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

**Term-End Examination  
December, 2017**

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

*Time : 3 hours*

*Maximum Marks : 100*

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- Note :** (i) *Attempt any five questions.*  
(ii) *All questions carry equal marks.*
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1. (a) Differentiate between : **2x5=10**
- (i) Primary and Secondary processing
  - (ii) Durable and perishable foods.
  - (iii) Iodine number and peroxide value
  - (iv) Fin fish and Shell fish (with examples)
  - (v) Simple and conjugated proteins
- (b) Explain Mutarotation and inversion of sugar. **10**
2. (a) What is the need of fortification in foods ? **6**  
In what ways can it be achieved ?
- (b) Describe importance of sample collection and considerations involved in this activity. **10**
- (c) What are operating characteristic curves ? **4**

3. (a) Describe the scope and status of Indian Food Processing Industry. 10
  - (b) Name three monitoring and regulatory agencies for food trade. 3
  - (c) What are functional foods ? 2
  - (d) Explain pasteurization of milk. 5
  
  4. (a) How do nutrients differ from Nutraceuticals ? 6
  - (b) Enlist steps to prevent contamination and maintain poultry meat quality. 12
  - (c) What is MAP ? 2
  
  5. (a) Describe various methods to preserve shell eggs. 8
  - (b) Describe the physico chemical parameters to measure water quality. 12
  
  6. Write in brief about the following two techniques :
    - (a) LC - MS and GLC 5+5=10
    - (b) Give the principle and procedure of fat estimation by Soxhlet and reducing sugar by Lane and Eynon method. 5+5=10
  
  7. (a) In what ways by products from food industry are being utilized ? 10
  - (b) Describe secondary treatment for waste water effluents. 10
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