

MAY 2013

P/ID 37502/PBAB

Time : Three hours

Maximum : 80 marks

PART A — (5 × 5 = 25 marks)

Answer any FIVE questions.

1. Write the rules of probability.
2. Differentiate between probability and non-probability sampling.
3. Describe type-I and type-II error.
4. State the importance of factor analysis.
5. Describe the objectives of discriminant analysis.
6. State the application of differentiation.
7. Differentiate between average cost and total cost.
8. Write the format of Research Reports.

PART B — (4 × 10 = 40 marks)

Answer any FOUR questions.

9. A company has 8 assistant managers of which 5 are male, remaining are female. 2 candidates are selected for the posts of managers one after other. What is the probability that both candidates selected are female?
10. Find the co-efficient of correlation between price and demand from the following data.
- | | | | | | | | |
|--------|----|----|----|----|----|----|----|
| Price | 11 | 13 | 15 | 17 | 18 | 19 | 20 |
| Demand | 30 | 29 | 24 | 24 | 21 | 18 | 15 |
11. A sample of 20 observations gave a standard deviation 3.72. Is this compatible with the hypothesis that the sample is drawn from a normal population with variance 4.35?
12. Differentiate $2x^4 + 3x^3 - 6x^{2/3} + \frac{1}{\sqrt{x}}$.

13. Discuss the advantages of conjoint analysis in marketing problems.
14. Differentiate between academic and business research reports.

PART C — (1 × 15 = 15 marks)

Compulsory

15. From the following data obtain the two equations of the regression lines. Also estimate y when $x = 12$ and estimate x when $y = 12$.

X	6	8	10	2	4
Y	9	7	5	11	8