

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

Term-End Examination

June, 2025

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

Time : 3 Hours

Maximum Marks : 100

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

1. (a) Write full form of the following abbreviations : 1×10=10
- (i) RTE
- (ii) NAFED

(iii) WTO

(iv) GMP

(v) NMR

(vi) FFS

(vii) HACCP

(viii) UHT

(ix) RFID

(x) GRAS

(b) Discuss the use of active packaging techniques for shelf life extension of food. 10

2. (a) Elaborate about the sources, physiological role and food application of any *two* macrominerals in diet. 5+5

- (b) Write about the physico-chemical properties of proteins. Also mention about the functional properties of proteins in food. 5+5
3. (a) Explain the preservation and processing of fish. 10
- (b) Describe the steps for processing liquid milk from procurement till packaging. 10
4. (a) Explain the progress reactions, causes and prevention of oxidative rancidity in oils. 15
- (b) What is meant by hedonic rating of food ? Why is it important for new product development ? 5

5. (a) What is aseptic packaging of foods ?
How are aseptic packages sterilized ? 10
- (b) Elaborate on the use of food waste as compost. Give the environmental and agricultural benefits of this technique. 10
6. (a) Explain the technology, benefits and risk associated with GM foods. 10
- (b) Write about the importance and preparation of protein concentrates and isolates. 10
7. (a) Explain various nutritive and non-nutritive sweeteners used in food. 10
- (b) Write about *four* types of spectroscopic instruments for analysis of food. 10

8. Write short notes on any *four* of the following : 4×5=20

- (a) Humane slaughter
- (b) Candling of eggs
- (c) Offals
- (d) Sorption isotherm
- (e) Iodine number

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