

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

Term-End Examination

December, 2010

**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 : 15x1=15
- (i) Food produced and processed in a natural way without involving the usage of pesticides and/or artificial inputs.
 - (ii) Active derivatives extracted from plants having diversified physiological and pharmacological effects.
 - (iii) The amino acid deficient in cereals.
 - (iv) The natural antioxidant present in vegetable oil.
 - (v) What is the botanical name of cocoa.
 - (vi) The phenomenon responsible for staling of bread.
 - (vii) The chemical property of fat indicating its molecular weight.

- (viii) The colourant present in turmeric.
- (ix) The sugar present in milk.
- (x) The pH at which proteins have no charge.
- (xi) The name of wheat protein.
- (xii) The pigment present in red tomato.
- (xiii) The antinutritional factor present in soybean.
- (xiv) Sandwich of two or more packaging material.
- (xv) The ratio of moisture content of the product and the relative humidity of air surrounding it.

(b) Write full form for the following : 5x1=5

- (i) IMF (ii) ETP
- (iii) GRAS (iv) MAP
- (v) BOPP

2. Define the terms : 4x5=20

- (a) Functional foods
- (b) Food safety
- (c) HACCP
- (d) Toffee

3. (a) Describe the National Food Processing Policy. 10
- (b) Name the anti-nutritional factors present in pulses. 5
- (c) Discuss the popular cured meat products. 5
4. (a) Which are the by-products of Indian dairy industry ? 5
- (b) How the fish and shellfish get deteriorated ? 5
- (c) How does wheat grass improve health ? 5
- (d) What do you understand by Food Sampling and Sampling plan ? 5
5. (a) Define Immobilized enzymes and mention its *two* applications in food industry. 3+4=7
- (b) What is rancidity ? Discuss the *types* and *measures* to know the extent of rancidity. 2+6=8
- (c) Write the principle and significance of moisture determination by distillation method. 5
6. (a) Discuss the objectives and characteristic features of HPLC. 3+5=8
- (b) What is sensory evaluation of food ? Discuss the qualifications possessed by panelists. 3+4=7
- (c) Mention the importance of blanching in food processing. 5

7. (a) What is cryogenic freezing ? 5
- (b) Indicate *five* important advantages of corrugated fiber board (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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