H.N.G.UNIVERSITY PATAN
S.Y.B.A. Semester: 3   Quantitative Techniques -1
Core Compulsory. 207 –C (Main-Optional)
Quantitative Techniques -1

Objective:-The main objective of this paper is to train the students to use the techniques of mathematical and statistical analysis, which are commonly applied to understand and analyze economic problem.

Unit.1   Basic Concepts

(a) Variables, Sets, Functions, Equations, Application of straight -line system, Slope of the line, Homogeneous function.
(b) Meaning of differentiation, Rules of differentiation.

Unit .2   Application of differentiation in Economics

Maxima and Minima, Elasticities, Equilibrium of a firm and consumer, inter relationships among total, marginal and average cost and revenues, constrained optimization problem.

Unit 3   Matrix and Determines

Various types of matrices, Determinates, inverse of matrix, crammer's rule.

Unit 4   Introduction to statistics

Basic concepts: Population, Sample, Parameter, Frequency, Distribution, Cumulative frequency: Graphic and diagrammatic representation of data, Thchniques of data collection; Sampling vs. population, primary and secondary data.

Basic Reading:-

1. Bhardwaj R.S., Business statistics, Excel Books, New Delhi.
2. Business statistics, Sudhir Prakashan, Ahmedabad.
3. Allen R.G.D., Mathematical Analysis for Edonomists,Macmillan Press And ELBS,London.
4. Chiang A.C., Fundamental Methods of Mathematical Economics, McGraw Hill, New York.
5. Asthana B.n.,Elements of Statistics, S,Chand & co Ltd. New Delhi.