## **BUSINESS STATISTICS-I**

External Marks: 80 Internal Marks: 20 Time: 3 Hours

Note: Paper setter will set nine questions in all. Question No. 1 comprising of five short types questions carrying four (4) marks each is compulsory. It covers the entire syllabus. Answer to each question should not be more than one page. Candidate is required to attempt four questions from the remaining eight questions carrying 15 marks each.

Introduction of statistics: concept, scope, usefulness & limitations of statistics, distrust of statistics. Collection of data: primary and secondary data, methods of collection of data.

Measure of central tendency: mean, median, mode, harmonic mean and geometric mean. Measure of dispersion: range, inter-quartile range, quartile deviation, mean deviation, standard deviation, coefficient of variation, Lorenz curve.

Index numbers: meaning, types and uses of index numbers, methods of preparation of index numbers: simple or unweighted and weighted index number, problems in the preparation of index numbers, Tests of adequacy; Chain-base index numbers; Base shifting, Splicing and deflating, Consumer price index.

Analysis of Times Series: causes of variation in time series data; Components of a time series; Decomposition: additive and multiplicative models; determination of trend: moving averages method and method of Least Squares (including linear second degree, parabolic, and exponential trend); Computation of seasonal-indices by sample averages, ratio-to-trend, ratio-to moving average and link relative methods.

## REFERENCES

- Gupta S.P., Business Statistics, Sultan Chand Publications, New Delhi.
- Hooda, R.P., Introduction to Statistics, Macmillan, New Delhi.
- Hooda, R.P., Statistics for Business and Economics; Macmillan, New Delhi.
- Lewin and Rubin, Statistics for Management, Prentice-Hall of India, New Delhi.
- Sancheti, D.C. and Kapoor, V.K., Statistics (Theory, Methods & Application), Sultan Chand & Sons, Delhi.
- Hoel & J Assen, Basic Statistics for Business and Economics; John Wiley and Sons, New York.