

**POST-GRADUATE DIPLOMA IN COMPUTER
APPLICATIONS**

TEST CODE : **DCG** (Objective Type) **2017**

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: 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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