

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

Term-End Examination

00442

December, 2016

**MVP-001(S) : FOOD FUNDAMENTALS AND
CHEMISTRY**

Time : 3 hours

Maximum Marks : 100

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

1. Describe the important nutritional characteristics of food constituents. Also reflect on their functional characteristics. 15+5

2. (a) Enumerate and define ten important indigenous dairy products. 10
(b) Analyse the causes of post-harvest losses in fruits and vegetables and give suggestions to control the losses. 10

3. Define and name any *four* of the following :
 - (a) Anti-nutritional factors present in pulses. 5
 - (b) How does wheatgrass and alfalfa improve health ? 5

- (c) Give examples of any five functional foods and give one potential health benefit for each of these. 5
- (d) Give the important features of National Food Processing Policy. 5
4. (a) Explain a moisture sorption isotherm with a schematic representation and give its significance in the context of food. 10
- (b) What are enzymes ? Describe their application in food industry with appropriate examples. 10
5. (a) What is the basis of lipid classification ? Name the various types of lipids with appropriate examples. 10
- (b) Write in brief the effect of food processing on vitamins and minerals. 10
6. (a) What is the importance of sample collection in the analysis of food products ? Describe one sampling method / technology related to food products. 10
- (b) Describe the principle and procedure of Kjeldahl method used for protein determination. 10

7. (a) Differentiate between 'Food Preservation' and 'Food Processing'. Explain any two basic methods of food preservation. 10
- (b) Explain the packaging system used for long shelf life of milk and fruit juices in modern food industry. 10
8. Write short notes on any *four* of the following : 4×5=20
- (a) HPLC : Detectors used
 - (b) Cryogenic Freezing
 - (c) Oxidation Ditch
 - (d) Aerobic process in the treatment of liquid wastes
 - (e) Corrugated Fibre Board Boxes
 - (f) Affective Tests under Sensory Evaluation of Food
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