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**MFN-003**

**MASTER OF SCIENCE (DIETETICS AND FOOD  
SERVICE MANAGEMENT)**

**Term-End Examination, 2019**

**MFN-003 : FOOD MICROBIOLOGY AND SAFETY**

**Time : 2½ Hours**

**Maximum Marks : 75**

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**Note :** Question No.1 is compulsory. Answer five question in all . All questions carry equal marks.

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1. (a) Explain the following in 2-3 sentences each with examples : [2×5=10]
- (i) Aerobic spore former
  - (ii) Gram negative rod
  - (iii) Edible Fungus
  - (iv) Baker's Yeast
  - (v) Aflatoxin Producer
- (b) Define Food Safety and state its significance as a subject. [5]

2. Define **any six** of the following : [2½×6=15]

- (i) Hazard
- (ii) Water activity
- (iii) Critical Control Point
- (iv) Mycotoxin
- (v) Coliform
- (vi) Putrefaction
- (vii) Sporulation

3. State the differences between the following sets of terms : [5×3=15]

- (i) Food Intoxication Vs. Food Infection
- (ii) Gram positive cell wall Vs. Gram negative cell wall
- (iii) Bacteria Vs. Fungi

4. (a) Classify the microorganisms on the basis of their growth, temperature and oxygen requirements.

[10]

- (b) Explain briefly the stages of bacterial growth. [5]
5. (a) Explain the significance of Food Safety Management System in Food industry. [10]
- (b) List the factors which influence the emergence of new food borne pathogens. [5]
6. What are the various types of hazards associated with food ? Explain giving examples. [15]
7. Write short notes on **any three** of the following : [15]
- (i) Risk Analysis
  - (ii) Spoilage in canned foods
  - (iii) Temperature Danger Zone
  - (iv) GHPs
  - (v) HACCP

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