

VEER NARMAD SOUTH GUJARAT UNIVERSITY

University Campus, Udhna-Magdalla Road,
SURAT – 395 007.

M.Com. (Part- II) Statistics

Advanced Statistics Paper – V

(External Programme)

Effect from 2015- 16

(1) Decision Theory :

No data decision problem $[\Theta, A, L]$, Statistical decision problem $[\Theta, D, R]$, Non randomized decision rules, risk function, better decision rule, admissible decision rule, maximin and minimax decision rules, prior information and Bayes' decision rule. (30%)

(2) Game Theory:

Competitive games, Two person zero sum game, Minimax and Maximin principle, Fundamental theorem of game theory, Saddle point and the value of game (based on pure strategies), mixed strategies, solution of games with / without saddle point, Dominance rule, solution of $m \times 2$ and $2 \times n$ games using graphical method, Algebraic method of solving games. (20%)

(3) PERT /CPM :

Introduction, Historical development of PERT/ CPM techniques, Applications of PERT / CPM techniques, Basic steps, network diagram representation, rules of drawing network diagram, time estimates and critical path in network analysis, PERT technique, updating resource allocation, limitation of network techniques. (20%)

(4) Statistical Quality Control:

Concept of quality and statistical quality control, Sampling inspection, Acceptance Sampling Plans for attributes, single and double sampling plans for attributes, sequential sampling plans for attributes, concept of total quality management (TQM), Introduction to Just In Time (JIT) inventory, Quality circles production. (30%)

BOOKS:

- (1) Moshe, B. and Levy, H. (1984): Statistical Decision and Applications in Business and Economics; Mac Graw Hills.
- (2) Paria, G. (): Linear Programming, Transportation, Assignment, Game; Books & Allied Pvt. Ltd, Kolkata.
- (3) Grant, E.L. (1964): Statistical Quality Control; Mac Graw Hills.
- (4) Kanti Swarup, P.K. Gupta and Man Mohan (1995): Operations Research; Sultan Chand & Sons; New Delhi.
- (5) Sharma, S.D. (1998): Operations Research; Kedar Nath & Sons, Meerut.
- (6) Sharma, J.K. (1998): Operations Research; Mac Milan Pub., New Delhi.