

MAY 2013

P/ID 6002/MBB

Time : Three hours

Maximum : 80 marks

PART A — (8 × 5 = 40 marks)

Answer any EIGHT questions.

1. Let $A = \begin{bmatrix} 2 & 1 & 3 \\ 6 & 2 & 4 \\ 2 & 6 & 4 \end{bmatrix}$ find AI ?
2. Describe the properties of addition matrix.
3. State the rule of probability addition.
4. Describe the business application of baye's theorem.
5. What are risks and uncertainty in decision making?
6. Define average cost and total cost.
7. State the uses of integer calculus.
8. Describe the use of chi-square test in business decision.

9. What is mean by single and two factor analysis of variance.
10. State the objective of discriminant analysis.
11. Describe the ethics of business research.
12. Why is it necessary to specify the limitation of the study in research report?

PART B — (4 × 10 = 40 marks)

Answer any FOUR questions.

13. Find the Adjoint matrix of $A = \begin{bmatrix} 3 & 7 & 1 \\ 6 & 9 & 2 \\ 3 & 5 & 4 \end{bmatrix}$.
14. By examination, it is observed that the probability that a machine produces a defective bolts is 0.02 when a sample of bolts is taken find out the probability of getting 0,1,2,3 and 4 defective bolts.
15. Given the following data of the two distributions :

Distributions	Mean	SD	Sample size
A	100	12	80
B	95	10	70

Test whether the difference between sample mean is significant.

16. Integrate the following $\frac{1+x}{(2+x)^2} e^x dx$.

17. Find the correlation between X and Y

X 250 260 240 280 300 230 220 260 270 290

Y 100 120 100 150 150 90 80 100 120 130

18. How have technological advancements helped in writing and presenting research reports?
