

**POST-GRADUATE DIPLOMA IN  
COMPUTER APPLICATIONS**

TEST CODE: **DCG** (Objective Type) **2019**

**SYLLABUS**

**Algebra** - Arithmetic, geometric and harmonic progression; Series and sequence; Permutation and combination; Binomial theorem; Theory of quadratic equations; Inequalities; Elementary set theory; Vectors and matrices; Determinant, rank and inverse of a matrix; Solution of linear equations; Boolean algebra: Boolean functions, Logic gates, De Morgan's theorems, Basic number representation (One's and Two's compliment).

**Trigonometry** - Basic concepts; Compound angles; Inverse circular functions; Solution of trigonometric equations; Properties of triangles.

**Basic Statistics** - Central tendency; Dispersion; Probability.

**Coordinate geometry** - Straight line; Circle; Tangents and normals.

**Calculus** - Functions, limits and continuity of a function of one real variable; Rolle's theorem; mean value theorem; Differentiation and integration of a function of one real variable with applications; Definite integrals; Areas using integrals; Maxima and minima, and their applications; First order differential equation in single real variable.

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