

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

Term-End Examination

December, 2024

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

Time : 3 Hours

Maximum Marks : 100

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

(ii) *All questions carry equal marks.*

1. Explain the following (any *ten*) : 10×2=20

- (i) High pressure processing
- (ii) Ohmic heating
- (iii) Nutraceutical
- (iv) Fortified food
- (v) Antimicrobial resistance
- (vi) Retort packaging
- (vii) Edible packaging

- (viii) Nanocomposites
 - (ix) Bioreceptor
 - (x) VACCP
 - (xi) Internet of Things (IoT)
 - (xii) Supercritical fluid
2. Write notes on the following (any *four*) : $4 \times 5 = 20$
- (i) ELISA
 - (ii) Infrared spectroscopy
 - (iii) Food irradiation
 - (iv) Food fraud
 - (v) Emerging pathogens
3. (i) What is 'One Health Concept' ? Give its need, common issues and approaches. 10
- (ii) Discuss the principle and applications of pulsed light technology and its effects on food. 10
4. Discuss various active packaging systems for food in detail. 20
5. (i) What are the advantages of non-invasive methods of food analysis ? Explain any *one* such method. 10

- (ii) Describe the principle, advantages and applications of any *one* electron microscopy technique for food analysis. 10
- 6. Discuss the following :
 - (i) Applications of nanomaterials in food processing and preservation. 10
 - (ii) Applications of biosensors in detection of food contaminants. 10
- 7. (i) Explain the functions and characteristics of an entrepreneur. 10
- (ii) Define functional food. Give the types and advantages of functional foods. 10

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