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MVP-009

**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

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- (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

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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