

**SECOND ALLIED PAPER – III – A – COMPUTER APPLICATIONS IN BIOLOGY**

UNIT – I

Sample spaces – Events – Probability axioms – Conditional probability – Independent events – Baye's formula.

UNIT – II

Random variables – The distribution function – Marginal distribution – conditional distribution – continuous and discrete distribution – T-test-Chi square test – Binomial, Normal and Exponential distribution.

UNIT – III

Expectation – Moment generating function – Chebychev's inequality – Correlation – Regression – multiple and partial correlation.

NUMERICAL METHODS:

UNIT – IV

Curve fitting and finite difference – curve fitting – Least square's method – finite differences – Difference operators – Newton's Forward and backward formula.

UNIT – V

Solution of algebraic equations: Newton Raphson method, False-position method – Solution of simultaneous algebraic equations – Gauss elimination – Gauss seidal – Iterative method.

Books for study:

1. Introduction to Numerical Methods 1990.S.S.Shastrri.
2. Computer Oriented Numerical Methods 1971 V.Rajaraman
3. Numerical Methods. Goel and Mittal. Pragati Publications.
4. Statistical Mehtods S.P. Gupta S.Chand & Co.
5. High Engineering Mathematics 1996. Dr.N.S.Grewal.Khanna Publishers.