

## 104 : Business Mathematics

1. Arithmetic, Geometric and Harmonic Progressions including series. Permutation and Combination.
2. Matrices and Determinants: Types of Matrices, Addition, Subtraction multiplication of Matrices. Determinants of order two and three. Matrix inversion, solution of systems of linear equations by matrix inversion as well as pivotal method.
3. Logarithms:  
Differential Calculus: Functions (Algebraic and Simple Trigonometric) Limits, Continuity, differentiability. derivatives by the first principle.
4. Differentiation of Simple cases and standard forms. Successive differentiation Maxima and Minima of functions upto second order Applications of Maxima and Minima in Business problems.
5. Integral Calculus: Integration of some standard forms. Integration by substitution, by parts and by partial fraction. Definite integrals under some standard forms.

### Suggested Readings:

1. Gorakh Prashad: Text book on Differential Calculus, Pothishala Private Limited, Allahabad.
2. Gorakh Prashad: Text book on Integral Calculus, Pothishala Private Limited, Allahabad.
3. Saha S.: Business Mathematics, New [Central Book Agency, Calcutta.
4. Sancheti D.C. and Kapoor V.K.: Business Mathematics, Sultan Chand & Sons, New Delhi.
5. Shanti Narayan: A Text Book of Matrices, S.Chand & Co. New Delhi.