



# ST. FRANCIS DE SALES COLLEGE

A FRANSALIAN INSTITUTE OF HIGHER EDUCATION **AUTONOMOUS**

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## END SEMESTER EXAMINATION – AUGUST 2025

### COMMERCE -II SEMESTER M.COM

#### 24MCO23 – ADVANCED RESEARCH METHODOLOGY

**Time: 3 Hours**

**Max. Marks: 70**

**Instruction:** Answer should be written completely in English

#### SECTION – A

1. Answer any SEVEN questions. Each question carries TWO marks. (7X2=14)

- a. Define experimental research.
- b. Mention any two types of research based on objectives.
- c. Name two types of variables in research design.
- d. What is meant by redefining the research problem?
- e. What is a nominal scale? Give one example.
- f. Define coding of data in research.
- g. Define response error.
- h. What is Type I error?
- i. Mention any two parametric tests.
- j. Mention any two assumptions of non-parametric tests

#### SECTION – B

Answer any FOUR questions. Each question carries FIVE marks. (4X5=20)

2. Explain theoretical and empirical research with suitable illustrations.
3. Explain the importance of a literature review in research.
4. What are the differences between simple and manifold classification of data?
5. Write a short note on the various types of non-probability sampling techniques.
6. Find the t-test value for the following two sets of values: 7, 2, 9, 8 and 1, 2, 3, 4
7. Jaya chemical company claims the pH of a solution is 7. From a sample of 16 solutions, the mean pH is 6.8 with a standard deviation of 0.5. Test the claim at 5% level.



## SECTION – C

Answer **any TWO** questions. **Each** question carries **TWELVE** marks. **(2X12=24)**

8. Discuss the research process in detail, covering all major steps.
9. Discuss the types, examples, and characteristics of research problems in social science.
10. Explain the types of comparative scaling techniques and highlight their strengths and limitations.
11. A study was conducted to see if there's an association between gender and preference for a new product. The responses are shown below:

Gender	Like	Dislike	Total
Male	30	20	50
Female	20	30	50
Total	50	50	100

## SECTION – D

12. **Compulsory** skill-based question on case study. **(1x12=12)**

A teacher uses three different teaching methods and records student scores:

- i. Method A: 78, 85, 82, 88, 91
- ii. Method B: 72, 74, 70, 69, 75
- iii. Method C: 80, 83, 85, 87, 82

Test whether the teaching method has a significant effect on student performance.

