

VEER NARMAD SOUTH GUJARAT UNIVERSITY
F.Y. B.COM (External) Syllabus
STATISTICS FOR BUSINESS
(External Programme)
(With Effect from Academic Year 2014-2015)

UNIT-I: (20%)

CALCULUS:

- a) Rules for taking limit of a function.
- b) Definition and rules (without proof) of differentiation, derivatives of a composite and implicit functions, second order derivative, Maxima and Minima of a function and its application to problems relating to business, commerce and economics.

Integration :

Concept of definite and indefinite integration of a function and integration of standard form x^n , a^x , e^x , $\log x$.

UNIT-II: (25%)

ANALYSIS OF CATEGORICAL DATA

Meaning of categorical data, consistency of categorical data, independent and association of attributes, various measures of association for classified data. (2x2 and 2xn)

PROBABILITY:

Revision probability. Conditional probabilities. Concepts of a prior and posterior probability. Bays theorem and its application.

UNIT-III: (25%)

PROBABILITY DISTRIBUTIONS:

Concept of discrete probability distribution, Binomial distribution, its properties and uses Recurrent relation and application, Poisson distribution, its properties, uses mean and variance and its application. Hypergeometric distribution with applications.

Concept of continuous probability distribution, Normal distribution, its applications

UNIT-IV: (30%)

STATISTICAL QUALITY CONTROL

Control Charts:

Importance of statistical methods on industrial research and practice. Concept of statistical quality control (S.Q.C.) for variables and advantages.

Concept of statistical quality control (S.Q.C.) for attributes and advantages.

General theory of control charts. Specification limits tolerance limits modified control limits and their inter relationship.

Control charts for variables : \bar{X} and R charts.

Control charts for attributes : p, np and c charts.

Books :

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| Pavate D.C. Bhagwat | : The Element Calculus : Popular Prakshan, Bombay |
| Gupta S.P. | : Statistical Method : S.chand & Co., New Delhi. |
| Rohtgi V.K. | : An introduction to probability theory and mathematical statistics : Wiley Estem Ltd. |
| Sancheti D.C. Kapoor V.K | : Statistics : Sultan chand & sons, New Delhi. |
| Grant E.L. | : Statistical Quality Control : Me Graw Hill Books Co. |