01 **Program:** This is an educational program in a particular stream/ branch of Engineering/branch of specialization leading to the award of a degree. It involves events/activities, comprising of lectures/ tutorials/ laboratory work/ field work, outreach activities/ project work/ vocational training/ viva/ seminars/Internships/ assignments/ presentations/ self-study etc., or a combination of some of these.

02 **Branch:** Means Specialization or discipline of M.Tech., Degree Program, like Power Electronics, Structures, Machine Design, etc.

03 **Semester:** Refers to one of the two sessions of an academic year (vide: serial number 4), each session being of sixteen weeks' duration (with working greater than or equal to 90 days). The odd semester may be scheduled from August and the even semester from February of the year.

04 **Academic Year:** Refers to the sessions of two consecutive semesters (odd followed by an even) including periods of vacation.

05 **Course:** Refers to usually referred to as 'papers' and is a component of a program. All Courses need not carry the same weight. The Courses should define learning objectives and learning outcomes. A Course may be designed to comprise lectures/ tutorials/ laboratory work/ field work/ outreach activities/project work/ vocational training/ viva/ seminars/ term papers/assignments/ presentations/ self-study etc., or a combination of some of these.

06 **Credit:** Refers to 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 lecture or two hours of laboratory/practical Courses/ tutorials/ fieldwork per week etc

07 **Audit Courses:** Means Knowledge/ Skill enhancing Courses without the benefit of a grade or credit for a Course

08 **Choice Based Credit System (CBCS):** Refers to customizing the Course work, through Core, Elective and soft skill Courses, to provide the necessary support for the students to achieve their goals.

09 **Course Registration:** Refers to formal registration for the Courses of a semester (Credits) by every student under the supervision of a Faculty Advisor (also called Mentor, Counselor, etc.,in each Semester for the Institution to maintain the proper record.

10 **Course Evaluation:** Means Continuous Internal Evaluation (CIE) and Semester End Examinations (SEE) to constitute the major evaluations prescribed for each Course. CIE and SEE to carry 50 % and 50 % respectively, to enable each Course to be evaluated for 100 marks, irrespective of its Credits.

Continuous Internal Evaluation (CIE): Refers to the evaluation of students' achievement in the learning process. CIE shall be by the Course Instructor and includes tests, homework, problem-solving, group discussion, quiz, mini-project, and seminars throughout the Semester, with weightage for the different components being fixed at the University level.

Semester End examinations (SEE): Refers to an examination conducted at the University level covering the entire Course Syllabus. For this purpose, Syllabi is to be modularized, and SEE questions are to be set from each module, with a choice confined to the concerned module only. SEE is also termed a university examination.

11 **First Attempt:** Refers to a student who has completed all formalities and has become eligible to attend the SEE and has attended at least one head of passing, such attempt shall be considered as the first attempt.

12 **Credit Based System (CBS):** Refers to quantification of Course work, after a student completes the teaching-learning process, followed by passing in both CIE and SEE. Under CBS, the requirement for awarding a degree is prescribed in terms of the total number of credits to be earned by the students.

13 **Credit Representation:** Refers to Credit Values for different academic activities considered, as per Table.1. Credits for a seminar, project phases, project viva–voce, and internship shall be as specified in the Scheme of Teaching and Examination

14 **Letter Grade:** It is an index of the performance of students in a said Course. Grades are denoted by letter grade O, A+, A, B, B+, C and F.

Table 1: Credit Values				
Theory/Lectures (L) (hours/week/Semester)	Tutorials (T) (hours/week/Semester)	Laboratory/Practical (P) (hours/week/Semester)	Credits (L:T:P)	Total Credits
4	0	0	4:0:0	4
3	0	0	3:0:0	3
2	2	0	2:1:0	3
2	0	2	2:0:1	3
2	2	2	2:1:1	4
0	0	6	0:0:3	3

NOTE: Activities like, study tours and participation in Guest lecturers are not to carry Credits.

15 **Grading:** Grade refers to the qualitative measure of achievement of a student in each Course, based on the percentage of marks secured in (CIE plus SEE). Grading is done by Absolute Grading [Refer: 22OMT6.0]. The rubric attached to letter grades is as follows:
O - Outstanding, **A+** – Excellent, **A** – Very Good, **B+**– Good**, B** – Above Average, **C** – Pass, and **F** – Fail. If a student remains absent for SEE of any of the course/s, the letter grade assigned to that course shall be **F.** If a student is not eligible for appearing SEE, due to non-comply with any of the course/s then the letter grade assigned against that course shall be **NE**

16 **Grade Point (GP):** Refers to a numerical weightage allotted to each letter grade on a 10-point scale as under.

Letter Grade and corresponding Grade Points on a typical 10 – Point scale							
Letter Grade	**O**	**A+**	**A**	**B+**	**B**	**C**	**F**
	Outstanding	Excellent	Very Good	Good	Average	Pass	Fail
Grade Point	**10**	9	8	7	6	5	0
% of Marks secured	90-100	80-89	70-79	60-69	55-59	50-54	0-49

Passing Standards: Refers to passing a Course only when getting GP greater than or equal to 5 (Grade letter C)

17 **Credit Point:** Is the product of grade point (GP) and number of credits for a Course i.e.,
Credit Points (CrP) = GP x Credits for the course

18 **Semester Grade Point Average (SGPA):** Refers to a measure of academic performance of student/s in a semester. It is the ratio of total credit points secured by a student in various Courses of a semester and the total Course credits taken during that semester. [Refer: 22OMT6.0]

19 **Cumulative Grade Point Average (CGPA):** Is a measure of the overall cumulative performance of a student over all semesters. The CGPA is the ratio of total credit points earned by a student in various Courses in all semesters and the sum of the total credits of all Courses in all semesters. It is expressed up to two decimal places. [Refer: 22OMT6.0].

20 **Grade Card:** Refers to a certificate showing the grades earned by a student. A grade card shall be issued to all the registered students after every semester. The grade card will display the program details (Course code, title, number of credits, grades secured) along with the SGPA of that semester and CGPA earned till that semester.

21 **Multiple Entry Multiple Exit:** The multiple entries and exit points in the academic programs offered at Higher Education Institutions (HEIs) would remove rigid boundaries and create new possibilities for students. There are occasions when learners have to give up their education mid-way for various reasons. To facilitate flexible learning within the stipulated period (four years for regular students), multiple exist and entry options are given to the needy students. The student can exit from the program only at the end of the even semester/s (2nd semester) and the entry option is provided to the students at the beginning of the odd semester/s (3rd semester)

22 **University:** Visvesvaraya Technological University (VTU), Belagavi.

22OMT1.0	**Title, Duration, and Credits of the Program of Study**
22OMT1.1	The Program shall be called Master of Technology (Subject of Specialization), abbreviated as M.Tech. (Subject of Specialization).
22OMT1.2	There shall be one category of Program: Full-time Program (FT),
22OMT1.3	**Full-time Program:** The Program shall extend over a period of four semesters and each semester shall have 16 weeks (not less than 90 days) duration.
22OMT1.4	A Faculty/ Employee working on a Full-Time basis in an Institution/ Organization and pursuing/pursuing any Course conducted in the timing of Regular/ First Shift for the same duration as that of Regular Shift shall be considered ineligible for the purpose of employment/ higher studies.
22OMT1.5	**Maximum Duration for Program Completion:** A Full-time candidate shall be allowed a maximum duration of 4 years from the first semester of admission to become eligible for the award of Master's Degree, failing which he/she may discontinue the program or register once again as a fresh candidate to I semester of the program.
22OMT1.6	Prescribed Number of Credits for the Program: The number of credits to be completed for the award of the degree shall be 80.
22OMT1.7	**Definition of Credits:** 01-hour Lecture (L) per week per semester =1 Credit 02 hours of Tutorial (T) per week per semester =1 Credit 02 hours of Practical/Laboratory/Drawing (P) per week per semester =1 Credit. **Note:** • Four credit Courses are designed for a 50-60 hours Teaching – Learning process. • Four credits integrated course are designed for 40 hours of theory and 10-12 sessions of practical components. • Three credit Courses are designed for a 45-50 hours Teaching – Learning process. • Two credit Courses are designed for a 25-30 hours Teaching – Learning process. • One Credit Courses are designed for a 15-20 hours Teaching – Learning process.
22OMT1.8	The Calendar of events in respect of the Program shall be notified by the University in advance.
22OMT2.0	**Eligibility for Admission (As per the Government orders issued from time to time)**
22OMT2.1	Admission to I year/I semester Master of Technology Program shall be open to all the candidates who have passed B.E./ B. Tech. Examinations of VTU or any other recognized University/ Institution. The decision of the Equivalence committee shall be the final in establishing the eligibility of candidates for a particular Program. For foreign degrees, an Equivalence certificate from the Association of Indian Universities shall be a must. The candidates who have completed their degree through distance education from any University (National or International) are **not eligible** for admission to M.Tech. Programs under any quota.
22OMT2.2	AMIE in respective branches shall be equivalent to B.E./ B. Tech. Programs of VTU for admission to M.Tech. (Certificate/ qualification awarded by professional bodies/ institutions in the field of Technical Education will be treated as equivalent to B.E. / B.Tech. programs of VTU for admission to M.Tech. programs subject to the notification/approval from the Government of Karnataka and AICTE New Dehli)

22OMT2.3	Admission to M.Tech. Program shall be open to the candidates (as per 22OMT 2.1 and 2.2) who have passed the prescribed qualifying examination with not less than 50% of the marks in the aggregate of all the years of the degree examination. However, in the case of candidates belonging to SC/ST and Category I, the aggregate percentage of marks in the qualifying examinations shall not be less than 45%. Rounding off of the percentage secured in the qualifying examination is not permissible. (Reservation is applicable only for Karnataka Candidates).
22OMT2.4	**For admissions under the GATE/ PGCET qualification and Roaster system of the Government of Karnataka:** The candidates should be GATE qualified or should have appeared for the Entrance Examination conducted by an authority recognized by the Government of Karnataka (PGCET)/VTU. **For admissions under Management Quota:** The candidates should be GATE qualified or should have appeared for the Entrance Examination conducted by an authority recognized by the Government of Karnataka PGCET/VTU. Further, there shall be an Admissions Committee for PG Program in each college for each branch of PG studies consisting of the Principal of the College as the Chairman, the Head of the concerned Department, and one senior faculty of the concerned Department as members. The Admissions Committee shall conduct the interview and select the candidates for admission. **For admissions under Sponsored Quota:** The candidates should be GATE qualified or should have appeared for the Entrance Examination conducted by an authority recognized by the Government of Karnataka PGCET/VTU/any other University on approval by the Government of Karnataka.
22OMT2.5	The candidates, who are qualified in the GATE Examination for the appropriate branch of engineering, shall be given priority. They are exempted from the taking Entrance Examination. In case a GATE-qualified candidate appears for the entrance examination and becomes qualified to claim a seat under the entrance examination quota, he/she will be considered in the order of merit along with other candidates who appeared for the entrance examination.
22OMT2.6	If a sufficient number of GATE-qualified candidates are not available, the remaining vacant seats shall be filled from amongst the candidates who appeared for the Entrance Examination in the order of merit.
22OMT2.7	The intake under various categories (regular, sponsored candidates, and SC/ST) shall be as sanctioned by the AICTE, State Government, and VTU, from time to time.
22OMT2.8	Subject to the provisions of 22OMT2.1 and 22OMT2.2, members of the Teaching/Research Staff working in any Engineering College recognized by AICTE either in the State of Karnataka or outside and who have put in a minimum of 03 years of teaching experience on a full-time basis in Engineering Colleges, Polytechnic institutions / any other institutions imparting Engineering education shall be eligible for admission to PG Programs under sponsored quota if they are sponsored by the respective Institutions / DTE.
20OMT2.9	Subject to the provisions of 22OMT 2.1 and 22OMT 2.2, members working in the State Government/ Central Government/ Quasi Government Organizations/ Public Sector Industries / Reputed Private Industries, who have put in a minimum of 03 years of

	working experience and sponsored by the concerned Organizations, shall also be eligible to seek admissions to PG Programs against sponsored quota. Preference for admission under 22OMT2.8 and 2.9 shall be given to candidates sponsored by organizations of State and Central Governments.
22OMT2.10	Engineering graduates other than the Karnataka candidates shall obtain an Eligibility Certificate from VTU to seek admission to P.G. Program in any of the colleges (Autonomous or Non - Autonomous) affiliated with VTU.
22OMT2.11	**Admission to vacant seats:** Unfilled seats shall be filled as per the guideline issued /notified by the government of Karnataka from time to time. OR Seats remaining vacant (unfilled), after the completion of PG admission process by Karnataka Examination Authority, shall be filled by the Institution by inviting applications through Press notification. The seats shall be filled by Candidates preferably who have valid GATE/ PGCET scores. In the absence of such Candidates, admission shall be based on merit in the entrance test conducted at the Institution level. An Admissions Committee, consisting of the Principal of the College, the Head of the concerned Department, and the subject experts, shall be in charge of admissions.
22OMT3.0 22OMT3.1	**Courses** The curriculum of the Program shall be any combination of the following type of courses: 1. One Course on **Mathematics** is supportive of the concerned program in the first semester. 2. **Professional Core Courses (PCC)** - relevant to the chosen specialization/ branch [May be split into Hard (no choice) and Soft (with choice), if required]. The core course is to be compulsorily studied by a student and is mandatory to complete the requirements of a program in said discipline of study. 3. **Professional Electives Courses (PEC)** - relevant to the chosen specialization/ branch: these are the courses, which can be chosen from the pool of papers. It shall be supportive of the discipline/ providing extended scope/enabling exposure to some other discipline/domain / nurturing student skills. 4. **Open Electives Courses (OEC),** from other technical and/ or emerging specialization areas. 5. **Integrated Professional Core Courses(IPCC)**; Theory course is merged with the practical component of the same course. 6. **Project Work**; Project work is an application-oriented academic activity and aims to sharpen your theoretical and quantitative skills through their application in the light of theoretical knowledge gained while pursuing the various courses 7. **Mini-project with Seminar**; A mini project in engineering to strengthen the understanding of fundamentals through effective application of theoretical concepts. There are separate credits for each mini-project that needs to complete. Projects will help to boost the skills and widen the horizon of thinking of the student. Mini-project work shall be presented as a seminar in front of examiners who evaluate. 8. **Audit Courses (AC)**: Audit course/s are non-credit courses opted for by students for self–enrichment. The audit course/s are mentioned in the grade card without the mention of a letter grade and credit. The student has to select the courses from the suggested list of ONLINE courses. If an Audit course is not necessary for a

	particular program, then in place of an audit course an **Ability Enhancement Course (AEC)** can be selected from the suggested list of ONLINE courses.
	9. **Internship**: Preferably at an industry and D organization/IT company/ Government organization of significant repute for a specified period mentioned in the Scheme of Teaching and Examination.
	10. **On-Line Courses:** These mandatory online courses are ability enhancement courses or skill development courses or emerging technology courses or bridge courses or advanced learning courses. These courses are suggested by the concerned board of studies. These courses are notified on the university portal. The students have to opt for these courses with the help of a mentor/ staff coordinator.
22OMT3.2	A candidate shall exercise his /her option in respect of the electives and register for the same before the beginning of the concerned semester. The candidate may be permitted to opt for a change of elective subject within 10 days from the date of commencement of the semester as per the calendar of the University.
22OMT3.3	Students shall be allowed to choose the elective/s, depending on their career plans, and there shall not be any restriction on the minimum number of students to be registered for an elective course.
22OMT4.0	**Internship** The student shall undergo an Internship as per the Scheme of Teaching and Examination
22OMT4.1	1) The internship shall be carried out in any industry/R&D Organization/Research Institute/Institute of national and international repute/recognized national and international Professional Bodies, Societies, or Organizations. 2) The Department/college shall nominate a faculty to facilitate, guide and supervise students under internship. 3) The students shall report the progress of the internship to the internal guide at regular intervals and seek his/her advice. 4) The Internship shall be completed during the period specified in the Scheme of Teaching and Examination. 5) After completion of the Internship, students shall submit a report to the Head of the Department with the approval of both internal and external guides. 6) There will be 50 marks for CIE (Seminar: 20, Internship report: 30) and 50 marks for Viva – Voce conducted during SEE. [To be read along with 22OMT8.8] 7) The internal guide shall award the CIE marks for the seminar and internship report after evaluation. He/she will also be the internal examiner for Viva – Voce conducted during SEE. 8) The external guide from the industry shall be an examiner for the Internship viva-voce examination. Viva-Voce on internship shall be conducted at the college and the date of Viva-Voce shall be fixed in consultation with the external Guide. The Examiners shall jointly award the Viva - Voce marks. 9) **(i)** In case the external Guide is not available or expresses his inability to conduct viva voce, the Chief Superintendent shall be permitted to make alternate arrangements. The examiner, in the order of preference, shall be an industry person or a faculty of another institution chosen from the list of university examiners. The same shall be intimated to the concerned BOE Chairperson and Registrar (Evaluation). **(ii)** In case the external Guide accepts to conduct viva-voce examination from his/her workplace, it shall be arranged via Video/web conferencing/Webinar. The

	external Examiner shall send the mutually agreed signed marks (evaluated for SEE marks) list, soon after the examination, via email/any electronic media.
	10) The students shall be permitted to carry out the internship anywhere in India or abroad. The University shall not provide any kind of Financial Assistance to any student for an internship.
22OMT4.2	**Failing to undergo Internship:** Internship is one of the heads of passing. Completion of an internship is mandatory. If any student fails to undergo/complete the internship, he/she shall be considered a failure in that Course and shall not be permitted to appear for SEE in that Course. However, such students shall appear for SEE after satisfying the conditions prescribed for the Internship. The reappearance shall be considered an attempt.
22OMT5.0	**Mini Project and Seminar;**
22OMT5.1	**Mini Project and Seminar** is one of the heads of passing. Each candidate shall complete one mini project work as per the scheme of teaching and examination under the guidance of the supervisor/guide. This course will have only CIE and no SEE. CIE shall be conducted by the guide and one senior faculty of the department. Marks allotment shall be in the ratio of 50:25:25 for project work completion, report, and Seminar followed by question answer session.
22OMT5.2	**Project Work:** The project is one of the heads of passing. Project work shall preferably be on an individual basis. The candidate shall submit a soft copy (CD) of the dissertation work to the University. The CD should contain the entire Dissertation in monolithic form as a PDF file (not separate chapters). The Guide, after checking the report for completeness shall upload the Dissertation along with the name, University Seat Number, address, mobile number of the candidate, etc., as prescribed in the form available on the online Dissertation evaluation portal. The guide shall submit a panel of four approved University Examiners for evaluation of the dissertation.
22OMT5.3	**Plagiarism Check** Once the Guide uploads the dissertation, the same shall be linked for plagiarism check. The allowable plagiarism index is less than or equal to 25%. If the check indicates a plagiarism index greater than 25% : • for the first time, the candidate has to resubmit the dissertation, to the Registrar (Evaluation), Regional Center/Head Office, VTU along with the penal fees of Rs. 2000/- (Rupees Two thousand only) in person. • for the second time, the candidate has to resubmit the dissertation along with the penal fees of Rs. 4000/- (Rupees four thousand only) in person. • If the dissertation is rejected again during the second resubmission with reference to the plagiarism index, the candidate shall redo the project and submit it after a semester's time subject to provisions of 22OMT1.5.
22OMT5.4	The dissertation shall be sent through email for evaluation to two examiners - one internal examiner (guide/co-guide) and one external examiner (first) appointed by the University. The evaluation of the dissertation shall be made independently by each examiner.
22OMT5.5	Examiners shall evaluate the dissertation normally within a period of not more than two weeks from the date of receipt of the dissertation through email.
22OMT5.6	The examiners shall independently submit the marks through the specified link.
22OMT5.7	The average of the marks awarded by the two Examiners shall be the final evaluation marks for the Dissertation.

22OMT5.8	**(a)** Viva-voce examination of the candidate shall be conducted as per 22OMT5.10 if the dissertation work and the reports are accepted by the external examiner (first).
	(b) If the external examiner (first) finds that the dissertation work and the report are not up to the expected standard and the minimum passing marks cannot be awarded, the dissertation shall not be accepted for SEE.
	The external examiner (first) can recommend modifications/suggestions for the dissertation or totally reject the dissertation. The examiner shall offer suggestions for improvement of the dissertation for resubmission or list the reasons for rejection of the dissertation.
	c) The resubmitted Dissertation incorporating the modifications/suggestions [as per 22OMT5.8 (b)] of the external examiner (first) and satisfying provision 22OMT5.3 shall be sent again to the external examiner (first) for evaluation. If the dissertation and the report are accepted by the external examiner (first), the Viva-voce examination of the candidate shall be conducted as per 22OMT5.10.
	(**d**) In case of rejection of the Dissertation by the external examiner (first), the same will be sent to a Second Examiner (external) approved by the University. The decision of the Second Examiner (external) is final. If the dissertation and the report are accepted by the Second Examiner (external), Viva-voce examination of the candidate shall be conducted as per 22OMT5.10. If the Second Examiner (external) rejects the dissertation and the report, the candidate shall have to carry out the dissertation work once again and submit the dissertation subject to provisions of 22OMT1.5. In such cases of rejection, the candidate shall redo the entire procedure starting from the submission of the Dissertation in soft copy.
	(e) In case of rejection of the Dissertation, with reasons, by the external examiner (first) [as per 22OMT5.8 (b)], the same will be sent to a Second Examiner (external) [not necessarily the same examiner considered under 22OMT5.8 (d)] approved by the University. The decision of the Second Examiner (external) is final. If the dissertation and the report are accepted by the Second Examiner (external), the Viva-voce examination of the candidate shall be conducted as per 22OMT5.10. If the Second Examiner (external) rejects the dissertation and the report, the candidate shall have to carry out the dissertation work once again and submit the dissertation subject to provisions of 22OMT1.5. In such cases of rejection, the candidate shall redo the entire procedure starting from the submission of the Dissertation in soft copy.
22OMT5.9	The candidate, whose Dissertation is rejected, can rework the same topic or choose another topic of the dissertation under the same Guide or a new Guide if necessary. In such an event, the report shall be submitted within four years for a case of a full-time student from the date of admission to the Program.
22OMT5.10	Viva-voce examination of the candidate shall be conducted by the external examiner and internal examiner/ guide.
	Internal examiner as per the direction of the University shall have to arrive at a mutually convenient date for the conduct of viva-voce examination of the concerned candidate with an intimation to the Registrar (Evaluation). In case one of the examiners expresses his/her inability to attend the viva-voce, the Registrar (Evaluation) shall appoint a substitute examiner in his/her place.
22OMT5.11	The relative weights for the evaluation of the dissertation and the performance at the viva voce shall be as per the scheme of teaching and examination.
22OMT5.12	The marks awarded by both Examiners at the viva voce Examination shall be sent jointly to the University immediately after the examination.

22OMT5.13	Examination fees as fixed from time to time by the University for evaluation of dissertation report and conduct of viva voce shall be remitted through the Head of the Institution as per the instructions of the Registrar (Evaluation) from time to time.
22OMT5.14	The candidates who fail to submit the dissertation work within the stipulated time have to submit the same at the time of the next ensuing examination.
22OMT6.0	**Computation of SGPA and CGPA**
22OMT6.1	**(i)** The University adopts an absolute grading system wherein the marks are converted to grades, and every semester's results will be declared with semester grade point average (SGPA) and Cumulative Grade Point Average (CGPA). The CGPA will be calculated for every semester, except for the first semester. **(ii)** The grading system with the letter grades and the assigned range of marks under the absolute grading system are as given below: Letter Grade and corresponding Grade Points on a typical 10 – Point scale <table><tr><td>Letter Grade</td><td>O</td><td>A+</td><td>A</td><td>B+</td><td>B</td><td>C</td><td>F</td></tr><tr><td></td><td>Outstanding</td><td>Excellent</td><td>Very Good</td><td>Good</td><td>Average</td><td>Pass</td><td>Fail</td></tr><tr><td>Grade Point</td><td>10</td><td>9</td><td>8</td><td>7</td><td>6</td><td>5</td><td>0</td></tr><tr><td>% of Marks secured</td><td>90-100</td><td>80-89</td><td>70-79</td><td>60-69</td><td>55-59</td><td>50-54</td><td>0-49</td></tr></table> (i) Minimum marks to score for CIE is 50% of the maximum marks of CIE, and minimum passing marks for SEE is 40% of the maximum marks of SEE. In aggregate the students have to secure 50% total marks of the course (CIE+SEE marks). (ii) A student obtaining Grade F in a Course shall be considered a failure and is required to reappear in subsequent SEE. Whatever the letter grade secured by the student during his /her reappearance shall be retained. However, the number of attempts taken to clear a Course shall be indicated in the grade cards/ transcripts.
22OMT6.2	**Grade Point Averages:** **SGPA and CGPA:** The credit index can be used further for calculating the Semester Grade Point Average (SGPA) and the Cumulative Grade Point Average (CGPA), both being important academic performance indices of the student. While SGPA is equal to the credit index for a semester divided by the total number of credits registered by the student in that semester, CGPA gives the sum total of credit indices of all the previous semesters divided by the total number of credits registered in all these semesters. Both equations together facilitate the declaration of the academic performance of a student, at the end of a semester and at the end of successive semesters respectively. Thus, $$SGPA = \frac{\sum[Course\ Credits\ \times Grade\ Points]\ for\ all\ the\ Courses\ in\ that\ Semester}{\sum[Course\ Credits\ ]\ for\ all\ the\ Courses\ in\ that\ Semester}$$ $$CGPA = \frac{\sum[Course\ Credits\ \times Grade\ Points]\ for\ all\ \ Courses\ excluding\ those\ with\ F\ and\ transitional\ grades\ until\ that\ Semester}{\sum[Course\ Credits\ ]\ for\ all\ \ Courses\ excluding\ those\ with\ F\ grades\ until\ that\ semester}$$
22OMT6.3	**Grade Card:** Based on the secured letter grades, grade points, SGPA, and CGPA, a grade card for each semester and a consolidated grade card indicating the performance in all semesters shall be issued.
22OMT7.0	**Conversions of Grades into Percentage and Class Equivalence** **Conversions of CGPA into Percentage of marks and Class Equivalence**

	There is no formula for the conversion of CGPA into the percentage of marks. However, the following formula for conversion of the CGPA on a 10-point scale into the percentage of marks (M) for employment / higher studies, etc may be used; Percentage of marks secured, M = CGPA Earned x 10 Illustration for a CGPA of 8.20; Percentage of marks secured M = 8.20× 10 = 82.0 %
22OMT7.1	**Class Equivalence:** After the conversion of final CGPA into the percentage of marks (P), a graduating student is reckoned to have passed in **1.** First Class with Distinction (FCD) if P ≥ 70% **2.** First Class (FC) if P ≥ 60% but <70% and **3.** Second Class (SC) if P < 60%. But ≥ 50%
22OMT8.0	**Continuous Internal Evaluation (CIE) and Semester End Evaluation (SEE)**
22OMT8.1	**Continuous Internal Evaluation** For each theory and practical paper, the CIE marks shall be 50. For Mini-Project with Seminar, Project Phase –I, and Societal Project the CIE marks shall be 100. Project Phase-II both CIE and SEE are 100 marks each. [To be read along with 22OMT8.8]
20OMT8.2	CIE Marks shall be based on Three Unit Tests each of **20 Marks (duration 01 hour**) Two assignments each of **10 Marks / one Skill Development Activities of 20 marks** Group discussion/Seminar/quiz /Course project/ field work (Survey) any one of three suitably planned to attain the COs and POs for **20 Marks** (**duration 01 hours**) The sum of three tests, two assignments/skill Development Activities, and quiz/seminar/group discussion will be out of 100 marks and will be **scaled down to 50 marks** **CIE methods /question paper is designed to attain the different levels of Bloom's taxonomy as per the outcome defined for the course.**
22OMT8.3	An additional test may be conducted for the needy students to provide an opportunity to improve their CIE Marks before the end of the semester. The CIE marks shall be the average of the marks scored in three tests, Assignments/skill development activities, Quiz/seminars/course projects etc. Marks scored by the student/s proportionally scaled down to 50 marks. [To be read along with 22OMT8.8]
20OMT8.4	The candidates shall write the Tests in Blue Book/s.The Blue book/s and other documents relating to award of CIE marks under 22OMT8.2 shall be preserved by the Principal / Head of the Department for at least six months from the date of announcement of University results and made available for verification at the directions of the Registrar (Evaluation).
20OMT8.5	Every page of the CIE marks list shall bear the signatures of the concerned Teacher, Head of the Department and the Principal.
22OMT8.6	The CIE marks list shall be displayed on the Notice Board and corrections, if any, shall be incorporated before submitting to the University.
22OMT8.7	The CIE marks shall be sent to the university by the principals well in advance before the commencement of Semester End Examinations. No corrections of the CIE marks shall be entertained after the submission of marks list to the University.

22OMT8.8	Candidates obtaining less than 50% of the CIE marks in any course (Theory/Laboratory/Seminar/Internship/Project) shall not be eligible to appear for the University examination in that course/s. In such cases, the Head of the Department shall arrange for the improvement of CIE marks in the course/ Laboratory when offered in the subsequent semester subject to the provision of 22OMT1.5.
22OMT8.9	**Semester End Evaluation:** There shall be a University examination at the end of each semester. **Setting Theory Question Papers and Evaluation:** Question papers in theory courses shall be set by the Examiners appointed by the University.
22OMT8.10	There shall be a double valuation of theory papers. The theory Answer booklets shall be valued independently by two examiners appointed by the University. Or regarding the valuation the guideline issued/notified from time to time by the Registrar(evaluation) office shall be followed.
22OMT8.11	If the difference between the marks awarded by the two Examiners is not more than 15 per cent of the maximum marks, the marks awarded to the candidate shall be the average of two evaluations.
22OMT8.12	If the difference between the marks awarded by the two Examiners is more than 15 per cent of the maximum marks, the answer booklet shall be evaluated by a third Examiner appointed by the university. The average of the marks of the nearest two valuations shall be considered as the marks secured by the candidate. In case, if one of the three marks falls exactly midway between the other two, then the highest two marks shall be taken for averaging.
22OMT9.0	**Eligibility for Passing and Award of Degree**
22OMT9.1	• A student who obtains any grade O to C shall be considered as passed and if a student secures F grade in any of the heads of passing, he/she has to reappear in that head for the SEE**.** • A student shall be declared successful at the end of the Programme for the award of a Degree only on obtaining CGPA $\geq$ 5.00, with none of the Courses remaining with an F Grade.
22OMT9.2	For a pass in all the courses, the student shall secure a minimum of 40% of the maximum marks prescribed in the Semester End Examination and 50% of marks in CIE, and 50 % in the aggregate of CIE and SEE marks. The Minimum Passing Grade in a course is C.
22OMT9.3	IV semester Full-time candidates having backlog courses are permitted to upload the dissertation report and to appear for SEE. The IV semester grade card shall be released only when the candidate completes all the backlog courses and become eligible for the award of a degree. [To be read along with 22OMT11.2]
22OMT9.4	A candidate may at his/her desire reject his/her latest semester results of the University examination in respect to all courses of that semester. However, in the IV semester, the rejection shall not include the Project work. Rejection shall be permitted only once during the entire Program. The CIE marks of the rejected semester shall remain the same. Rejection of results of the University examination including CIE marks is not permitted.
22OMT9.5	If the rejection of the University examination results of the semester happens to be of an odd semester, the candidate can take admission to the immediate next even semester. However, if the rejection of the University result is of even semester, the candidate cannot take admission to the next odd semester.

22OMT9.6	Application for rejection shall be submitted to the Registrar (Evaluation) through the principal of the college, within thirty days from the date of announcement of results.
22OMT9.7	A candidate, who opts for rejection of results of a semester shall be eligible for the award of class and distinction, but shall not be eligible for the award of rank.
22OMT9.8	**Eligibility for Award of Degree:** A student shall be declared to have completed the degree of Master of Technology, provided the student has undergone the stipulated course work as per the regulations and has earned the prescribed Credits, as per the Scheme of Teaching and Examination, of the program.
22OMT10.0	**Attendance Requirement**
22OMT10.1	**Registration and Enrolment:** (1) Except for the first semester, registration for a semester will be done during a specified week before the semester end examination of the previous semester. (2) The registration sheet should have the Candidate details, course name and code, number of credits and category (core/elective/audit) for each course of that semester. (3) The Faculty Adviser, assigned by the Head of the Department, will counsel the students in planning their courses of study and provide guidance, motivation, emotional support, and enable the mentees to reach the desired professional and career goals.
22OMT10.2	Courses of each semester shall be treated as a separate unit for calculation of the attendance.
22OMT10.3	The candidate has to put in a minimum attendance of 85-90 % in each course with a provision to condone 15-10 % of the attendance by the Vice-Chancellor on the specific recommendation of the Principal of the college where the candidate is studying, based on medical grounds, participation in NSS/NCC/Red Cross /Republic Day and Independence Day parades/University/ State/ National/ International level sports and cultural activities, seminars, workshops, paper presentation etc., of significant value. The necessary documents in support are to be submitted along with recommendations to condone the shortage.
22OMT10.4	In case of late admission, approved by competent authority (KEA/DTE/VTU), to I semester of the program the attendance shall be reckoned from the date of admission to the program.
22OMT10.5	A candidate, who does not satisfy the attendance requirement (in one or more Courses) as mentioned in 22OMT10.3 shall not be eligible to appear for the SEE of that semester and shall not be permitted to take admission to next higher semester. The candidate shall be required to repeat that semester during the subsequent year.
22OMT10.6	Principals of the concerned colleges shall notify regularly, the list of candidates who fall short of attendance.
22OMT10.7	The list of the candidates falling short of attendance shall be sent to the University at least one week prior to the commencement of the examination.
22OMT11.0	**Promotion and Eligibility (Vertical Progression)**

22OMT11.1	**Promotion:** There shall be no restriction for promotion from an odd semester to the next even semester, provided the student has fulfilled the attendance requirement.
22OMT11.2	a) Candidates, under a full-time program, with a maximum of four backlog courses of the first year shall be eligible for taking admission to the second year (III semester). **b)** Each credit course shall be treated as a head of passing.
22OMT11.3	The Mandatory non–credit courses (NCMC), if any, shall not be considered for the Eligibility criterion prescribed for promotion, award of Class, calculation of SGPA and CGPA. However, a pass in the above courses is mandatory before the completion of the Degree.
22OMT11.4	Passing ONLINE courses is mandatory for the award of a degree. ON-LINE courses are not considered under vertical progression; however, the student has to pass these courses before the completion of the maximum duration of the program. If a student fails a selected ON-LINE course in a semester then he/she can pass the course in the next semester by taking the same course(if offered online) or other university-approved available courses during that session. The title of the course/s in which he/she qualify shall be mentioned in the grade card with letter PP.
22OMT12.0	**Provision to move to Integrated Ph.D. program**
22OMT12.1	**(a)**The candidates pursuing M.Tech. Degree at the University and who have successfully completed the prescribed common coursework of the first three semesters of study with a minimum CGPA of 7.75 out of 10 or 70 % aggregate marks and published research papers in 'SCOPUS/SCI/WoS Indexed Journals /UGC-CARE Approved Journals' or obtained/filed patents shall be eligible for up-gradation to the Ph.D. Program, subject to approval by the Admissions Committee. **(b)** Integrated Ph.D. program is a fulltime program.
22OMT13.0	**Temporary Discontinuation/Break in the Program**
22OMT13.1	**(a)** If a candidate, for any reason, temporarily discontinues the Program or take a break from program during any semester, he/she may be permitted to continue in the program by registering to the same semester of the prevailing scheme. The candidate shall complete all the remaining course work subject to the provision 22OMT1.5. Also the Candidates may have to complete additional course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect. Additional course/s shall not be considered for the eligibility criterion prescribed for promotion. However, based on the individual cases, it is considered to decide the SGPA and CGPA to admit the student for the award of a degree. Such a candidate shall not be eligible for the award of rank. **(b)** Candidates who takes admission to any semester of the existing scheme from another scheme, as a repeater/fresher because of various reasons have to complete additional course/s, if any, as per the decision of concerned Board of Studies and approval of Dean, Faculty of Engineering, on establishing equivalence between two schemes. A Grade card shall be issued to that effect. Additional course/s shall not be considered for the eligibility criterion prescribed for promotion. However, based on the individual cases, it is considered to decide the SGPA and CGPA to admit the student for the award of a degree. Such a candidate shall not be eligible for the award of rank.

22OMT13.2	**Multiple Entry and Multiple Exist;** The multiple entries and exit points in the academic programs offered at Higher Education Institutions (HEIs) would remove rigid boundaries and create new possibilities for students. There are occasions when learners have to give up their education mid-way for various reasons. To facilitate flexible learning within the stipulated period (four years for regular students), multiple exist and entry options are given to the needy students. The student can exit from the program only at the end of the even semester/s (2nd semester) and the re-entry option is provided to the students at the beginning of the odd semester/s (3rd semester). However, the students who passes all his registered courses of the 1st and 2nd semesters as per scheme of teaching and examinations and obtains required credits, shall be awarded with **Post Graduate Diploma Certificate** if he/she shall opt for exit. However, he/she shall be permitted to take admission (3rd semester) subjected to the maximum duration of the course. He/she has to complete 06 weeks of Internship before admitting to 3rd semester.
22OMT14.0	**Award of Prizes, Medals and Ranks**
22OMT14.1	For the award of Prizes and Medals, the conditions stipulated by the Donor shall be considered subject to the provisions of the statutes framed by the University for such awards.

22OMT14.2	**(1)** For award of rank in a Specialization of Master of Technology, the CGPA secured by the student on completion of the program is considered.
	 (2) A student shall be eligible for a rank at the time of award of the degree of Master of Technology, provided the student
	      (a) Is not a repeater in any semester
	      (b) Has not rejected the results of any semester.
	      (c) Has passed I to IV semester in all the courses in first attempt only
	 (3) The total number of ranks awarded shall be 10% of total number of students appeared in IV semester subject to a maximum of 10 ranks in a Specialization.
	 (4) For award of ranks in a Specialization, a minimum of 10 students should have appeared in the IV semester examination.
	 Illustration:
	      (a) If 150 students appeared for the IV semester in VLSI Design and Embedded Systems Branch, the number of ranks to be declared in VLSI Design and Embedded Systems will be 10.
	      (b) If 84 students appeared for the IV semester in Nano Technology, the number of ranks to be declared for Nano Technology will be 08.
	      (c) In the case of a fractional number of ranks, it is rounded to a higher integer only when the first decimal place value is greater than or equal to 5

22OMT14.3	Ranks are awarded based on the merit of the students as determined by CGPA. If two or more students get the same CGPA, the tie shall be resolved by considering the number of times a student has obtained a higher SGPA. If it is not resolved even at this stage, the number of times a student has obtained higher grades like O, A+, A, B+, B etc., shall be taken into account to decide the order of the rank.

22OMT15.0	**Applicability and Power to Modify**
22OMT15.1	The regulations governing the Degree of Master of Technology of Visvesvaraya Technological University shall be binding on all concerned.
22OMT15.2	**(a)** Notwithstanding anything contained in the foregoing, the University shall have the power to issue directions/ orders to address any difficulty. **(b)** Nothing in the foregoing may be construed as limiting the power of the University to amend, modify or repeal any or all of the above.

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