

COMMON FOR B.Sc. BIO-CHEMISTRY AND
BIO-TECHNOLOGY DEGREE COURSES

[Students admitted from the academic year 2007-08]

ALLIED SUBJECT A – PAPER I

BASIC MATHEMATICS

(To be selected during I Semester for B.Sc. Bio-Chemistry degree courses and during III Semester for B.Sc. Bio-Technology degree Courses)

Max. ~~100~~ Marks

Duration: 7 Hours

Unit - I

Binomial, Exponential and Logarithmic series (Statement Only) – Application to summation of series only.

Unit – II

Quadratic Equation - Matrices – Determinant of a matrix – Inverse of a matrix – Characteristic equation of a matrix – Eigen values – Solutions of simultaneous linear equations in three variables using matrices.

Unit – III

Differentiation of algebraic – exponential logarithmic and trigonometric functions – physical interpretations of derivatives with reference to velocity and acceleration – application of differentiation to maxima and minima (simple problems)

Unit – IV

Partial differentiation (Simple problems) – Integration of simple algebraic, exponential and trigonometric functions – substitution method – integration by parts.

Unit – V

Measures of central tendency – Mean, Median, Mode – Measures of dispersion – Quartile deviation – Mean deviation – standard deviation

– correlation – Karl Pearson's coefficient of correlation – rank correlation.

Books for Reference :

1. Calculus – Volume I – T.K. Manickavasagam Pillai and others
2. Calculus – Volume II - T.K. Manickavasagam Pillai and others
3. Algebra - T.K. Manickavasagam Pillai and others
4. Statistical Method – S.P.Gupta.