

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

**Term-End Examination**

**December, 2012**

**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) Answer the following questions. **10x1=10**
- (i) Name one antinutritional factor present in pulses.
  - (ii) Name one vegetable oil rich in monounsaturated fatty acid.
  - (iii) What is the botanical name of coffee plant ?
  - (iv) Name one popular cured meat product.
  - (v) Name one functional food.
  - (vi) Name one essential trace element.
  - (vii) Name one non - nutritive sweetener
  - (viii) What is the protein percentage of soya protein isolate ?
  - (ix) Name the pigment present in brinjal.
  - (x) Which enzymes are attached to an inert insoluble material ?

- (b) Give one word for each of the following sentences. 5x1=5
- (i) Assuring people to have access to enough food to lead healthy and productive life.
  - (ii) Substances capable of retarding or arresting the deterioration of food.
  - (iii) The process of breaking up fat globules into smaller size so that it no longer separates from the milk.
  - (iv) Surface active agent that promotes the formation of an emulsion.
  - (v) Substance that reduces oxidative damages by scavenging free elements.

- (c) Write **full form** of the following : 5x1=5
- (i) PUFA
  - (ii) MAP
  - (iii) EPS
  - (iv) ETP
  - (v) GRAS

2. Write short notes on the following : 4x5=20
- (a) Muesli
  - (b) Fortification
  - (c) Rancidity
  - (d) Modified starch

3. (a) Differentiate between free and bound water. 5  
 (b) What is a FFS system of food packaging ? 6+2  
 For what types of food is it suitable ?  
 (c) What is primary and secondary processing of cereals. 7
4. (a) Give the composition of honey along with its uses and benefits. 7  
 (b) Define Genetically modified Food and organic Food. Discuss their benefits and drawbacks. 8  
 (c) Define aquaculture and spirulina. 2.5x2=5
5. (a) Define chromatography. Name different detectors used in the gas chromatography and discuss its applications. 2+4+4  
 (b) Describe briefly 5 different types of meat products. 10
6. (a) Explain the health benefits of wheat grass and coffee. Explain the processing of coffee and its composition. 5+5  
 (b) Give the composition of cocoa. Discuss its processing and benefits of consumption. 3+4+3
7. (a) What are affective tests. List the types of affective tests. 4+4  
 (b) Describe the principle of Kjeldhal method of nitrogen estimation. 7  
 (c) Define the iodine value and explain its significance. 5
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