

MAHARAJA INSTITUTE OF TECHNOLOGY MYSORE

Autonomous Institute, Affiliated to Visvesvaraya Technological University, Belagavi

(Approved by AICTE, New Delhi & Government of Karnataka)

Accredited by NBA & NAAC

Belawadi, Srirangapatna Taluk, Mandya – 571 477, Karnataka, India



2024 Scheme

Academic Regulations Governing the Degree of

Master of Computer Applications (MCA)

Under Outcome Based Education (OBE) and

Choice-Based Credit System (CBCS)

Scheme Effective from the Academic Year 2024-25

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PREAMBLE:

The quality of Technical Education depends on many factors, but largely on Outcome-based socially and industrially relevant curriculum, good quality motivated faculty, teaching learning process, effective industry internship and evaluation of students based on desired outcomes. To regulate, in an orderly manner, the process of admission, registration of students, conduct of classes, teaching-learning, Assessment, Evaluation and Grading processes to award Master of Computer Applications degree in the institute, with due consideration to the NEP-2020 policy, and applicable Regulations of UGC and AICTE, in exercise of the powers conferred under clause (j) of Section 12 read with clauses (f) and (g) of sub-section (1) of Section 26 of the University Grants Commission Act, 1956, the Institute hereby makes the following Regulations.

1. SHORT TITLE, APPLICATION AND COMMENCEMENT

- 1.1 These Regulations may be called the Maharaja Institute of Technology Mysore (An Autonomous Institution affiliated to Visvesvaraya Technological University, Belagavi) Regulations, 2024, for the Award of Master of Computer Applications Degree (MCA).
- 1.2 They shall come into force with effect from the date of their notification by the Institute.
- 1.3 These Regulations shall be applicable to the batch of students admitted from the academic year 2024-25 and later and will be in force until revised or withdrawn by a notification.

2. DEFINITION OF KEY WORDS

In these Regulations, unless the context otherwise requires:

- 2.1 Act:** The Visvesvaraya Technological University Act 1994 Including the Amendments Thereon.
- 2.2 University:** Visvesvaraya Technological University (VTU), Belagavi.
- 2.3 Institute:** Maharaja Institute of Technology Mysore, an Autonomous Institution under the University.
- 2.4 Principal:** The Head of the Institute.
- 2.5 Dean:** Dean-Academics of the institute
- 2.6 Teacher:** A member of the regular faculty at the levels of Professor, or Associate



Professor, or Assistant professor, and includes adjunct faculty and faculty on a long-term contract of not less than three years.

2.7 Mentor: A Faculty Advisor allotted by the principal to guide about 15-20 students about their registration to the course and progression in the Program.

2.8 Program: A series of events / activities comprising of a combination of courses leading to the award of degree.

2.9 Notification: A notification issued by the concerned Statutory Officer of the Institute

2.10 Academic Year: Two consecutive semesters (odd followed by an even), including intervening periods constitute one Academic Year.

2.11 Semester: One of the two sessions of an Academic year, each session being of sixteen weeks duration (with not less than 90 working days). The odd and even semesters shall be as per the academic calendar of the institute.

2.12 Academic Calendar: The Calendar of events in respect of the Programme shall be as below.

Sl. No.	Action Plan	Registration of Courses	Course work	Preparati ons	Examinat ions	Declaratio n of Results	Total
1	Odd Semester	One week before the commencement of the semester	16 weeks	1 week	2 weeks	1 week	20 weeks
2	Vacation	2 weeks					2 weeks
3	Even Semester	One week before the commencement of the semester	16 weeks	1 week	2 weeks	1 week	20 weeks
4	Supplementa ry Exam	1 week					1 weeks
5	EDGE Semester (Empower, Develop, Grow, Excel)	7 weeks (1 week of Placement and Soft Skill Training; 2weeks of Short Term Training Program; and 4 weeks of Internship)					7 weeks
5	Vacation	2 weeks					2 weeks
Total Duration (Fifty-two weeks)							52 Weeks

2.13 Course: Usually referred to as 'subject' / 'paper' and is a component of a Program with defined learning objectives, course outcomes and number of credits. The course credits vary depending on the required teaching- learning hours to accomplish the learning outcomes, specified in the course syllabus. A Course may be designed to comprise lectures / tutorials / laboratory work / fieldwork / outreach activities / project work / vocational training / viva-voce / seminars / term papers / assignments /

presentations / self-study components, etc., or a combination of some of these.

2.14 Course Code: An alphanumeric code used to uniquely identify a course in the Programs offered in the institute.

2.15 Credit: A unit or weightage by which the amount of learning by a student is measured. It represents the number of hours of learning prescribed per week. The Credit distribution is based on the recommendations by the National Credit Framework (NCrF) in April 2023, AICTE in December 2023, and National Board of Accreditation for Tier I institutions in July 2024.

2.16 Credit Point: This is the product of grade point and number of credits for a Course.

2.17 Credit Representation: Refers to the Credit Values for different academic activities considered, as per Table 1. Credits for the Project phases, project viva-voce and internship shall be as specified in the Scheme of Teaching and Examinations.

Table-1: Credit Values

Courses with varying (L:T:P)				Credits (Total)
Lectures (L) (Hours/Week)	Tutorials (T) (Hours/Week)	Laboratory Work (P) (Hours/Week)	Credits (L:T:P)	
3	2	0	3:1:0	4
3	0	2	3:0:1	4
3	0	0	3:0:0	3
2	2	0	2:1:0	3
2	0	2	2:0:1	3
0	0	6	0:0:3	3
1	2	2	1:1:1	3
2	0	0	2:0:0	2
1	2	0	1:1:0	2
1	0	2	1:0:1	2
0	0	4	0:0:2	2
1	0	0	1:0:0	1
0	0	2	0:0:1	1
0	2	0	0:1:0	1
0	0	2	-	-

2.18 Choice-Based Credit System (CBCS): The education model refers to customizing the Coursework, Core, Professional Elective, Open Elective, Skill-based ability Enhancement Courses, Non-Credit mandatory Courses, and Internships to provide the necessary support for students to achieve their goals.

2.19 Course Registration: is a formal registration to Courses of study every semester by every student under the supervision of a Mentor (also called faculty Advisor, Counsellors) in the institute to maintain proper records. Registration on the Institute

portal is mandatory.

2.20 Course Evaluation: This represents the measurement of the impact of the teaching-learning process and offers an opportunity for improving the quality of learning in courses and teaching performance. Courses evaluation is done by adopting different methods such as tests, quizzes, and assignments etc., during the teaching-learning period at the end of some modules or chapters of syllabus contents and at the end of the semester. While the former part of evaluation is called CIE and the latter part of the evaluation is called Semester End Evaluation (SEE).

2.21 Continuous Internal Evaluation (CIE) (also known as Formative Assessment): Refers to the evaluation of student's performance in the course during the teaching-learning process. CIE shall be done by the faculty teaching course and evaluation components may include tests, assignments, group discussion, quizzes, course-specific projects, field surveys, Seminars, Alternate Assessment Tool (AATs), etc., conducted during the semester tenure with a weightage for different activities as specified by the Institute.

2.22 Semester End Examinations (SEE) (also called Summative Assessment): Refers to the examinations conducted by the Institute covering the entire syllabus. For this purpose, syllabi shall be modularized, and SEE questions shall be set from each module as specified by the Institute.

2.23 Cumulative Grade Point Average (CGPA): This is a measure of the cumulative performance of a student of all semesters and is computed from the 2nd semester onwards. It is a measure of the overall cumulative academic performance of a student over the entire span of the academic Program. CGPA is not an arithmetic mean but a weighted mean. It is also a number that lies between 0 and 10.

2.24 Semester Grade Point Average (SGPA): It is a measure of academic performance of a student in a semester. It is weighted average or weighted mean of the grade points obtained by a student in the various courses of any semester. It results in a number that lies between 0 and 10. It shall be expressed up to two decimal places.

2.25 First Attempt: A student who has studied in a semester and attended any one of the Semester End Examinations of that semester after satisfying attendance and CIE requirements of all the prescribed courses of that semester and has registered for SEE, such an attempt shall be considered the first attempt. Even if the student is absent for all the semester exams after registering for SEE. Such an attempt shall also be considered

the first attempt.

2.26 Grade Point (GP): Refers to a numerical weightage allotted to each letter grade on a 10-point scale against a range of percentage of marks secured by students in a course.

2.27 Letter Grades: Course Letter Grade (or simply letter grade or grade) is an index of performance of a student in a said course and refers to a qualitative measure of achievement of a student in each course, based on the percentage range of marks secured in CIE and SEE put together or CIE alone. Grades are denoted by letters O, A+, A, B+, B, C, P and F. The rubrics attached to letter grades are as follows: **O:** Outstanding, **A+:** Excellent, **A:** Very Good, **B+:** Good, **B:** Above Average, **C:** Average, **P:** Pass and **F:** Fail. Additional letter grades used under special circumstances are, **DX:** Attendance below 75%, **AU:** Satisfactory in Audit Course, **AB:** Absent for the Course, **PP:** Passed in Non-credit Course, **NP:** Not Passed in Non-Credit Course, **W:** Dropped/withdrawn.

2.28 Non-Credit Mandatory Courses (NCMC): In the case of NCMC, students shall attend the classes during the respective semesters to satisfy the attendance requirements as well as CIE requirements. In case, any student fails to register for the said course/ fails to secure the minimum of 40% of the prescribed CIE marks, he/she shall be deemed to have not completed the course. In such a case, the student has to fulfil the requirements during subsequent semester/s to appear for CIE. These Courses shall not be considered for CGPA calculation and vertical progression, but completion of the courses shall be mandatory for the award of a degree.

2.29 Passing Standards: Refers to passing a course only when GP is greater than or equal to 04.

2.30 Transcript, Grade Certificate and Grade Card: Grade card shall be issued to candidates indicating the Program details (Course Code, title, number of credits, grade secured and grade points) for all the registered courses after every semester. On successful completion of all courses/ earning credits, specified in a semester, the grade certificate is issued indicating the Program details along with SGPA of that semester and CGPA earned till that semester. Transcripts to the successful candidates shall be issued after completion of the Program.

2.31 Academic Bank of Credits (ABC): ABC is a National-level facility that will promote the flexibility of the curriculum framework and interdisciplinary/ Multidisciplinary academic mobility of students across the Higher Educational

Institutions in the country with an appropriate “Credit Transfer” mechanism.

2.32 Acronym: 24MCAX.X: 24-refers to the year of “Commencement” of the Regulations; MCA- refers to the “Governing Rules” for the “Award of Master of Computer Applications” degree; X.X- refers to the “clause” and “sub clause” number.

Regulations

24MCA1.0	Title, Duration and Credits of the Program of Study																		
24MCA1.1:	Title: The Program shall be called Master of Computer Applications abbreviated as MCA																		
24MCA1.2:	Minimum Duration: The Programme shall be a full-time program extended over a period of two academic years duration divided into four semesters and each semester shall be of 16 weeks induration.																		
24MCA1.3:	A Faculty/ Employee working on Full Time basis in an Institution/ Organization and pursuing/pursuing any Full-Time Course for the same duration as that of Regular Shift shall be considered as ineligible for the purpose of employment/ higher studies.																		
24MCA1.4:	Maximum Duration for Programme Completion: A candidate shall be allowed a maximum duration of 4 years from the first semester of admission to become eligible for the award of the Degree, failing which he/she may discontinue the program or register once again as a fresh candidate to I semester.																		
24MCA1.5:	Prescribed Number of Credits for the Programme: The number of credits to be completed for the award of the degree shall be 80. <u>Table 24MCA1.5: Credits distribution</u> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Course Category</th><th>Typical Credits</th></tr> </thead> <tbody> <tr> <td>Program Core Courses (Hard/Soft) (PC)</td><td rowspan="2">41</td></tr> <tr> <td>Humanities (HS) + Basic Science (BS)</td></tr> <tr> <td>Electives</td><td>9</td></tr> <tr> <td>PC-Laboratories</td><td>7</td></tr> <tr> <td>Mini Project</td><td>4</td></tr> <tr> <td>Project Work (PW)</td><td rowspan="2">17</td></tr> <tr> <td>Internship (IN)</td></tr> <tr> <td>Ability Enhancement Course</td><td>2</td></tr> <tr> <td>Total</td><td>80</td></tr> </tbody> </table>	Course Category	Typical Credits	Program Core Courses (Hard/Soft) (PC)	41	Humanities (HS) + Basic Science (BS)	Electives	9	PC-Laboratories	7	Mini Project	4	Project Work (PW)	17	Internship (IN)	Ability Enhancement Course	2	Total	80
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24MCA1.6:	Definition of Credits: 01-hour Lecture (L) per week per semester =1 Credit 02-hour Tutorial (T) per week per semester =1 Credit 02 hours of Practical/Laboratory (P) per week per semester =1 Credit. Note:																		

	(i) Four credit Courses are designed for 50 hours Teaching – Learning process. (ii) Three credit Courses are designed for 40 hours Teaching – Learning process.
24MCA1.7:	Academic Calendar: The Institute shall notify the Calendar of events in respect of the Program in advance.
24MCA2.0:	Eligibility for Admission
24MCA2.1:	Candidates should have passed recognized bachelor's degree of minimum 3 years duration or equivalent examination and obtained an aggregate minimum of 50% marks taken together in all the subjects including languages in all the years of the Degree Examination (45% in case of SC, ST and Category -1 Karnataka candidates).
24MCA2.2:	For admission under Government Quota: In addition to Section 24MCA2.1 candidates should have a qualifying rank in PGCET entrance examination conducted by KEA.
24MCA2.3:	For admission under Management Quota: In addition to Section 24MCA2.1 candidates should have a qualifying rank in PGCET/ Karnataka Management Aptitude Test (KMAT)/ any approved entrance examination conducted by the authority recognized by Government of Karnataka/VTU/any other University of Karnataka State.
24MCA2.4:	For Admission of Candidates from Other Universities of Karnataka/Outside Karnataka [Other than VTU]: The candidates from universities other than VTU shall have to obtain migration certificate from concerned University and obtain Eligibility approval from VTU.
24MCA3.0:	Courses
24MCA3.1:	The curriculum of the Program shall be any combination of the following type of courses: (i) Professional Core Courses (PC) - 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 programme in said discipline of study. (ii) Professional Electives Courses (PE) - 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. (iii)Project Work (PW) – The project work is a critical component of the curriculum, designed to bridge the gap between academic knowledge and industry practices. It provides students with an opportunity to apply their learning to solve real-world problems, develop innovative solutions, and gain hands-on experience in a professional environment. (iv)Audit Courses (AC)/ Ability Enhancement Course (AEC)- The Audit course can be any non-credit course offered by the program to which the Candidate is admitted (other than the courses considered for completing the prescribed program credits). Audit course/s are non-credit courses opted by students for self–enrichment. Though the CIE and SEE are not required, attendance must be compulsory to satisfy the requirements for the audit course/s to find a place in the grade card without the mention of letter grade and credit. With respect to the Ability Enhancement Courses, the course content of up to 50% shall be delivered by industry experts form the domain of the course offered. (v) Professional training/Internship (IN) - Preferably at an industry/R&D Organization /IT company/ Government Organization /Business Organization of significant reput for a specified period mentioned in the Scheme of Teaching and Examination. (vi)Online Courses: These mandatory online courses are ability enhancement courses, skill development courses, emerging technology courses, bridge courses, or advanced learning courses. These courses are suggested by the concerned board of studies. These courses are notified on the Institute portal. ❖ A candidate shall exercise his /her option in respect of the electives and register for the same before the beginning of the
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	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 Institute. ❖ Students shall be allowed to choose the elective/s, depending on their career plans, and there shall not be any restriction as regards the minimum number of students to be registered for an elective course.
24MCA3.2:	Mapping of Courses to Program Outcomes, Program Educational Objectives, Program Specific Outcomes, and Sustainable Development Goals: Each course included in the curriculum shall be designed to contribute meaningfully to the attainment of the Program Outcomes (POs), Program Educational Objectives (PEOs), and Program Specific Outcomes (PSOs), as defined by the respective program. The Course Outcomes (COs) shall be explicitly stated using appropriate action verbs from the Revised Bloom's Taxonomy and shall be mapped to relevant POs and PSOs with defined correlation levels. The cumulative attainment of POs, PSOs, and PEOs shall be periodically assessed and used for curriculum improvement. In alignment with national educational priorities and global imperatives, the curriculum shall also support the integration and mapping of course content, projects, and learning activities to the United Nations Sustainable Development Goals (SDGs), wherever applicable. Departments shall encourage the inclusion of SDG themes—especially those related to engineering domains such as clean energy, climate action, sustainable infrastructure, and inclusive innovation—within course design, student projects, internships, and co-curricular engagements. The Internal Quality Assurance Cell (IQAC) shall periodically review the effectiveness of CO-PO-PEO-PSO-SDG mapping as part of the curriculum review and quality assurance process. The defined 17 SDGs are as mentioned below: 1. No poverty

	2. Zero hunger 3. Good health and well - being 4. Quality education 5. Gender Equality 6. Clean water and sanitation 7. Affordable and clean energy 8. Decent work and economic growth. 9. Industry, innovation, and infrastructure 10. Sustainable cities and communities 11. Reduced inequality 12. Responsible consumption and production 13. Climate action 14. life below the river 15. Life on land 16. Peace, justice, and strong institution 17. Partnership for the goals.
24MCA4.0:	Mini-Project
24MCA4.1:	Mini-Project work and dissertation: ➤ Each candidate shall undertake the mandatory mini-project work in a group of two individuals, as per the Scheme of Teaching and Examinations, under the guidance of one of the faculty members of the Department. ➤ Mini Project work to be carried out during 2nd Semester Only ➤ The Department Head shall submit a list showing the names of the students, USN, the title of the project, and the name of the guide at the time of submitting the mini-project report to the CoE. ➤ The topic and title of the mini-project shall be chosen by the candidate in consultation with the guide before the commencement of the mini project. ➤ A Mini Project evaluation committee shall be formed by the department, comprising senior faculty members of the department and a guide to evaluate the Mini Project. ➤ The CIE marks awarded for major project phase-I shall be based on

	the evaluation of project work by the guide, and the committee as mentioned below in the ratio 50:25:25. ➤ The marks awarded for the mini-project report shall be the same for all the students of the batch. The faculty guide/mentor guiding the mini-project shall evaluate the performance for 50% of the maximum marks of CIE for the report.
24MCA4.2:	Failing to complete the Mini-Project: The Mini-Project is one of the heads of passing. Completion of the Mini-Project is mandatory. If any student fails to complete the Mini-Project, he/she shall be considered as <i>fail</i> in that Course and the prescribed credits shall not be awarded in that Course. The student, however, can submit the mini-project dissertation and appear for viva voce. The student shall be eligible for the mini-project credits only after satisfying the conditions prescribed for the same during the subsequent academic year. Their appearance shall be considered an attempt.
24MCA5.0:	Internship
24MCA5.1	Internship: The student shall undergo an Internship for the specified period as per the Scheme of Teaching and Examination. 1. The internship shall be carried out in any industry/ R&D Organization/ Business Organization/Research Institute/Institute of national and international repute Business organization/ recognized national and international Professional Bodies, Societies, or Organizations. 2. The department/college shall nominate a faculty member 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 shall be 50 marks for CIE (Presentation: 25 marks, Report: 25 marks) and shall be evaluated by the internal panel. 7. The students are permitted to carry out the internship anywhere in India or abroad. The Institute will not provide any kind of Financial Assistance to any student for an internship.
24MCA5.2	Failing to undergo an internship: Internship is one of the heads of passing. Completion of the Internship is mandatory. If any student fails to undergo/complete the Internship, he/she shall be considered as failed in that Course and the prescribed credits shall not be awarded in that Course. The student, however, can submit the project dissertation and appear for viva voce. The student shall be eligible for the internship credits only after satisfying the conditions prescribed for the same during the subsequent academic year. The reappearance shall be considered as an attempt.
24MCA6.0:	Major Project
24MCA6.1:	Project work and Dissertation: - Each candidate shall carry out the mandatory project work independently as per the Scheme of Teaching and Examinations under the guidance of one of the faculty members of the Department in the Institution of study. If the project is of interdisciplinary nature, a co-guide shall be taken from the other concerned department. - The Department Head shall submit the list showing the name of the students, USN, Title of the project, Name of the guide at the time of submission of the project report to CoE. - The topic and title of the dissertation shall be chosen by the candidate in consultation with the guide and co-guide, if any, before the commencement of 4th semester. The subject and topic of the dissertation shall be from the major field of study of the candidate. Modification of only the title but not the field of work may be permitted at the time of the final submission of the dissertation report during the 4th semester. If the dissertation has to be carried out in any

	industry/R&D labs/business Organizations, outside the campus, permission shall be taken from the Principal to that effect.
24MCA6.2:	The candidate shall submit a soft copy (CD) of the dissertation work to the Institute. The CD shall 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.
24MCA6.3:	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 10%. If the check indicates a plagiarism index greater than 10%: - For the first time, the candidate has to resubmit the dissertation, to the Controller of Examinations, along with the penal fees of Rs. 2000/- (Rupees Two thousand only). - For the second time, the candidate has to resubmit the dissertation along with the penal fees of Rs. 4000/- (Rupees four thousand only). - 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 24MCA1.4.
24MCA6.4:	Evaluation: ➤ The dissertation shall be sent through email for evaluation to two examiners – one internal examiner (guide) and one external examiner (first) appointed by the CoE. The evaluation of the dissertation shall be made independently by each examiner. ➤ 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. ➤ The examiners shall independently submit the marks through the specified link. ➤ The average of the marks awarded by the two Examiners shall be the final evaluation marks for the Dissertation.
24MCA6.5:	Viva-Voce:

	a) Viva-voce examination of the candidate shall be conducted as per 24MCA6.5 (h), 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. c) The external examiner (first) can recommend modifications/ suggestions of 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. d) The resubmitted Dissertation incorporating the modifications/ suggestions [as per 24MCA6.5 (b)] of the external examiner (first) and satisfying provision 24MCA6.3 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 24MCA6.5 (h). e) 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 CoE. 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 24MCA6.5 (h). 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 24MCA1.4. In such cases of rejection, the candidate shall redo the entire procedure starting from the submission of Dissertation in soft copy. f) In case of rejection of Dissertation, with reasons, by the external examiner (first) [as per 24MCA6.5 (b)], the same will be sent to a Second Examiner (external) [not necessarily the same examiner considered under [as per 24MCA6.5 (b)] approved by the CoE. The decision of the Second Examiner (external) is final. If the dissertation
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	and the report are accepted by the Second Examiner (external), the Viva-voce examination of the candidate shall be conducted as per 24MCA6.5 (h), 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 24MCA1.4. In such cases of rejection, the candidate shall redo the entire procedure starting from the submission of the Dissertation in soft copy. g) 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 from the date of admission to the Programme. h) 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 CoE shall arrive at a mutually convenient date for the conduct of viva-voce examination of the concerned candidate with an intimation to the CoE. In case one of the examiners expresses his/her inability to attend the viva-voce, the CoE shall appoint a substitute examiner in his/her place. i) The relative weights for the evaluation of dissertation and the performance at the viva voce shall be as per the scheme of teaching & examination. j) The marks awarded by both the Examiners at the viva voce Examination shall be sent jointly to the CoE immediately after the examination. k) Examination fee as fixed from time to time by the Institute for evaluation of dissertation report and conduct of viva voce shall be remitted through the Head of the Institution as per the instructions of Principal from time to time. The candidates who fail to submit the dissertation work within the stipulated time have to submit the same at the time of next ensuing examination.
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24MCA7.0:	Computation of SGPA and CGPA																				
24MCA7.1:	1) Semester Grade Point Average (SGPA) will be awarded at the end of each Semester, and Cumulative Grade Point Average (CGPA) will be awarded at the end of the programme. However, CGPA is calculated at the end of each semester from the second semester onwards and reflected in the grade card to indicate the progress of the student. 2) Each course in a programme is associated with the number of credits (C). Based on the number of Credits for a course and obtained Grade Point (GP) for that course in a Semester, the GPA is calculated as given below: a) The SGPA is the ratio of sum of the product of the number of credits with the grade points secured by a student in all the courses taken by him and the sum of the number of credits of all the courses undergone by a student, i.e., Semester Grade Point Average (SGPA)$SGPA = \frac{\sum(Course\ Credits)(Grade\ Points)}{\sum(Course\ Credits)}$ b) The CGPA is also calculated in the same manner, considering all the courses undergone by a student over all the semesters of a programme, i.e. Cumulative Grade Point Average (CGPA)$CGPA = \frac{\sum(Course\ Credits)(Grade\ Points)}{\sum(Course\ Credits)}$ Finally, the SGPA and CGPA shall be rounded off to 2 decimal points and reported in the grade cards. Table 24MCA7.1: SGPA/CGPA Calculations: An Illustrative Example <table><tr><th>Semester Odd:1st Sem</th><th>Course No.</th><th>Credits</th><th>Grade</th><th>Grade Points</th><th>Credit Points</th><th>SGPA, CGPA</th></tr><tr><td>I</td><td>XX101</td><td>5:00:00</td><td>B</td><td>8</td><td>40</td><td rowspan="2">SGPA A 117 / 20 = 5.85</td></tr><tr><td>I</td><td>XX102</td><td>3:02:00</td><td>W</td><td>-</td><td>--</td></tr></table>	Semester Odd:1 st Sem	Course No.	Credits	Grade	Grade Points	Credit Points	SGPA, CGPA	I	XX101	5:00:00	B	8	40	SGPA A 117 / 20 = 5.85	I	XX102	3:02:00	W	-	--
Semester Odd:1 st Sem	Course No.	Credits	Grade	Grade Points	Credit Points	SGPA, CGPA															
I	XX101	5:00:00	B	8	40	SGPA A 117 / 20 = 5.85															
I	XX102	3:02:00	W	-	--																

	I	XX103	3:00:00	A	9	27	
	I	XX104	0:01:01	F	0	0	
	I	XX105	4:01:00	D	6	30	
	I	XX106	5:00:00	E	4	20	
	Total	20 (18*)	Total			117	
	Semester Even:2 nd Sem	Course No.	Credits	Grade	Grade Points	Credit Points	SGPA, CGPA
	II	XX107	3:01:01	C	7	35	SGPA 157 / 25 = 6.28
	II	XX108	4:00:00	B	8	32	
	II	XX109	3:00:00	D	6	18	
	II	XX110	4:01:00	E	4	20	
	II	XX111	2:01:01	A	9	36	
	II	XX112	2:00:00	F	0	0	
	II	XX113	0:02:00	B	8	16	
	Total	25 (23*)	Total			157	
	CGPA Calculation after 2 semesters		CGPA=(117+157)/41=6.68				
	Supplementary	XX102	3:02:00	D	6	30	SGPA = 56/9 = 6.22
	Supplementary	XX104	0:01:01	C	7	14	
	Supplementary	XX112	2:00:00	D	6	12	
	Total	9		Total	56		
New CGPA after Supplementary results			New CGPA = (117+157+56) / (41+9) = 6.60				
*Total No. of credits excluding those with ‘F’ and ‘W’ grades particularly important to keep track of the number of credits earned by a student up to any semester.							

24MCA7.2:	Conversions of CGPA into Percentage of marks and Class Equivalence The following formula for conversion of the CGPA on a10-point scale into the percentage of marks (M) for employment/ higher studies, etc. may be used; <i>Percentage of Marks (M) = 10 × (CGPA)</i>
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24MCA7.3:	Class Equivalence Subsequent to the conversion of the final CGPA, after successful completion of the Programme, into the percentage of marks (M), a graduating student is reckoned to have passed in <table><tr><td>Sl. No.</td><td>Class Awarded</td><td>CGPA</td><td>Percentage</td></tr><tr><td>1</td><td>First Class with Distinction</td><td>≥7.75</td><td>≥70%</td></tr><tr><td>2</td><td>First Class</td><td>≥6.75</td><td>≥ 60%and <70%</td></tr><tr><td>3</td><td>Second Class</td><td>< 6.75</td><td><60%</td></tr></table>	Sl. No.	Class Awarded	CGPA	Percentage	1	First Class with Distinction	≥7.75	≥70%	2	First Class	≥6.75	≥ 60%and <70%	3	Second Class	< 6.75	<60%
Sl. No.	Class Awarded	CGPA	Percentage														
1	First Class with Distinction	≥7.75	≥70%														
2	First Class	≥6.75	≥ 60%and <70%														
3	Second Class	< 6.75	<60%														

24MCA7.4:	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. <table><tr><td rowspan="2">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>Out-standing</td><td>Excellent</td><td>Very Good</td><td>Good</td><td>Average</td><td>Pass</td><td>Fail</td></tr><tr><td>Grade</td><td>10</td><td>9</td><td>8</td><td>7</td><td>6</td><td>5</td><td>4</td></tr><tr><td>% of Marks</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>40-49</td></tr></table>	Letter Grade	O	A+	A	B+	B	C	F	Out-standing	Excellent	Very Good	Good	Average	Pass	Fail	Grade	10	9	8	7	6	5	4	% of Marks	90-100	80-89	70-79	60-69	55-59	50-54	40-49									
Letter Grade	O		A+	A	B+	B	C	F																																	
	Out-standing	Excellent	Very Good	Good	Average	Pass	Fail																																		
Grade	10	9	8	7	6	5	4																																		
% of Marks	90-100	80-89	70-79	60-69	55-59	50-54	40-49																																		
24MCA8.0:	Continuous Internal Evaluation and Semester End Examination																																								
24MCA8.1	This section of regulations is applicable to all theory-based courses. The minimum CIE marks requirement is 40% of the maximum marks in each component. 1. <u>Theory Course with 4 Credits: Professional Core Course (PC)</u> CIE Split up for Professional Course (PC) <table><tr><td colspan="2">Components</td><td>Number</td><td>Weightage</td><td>Max. Marks</td></tr><tr><td>(i)</td><td>Internal Assessment-Tests (A)</td><td>3</td><td>50%</td><td>25</td></tr><tr><td>(ii)</td><td>Term Work (B)</td><td>2</td><td>50%</td><td>25</td></tr><tr><td colspan="4">Total Marks</td><td>50</td></tr></table> Final CIE Marks = (A) + (B) A = Average of best two Test marks B = Average of two Term Work marks 2. <u>Theory Course with 3 Credits: Professional Core Course (PC)</u> CIE Split up for Professional Course (PC) <table><tr><td colspan="2">Components</td><td>Number</td><td>Weightage</td><td>Max. Marks</td></tr><tr><td>(i)</td><td>Internal Assessment-Tests (A)</td><td>3</td><td>50%</td><td>25</td></tr><tr><td>(ii)</td><td>Term Work (B)</td><td>2</td><td>50%</td><td>25</td></tr><tr><td colspan="4">Total Marks</td><td>50</td></tr></table> Final CIE Marks = (A) + (B) A = Average of best two Test marks	Components		Number	Weightage	Max. Marks	(i)	Internal Assessment-Tests (A)	3	50%	25	(ii)	Term Work (B)	2	50%	25	Total Marks				50	Components		Number	Weightage	Max. Marks	(i)	Internal Assessment-Tests (A)	3	50%	25	(ii)	Term Work (B)	2	50%	25	Total Marks				50
Components		Number	Weightage	Max. Marks																																					
(i)	Internal Assessment-Tests (A)	3	50%	25																																					
(ii)	Term Work (B)	2	50%	25																																					
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(ii)	Term Work (B)	2	50%	25																																					
Total Marks				50																																					

	B = Average of two Term Work marks 3. <u>Theory Course with 4 credits: Integrated Professional Core Course (IPC)</u> CIE Split up for Integrated Professional Core Course (IPC) <table><tr><th colspan="2">Components</th><th>Number</th><th>Weightage</th><th>Max. Marks</th></tr><tr><td rowspan="3">Theory (A)</td><td>Internal Assessment-Tests (A1)</td><td>3</td><td>60%</td><td>15</td></tr><tr><td>Term Work (A2)</td><td>2</td><td>40%</td><td>10</td></tr><tr><td colspan="2">Total Marks</td><td>100%</td><td>25</td></tr><tr><td rowspan="3">Laboratory (B)</td><td>Record Writing</td><td>Continuous</td><td>60%</td><td>15</td></tr><tr><td>Test at the end of the semester</td><td>1</td><td>40%</td><td>10</td></tr><tr><td colspan="2">Total Marks</td><td>100%</td><td>25</td></tr></table> Final CIE Marks = (A) + (B) A = Average of best two Test marks + Average of two Term Work marks 4. <u>Theory Course with 3 Credits: Professional Elective Course (PE)</u> CIE Split up for Professional Elective Course (PE) <table><tr><th colspan="2">Components</th><th>Number</th><th>Weightage</th><th>Max. Marks</th></tr><tr><td>(i)</td><td>Internal Assessment-Tests (A)</td><td>2</td><td>50%</td><td>25</td></tr><tr><td>(ii)</td><td>Term Work (B)</td><td>2</td><td>50%</td><td>25</td></tr><tr><td colspan="4">Total Marks</td><td>50</td></tr></table> Final CIE Marks = (A) + (B) A = Average of best two Test marks B = Average of two Term Work marks	Components		Number	Weightage	Max. Marks	Theory (A)	Internal Assessment-Tests (A1)	3	60%	15	Term Work (A2)	2	40%	10	Total Marks		100%	25	Laboratory (B)	Record Writing	Continuous	60%	15	Test at the end of the semester	1	40%	10	Total Marks		100%	25	Components		Number	Weightage	Max. Marks	(i)	Internal Assessment-Tests (A)	2	50%	25	(ii)	Term Work (B)	2	50%	25	Total Marks				50
Components		Number	Weightage	Max. Marks																																																
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	Term Work (A2)	2	40%	10																																																
	Total Marks		100%	25																																																
Laboratory (B)	Record Writing	Continuous	60%	15																																																
	Test at the end of the semester	1	40%	10																																																
	Total Marks		100%	25																																																
Components		Number	Weightage	Max. Marks																																																
(i)	Internal Assessment-Tests (A)	2	50%	25																																																
(ii)	Term Work (B)	2	50%	25																																																
Total Marks				50																																																
24MCA8.2	1. <u>CIE for Practical Courses:</u> ➤ CIE marks for a practical course shall be 50 marks. ➤ The split up of CIE marks for record/journal and test is to be split in the ratio 60:40 ➤ Record write-up for individual program/experiment will be evaluated for 10 Marks ➤ Total marks scored for record writing and conducting shall be scaled down to 30 marks (60% of the CIE Lab Marks (50)) ➤ 1 (one) test for 100 marks after the completion of the experiments at the end of the semester. The Test marks should be scaled down to 20																																																			

	marks (40% of the CIE Lab Marks (50)) Marks distribution for Laboratory-based Practical Course for TEST <table><tr><th>Sl. No.</th><th>Description</th><th>% of Marks</th><th>In Marks</th></tr><tr><td>1</td><td>Write-up, Conduction, Result and Procedure</td><td>60%</td><td>60</td></tr><tr><td>2</td><td>Viva-Voce</td><td>40%</td><td>40</td></tr><tr><td colspan="2">Total</td><td>100%</td><td>100</td></tr></table> <u>Final CIE in Practical Course:</u> Marks distribution for Laboratory-based Practical Course for Final CIE <table><tr><th>Sl. No.</th><th>Description</th><th>% of Marks</th><th>In Marks</th></tr><tr><td>1</td><td>Scaled Down Marks of Record</td><td>60%</td><td>30</td></tr><tr><td>2</td><td>Scaled Down Marks of Test</td><td>40%</td><td>20</td></tr><tr><td colspan="2">Total</td><td>100%</td><td>50</td></tr></table>	Sl. No.	Description	% of Marks	In Marks	1	Write-up, Conduction, Result and Procedure	60%	60	2	Viva-Voce	40%	40	Total		100%	100	Sl. No.	Description	% of Marks	In Marks	1	Scaled Down Marks of Record	60%	30	2	Scaled Down Marks of Test	40%	20	Total		100%	50								
Sl. No.	Description	% of Marks	In Marks																																						
1	Write-up, Conduction, Result and Procedure	60%	60																																						
2	Viva-Voce	40%	40																																						
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1	Scaled Down Marks of Record	60%	30																																						
2	Scaled Down Marks of Test	40%	20																																						
Total		100%	50																																						
24MCA8.3	<u>Laboratory-based Ability Enhancement Courses and other courses:</u> This section of regulations is applicable to all laboratory-based, activity-based and experiential learning courses viz., Social Innovation, Engineering Exploration, Career Electives (Add-on Courses) etc. Class Work: A <u>CIE Split up for Laboratory-based Ability Enhancement Course</u> <table><tr><th>SL. No.</th><th>Description</th><th>% of Marks</th><th>In Marks</th></tr><tr><td>1</td><td>Write-up, Conduction, Result and Procedure</td><td>60%</td><td>30</td></tr><tr><td>2</td><td>Viva-Voce</td><td>40%</td><td>20</td></tr><tr><td colspan="2">Total</td><td>100%</td><td>50</td></tr></table> The Test marks should be scaled down to 30 marks (60% of the maximum Marks) Laboratory Test: B <u>CIE Split up for Test in Laboratory-based Ability Enhancement Course</u> <table><tr><th>SL. No.</th><th>Description</th><th>% of Marks</th><th>In Marks</th></tr><tr><td>1</td><td>Write-up, Conduction, Result and Procedure</td><td>60%</td><td>30</td></tr><tr><td>2</td><td>Viva-Voce</td><td>40%</td><td>20</td></tr><tr><td colspan="2">Total</td><td>100%</td><td>50</td></tr></table> The Test marks should be scaled down to 20 marks (40% of the maximum Marks) <u>Final CIE for Laboratory-based Ability Enhancement Course</u> <table><tr><th>SL. No.</th><th>Description</th><th>% of Marks</th><th>In Marks</th></tr><tr><td>1</td><td>Scaled Down marks of record/journal-A</td><td>60%</td><td>30</td></tr></table>	SL. No.	Description	% of Marks	In Marks	1	Write-up, Conduction, Result and Procedure	60%	30	2	Viva-Voce	40%	20	Total		100%	50	SL. No.	Description	% of Marks	In Marks	1	Write-up, Conduction, Result and Procedure	60%	30	2	Viva-Voce	40%	20	Total		100%	50	SL. No.	Description	% of Marks	In Marks	1	Scaled Down marks of record/journal-A	60%	30
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1	Write-up, Conduction, Result and Procedure	60%	30																																						
2	Viva-Voce	40%	20																																						
Total		100%	50																																						
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1	Write-up, Conduction, Result and Procedure	60%	30																																						
2	Viva-Voce	40%	20																																						
Total		100%	50																																						
SL. No.	Description	% of Marks	In Marks																																						
1	Scaled Down marks of record/journal-A	60%	30																																						

	2	Scaled Down marks of test-B	40%	20																				
	Total		100%	50																				
	Final CIE Marks = (A) + (B)																							
	<u>Theory-based Ability Enhancement Courses and other courses:</u>																							
	This section of regulations is applicable to all theory-based courses. The minimum CIE marks requirement is 40% of the maximum marks in each component.																							
	<u>Final CIE for Theory-based Ability Enhancement Course</u>																							
	<table><tr><td></td><td>Components</td><td>Number</td><td>Weightage</td><td>Max. Marks</td></tr><tr><td>(i)</td><td>Internal Assessment-Tests (A)</td><td>3</td><td>50%</td><td>25</td></tr><tr><td>(ii)</td><td>Term Work (B)</td><td>2</td><td>50%</td><td>25</td></tr><tr><td></td><td colspan="3">Total Marks (A+B)</td><td>50</td></tr></table>					Components	Number	Weightage	Max. Marks	(i)	Internal Assessment-Tests (A)	3	50%	25	(ii)	Term Work (B)	2	50%	25		Total Marks (A+B)			50
		Components	Number	Weightage	Max. Marks																			
	(i)	Internal Assessment-Tests (A)	3	50%	25																			
	(ii)	Term Work (B)	2	50%	25																			
	Total Marks (A+B)			50																				
A = Average of best two Test marks																								
B = Average of two Term Work marks																								
The CIE question paper shall have MCQ set for 25 questions, each carrying one mark.																								
24MCA8.4	<u>Mini Project:</u> Mini Project shall be evaluated as per the following guidelines The CIE marks awarded for mini project shall be based on the evaluation of mini-project work by the guide, report writing and viva-voce in the ratio 50:25:25. Marks awarded for the mini project report shall be based on the performance of the students of the batch. The guide shall evaluate the performance for 50% of the maximum marks of CIE for the report, 25% for presentation and 25% for viva-voce. Mini Project Evaluation for CIE <table><tr><td>SL. No.</td><td>Description</td><td>% of Marks</td><td>In Marks</td></tr><tr><td>1</td><td>Mini Project Report</td><td>50%</td><td>50</td></tr><tr><td>2</td><td>Presentation Skills</td><td>25%</td><td>25</td></tr><tr><td>3</td><td>Viva-Voce</td><td>25%</td><td>25</td></tr><tr><td colspan="2">Total</td><td>100%</td><td>100</td></tr></table>				SL. No.	Description	% of Marks	In Marks	1	Mini Project Report	50%	50	2	Presentation Skills	25%	25	3	Viva-Voce	25%	25	Total		100%	100
SL. No.	Description	% of Marks	In Marks																					
1	Mini Project Report	50%	50																					
2	Presentation Skills	25%	25																					
3	Viva-Voce	25%	25																					
Total		100%	100																					
24MCA8.5	<u>Major Project</u> The CIE marks awarded for major project shall be based on the evaluation of project work by the guide, project presentation skill and viva-voce in the ratio 50:25:25.																							

Marks awarded for the major project report shall be the same for all the students of the batch. The faculty guide/mentor guiding the major project shall evaluate the performance for 50% of the maximum marks of CIE for the report.

Major Project - CIE

SL. No.	Description	% of Marks	In Marks
1	Project work and Report Writing	50%	50
2	Presentation	25%	25
3	Viva-Voce	25%	25
Total		100%	100

Major Project - SEE

SL. No.	Description	% of Marks	In Marks
1	Project work and Report Writing	50%	100
2	Presentation	25%	50
3	Viva-Voce	25%	50
Total		100%	200

24MCA8.6

Internship: Internship shall be evaluated as per the following guidelines

Report Evaluation: The split-up of marks for report evaluation shall be based on

Marks Distribution for Internship Report Evaluation

SL. No.	Description	% of Marks	In Marks
1	Content of the Report	50%	25
2	Validation of the Report	50%	25
Total		100%	50

Viva-voce: The split-up of marks for Viva-voce shall be based on

Marks Distribution for Internship Viva-Voce

SL. No.	Description	% of Marks	In Marks
1	Presentation Skills	50%	25
2	Question & Answer	50%	25
Total		100%	50

Final CIE in Internship Course:

Final Internship Marks for CIE

SL. No.	Description	% of Marks	In Marks
1	Report Evaluation	50%	25
2	Viva-Voce	50%	25

	<table><tr><td colspan="2">Total</td><td>100%</td><td>50</td></tr></table>	Total		100%	50																				
Total		100%	50																						
	<table><tr><td colspan="4">Internship - SEE</td></tr><tr><td>SL. No.</td><td>Description</td><td>% of Marks</td><td>In Marks</td></tr><tr><td>1</td><td>Report</td><td>40%</td><td>60</td></tr><tr><td>2</td><td>Presentation Skills</td><td>40%</td><td>60</td></tr><tr><td>3</td><td>Question & Answer</td><td>20%</td><td>30</td></tr><tr><td colspan="2">Total</td><td>100%</td><td>150</td></tr></table>	Internship - SEE				SL. No.	Description	% of Marks	In Marks	1	Report	40%	60	2	Presentation Skills	40%	60	3	Question & Answer	20%	30	Total		100%	150
Internship - SEE																									
SL. No.	Description	% of Marks	In Marks																						
1	Report	40%	60																						
2	Presentation Skills	40%	60																						
3	Question & Answer	20%	30																						
Total		100%	150																						
24MCA8.7	Alternate Assessment Tools: Alternate assessment tools go beyond traditional exams to evaluate students’ practical understanding, critical thinking, collaboration, and problem-solving skills. These tools promote continuous, application-based, and student-centered evaluation methods. They help in assessing not only what students know but how they apply that knowledge in real-world or simulated settings. They are particularly effective in engineering and multidisciplinary courses where creativity, analysis, and teamwork are essential. These tools can be digital, reflective, collaborative, or project-based, offering flexibility and promoting active learning. Some of the Alternate Assessment Tools are listed below. 1. Project-Based Assessment: Students work individually or in teams to solve real-world or interdisciplinary problems. It emphasizes innovation, technical accuracy, and teamwork, often culminating in expos or presentations. 2. Peer Assessment: Students assess each other’s work using structured rubrics and feedback guidelines. It encourages responsibility, constructive criticism, and deeper engagement with evaluation criteria. 3. Reflective Journals / Learning Logs: Students document their learning journey, challenges faced, and personal growth. This promotes self-awareness, critical thinking, and continuous improvement. 4. Open-Book / Application-Oriented Tests: Tests allow reference materials and focus on application and analytical thinking. They simulate real-world problem-solving over rote memorization. 5. Case Study Analysis: Students analyze complex real-world or industrial cases to propose solutions. This enhances decision-																								

	making, logical reasoning, and communication skills. 6. Simulation-Based Assessment: Students use software (e.g., MATLAB, ANSYS) to simulate real-world environments. It builds technical skills and decision-making under realistic constraints. 7. Rubric-Based Practical Assessments: Lab tasks are evaluated using predefined rubrics and observation. Ensures consistency and alignment with course outcomes. 8. Portfolio Assessment: A curated collection of student work over a semester shows development. It highlights creativity, skill progression, and learning evolution. 9. Concept Mapping: Students visually map relationships among concepts in a topic. This deepens understanding, logical structure, and cognitive integration. 10. Online Quizzes with Immediate Feedback: Frequent low-stakes quizzes provide instant feedback and explanations. They help reinforce learning and identify gaps early. 11. Timed Online Quizzes (Concept Mastery Quizzes): Short, time-bound quizzes test grasp of core concepts. They prevent malpractice and promote quick thinking. 12. Take-Home Assignments with Analytical Questions: Extended assignments involve critical thinking and application of concepts. Include viva to ensure originality and depth of understanding. 13. In-Class Writing Prompts / One-Minute Papers: Short written reflections done in class summarize learning. Used for formative assessment and gauging real-time understanding. 14. Mid-Semester Micro-Projects: Small-scale projects during the semester link directly to coursework. They foster creativity, practical skills, and team collaboration. 15. Problem-Based Learning (PBL) Worksheets: Structured worksheets challenge students to solve real-life problems. They build analytical skills and collaborative problem-solving. 16. Collaborative Concept Check (Team Quizzes): Team-based
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	quizzes encourage peer teaching and group reasoning. Boosts engagement and conceptual clarity through discussion. 17. Flipped Class Pre-Work Quizzes: Quizzes based on pre-class materials test preparedness. They guide teaching and ensure active class participation. 18. Error Analysis Assignments: Students identify and correct errors in given or self-created work. Develops critical thinking and mastery over concepts. 19. Gamified Quests / Knowledge Hunts: Assignments are designed as progressive challenges with rewards. Enhances motivation and learning through a game-like structure. Scaffolded Assignments (Progressive Submissions): Assignments are submitted in phases with feedback at each stage. Improves quality, reduces plagiarism, and supports learning progression.
24MCA8.8	<u>MOOCs Online Courses:</u> For MOOCs Online course there will be NO CIE and SEE. The grade awarded in the online course certificate provided by the competent authority will be considered. If grades are not mentioned, but marks are mentioned in the online course certificate, then, the marks are converted to equivalent Letter Grade.
24MCA8.9	1. <u>SEE in Theory Course with 4, 3 and 2 Credits: Professional Core Course (PC)/Professional Elective</u> • The question paper pattern will be 10 questions. Each question is set for 20 marks. The medium of the question paper shall be English unless otherwise mentioned. • There shall be 2 questions from each module, each of the 2 questions under a module (with a maximum of 3 sub-questions), may have mix of topics under that module if necessary. • The students have to answer 5 full questions selecting one full question from each module. • Marks scored will be proportionally scaled down to 50 marks.

	2. <u>SEE in Theory Course with 4, 3 and 2 Credits: Integrated Profession Core Course (IPC)</u> • The question paper pattern will be 10 questions. Each question is set for 20 marks. The medium of the question paper shall be English unless otherwise mentioned. • There shall be 2 questions from each module, each of the 2 questions under a module (with a maximum of 3 sub-questions), may have mix of topics under that module if necessary. • The students have to answer 5 full questions selecting one full question from each module. • The question paper may include questions from the laboratory component. • Marks scored will be proportionally scaled down to 50 marks. 3. <u>SEE in Theory Course with 1 Credit:</u> The SEE question paper shall have MCQ set for 50 questions, each carrying 1 mark. The time duration for SEE is 1 hour																				
24MCA8.10	<u>SEE in Practical Course:</u> 1. SEE marks for practical course shall be 50 marks 2. See for practical course is evaluated for 100 marks and scored marks shall be scaled down to 50 marks. 3. Change of experiment/program is allowed only once and 20% marks allotted to the procedure/write-up part to be made zero. 4. Duration of SEE shall be 3 hours. Marks distribution for Laboratory-based Practical Course for Final SEE <table><tr><th>SL. No.</th><th>Description</th><th>% of Marks</th><th>Marks</th></tr><tr><td>1</td><td>Write-up, Procedure</td><td>20%</td><td>20</td></tr><tr><td>2</td><td>Conduction and result</td><td>60%</td><td>60</td></tr><tr><td>3</td><td>Viva-Voce</td><td>20%</td><td>20</td></tr><tr><td colspan="2">Total</td><td>100%</td><td>100</td></tr></table>	SL. No.	Description	% of Marks	Marks	1	Write-up, Procedure	20%	20	2	Conduction and result	60%	60	3	Viva-Voce	20%	20	Total		100%	100
SL. No.	Description	% of Marks	Marks																		
1	Write-up, Procedure	20%	20																		
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3	Viva-Voce	20%	20																		
Total		100%	100																		
24MCA9.0:	Eligibility for Passing and Award of Degree																				
24MCA9.1	(i) 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 head of passing he/she																				

	has to reappear in that head for the SEE. (ii) A student shall be declared successful at the end of the Programme for the award of Degree only on obtaining CGPA ≥ 5.00, with none of the Courses remaining with F Grade. 1) For a pass in Industry Internship/Research Seminar/Project/Dissertation/Viva-voce examination, as student shall secure a minimum of 40 % of the maximum marks prescribed in the SEE and 50% of the marks in CIE and 50% of the aggregate of CIE and SEE marks. The Minimum Passing Grade in a course is C. 2) 4th semester candidates having backlog courses are permitted to upload the dissertation report and to appear for SEE. The 4th semester grade card shall be released only when the candidate completes all the backlog courses and become eligible for the award of degree. 3) A candidate may at his/her desire reject his/her latest semester, except the 4th semester, results of SEE in respect to all courses of that semester. Rejection shall be permitted only once during the entire Programme. The CIE marks of the rejected semester shall remain the same. Rejection of results of the SEE including CIE marks is not permitted. 4) If the rejection of the SEE 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 SEE result is of even semester, the candidate cannot take admission to the next odd semester. 5) Application for rejection shall be submitted to the CoE through the Head of the Department through The Principal, within thirty days from the date of announcement of results. 6) 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.
24MCA9.2	Eligibility for Award of Degree: A student shall be declared to have completed the degree of Master of Computer Applications (MCA),

	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 programme.
24MCA10.0:	Attendance Requirement
24MCA10.1	All students shall maintain a minimum attendance of 85% in each course registered. In case of shortfall, the concerned Head of the Department shall consider and shall condone deficiency up to a limit of 10% in special cases and shall submit a list of such candidates to the office of CoE. However, all the relevant documents pertaining to condonation of attendance shall be maintained by the respective department and produced as and when required by the Institutional authorities. Any student failing to meet the above standard of attendance in any course(s) registered shall not be allowed to appear for SEE of such course(s). ➤ In the event of condonation, the students are not eligible for make-up examination in that course during that semester. ➤ Attendance at CIE and SEE: Attendance at all examinations, both CIE and SEE of each course registered shall be compulsory for the students and there shall not be any provision for re-examination/consideration. ➤ Any student against whom any disciplinary action by the College is pending shall not be permitted to attend any SEE in that Semester. ➤ Each Semester is considered as a unit and the candidate has to put in a minimum attendance of 85% in each course with a provision of condonation of 10% attendance for reasons such as medical emergencies and legitimate grounds. ➤ The basis for the calculation of the attendance shall be the period prescribed by the College by its calendar of events. For the first semester students, the same is reckoned from the date of admission to the programme. ➤ The students shall take note of his/her attendance status periodically from the respective faculty and strive to make up

	the shortage. However, the departments shall periodically announce the attendance status of the students. Non-receipt of such information from the college shall not be considered as valid reason for exemption from the attendance requirements. ➤ If a student does not fulfill the attendance requirements in any course, he/she is not permitted to attend the SEE in that course and is deemed to have been awarded “DX”. The candidate shall attend the classes for those courses when offered in the coming semesters, obtain at least the minimum CIE required, and attendance to take the SEE. However, the student is permitted to take up SEE in other courses (option for withdrawal is not available in such cases). ➤ Dean-Academics of the Institute shall notify regularly, the list of candidates who fall short of attendance. ➤ The list of the candidates falling short of attendance shall be sent to the Principal at least one week prior to the commencement of the examination.
24MCA11.0:	Promotion and Eligibility (Vertical Progression)
24MCA11.1	1) There shall be no restriction for promotion from an odd semester to the next even semester, provided the student has fulfilled the attendance requirement. a) Candidates, with less than or equal to 16 backlog credits of first year shall be eligible for taking admission to second year. b) Candidates, with more than 16 backlog credits of first year are not eligible for taking admission to second year. c) Each credit course shall be treated as a head of passing. 2) Passing ONLINE courses is mandatory for the award of a degree. ONLINE 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 in a selected ONLINE 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 approved available courses during that session. The title of the

	course/sin which he/she qualify shall be mentioned in the grade card with letter PP (Passed in credit Course).
24MCA12.0:	Temporary Discontinuation/Break in the Program
24MCA12.1	1) 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 programme by registering to the same semester of the prevailing scheme. Also, the Candidates may have to complete additional course/s, if any, as per the decision of the concerned Board of Studies and approval of the Dean-Academics/ Principal, on establishing equivalence between the 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 degree. Such candidate shall not be eligible for the award of rank. 2) 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-Academics/ Principal, 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 degree. Such candidate shall not be eligible for the award of rank.
24MCA13.0:	Award of Prizes, Medals and Ranks
24MCA13.1	1) For award of rank in Master of Computer Applications (MCA), the CGPA secured by the student on completion of the programme is considered. 2) A student shall be eligible for a rank at the time of award of degree of Master of Computer Applications (MCA), provided the student - Is not a repeater in any semester - Has not rejected the results of any semester.

	c. Has passed 1st to 4th 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 4th semester subject to a maximum of 10 ranks. 4) 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 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 etc., shall be taken into account to decide the order of the rank. 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 Institute for such awards.
22MCA14.0:	Applicability and Power to Modify
24MCA14.1	❖ The regulations governing the Degree of Master of Computer Applications (MCA), of the Institute shall be binding on all concerned. ❖ Notwithstanding anything contained in the foregoing, the University shall have the power to issue directions/ orders to address any difficulty. ❖ Nothing in the foregoing may be construed as limiting the power of the Institute to amend, modify or repeal any or all of the above.