

**MASTER OF SCIENCE DIETETICS AND FOOD  
SCIENCE MANAGEMENT M.SC-(DFSM)**

**Term-End Examination**

**June, 2014**

**MFN-008 : PRINCIPLES OF FOOD SCIENCE**

*Time : 2½ hours*

*Maximum Marks : 75*

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*Note : Question no.1 is compulsory. Attempt five questions.  
All questions carry equal marks.*

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1. Explain the role of the following in 2-3 sentences each: 1½ x 10  
=15
- (a) Sugars in Baking of Cakes.
  - (b) Modified starches in food and Confectionary industry.
  - (c) Gluten in Dough formation
  - (d) Salt in food preservation
  - (e) Conditioning in process of milling of grains.
  - (f) Anti foaming agents in food industry
  - (g) Blanching in food Processing.
  - (h) Use of invert sugar as a sweetner
  - (i) Food application at 'guar gum'
  - (j) Hydration properties of proteins

2. (a) What is food spoilage? List the major causes of food deterioration. 2+5=7
- (b) What is single cell protein? Discuss some advantages of selecting micro-organism as source of protein. 2+6=8
3. (a) What is rancidity? List the factors influencing lipid oxidation. 7
- (b) What are colloids? Explain briefly the properties of colloids. 2+6=8
4. (a) Describe the Principles of dehydration. 3
- (b) List factors that affect drying rate and drying time. Briefly describe the drying techniques. 12
5. (a) Explain briefly the steps involved in product development 8
- (b) Enumerate any two important emerging areas in food science and technology. 7
6. (a) Describe the post harvest handling of food. 8
- (b) What are the preliminary steps involved during preparation of raw materials. 7

7 Write short notes on **any 3** of the following: **5+5+5=15**

- (a) Pasteurisation
- (b) Sols and gels
- (c) Class I and class II preservatives.
- (d) Canning of Vegetables.
- (e) Hedonic Test and paired comparison test.

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