

No. of Printed Pages : 3

MVP-001

**POST GRADUATE DIPLOMA IN FOOD
SAFETY AND QUALITY
MANAGEMENT (PGDFSQM)**

Term-End Examination

December, 2024

**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) Write in brief about the following : $5 \times 3 = 15$
 - (i) Food analysis
 - (ii) Food science
 - (iii) Food safety
 - (iv) Immobilization of enzymes
 - (v) Sorption isotherm
- (b) Discuss the role and function of food in human life. 5

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2. (a) What parameters are used for measuring egg quality ? 7
- (b) In what ways can shell eggs be preserved ? 10
- (c) What is the importance of desugarization of eggs ? 3
3. (a) Differentiate between the following : $5 \times 2 = 10$
- (i) Durables and Perishables
- (ii) Offal and Meat
- (iii) Sausage and Surimi
- (iv) Gelatinization and Retrogradation
- (v) Reichert Meissl number and Polenske value
- (b) Write about the composition of coffee. Give the risks and benefits of coffee consumption. Describe the processing of coffee. 10
4. (a) Draw schematic diagram for liquid milk processing (with parameters). Name the index organism for milk processing. 12
- (b) Discuss various types of sweeteners available for use in food. Mention their sources also. 8

5. (a) State the importance of using active and intelligent packaging systems for food. Give few examples of their utility. 12
- (b) Discuss any *two* methods for measuring moisture in foods. 8
6. (a) What are the importances of protein isolates, concentrates and hydrolysates ? Differentiate them and mention their food applications. 15
- (b) Explain the principle involved in Atomic Absorption Spectrophotometer (AAS). 5
7. Write notes on the following : 5×4=20
 - (i) Labelling requirement of food
 - (ii) Rancidity determination tests
 - (iii) Aseptic packaging
 - (iv) Byproduct utilization in food industry
 - (v) Thermal analysis of food
8. (a) State the importance and requirements of good sampling and problems encountered in the process. 8
- (b) List the methods of food preservation and describe any *two* methods. 12

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