

**M. SC. IN FOOD SAFETY AND
QUALITY MANAGEMENT/POST
GRADUATE DIPLOMA IN FOOD
SAFETY AND QUALITY
MANAGEMENT
(MSCFSQM/PGDFSQM)
Term-End Examination**

June, 2026

**MVP-001 : FOOD FUNDAMENTALS AND
CHEMISTRY**

Time : 3 Hours

Maximum Marks : 100

Note : (i) Attempt any *five* questions.

(ii) All questions carry equal marks.

1. (a) Describe the functions of food constituents in the body. 8

- (b) Enlist the methods of slaughtering food animals and explain the steps involved in dressing food animals for the production of wholesome meat. 12
2. (a) Write a note on the following Indian dairy products : 2×5=10
- (i) Dahi
 - (ii) Chhena
 - (iii) Khoa
 - (iv) Makkhan
 - (v) Shrikhand
- (b) Describe the processing and preservation of fish. 10
3. (a) Explain the different physiochemical properties of carbohydrates. 10
- (b) Describe the following concepts related to enzymes : 5×2=10
- (i) Immobilization of enzymes
 - (ii) Browning reaction

4. (a) Explain the working of gas chromatography with a schematic diagram. 10
- (b) Explain the components ICP-OES and explain its working. 10
5. (a) Enlist the thermal analysis methods. Describe Differential Scanning Colourimetry (DSC) and its applications. 10
- (b) Describe the following sensory analysis tests : 10
- (i) Paired Comparison Test
- (b) Duo-Trio Test
6. (a) Explain the different methods of food freezing. 10
- (b) What is Edible Packaging ? Describe its advantages, requirements and materials used. 10

7. Write short notes on the following : 5×4=20

- (a) Retort packaging
- (b) Rancidity determination test
- (c) Role of water activity
- (d) Need for packaging of food
- (e) Organic food

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