2. Syllabus and Marking Scheme for Master of Computer Applications MAH- MCA CET 2019

The Online CET would be comprised of two online papers viz. General Aptitude (GA) and Computer Concepts (CC) of 100 marks each, with composite time of 90 minutes duration. Each paper shall have 25 questions

Contents:-

1. General Aptitude

The main objective of this paper is to assess the general aptitude of the candidate to pursue a computer applications and software profession.

Syllabus

The questions in this paper will cover: logical reasoning, quantitative reasoning, high school mathematics, vocabulary, English comprehension and verbal ability. A good grasp of the following topics of high school mathematics (up to the 12th standard) will be useful:

- Algebra : Fundamental operations in Algebra, Expansion, factorization, Quadratic equations, indices, logarithms, arithmetic, geometric and harmonic progressions, binomial 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 geometric transformations such as translation, 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 distributions, and measures of dispersions, skewness and kurtosis, random variable and distribution functions, mathematical expectations, Binomial, Poisson, normal distributions, curve fitting, and principle of least squares, correlation and regression.
- Arithmetic: Ratios and proportions, problems on time-work, distance-speed, percentage, etc.
- Basic Set Theory and Functions: Set, relations and mappings.
- Mensuration: areas, triangles and quadrilaterals, area and circumference of circles, volumes and surface areas of simple solids such as cubes, spheres, cylinders and cones.

2. Computer Concepts

Syllabus

- Computer Basics : Organization of a computer, Central Processing Unit (CPU), Structure of instructions in CPU, input / output devices, computer memory, memory organization, back-up devices.
- Data Representation : Representation of characters, integers, and fractions, binary and hexadecimal representations, Binary Arithmetic: Addition, subtraction, division, multiplication, signed arithmetic and two's complement 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 timesharing operating systems.

TOPICS	No of Questions	Mark/s per Question	Maximum Marks	Total Marks
General Aptitude	25	4	100	
Computer Concepts- Computer Basics, Data Representation, Computer Architecture, Computer Language, Operating System Basics	25	4	100	200
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 4 marks. Each wrong answer will carry 1 negative mark. Unanswered questions will carry zero marks.				
Test Duration: 90 minutes				
Medium of CET: English				
Mode of Examination - Online				

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