# Karnataka Examinations Authority, Bengaluru - 560012 PGCET: 2024 – 25 Number of MCQ questions for PGCET is 100. Each question carry one mark. Examination mode: Online (computer Based Test) Syllabus for PGCET in Master of Computer Applications (MCA)

## (1) Mathematics.

(i)Algebra: Fundamental operations in Algebra, Expansion, Factorization, Simultaneous Linear/ Quadratic equations, Indices, Logarithms, Arithmetic, Geometric and Harmonic progressions, Binomial Theorem, Permutations and Combinations, Determinants, Matrices, Sets and application to solution of simultaneous linear equations.

(ii)Co-Ordinate Geometry: Rectangular Cartesian co-ordinates, Equations of Line, Midpoint, Intersections, etc., Equations of a Circle, Distance formulae, Pair of straight lines, Parabola, Ellipse and Hyperbola, Simple Geometric transformations such as Translation, Rotation, Scaling.

(iii)Boolean algebra: Basic operations, Evaluation of Boolean expressions, Basic postulates of Boolean algebra.

(iv)Trigonometry: Simple identities, Trigonometric equations, Properties of Triangles, Inverse function.

(v)Probability and statistics: Basic concept of probability theory, averages, dependent and independent events, Frequency distributions and measures of dispersions, skewness and Kurtosis, correlation and Regression, Random variables.

#### (2)Computer Awareness

(i)computer Basics: organization of a computer, central Processing Unit (CPU), Input /output devices, Computer Memory, Programming Languages, Types of Software's, General awareness about Internet. Web Applications, Database Applications and Information systems.

(ii)Data Representation: Representation of Characters, Integers and Fractions, Binary, ASCII and Hexadecimal representations.

(iii)Binary Arithmetic: Addition, subtraction, Multiplication, Division, Two's complement arithmetic,Floating-point representation of numbers, normalized Floating-point representation. (iv)Operating systems: Evolution of operating systems, types of operating systems, functions of an operating system, modern operating systems.

## (3) Analytical Ability and logical Reasoning

Logical Reasoning, quantitative reasoning and visuospatial reasoning.

### (4)General Awareness

Awareness about Business, Finance, Industry, Transportation, Scientific inventions, Governance, Healthcare and Cultural dimensions. Entrepreneur and Entrepreneurship, Business Communication.

#### (5) General English

Basic English grammar, vocabulary, comprehension, synonyms, antonyms, sentence correction, word and phrases, jumbled paragraph.

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