

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

Term-End Examination

June, 2013

**MVP-001 : FOOD FUNDAMENTALS AND
CHEMISTRY**

Time : 3 hours

Maximum Marks : 100

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

1. (a) Give one word answer for the following : $1 \times 7 = 7$
- (i) Food processed and produced in the natural way without the use of pesticides or artificial inputs.
 - (ii) Active derivatives extracted from plants exhibits diversified physiological and pharmacological effects.
 - (iii) The phenomenon responsible for the staling of bread.
 - (iv) The property of fat indicating its molecular weight.
 - (v) The pH at which proteins have no change.

- (vi) Sandwich of two or more packaging materials.
- (vii) The ratio of moisture content of the product and the relative humidity of air surrounding it.
- (b) Answer the following. **8x1=8**
- (i) Name one amino acid deficit in pulses.
- (ii) Name one natural antioxidant present in vegetable oils.
- (iii) What is the botanical name of cocoa plant ?
- (iv) Name one colourant present in turmeric.
- (v) Name the sugar present in milk.
- (vi) Write the name of wheat protein.
- (vii) Give the name of pigment-present in tomato.
- (viii) Name the antimicrobial factor present in soyabean.
- (c) Write full form for the following : **5x1=5**
- (i) IMF (ii) PET
- (iii) IQB (iv) AAS
- (v) EPS

2. Write short notes on the following : 4x5=20
- (a) Functional foods and health foods
 - (b) Food safety and Food Security
 - (c) HACCP
 - (d) Tofu and Muesli
3. (a) Describe the National food Processing Policy. 10
- (b) Mention anti-nutritional factors present in pulses. 5
- (c) Discuss the popular cured meat products. 5
4. (a) Which are the by products of milk ? 5
- (b) How the fish and shellfish get deteriorated ? 5
- (c) How does wheat grass and alfalfa improve health ? 5
- (d) What do you understand by water activity of food ? 5
5. (a) Define immobilized enzymes and give three examples of their application in food industry. 4+3
- (b) What is rancidity ? Discuss its types and measures to prevent the rancidity. 2+6
- (c) Write the principle and significance of moisture estimation by distillation method. 5

6. (a) Discuss the objectives and characteristic features of HPLC. 3+5
- (b) What is sensory evaluation of food ? Discuss the criteria to be considered for selection of panelists. 3+4
- (c) Mention the importance of blanching in food industry. 5
7. (a) What is cryogenic freezing ? 5
- (b) Indicate five important advantages of CFB boxes. 5
- (c) List out the general principles of waste reduction, recycling and efficient processing for the food industry. 10
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