Preamble:

1. The name of the programme shall be Master of Computer Application (M.C.A)
2. The revised MCA Curriculum 2024 builds on the implementation of the Choice Based Credit System (CBCS). The curriculum takes the MCA programme to the next level in terms of implementing National Education Policy (NEP) and Outcome Based Education (OBE) along with the CBCS and Grading System.
3. The Institutes should assist in placements for M.C.A. students by interacting with Industries. Institute's placement cell should focus on identifying industrial expectations and institutional preparation for meeting industrial needs.
4. Industry and academia should identify possible areas of collaboration and work together to cater to the rapidly changing scenario.
5. During each semester students can attempt to complete various certifications for better opportunities in the industry.

Introduction:

1. Definition: Outcome Based Education:

1.1 Outcome Based Education (OBE) Approach: Outcomes are about performance, and this implies:

1.1.1 There must be a performer – the student (learner), not only the teacher

1.1.2 There must be something performable (thus demonstrable or assessable) to perform

1.1.3 The focus is on the performance, not the activity or task to be performed

1.2 Programme Educational Objectives (PEOs): Programme educational objectives are broad statements that describe the career and professional accomplishments that the programme is preparing graduates to achieve. Programme Educational Objectives are a set of broad future focused learner's performance outcomes that explicitly identify what learners will be able to do with what they have learned, and what they will be like after they leave institution and are living full and productive lives. Thus, PEOs are what the programme is preparing graduates for in their career and professional life (to attain within a few years after graduation).

1.3 Programme Outcomes (POs): Programme Outcomes are a set of narrow statements that describes what students (learners) of the programme are expected to know and be able to perform or attain by the time of graduation.

1.4 Course Outcomes (COs): Course Outcomes are narrower statements that describe what students are expected to know and be able to do at the end of each course. These relate to the skills, knowledge, and behavior that students acquire in their matriculation through the course.

1.5 Learning Outcomes: A learning outcome is what a student CAN DO because of a learning experience. It describes a specific task that he/she can perform at a given level of competence under a certain situation. The three broad types of learning outcomes are: a) Disciplinary knowledge and skills b) Generic skills c) Attitudes and values

1.6 Teaching and Learning Activities (TLAs): The set of pedagogical tools and techniques or the teaching and learning activities that aim to help students to attain the intended learning outcomes and engage them in these learning activities through the teaching process.

1.7 Assessment and Evaluation: Assessment is one or more processes, carried out by the institution, that identify, collect, and prepare data to evaluate the achievement of programme educational objectives and programme outcomes. Evaluation is one or more processes, done by the evaluation team, for interpreting the data and evidence accumulated through assessment

practices evaluation determines the extent to which programme educational objectives or programme outcomes are being achieved, and results in decisions and actions to improve the programme.

2. MCA Programme Focus:

The basic objective of the Master of Computer Application (MCA) is to provide a steady stream of necessary knowledge, skills and foundation for acquiring a wide range of rewarding careers into rapidly expanding world of Information Technology

2.1 Programme Educational Objectives: PEOs are defined by institution. Following are the guidelines for defining PEOs

2.1.1 PEOs should be assessable and realistic within the context of the committed resources.

2.1.2 The PEOs should be consistent with the mission of the institution.

2.1.3 All the stakeholders should participate in the process of framing PEOs.

2.1.4 The number of PEOs should be manageable.

2.1.5 It should be based on the needs of the stakeholders.

2.1.6 It should be achievable by the programme.

2.1.7 It should be specific to the programme and not too broad.

2.1.8 It should not be too narrow and similar to the POs.

2.2 MCA Programme Outcomes (POs):

Learners are expected to know and be able to		
PO1	**Computing Knowledge**	Apply knowledge of computing fundamentals, computing specialization, mathematics, and domain knowledge appropriate for the computing specialization to the abstraction and conceptualization of computing models from defined problems and requirements.
PO2	**Problem Analysis**	Identify, formulate, research literature, and solve complex Computing problems reaching substantiated conclusions using fundamental principles of Mathematics, Computing sciences, and relevant domain disciplines.
PO3	**Design & Development**	Design and evaluate solutions for complex computing problems, and design and evaluate systems, components, or processes that meet specified needs with appropriate consideration for public health and safety, cultural, societal, and environmental considerations.
PO4	**Research & Development**	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of information to provide valid conclusions.
PO5	**Prompt Tool Usage**	Create, select, adapt and apply appropriate techniques, resources, and modern computing tools to complex computing activities, with an understanding of the limitations.
PO6	**Ethical Practices**	Understand and commit to professional ethics and cyber regulations, responsibilities, and norms of professional computing practice.

PO7	**Life Long Learning**	Recognize the need, and have the ability, to engage in independent learning for continual development as a Computing professional.
PO8	**Professional Skills**	Demonstrate knowledge and understanding of computing and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.
PO9	**Communication Skills**	Communicate effectively with the computing community, and with society at large, about complex computing activities by being able to comprehend and write effective reports, design documentation, make effective presentations, and give and understand clear instructions.
PO10	**Societal Contribution**	Understand and assess societal, environmental, health, safety, legal, and cultural issues within local and global contexts, and the consequential responsibilities relevant to professional computing practice.
PO11	**Teamwork & Leadership**	Function effectively as an individual and as a member or leader in diverse teams and in multidisciplinary environments.
PO12	**Innovation & Sustainability**	Identify a timely opportunity and using innovation to pursue that opportunity to create value and wealth for the betterment of the individual and society at large.

3. Admission Details:

3.1 Eligibility for Admission: The eligibility criteria for admission for the MCA course will be as decided by the All India Council of Technical Education (AICTE), New Delhi and Directorate of Technical Education (DTE), Government of Maharashtra. It will publish on their respective websites time to time.

3.2 Reservation of Seat: The percentage of seat reserved for candidates belonging to backward classes only from Maharashtra State in all the Government Aided, Un-aided Institutions/Colleges and University Departments is as per the norms given by Government of Maharashtra, time to time.

3.3 Selection Basis: The selection would be done as per the guidelines given by the Director of Technical Education, Maharashtra State, time to time.

***Bridge course:** Bridge course for Non- IT/ CS students shall be conducted by the Institute.

4. Lecture-Practical-Project

A course shall have either or all the three components, i.e. a course may have only lecture component, or only practical/project component or a combination of any two/three components.

The MCA programme is a combination of:

a. Three-Credit Courses (75 Marks each)
b. One-Credit Courses (25 Marks each)
c. Six- Credit Courses (100 Marks)
d. Three-Credit MOOC courses (50 marks each)
e. Three-Credit Practical courses and Mini Project (50 marks each)