

Syllabus and Marking Scheme for Master of Computer Applications MAH MCA CET 2020

The Online CET would be comprised of 4 sections viz. **Mathematics & Statistics**, **Logical/Abstract Reasoning**, **English comprehension** and **verbal ability** and Computer Concepts of total 200 marks, with composite time of 90 minutes duration.

Syllabus:-

A) Mathematics & Statistics:

The questions will cover the following topics of High school mathematics (up to the 12th standard)

- **Algebra:** Fundamental operations in Algebra, Expansion, factorization, Quadratics' equations, Induces, logarithms, arithmetic's, geometric and harmonic progressions, binomials theorem, permutations and combinations.
- **Co-Ordinate Geometry:** Rectangular Cartesian co-ordinates, equations of a line mid point, intersections etc., equations of a circle. distance formulae, pair of straight lines, parabola, ellipse and hyperbola, simple geometrics transformations such as translations, rotation, scaling.
- **Differential Equations:** Differential equations of first order and their solutions, linear differential equations with constant coefficients, homogenous linear differential equations.
- **Trigonometry:** Simple identities trigonometric equations, properties of triangles, solution of triangles, height and distance, inverse function.
- **Probability and Statistics:** basic concepts of probability theory, Averages, Dependent and independent events, frequency distribution and measure of dispersions, skewness and kurtosis, random variable and distributions functions, mathematical expectations, Binomial, Poisson, normal distributions, curve fitting and principle of least squares, correlation and regression.
- **Arithmetic:** Rations and proportions, problems on time-work, distance-speed, percentage etc.
- **Basics Set theory and Functions:** Set Relegations and mappings.
- **Mensurations:** Areas, triangels and quadrilaterals, area and circumference of circle, volumes and surface areas of simple solids such as cubes, spheres, cylinders and cones.

Computer Concepts:

- **Computer Basics:** Organizations of a computer, Central Processing Unit (CPU), Structure of Instructions in CPU, input/output devices, computer memory, memory organization, back-up devices.
- **Data Representations:** Representations of characters, integers, and fractions, binary and hexadecimal representations, binary.

- **Arithmetic:** Additions, subtraction, division, multiplication, signed arithmetic, floating point representation of numbers, normalized floating point representation, Boolean algebra, truth tables, Venn diagrams.
- **Computer Architecture:** Block Structure of Computers, communication between processor and I/O devices, interrupts.
- **Computer language :** Assembly language and high level language, Multiprogramming and time sharing operating systems, Computer Programming in C.
- **Operating System basics:** Multiprogramming and time sharing Operating systems.

Sections	No of Questions	Marks per Question	Maximum Marks	Total Marks
Mathematics & Statistics	30	2	60	200
Logical & Abstract Reasoning	30	2	60	
English comprehension and verbal ability	20	2	40	
Computer Concepts	20	2	40	
The Test will comprise of multiple choice objective type questions (Four Options)				
There is negative marking system for this CET. Each correct answer will carry 2 marks . Each wrong answer will carry 0.5 negative marks . Unanswered questions will carry zero marks.				
Exam Duration : 90 Minutes				
Medium of CET: English				