

No. of Printed Pages : 3

MVP-007

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

Term-End Examination

December, 2025

**MVP-007 : EMERGING TRENDS IN FOOD
TECHNOLOGY AND SAFETY**

Time : 3 Hours

Maximum Marks : 100

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

1. Explain the following (any *ten*) : 10×2=20
- (i) Acoustic Cavitation
 - (ii) Cold Plasma
 - (iii) Irradiation
 - (iv) Ohmic Heating
 - (v) Super Critical Fluid
 - (vi) Pulsed Light
 - (vii) Ultrasound

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- (viii) PEF
- (ix) HPP
- (x) Ozone Treatment
- (xi) Herbal Supplements

2. Write notes on the following (any *four*) :

4×5=20

- (a) Nanomaterials
- (b) Intelligent Packaging
- (c) Microencapsulation of Ingredients
- (d) ELISA
- (e) PCR

3. Define and classify Nutraceuticals. Enlist the main health benefits of functional foods.

10+10=20

4. (a) Explain the components, working and principle of Biosensor. 10

(b) Discuss in detail the types of Biosensors. 10

5. (a) Discuss various types of active packaging systems. 10

(b) Define and classify emerging pathogens. Give their implications and public health. 10

6. (a) Explain the types of food fraud. What are the vulnerability elements of food fraud ? 10
- (b) Give the types of entrepreneurs. What are the basics of managing an enterprise ? 10
7. (a) Discuss in detail the applications of Biosensors in detection of food contaminants. 10
- (b) Discuss hyperspectral imaging. 10

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