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MVP-001

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

Term-End Examination

December, 2023

**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) Briefly describe the applications of polysaccharides in food. 5
- (b) Differentiate between the following : 5
 - (i) Fortification and Enrichment
 - (ii) Class I and Class II preservatives
- (c) Explain the process of minimal processing of foods. 10

P. T. O.

2. (a) Differentiate between black, green and white tea. Describe the steps involved in processing of black tea. 10
- (b) What are health foods ? Briefly describe the health foods available in the market. 10
3. (a) Write a note on organic foods, their advantages, limitations and regulations. 10
- (b) Give an account of the various rigid packaging materials used in the food industry. 10
4. (a) What is bar coding ? Highlight its advantages. 5
- (b) Differentiate between active and intelligent packaging. List out the various active and intelligent packing systems for foods giving their applications. 15
5. (a) Write short notes on the following :
- $2\frac{1}{2} \times 4 = 10$
- (i) DSC
- (ii) FT-IR
- (iii) TLC
- (iv) Karl Fischer titration method

- (b) Explain the effect of food processing on vitamins. 5
- (c) Enlist the toxic metals. What are the symptoms of metal toxicity ? 5
6. (a) Give the name of disease caused by the deficiency of folic acid, niacin, vitamin C, thiamin and cyanocobalamin. 5
- (b) Describe in detail the physico-chemical and functional properties of protein important in food systems. 15
7. (a) Define the following : 1×5=5
- (i) Lactose intolerance
 - (ii) Maillard Browning
 - (iii) Dietary fibre
 - (iv) Specific heat
 - (v) BOD
- (b) How can milk be pasteurized ? 5
- (c) Explain the various components of AAS with the help of a diagram. 10
8. (a) What is food processing ? Explain the various methods of food processing. 2+6
- (b) What are GMOS ? Highlight the benefits, risks and regulations associated with them. 12