S.No. 8002 24DPBA02

(For the candidates admitted from 2024–2025 onwards)

#### M.B.A. DEGREE EXAMINATION, MAY 2025

#### First Semester

# QUANTITATIVE TECHNIQUES AND RESEARCH METHODS IN BUSINESS

Time: Three hours Maximum: 75 marks

## PART A — $(10 \times 2 = 20 \text{ marks})$

### Answer ALL questions

- 1. What is the chance of getting a king in a draw from a pack of cards?
- 2. State the addition theorem of probability.
- 3. Write short note on manifold classification.
- 4. State the various types of scales.
- 5. Calculate A.M for the given data. 12,14,2,16,10,8.
- 6. State the formula for Karl Pearson Co efficient of correlation.
- 7. Give a short note on conjoint analysis.
- 8. What is Regression?
- 9. What are the key considerations of chapterisation in report writing?
- 10. State the different styles of referencing.

PART B — 
$$(3 \times 5 = 15 \text{ marks})$$

Answer any THREE questions.

- 11. State and Prove Baye's Theorem.
- 12. Why research designs are important?
- 13. Find Standard deviation of the given data.

8 9 15 23 5 11 19 8 10 12

- 14. Explain Cluster Analysis.
- 15. How do you write the title of report? Explain.

PART C — 
$$(5 \times 8 = 40 \text{ marks})$$

### Answer ALL questions.

16. (a) An Urn contains 8 white balls and 3 red balls. If two balls are drawn at random. Find the probability that (i) Both are White (ii) Both are red.

Or

- (b) From a pack of 52 cards two cards are drawn at random. Find the chance that one is knave and the other is queen.
- 17. (a) Explain the various methods of Primary data collection.

Or

- (b) Differentiate Probability Sampling with Non Probability Sampling.
- 18. (a) Calculate A.M

Marks 4 8 12 16 20

No. of students 6 12 18 15 9

Or

(b) The ranks of students in Hindi and Tamil are given by

Hindi 6 1 5 2 4 3

Tamil 3 1 4 2 5 6

19. (a) Describe the applications of Multi dimensional scaling in management Problems.

Or

- (b) Explain SEM Analysis its key aspects in Research.
- 20. (a) Discuss about the ethical considerations in research methodology

Or

(b) What are the major differences between research in Academic and in Industry - Explain.