

Instruction to Candidates:

- 1) Section - A is compulsory.
- 2) Attempt any Nine questions from Section - B.

Section - A

Q1) (15 x 2 = 30)

- a) Kurtosis.
- b) Quadratic equation.
- c) Annuity.
- d) Define adjoint of matrix.
- e) Normal distribution.
- f) Index number.
- g) Estimate and estimator.
- h) Merits of dispersion.
- i) Significance of regression coefficient.
- j) Significance of skewness.
- k) Quartile deviation.
- l) Scatter diagram.
- m) Chi-square test.
- n) Mode.
- o) Non-parametric test.

Section - B

(9 x 5 = 45)

- Q2) What is the role of mathematics and statistics in business decisions?
- Q3) What are index numbers and why they are called Business Barometers?
- Q4) Write in detail about matrix algebra with suitable example.
- Q5) Write notes on :
 - (a) Arithmetic progression.
 - (b) Geometric progression.
- Q6) A balanced coin is tossed 4 times. Find the probability distribution of the number of heads and its expectations.
- Q7) What are time reversal and factor reversal tests? State their uses.
- Q8) Write notes on Association of attributes and Skewness and kurtosis.
- Q9) Write with examples the relationship between regression and correlation.
- Q10) How rank method is useful?
- Q11) Write notes on index numbers and statistical quality control.
- Q12) What are t test and F test. In which situation these are applied.
- Q13) What is time series analysis?

