ORDINANCE- MASTER OF TECHNOLOGY (M.Tech.) INSTRUMENTATION/ ELECTRONICS & COMMUNICATION ENGINEERING/ COMPUTER ENGINEERING/ BIO-TECHNOLOGY EXAMINATION/ ELECTRICAL ENGINEERING/ MECHANICAL ENGINEERING (INDUSTRIAL AND PRODUCTION ENGINEERING/ THERMAL ENGINEERING) / M.TECH SOFTWARE ENGINEERING (Credit Based System)

1.1   The duration of the course leading to the Degree of Master of Technology (M.Tech.) Instrumentation/Electronics & Communication Engineering/ Computer Engineering/Biotechnology/ Electrical Engineering/ Mechanical Engineering (Industrial and Production Engineering/ Thermal Engineering) / M.Tech Software Engineering shall be two academic years, comprising of four Semesters. Each academic year shall be divided into two Semesters i.e., July to November/December and January to May/ June.

1.2   The End Term Examination (Major Tests) for the odd Semesters (I/III) shall ordinarily be held in the month of December/January and for the even semesters (II/IV) in the month of May/June, on the dates to be notified by the Examination Branch.

1.3   The theory examination in each semester will be based on the syllabus and scheme of examination as prescribed by the Academic Council from time to time. The examination shall consist of:

(a)   Major tests (End Term Examination)- the papers to be set and answer-books to evaluated by examiners approved by concerned BOS.).

(b)   Minor Tests- the papers to be set and answer-books to be evaluated by the teachers of the various subjects in the concerned Department Institute/UIET.

2.   The last date(s) by which the Examination forms and fees must reach the Examination Enquiry as per schedule at Appendix-I in K.U. Cal. Vol.II.

3.   A person who has passed one of the following examinations of this University, or an examination recognized as equivalent thereto, shall be eligible to join the relevant M.Tech. First Semester Course, as indicated against each:-

(i) For Instrumentation

B.E./B.Tech. or its equivalent in Instrumentation/Electronics & Instrumentation/Electronics/Electrical & Electronics/Electronics & Communication, Electrical and Instrumentation & Control Engineering/Applied Electronics and Instrumentation/Bio-Medical

Instrumentation/Engineering with at least 50% marks in aggregate (45% marks for SC/ST candidates).

OR

M.Sc. Electronic Science/Electronics/Physics with specialization in Electronics or Instrumentation with at least 50% marks in aggregate (45% marks for SC/ST candidates)

(ii) Electronics & Communication Engg.

B.E./B.Tech. or its equivalent in Electronics/Electronics and Communication/Electrical & Electronics/ Electronics and Instrumentation/Applied Electronics & Instrumentation Engg.

OR

M.Sc. Electronic Science/Electronics

(iii) Computer Engineering :

B.E./B.Tech. or its equivalent either in Computer Sc. & Engg./Information Technology/ Electronics & Communication/ Telecommunication from AICTE approved Institutions with overall 50% marks in aggregate or equivalent CGPA (minimum 45% marks in aggregate or equivalent CGPA for SC/ST candidates), preferably with valid GATE score.

OR

M.Sc. in Computer Science/ Information Technology/ Electronics from UGC approved institutions with overall minimum 50% marks in aggregate or equivalent CGPA (minimum 45% marks in aggregate or equivalent CGPA for SC/ST candidates), preferably with valid GATE score.

OR

M.C.A. from AICTE/UGC approved institutions with overall minimum 50% marks in aggregate or equivalent CGPA (minimum 45% marks in aggregate or equivalent CGPA for SC/ST candidates), preferably with valid GATE score

(iv) Biotechnology :

B.E./B.Tech. in Bio-technology or Biomedical Engg. from AICTE/ UGC/ICAR approved Institution with overall minimum 50% marks in aggregate or equivalent CGPA (minimum 45% marks in aggregate or equivalent CGPA for SC/ST candidates), preferably with valid GATE score.

OR

B.Pharmacy/Master's degree in Microbiology/ Biochemistry/Medical Biotechnology/Veterinary Microbiology/Animal Biotechnology/Veterinary Biochemistry/Animal Biotechnology/Molecular Biology from any AICTE/ UGC/ICAR approved Institution with overall minimum 50% marks in aggregate or equivalent CGPA (minimum 45% marks in aggregate or equivalent CGPA for SC/ST candidates), preferably with valid GATE score.

(v) Electrical Engg. :

B.E./B.Tech./AMIE (Electrical Engg./ Electrical & Electronics Engg. from AICTE approved Institutions with overall minimum 50% marks in aggregate or equivalent CGPA (minimum 45% marks in aggregate or equivalent CGPA for SC/ST candidates) preferably with valid GATE score.

(vi) Mechanical Engg. :

B.E./B.Tech./AMIE (Mechanical/Thermal/Automobile/Manufacturing/ Mechatronics from AICTE approved Institutions with overall minimum 50% marks in aggregate or equivalent CGPA (minimum 45% marks in aggregate or equivalent CGPA for SC/ST candidates) preferably with valid GATE Score.

(vii) Software Engg.:

B.E./ B.Tech or its equivalent in Computer Science & Engg. / Information Technology/ Electronics Communication/ Telecommunication Engg.

Or

M.Sc. in Computer Science/ Information Technology/ Electronics.

Or

Master of Computer Applications

4.1   The courses of study and the subjects of examination in each semester, shall be as approved by the Academic Council from time to time.

4.2   Each academic programme will have a certain number of credits which will reflect its weightage. A student's performance/progress will be measured by the number of credits that he/she has completed satisfactorily. (The detailed rules/guidelines for implementation of Credit System of study and award of Grades are at Appendix-II of K.U. Cal. Vol.II.).

4.3   All evaluations of different components of course shall be done in marks for each student. The marks of various components shall be reduced to approved weightage, as decided by the Staff Council and/or indicated in the scheme of examination and added to get total marks secured on a 100 point scale. A minimum Grade Point Average will be required to be maintained for satisfactory progress. Also a minimum number of earned credits shall have to be acquired in order to qualify for the degree.

4.4   Credits of a course will be evaluated as under:-

(a)   For all lecture courses, one credit per lecture per week (Semester-wise) will generally be adopted.

(b)   One laboratory hour per week (Semester-wise) will be assigned half credit. Course with odd numbers of laboratory hours having fractional credits will be accepted. The courses having 1.5 hour Teaching schedule as per scheme of the course per week of 3 hours Teaching schedule alternate week will be rationalized to have integer number of contact hours per week so that fraction smaller than 0.5 are not involved in credit assignments of laboratory courses.

5.1   The grade awarded to a student in any particular course will be based on performance of the student in Minor Tests (best two out of three), Co-curricular activities (assignments, attendance, viva-voce, lab. work, seminar, workshop presentation, group discussions, quiz etc.) and Major Test at the end of semester. The distribution of the weightage will be as under or as approved by

the concerned Board of Studies and inserted in the relevant scheme of examination:-

> Minor Test (two best)   30% (15% each test)
> Co-curricular Activities 10%
> Major Test   60%

5.2   The Director/Chairperson of the Institute/Department concerned shall forward the soft as well as hard copies of the final awards of the Minor and Major tests of the students to the Examinations Branch.

5.3   The Examination Branch will prepare and declare the grade/ result and will notify.

5.4   End-Term examination (Major Test) shall be open to a regular student who:

(a) has been on the rolls of the Institute/Department during the semester.
(b) has his Examination form submitted in the office of the Institute duly countersigned by the Director of the Institute on the following certificates:
(i) of good character;
(ii) of having attended not less than 75% of the lectures in each paper, seminar, case discussion, field trips, tutorials, etc. This requirement shall be fulfilled separately for each course of study. A deficiency upto 10% may be condoned by the Director of the Institute in a very hard and deserving case.

6.1   The minimum percentage/grade of marks to pass the examination in each semester shall be:
(i)   Grade 'D' in each paper separately in Major test/ practical/ Seminar/Project Work/Dissertation and combined major test & minor test, where prescribed.
(ii)   SGPA of 4.00 in each Semester.
(iii)   Minimum CGPA of 5.00 for award of Degree.
        Provided that a candidate who fails in combined major test and minor test will have Re appear in the major test only and his minor test marks will be carried forward.

6.2   A candidate failing in minor test will not be allowed to re-appear in minor test. A candidate who fails in combined major test and minor test will have Re appear in the major test only and his minor test marks will be carried forward. A candidate who has failed in one or more paper(s) or fails to appear in End-Term Examination (ETE) shall be allowed two additional chances only to pass the ETE, subject to clause 8 below.

7.   The grading of academic performance will be as under:-

Academic Performance	Letter Grades	Grade Points (P)
Outstanding	A+	10
Excellent	A	9
Very Good	B+	8
Good	B	7
Average	C+	6
Below Average	C	5
Marginal	D	4
Poor	E	2
Very Poor	F	0
Audit Pass	AP	-
Audit Fail	AF	-
Incomplete Course	I	-
Incomplete Project/ Dissertation	X	-
Satisfactory (only for Dissertation)	S	
Unsatisfactory (only for Dissertation)	U	
Withdrawal (other than Dissertation)	W	
Non-Completion of Course Requirement and/or Training	Z	

Note: 1. Pass Grade is Grade 'D' or higher grade.
2. Grade 'E' and 'F' are fail grades.
3. Students detained for not fulfilling the requirement of attendance shall be given 'F' grade.

8.   If a candidate, has after attending the course of studies in the Institute/Department, did not appear or having appeared failed in one or more courses for any semester examination, he can appear for such course(s) at subsequent examination(s), when held, without attending a fresh course of studies for that semester in the Institute/Department. Such a candidate may, in the meantime, prosecute his studies for the next semester(s) and appear in the examination(s) for the same alongwith the examinations for the lower semesters(s).

Provided that a candidate shall complete all the requirements of the degree in a period not exceeding five years from the date of his joining the course.

9.   The medium of instruction and examination shall ordinarily be English except otherwise decided by the Board of Studies. The question paper will be set in English, except otherwise decided by the Board of Studies concerned and approved by Academic Council.

10.   The amount of examination/Dissertation fee to be paid by a candidate for each Semester shall be the same as prescribed by the University from time to time.

A candidate, who re-appears in one or more paper(s)/practical(s)/ Semester(s) for the purpose of passing, shall pay fee as for the whole examination.

11.   A candidate who has passed the Theory Papers and Practicals of Part-I Examination, has submitted the Project, if any, and produces a certificate from his Supervisor that he has worked for Dissertation for at least one semester shall be allowed to submit one copy of his Dissertation.

       Provided that a candidate who completes the Part-I examination may, on the recommendation of the Supervisor, be allowed to pursue his dissertation work at his place of employment, if the facility for the work exists there.

12.   The topic of research project, wherever applicable will be approved by the Departmental Committee which will comprise of Director/Chairman and two senior most teachers of the department/Institute. The evaluation will be done by the examiners recommended by BOS. The candidate shall be required to submit three copies of research project before the commencement of End term Examination of the relevant semester. The examination in Dissertation shall be carried out jointly by an internal (Supervisor) and External Examiner. If the dissertation is found suitable, the candidate shall have a Viva-Voce test by both the examiners and Director/ Chairperson of the Institute/ Department at a place and on the date notified by the Institute/ department.

Note: 1.   In case of a course being run in UIET, any faculty member in the Institute engaged in research work, evidenced by published work may act as a supervisor for the purpose of guiding Project/Dissertation subject to the area of interest of the candidate, evidenced by his synopsis/project proposal and approval of Director/ Chairperson of the subject concerned.

        2. Prior approval of the Director/ Chairperson of the subject concerned is essential before the official commencement of dissertation/project work. In case of external supervisor, the consent of the supervisor concerned alongwith approval of Head of concerned institution is mandatory.

       The procedure for evaluation and award of grades for Dissertation/Project/Training/ Seminar/ Comprehensive viva-voce shall be such as may be decided by the respective Departmental Result Committee (DRC).

    The Dissertation shall be presented before a Dissertation Viva-Voce Board consisting of the following, for evaluation :

   a) Director/Chairperson of Institute/ Department.
   b) One member of Departmental Research Committee.
   c) Supervisor(s).
   (d) External subject expert(s) in case of candidate of UIET.

13. A candidate who fails in the Dissertation shall be allowed to revise and resubmit it for fresh assessment not earlier than six months and not later than one year from the date of his failure. If the candidate fails in the Dissertation even at the second attempt, he shall be deemed to have failed in the whole examination.

14. Dissertation in the faculty of Engineering should present an orderly and critical exposition of the existing knowledge of the subject and/or embody original investigation carried out by the candidate, in an orderly manner. The candidate should lay down in his dissertation clearly the work done by him as an original investigation and the source from which he has obtained other information contained in his dissertation. The dissertation should demonstrate that the candidate has been trained in research work and is in a fit condition to take up fruitful research on his own.

15. Each successful candidate shall receive result card on having passed the semester examination.

16. Notwithstanding the integrated nature of this course which is spread over more than one academic year, the Ordinance in force at the time a student joins the course shall hold good only for the examination held during or at the end of the year and nothing in this Ordinance shall be deemed to debar the University from amending the Ordinance, and the amended Ordinance, if any, shall apply to all students whether old or new.

Transitory provision

Candidates admitted to the Master of Technology (M.Tech.) Instrumentation under Semester System (non Credit based) in the academic session 2006-07 or earlier shall be governed by the old rules.