



SRM
INSTITUTE OF SCIENCE & TECHNOLOGY
(Deemed to be University u/s 3 of UGC Act, 1956)

ACADEMIC REGULATIONS-2020

**MASTER OF
COMPUTER APPLICATIONS
(M.C.A)**

Two Years (Full-Time)

Learning Outcomes based Curriculum Framework

(LOCF)

FACULTY OF SCIENCE AND HUMANITIES

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

(Deemed to be University u/s 3 of UGC Act, 1956)

**Kattankulathur, Chengalpattu District 603203,
Tamil Nadu, India**

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SRM INSTITUTE OF SCIENCE AND TECHNOLOGY
Kattankulathur, Chengalpattu District 603203, Tamil Nadu, India
Academic Regulations 2020

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MASTER OF COMPUTER APPLICATIONS REGULATIONS – 2020

(For Students admitted from the academic year 2020-2021 onwards)

The regulations for the M.C.A., Degree program is prepared with the recommendation, guidelines and directions from the National Knowledge Commission, University Grants Commission (UGC) and All India Council for Technical Education (AICTE) on:

- (a) Learning Outcome Based Curriculum Framework (LOCF) by UGC
- (b) Choice Based Credit System (CBCS) by UGC
- (c) Evaluation Reforms in Higher Education Institutions in India by UGC
- (d) Examinations Reform Policy by AICTE

In addition to the above documents, the best practices of SRMIST such as promoting enhanced learning and research capabilities through (a) Critical Thinking (b) Problem Solving (c) Analytical Reasoning (d) Scientific Reasoning (e) Reflective Thinking (f) Design thinking etc., are integrated into the Curricula.

Preliminary Definitions and Nomenclature

In these regulations, unless the context otherwise requires:

- i. **'Degree'** means that academic award conferred upon a student on successful completion of a two-year programme designed to achieve the defined attributes. It is referred to as Master of Computer Applications (M.C.A) Degree.
- ii. **'Programme'** means cohesive arrangement of courses, co-curricular and extracurricular activities to accomplish predetermined objectives leading to the awarding of M.C.A degree that is Master of Computer Applications.
- iii. **'Course'** means a combination of theory, tutorials and practice sessions of a subject studied in a semester, like Mathematics, Physics, etc.

R.1.0 Admission

R.1.1 **Number of Seats:** The number of seats in Master of Computer Applications (M.C.A) programme for which admission is to be made in the Faculty of Science and Humanities will be decided by the Board of Management of SRM Institute of Science and Technology.

R.1.2 **Minimum Eligibility for Admission:** The minimum qualification for admission to M.C.A degree programme (Regular) shall be mentioned as recognized by SRMIST as follows:

A) Passed BCA / B.Sc. in Computer Science / B.Sc. in Information Technology / B.Sc in Computer Technology / Bachelor Degree in Computer Science Engineering or equivalent Degree from a University recognized / certified by UGC / SRMIST / AIU

OR

B) Passed B.Sc. / B.Com. / B.A. from University recognized/certified by UGC / SRMIST / AIU with Mathematics at 10+2 Level or at Graduation Level.

C) The Minimum Percentage of Marks / CGPA prescribed by SRMIST.

D) Notwithstanding the above, actual Admissions will also be based on the rules and regulations of the UGC / AICTE / Competent authorities.

R.1.3 **Medical Standards for Admission:** Candidates have to fulfill the medical standards required for admission as set out by the Admission Committee.

R.1.4 **Fees Structure:** The selected candidate will be admitted to the Master of Computer Applications programme after he/she pays the prescribed fees.

R.1.5 **Authority for Admission:** In the matter of admission to the Master of Computer Applications, the decision of the Admission Committee is final.

R.1.6 **Revoking Admission:** If, at any time after admission, it is found that a candidate has not fulfilled all the requirements stipulated in the offer of admission, the concerned Head of the Institution may revoke the admission and report the matter to the Vice Chancellor.

R1.7 **Academic Calendar:** M.C.A. Programme would be conducted only on an Academic Calendar (typically starting July/August of a year to April/May in the subsequent year).

R.2.0 Structure of the Master of Computer Applications (M.C.A) Programme

R.2.1 **Applicability of this Regulation:** These regulations are applicable to M.C.A Programme offered from the Academic Year 2020 – 21.

R.2.2 **Category of Courses:** The complete Master of Computer Applications (M.C.A) programme of study will consist of 7 categories of courses distributed over four semesters with two semesters per year as listed below:

Sr. No.	Category Code	Course Category and Description
1	C	Professional Core Courses: Core Courses corresponding to the branches of study, will include the major discipline oriented compulsory courses to be studied in M.C.A program.
2	D	Discipline Elective Courses: The department offers specialized courses of their own discipline as electives.
3	G	Generic Elective Courses:

Sr. No.	Category Code	Course Category and Description
		Generic courses are specialized courses offered as Elective Courses.
4	S	Skill Enhancement Courses: Skill enhancement courses include courses that enhances students' technical skill.
5	P	Project Work: Project Work, Internship In Industry or Research Institutions.
6	AE	Ability Enhancement Courses: Courses enable to improve the reasoning skills and mental skills.

R.2.3 **Outcome Based Education:** The Master of Computer Applications follows the Outcome Based Education (OBE) guidelines and has well defined:

1	Program Educational Objectives (PEO)
2	Program Learning Outcomes (PLO) which includes Program Specific Outcomes (PSO)
3	Mission of the Department to Program Educational Objectives (PEO) Mapping
4	Program Educational Objectives (PEO) to Program Learning Outcomes (PLO) Mapping
5	Structure of Master of Computer Applications (M.C.A)
6	Categorization of Courses (for all two years)
7	Program Articulation Matrix (for all three years)

and, every course has well defined:

1	Course Learning Rationale (CLR)
2	Course Learning Outcomes (CLO) – (Outcome based Objectives)
3	Learning Plan with session-wise Session Learning Outcomes (SLO)
4	Learning Assessment Scheme
5	Course Designer Details

These details are proposed by the respective Board of Studies and approved by the SRMIST Academic Council.

R.2.4 **Learning Curriculum:** Master of Computer Applications have a learning curriculum comprising of appropriate combinations of learning from Lecture, Tutorials and Practice sessions.

R.2.5 **Learning Credits:** Learning Credits are earned by the learner based on the following pattern:

Learning Environment	Learning Credit (C)
1 Hour* Learning from a Lecture Session per week (L)	1
1 Hour* Learning from a Tutorial Session per week (T)	1
1 Hour* Learning from a Practice Session per week (P)	0.5

(*1 Hour of Learning is usually a 50-60 minute period)

R.2.6 **Curriculum and Course Content Approval:** M.C.A programme will have a curriculum and course content (syllabi) proposed by the Boards of Studies and approved by the Academic Council.

R.2.7 **Minimum Learning Credits for the award of Degree:** The curriculum of any branch of the M.C.A programme is designed to have a minimum of **80 credits** for the award of the M.C.A degree.

R.2.8 **Medium of Instruction:** The medium of instruction, examination and project reports will be English.

R.2.9 **Massive Open Online Courses (MOOCs)**

SRMIST strongly encourages the use of SWAYAM (Study Web of Active Learning by Young and Aspiring Minds) platform. The students are encouraged to choose any elective course from SWAYAM on the recommendation of the faculty advisor and the credits will be transferred. Administering of MOOCs will be through separate MOOCs Guidelines.

R.2.10 **Internship and Project**

(A) Internship: Students shall undergo Internship (either in an Industry [or] Industrial setting [or] in a Research Centre [or] in a Laboratory within SRMIST) for duration of 4 to 6 weeks during the summer vacation after II semester. At the end of the internship, the student shall submit a report and make a presentation which will be assessed by a committee constituted for this purpose by the head of the department.

(B) Minor Project: Students who wish to do a Minor Project instead of an Internship may be duly guided and assessed by a Faculty member in the respective department. This minor project work will be completed within the III semester.

Project Work (Phase-I & Phase-II): Project Work shall be done by the student either:

- a) in any of the Funded Projects / Research Centers / Incubation Centers within SRMIST [or]
- b) within the Department Labs under the guidance of a Research Supervisor[or]
- c) in an Industry / Industrial setting /Research Centre outside SRMIST duly approved by the Department Project Work Committee.

After completion of the Project Work, the student shall submit a Report/Dissertation/Thesis and make a

presentation which will be duly assessed by the Department Project Work Committee.

R.3.0 Registration / Enrollment for courses

- a. The process of signing up for courses is called registration. Students are enrolled after they pay the prescribed fees. For a student to attend classes he/she has to complete both registration and enrollment.
- b. All students shall formally register for the courses in every semester to undergo course work.

R.3.1 Course Enrolment Requirements: Enrolment for all courses prescribed as per the curriculum is mandatory.

- a. Registration of any course will be controlled by the concerned Head of the department.
- b. The registration sheet contains the course number, course name, number of credits and category for each course taken in that semester. The student will make the choice of courses on his own or in consultation with his/her Faculty Advisor.
- c. For the first semester registration shall be completed within a week prior to the commencement of classes.
- d. For all other semesters, the registration will be done during a specified week immediately after the end-semester examination of the previous semester.
- e. Late enrolment would not be encouraged. In case of a late enrolment, special permission is required from the respective Heads of Department and should be done not later than two weeks from the commencement of classes.

R.3.2 Break in Studies: A student will not be allowed to enroll for current semester and has to undergo a year of break in studies if he/she:

- a. Has been 'Debarred from study' due to any stipulated reason in the previous semester.

- b. Has any 'Pending Disciplinary Actions' against him/her from the previous semesters

During the Break of Studies, a student:

- i. Cannot attend any regular classes
- ii. Will not be permitted to stay in the 'Hostel' facility provided by SRMIST
- iii. Will not be permitted to participate in any of the SRMIST's activities inside the campus.
- iv. Can register for 'Compensatory courses' for such courses in which he/she might have obtained an 'I' grade.
- v. Can reappear for the 'End Semester Final Examination' for such courses in which he/she might have obtained 'F' / 'Ab' grade.

R3.3 Enrolment After Break in Studies: A student who undergoes a break in studies in the current semester (odd/even) can 'Enroll Back to Study' into the Programme only in the subsequent corresponding (odd/even) semester in the next academic year. And 'Enroll Back from Study' is subject to the approval from Head of the Institution.

R.3.4 Eligibility for Enrolment: A student will be eligible for enrolment only if he/she satisfies the enrolment requirement specified in R.3.0 and will be permitted to enroll only if he/she has cleared all dues to the SRMIST, Hostel, Library, NCC etc. up to the end of the previous semester, provided he/ she is not debarred for enrolment as a result of any disciplinary action of the SRMIST.

R.4.0 Maximum Duration of the Programme

R.4.1 Semester Duration: Each semester shall normally consist of 75 working days or 450 hours. A student is ordinarily expected to complete the M.C.A programme in **FOUR** full-semesters for regular programme. However a student may complete the programme at a slower pace by taking more time but in any case not more than

EIGHT semesters. This mentioned time duration is counted excluding semesters withdrawn on medical grounds etc as per R.5.1.

R.5.0 Temporary Break of Study from a Programme

R.5.1 **Temporary Break:** A student may be permitted by the Head of the Institution to withdraw from the programme for a semester or longer for reasons of ill health or other valid reasons. Normally a student will be permitted to discontinue from the programme only for a maximum continuous period of two semesters or the aggregate of individual discontinuation not exceeding two semesters. He/she shall apply to the Head of the Institution in advance but not later than the last date of registering for the end semester examinations of the year in question. Such applications should be routed through the Head of the department and the Head of the institution stating the reason for break of study.

R.5.2 **Rejoining after temporary Break:** The Candidate who intends to rejoin the programme after the break shall submit rejoin application in the next academic year through the Head of the department and the Head of the institution.

R.5.3 **Rules Governing:** The Candidate who rejoins after the break shall be governed by the rules and regulations in force at the time of rejoining.

R.5.4 **Change in Duration:** The duration specified for passing all the courses for the purpose of classification vide shall be increased by the period of such break of study permitted.

R.5.5 **Period of Study:** The total period for completion of the programme should be reckoned from the commencement of the first semester to which the candidate was admitted and shall not exceed the maximum period specified in clause R.4.0 irrespective of the period

of break of study in order that he/she may be eligible for the award of the degree.

R.5.6 **Detention Cases:** If any student is detained for want of requisite attendance, progress and good conduct, the period spent in that semester shall not be considered as 'Break of Study' and this clause is not applicable for the detention cases

R.6.0 **Academic Advising:**

R.6.1 **Academic Assistance:** In order to provide academic assistance and individualized attention to students, different levels of advising/attention will be provided by three types of officers. (1) Academic Class Advisors (2) Student Counsellor (3) Faculty Advisors

Academic Class Advisors: For every class (comprising of sections), an Academic Class Advisor would be allocated to help the student evaluate and realize educational and career options. In all of these matters, the Academic Class Advisor or the advisement team must judge whether the student's request is in order, is in the student's best interest, and is feasible under existing regulations.

R.6.2 **Faculty Adviser:** To help the students in planning their courses of study and for getting general advice on the academic programme, the concerned Department will assign for every class a faculty member who will be called the Faculty Adviser.

R.6.3 **Student Counselor:** In order to motivate the students personally and provide counseling on academic and non-academic matters, a faculty member called Student Counselor shall be assigned.

R.7.0 Discipline

R.7.1 **Expected Conduct and Discipline:** Every student is required to maintain discipline and decorum behavior both inside and outside the SRMIST campus and not to indulge in any activity that will tend to bring down the prestige of the institution.

R.7.2 **Act of Indiscipline:** Any act of indiscipline of a student is first to be considered by the Discipline and Welfare Committee of the Department for necessary action. If the issue demands more serious consideration, the act of indiscipline will be reported to the The concerned Head of the Institution, and he will refer it to the Discipline and Welfare Committee of the SRMIST, constituted by the Vice Chancellor.

R.7.3 **Enquiry:** The Committee will enquire into the charges and recommend suitable action if the charges are substantiated. The concerned Head of the Institution will take appropriate action on the recommendation of the Discipline and Welfare Committee.

R.7.4 **Suspension:** The concerned Head of the Institution may suspend a student pending inquiry depending upon the prima facie evidence.

R.7.5 **Appeal:** The student may appeal to the Vice Chancellor whose decision will be final and binding.

R.8.0 Attendance

R.8.1 **Attendance Definition:** Attendance is the physical presence of the student in the class. It is a well-observed fact that the students who score good grades are those who attend classes and participate in all the assigned learning activities in the class / laboratory / field work regularly. Therefore, the students must strive to attend all the classes and sincerely participate in all the assigned learning activities without fail.

- R.8.2 **Attendance Marking:** Every teaching staff member handling a class will take attendance till the last instruction day in the semester.
- R.8.3 **Minimum Attendance:** A student must maintain an attendance record of at least 75% in all courses added together. Without the minimum attendance of 75%, students become ineligible to write the end semester examination. The students must strive to attend all the classes without fail. However, the minimum attendance requirement of 75% allows a student the facility to use the balance 25% to account for illnesses, permitted assignments such as job interviews, inter-university sports meets, inter-collegiate/inter-university competitions, accidents, unforeseen emergencies etc. An attendance of 75% is considered to be the minimum required for a student to get just enough input on the course syllabus through class room contact hours to make him/ her eligible to appear in the end semester examination.
- R.8.4 **Attendance Shortage and Examination:** The teacher shall announce the particulars of all students who have attendance less than 75% in the class. Copies of the same should also be sent to the concerned Head of the Institution, and Heads of Departments concerned. The students who have less than 75% attendance will not be permitted to appear in end semester examination.
- R.8.5 **Condonation of Attendance:** In rare and genuine cases, a committee consisting of the concerned Head of the Institution and Head of the concerned Department will examine the case and recommend suitably to the Vice Chancellor, who may give condonation of attendance in deserving cases, but not more than 10%.
- R.8.6 **Repeating semester:** Those students who have not deemed to have completed the semester with reference to the conditions specified above (R.6.4) shall repeat that semester in the next academic year by following the readmission/rejoin procedure.

R.9.0 Class Committee

R.9.1 **Class Committee:** Every class (comprising of sections) of the Undergraduate programme will have a Class Committee consisting of Faculty and Students. The class committees for the Department programme of each semester will be constituted by the Head of the concerned Department.

R.9.2 **Constitution of the Class Committee:** The constitution of the Class Committee for the Department programmes of each semester will include the following members:

- a. All teachers handling the Courses
- b. Four students from the class to be chosen by the students of the class.
- c. Faculty Adviser(s) of the respective class.
- d. One senior faculty, preferably an Assistant Professor of the concerned Department and not associated with teaching of the class, to be nominated by the concerned Head of the Department, to act as the Chairperson of the Class Committee.

R.9.3 **Responsibilities:** The basic responsibilities of the Chairperson of the Class Committee:

- a. To review periodically the progress of the classes.
- b. To discuss problems concerning curriculum and syllabus, the conduct of the classes as well as non-academic issues concerning students.
- c. To define the method of assessment in the courses in consultation with class committees and announcing to the students at the beginning of the semester.
- d. To organize the class committee meeting atleast twice a semester, one at the beginning of the semester and one after the second cycle test.
- e. To prepare the minutes of the meeting with the assistance of faculty advisers and duly signed by the HOD, sent the same to

the concerned Head of the Institution within 7 days from conduct of the meeting. The minutes shall also be circulated to the class committee members and displayed in the notice board.

R.10.0 Learning Assessment Procedure

R.10.1 **Assessment Design:** The learning of a student is assessed and evaluated in-house by the course facilitating faculty member/ department except in the case of project work where an external examiner shall be nominated for conducting the viva voce. All assessments are designed based on Revised Bloom's Taxonomy levels of thinking and learning.(Anderson, Lorin W, Krathwohl, David R, "A Taxonomy for Learning, Teaching and Assessing: a revision of Bloom's Taxonomy", Longman Publishing, New York, 2001)

R.10.2 **Types of Learning Assessments:** The student's learning in each course, in general, is assessed (formative) and evaluated (summative) based on in-semester continuous learning assessment (internal assessment) and end-semester final examination. An in-semester continuous learning assessment (also known as internal assessment / comprehensive assessment) is spread through duration of the course and is done by the faculty member facilitating the course. In order to verify the different skills acquired in a student, the continuous learning assessments are (as appropriately) performed through:

- a) Oral Learning Assessments
- b) Written Learning Assessments
- c) Demonstrative Learning Assessments

The end-semester final examination shall have learning assessments from the following perspectives with respect to all courses:

- a) Evaluation with respect to knowledge
- b) Evaluation with respect to Understanding

- c) Evaluation with respect to skill
- d) Evaluation with respect to Applications and/or
- e) Higher Order Thinking Skills

R.10.3 **Learning Assessment Weightage:** The learning assessment weightage in percentages for every course is provided for each course in the respective course syllabus, and follows the template:

Level	Blooms Level of Thinking	Continuous Learning Assessment (50% weightage)								Final Examination (50% weightage)	
		CLA-1 (10%)		CLA-2 (10%)		CLA-3 (20%)		CLA-4 (10%)		Theory	Practice
		Theory	Practice	Theory	Practice	Theory	Practice	Theory	Practice		
1	Remember	%	%	%	%	%	%	%	%	%	%
	Understand	%	%	%	%	%	%	%	%	%	%
2	Apply	%	%	%	%	%	%	%	%	%	%
	Analyze	%	%	%	%	%	%	%	%	%	%
3	Evaluate	%	%	%	%	%	%	%	%	%	%
	Create	%	%	%	%	%	%	%	%	%	%
Total		100 %		100 %		100 %		100 %		100 %	

Note: For a Pure Theory Course, the Practice Part would be zero and similarly for a Pure Practice Course, the theory part would be appropriately zero.

- a) The ratio between Continuous Learning Assessments and Final Examinations for all courses is 50:50.
- b) A student should definitely attend the Final Examination to be eligible to “Pass” the course.
- c) For a student to PASS in a course, he/she has to score a minimum of 50% marks in aggregate.

- d) For the Theory Part of a course or a pure theory course; Continuous Assessments CLA-1 (normally in two learning units / modules or as prescribed by the Course Coordinator), CLA-2 (in two learning units / modules not covered in CLA-1 or as prescribed by the Course Coordinator) and CLA-3 (in all the five learning units / modules) are generally conducted as Written Tests of duration 90 minutes, 90 minutes and 180 minutes respectively each and the final examination is conducted for 180 minutes.
- e) For the Practice Part of a course or a pure Practice course; Continuous Learning Assessments CLA-1, CLA-2 and CLA-3 are generally conducted at periodic intervals, and for certain courses that need learning verification of oral and skill demonstrative abilities, there would be appropriate oral tests and tests for demonstrations, such as online aptitude tests, classroom activities, case studies, poster presentations, power-point presentations, mini talks, group discussions, mock interviews *etc.*
- f) CLA-4 is generally a combination from among one or more of these options:

Assignments	Surprise Tests	Seminars	Multiple Choice Quizzes
Tech. Talks	Field Visits	Self-Study	NPTEL/MOOC/Swayam
Mini-Projects	Case-Study	Group Activities	Online Certifications
Presentations	Debates	Conference Papers	Group Discussions

- g) Student learning from the theory and practice portions in a course shall be assessed by assigning a weightage of 50% for theory component and 50% for practical component. Grading shall be done for the consolidated mark.

- h) For the Practice Part (Laboratory/Practical) of a course or a pure Practicals (Laboratory/Practical) course; due weightage for carrying out experiments, such as observations, collection of data, analysis, interpretation of results, inferences and also timely submission of record work done would all carry due weightage based on the type of laboratories and the course and constitute the CLA-1, CLA-2, CLA-3. The nature of the end semester final examination shall be informed to the students at the commencement of the course.
- i) The Final examination (both theory and practice (Laboratory / Practicals) would be conducted only after the last working day of the semester.
- j) **Final Semester Project Work:** The projects undertaken as far as possible should be socially relevant. Projects can be carried out by individual students or by a group of students with a maximum of **THREE** students in a group.
- k) The assessment method for the project work consists of in-semester and end semester evaluations as detailed below:

	Continuous Learning Assessment (50% weightage)		Final Evaluation (50% weightage)	
	Review – 1	Review – 2	Project Report	Viva-Voce
Project Work / Internship	20%	30 %	30 %	20 %

R.10.4 Uniform Assessment for Fully internal Courses

The learning assessment weightage in percentages for fully internal courses is provided for each course in the respective course syllabus, and follows the template:

Level	Blooms Level of Thinking	Continuous Learning Assessment (100% weightage)							
		CLA-1 (20%)		CLA-2 (20%)		CLA-3 (30%)		CLA-4 (30%)	
		Theory	Practice	Theory	Practice	Theory	Practice	Theory	Practice
1	Remember	%	%	%	%	%	%	%	%
	Understand	%	%	%	%	%	%	%	%
2	Apply	%	%	%	%	%	%	%	%
	Analyze	%	%	%	%	%	%	%	%
3	Evaluate	%	%	%	%	%	%	%	%
	Create	%	%	%	%	%	%	%	%
	Total	100 %		100 %		100 %		100 %	

Note: For a Pure Theory Course, the Practice Part would be zero and similarly for a Pure Practice Course, the theory part would be appropriately zero.

R.11.0 Registration for End Semester Examination

R.11.1 **Exam Registration:** Registration for End semester Examination is mandatory for all courses.

R.11.2 **Conduct of examinations:** The examinations at the end of the particular semester will be conducted for the courses of all odd and even semesters. For all theory courses, Question papers will be set by external or internal examiners.

- R.11.3 **Award of Course Grade:** A student should have appeared for the end-semester examination of the prescribed course of study to become eligible for the award of the grade in that course.
- R.11.4 **Examiners:** For all theory courses, question papers will be set by external or internal examiners and valued by one external and one internal examiner. If the difference is 0 to 10 marks, average mark shall be considered for final result. If the difference in the valuation is more than 10 marks, third valuation will be taken. In the case of third valuation, the average of the nearest two valuations shall be considered for final result. For all practical courses including project work, viva voce will be conducted by internal and / or external examiners appointed by the institution.
- R.11.5 **Maximum Marks:** The maximum marks for any course (theory or practical excluding project work) will be 100 comprising of 50 marks for internal assessment and 50 marks for the end semester examinations.
- R.11.6 **Marks for project work / Internship:** For project work / Internship, the total marks will be 100 comprising of 50 for in-semester assessment and 50 for end-semester assessment. Project viva board constituted by Head of the Department will evaluate the dissertation and conduct viva-voce examination.
- R.11.7 **End-semester Assessment – Question Pattern**
Time: 3 hours and Max Weightage: 50 %.
- A. Pattern of Question Paper (Theory)**
- Section-A (5 x 5= 25 Marks) – Consists of 8 questions out of which 5 questions to be answered. One question from each CLO (1 to 5) and three questions from any three CLOs having higher weightage
 - Section-B (5 x 15 = 75 Marks) - Consists of 5 questions of either or pattern from each CLO (1 to 5).

- Number of questions shall follow a normal distribution of Blooms Level of Thinking as mentioned under Learning Assessment.

B. Pattern of Question Paper (Practical)

Time: 3 hours and Max Weightage of Marks: 50.

- i. The External Examiner will set a question paper after discussing with the Internal Examiner (Selective Courses).
- ii. The External Examiner will conduct viva voce based on the record work submitted by the student.
- iii. Marks secured by the candidate will make the aggregate 100, while adding with continuous In-semester Assessment 50.

R.11.8 Passing Requirement: A student who secures not less than 50% of total marks prescribed for any course with a minimum of 50% of the marks prescribed for the end semester examination shall be declared to have passed in the examination for that course.

R.11.9 Procedure in Event of Failure/Absent

R.11.9.1 Students who have secured 'F'(Fail) / 'Ab' (Absent) grade in a particular course (Other than project work) can reappear when the end semester examination for that course is conducted during the subsequent semesters. He / She should continue to register and reappear for the examination till he/she secures a pass grade.

R.11.9.2 The first attempt is that which corresponds to the first registration for the course. If a student gets 'F' or 'Ab' in an attempt that is treated as an attempt.

R.11.9.3 However, if a student obtains 'F'(Fail)/'Ab' (Absent) grade in a course in the first two attempts, from the third attempt onwards, full weightage (100%) shall be assigned to marks scored in the end semester examinations and the internal assessment mark that student scored during the regular course of study will be ignored.

R.11.9.4 In the event of failure in project work, the student will re-register for project work and redo the project work in subsequent semester and resubmit the dissertation a fresh for final evaluation. The internal assessment marks will be freshly allotted- in this case.

R.11.9.5 If a course has theory and practice components combined, then the student shall appear in the end-semester examination for both theory and practical components duly.

R.11.9.6 A student who obtains F' (Fail) / 'Ab' (Absent) grade in a Purely internal assessment course will have to enroll and continue the course in the subsequent semesters till he/she secures a pass grade.

R.11.9.7 All applicable fees charged for the purpose of examination will apply for re-appearance courses as well.

R.12.0 Course Wise Grading of Students

R.12.1 Letter Grades and Grade Points (GP)

Letter Grades and Grade Points (GP) are earned by the student for each course based on the aggregate of marks obtained through continuous learning assessments and end-semester final examination. The letter grades and the corresponding grade points, as recommended by UGC, are as follows:

Letter Grade	Grade Points	Range of Marks
O (Outstanding)	10	91 to 100
A+ (Excellent)	9	81 to 90
A (Very Good)	8	71 to 80
B+ (Good)	7	61 to 70

B (Above Average)	6	56 to 60
C (Average)	5	50 to 55
F (Fail)	0	< 50 Failure due to insufficient marks in the course
Ab (Absent)	0	Failure due to non-appearance in examination

R 12.2 **Mandatory non-credit courses:** For mandatory non-credit courses only 'PASS' shall be indicated instead of the letter grade and this will not be counted for the computation of SGPA/CGPA.

R 12.3 **Successful completion:** A Student is considered to have successfully completed a course and earned the credits if he/she secured a letter grade other than **F** or **Ab** in that course. A letter grade **F** or **Ab** in any course implies a failure in that course. A course successfully completed cannot be repeated.

R12.4. Grade Sheet: The grade Sheet issued by the Controller of Examinations to each student, after the announcement of the results will contain the following:

- A. The credits for each course registered for that semester,
- B. The letter grade obtained in each course
- C. The total number of credits earned by the student up to the end of that semester in each of the course categories
- D. Semester Grade Point Average (SGPA) of the current semester
- E. The Cumulative Grade Point Average (CGPA) of all the courses taken from I semester onwards for regular students.

R12.5 Computation of Semester Grade Point Average (SGPA) and Cumulative Grade Point Average (CGPA)

- (i) The SGPA will be calculated according to the formula

$$SGPA = \frac{\sum_1^n C_i X(GP)_i}{\sum_1^n C_i}$$

Where C_i = credit for the i^{th} course, $(GP)_i$ = the grade point obtained for the i^{th} course (refer R.15.1 / R.15.2), n = total number of courses and the sum is over all the courses taken in that semester, including those in which the student has secured 'F' and 'Ab' grades.

- (ii) For the cumulative grade point average (CGPA) following formula is used:

$$CGPA = \frac{\sum_1^r S_i \times (SGPA)_i}{\sum_1^r S_i}$$

where S_i = Sum of credits in i^{th} semester, $(SGPA)_i$ = Semester Grade Point Average earned in i^{th} semester and r = number of semesters and the sum is over all the semesters under consideration.

- (iii) The SGPA and CGPA shall be rounded off to 2 decimal points and reported in the transcripts.

R.12.6 Classification of the Degree Award:

Class / Distinction will be awarded to the students after they successfully complete the Under-graduate programme as per norms given in the following table:

Category	CGPA (From I-IV semesters)	Class
Students who successfully complete M.C.A Programme within the time duration of 4 semesters.	≥ 5.0 & < 5.5	Third Class
	≥ 5.5 & < 6	Second Class
	≥ 6 & < 8	First Class
	≥ 8 (without F or Ab or temporary withdrawal in any semester)	First Class with Distinction

Category	CGPA (From I-IV semesters)	Class
	≥ 8 (with F or Ab in any semester but obtained pass grade (O to C subsequently)	First Class
Students who cannot complete M.C.A Programme in 4 semesters but complete it successfully within the time duration of 5 semesters	≥ 5 & < 5.5	Third Class
	≥ 5.5 & < 6	Second Class
	≥ 6	First Class
Students who cannot complete M.C.A. Programme in 5 semesters but complete it successfully within the time duration of 8 semesters	≥ 5 & < 5.5	Third Class
	≥ 5.5	Second Class

R.12.7 Academic Dishonesty: When a student is found responsible for a violation of the SRMIST code of conduct pertaining to academic dishonesty (Malpractice in Examinations), the Office of Controller of Examinations will initiate action based on the pre-approved procedures. Appropriate penalty or punishment will be awarded to the student and communication sent to the concerned Head of the

Institution. The matter will be informed to the student's parents/guardian duly.

R.13.0 Eligibility for the Award of the Degree

R.13.1 **Award of Degree:** A Student shall be declared to be eligible for the award of the M.C.A Degree provided if,

- a) Registered and successfully completed the courses and projects as per the curriculum and obtaining an aggregate of **learning credits totaling 80**.
- b) The student has successfully completed the course requirements and has passed all the prescribed examinations in all the four semesters within a maximum period of **FOUR** years reckoned from the commencement of the first semester to which candidate was admitted.
- c) No disciplinary action is pending against the student.

R.14.0 Deviation in Procedure: Whenever there is a deviation from procedures as warranted by the unique nature of the course, the same will be specified by the concerned Course Coordinator and approved by the concerned Head of the Institution.

R.15.0 Revision of Regulation and Curriculum

The Institution may from time to time revise, amend or change the regulations, scheme of examinations and syllabi as found necessary with the approval of the Academic Council of SRMIST.
