

**M.SC. IN FOOD SAFETY AND
QUALITY MANAGEMENT
(MSCFSQM)**

**Term-End Examination
December, 2025**

MVP-009 : RESEARCH METHODOLOGY

Time : 3 Hours

Maximum Marks : 100

Note : Answer any *five* questions. All questions carry equal marks.

1. (a) Define the following terms (any *five*) :

5×2=10

- (i) Citation
- (ii) Variable
- (iii) Factorial Design
- (iv) Quota Sampling
- (v) Mean
- (vi) Standard Deviation
- (vii) Discrimination Index

- (b) How will you identify a research problem ? Enlist criteria which a research problem must satisfy. 10
2. (a) Discuss the review of literature with respect to its steps and advantages. 10
- (b) What are null and alternative hypotheses ? Provide the criteria for a good hypothesis. 10
3. (a) Elaborate on the characteristics of a research design and list the key characteristics of a good research design. 10
- (b) Narrate the different steps involved in a descriptive research design. 10
4. (a) What are the different steps in conducting survey research ? Discuss the advantages and disadvantages of surveys. 10
- (b) Explain the various measurement scales used in research. 10

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5. (a) List the characteristics of good item and provide guidelines for item writing. 10
(b) How are categorical data in research tabulated and presented ? 10
6. (a) Classify the sampling techniques and explain probability based sampling techniques. 10
(b) List the main components of a research report. Explain the broad contents of each chapter in a research report. 10
7. Write short notes on the following (any *four*) : $4 \times 5 = 20$
(a) Principal Component Analysis (PCA)
(b) Completely Randomized Design (CRD)
(c) F-test
(d) Research Objectives
(e) Data Collection

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