

03424

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

Term-End Examination

December, 2016

MFN-003 : FOOD MICROBIOLOGY AND SAFETY

Time : 2½ hours

Maximum Marks : 75

- Note :** (i) *Question No. 1 is compulsory.*
(ii) *Attempt five questions in all.*
(iii) *Attempt all parts of a question together.*
(iv) *All questions carry equal marks.*

1. (a) Give one example of each of the following :
- (i) Causative agent of BSE 1x10=10
 - (ii) Biogenic amine
 - (iii) Sea food toxin
 - (iv) Mycotoxin
 - (v) Food borne virus
 - (vi) Cleaning agent used in food industry
 - (vii) Pathogenic protozoa
 - (viii) Heavy metal in food
 - (ix) Coliforms
 - (x) Spore former
- (b) Give the full form of :
- (i) HACCP
 - (ii) PRP's
 - (iii) TTX
 - (iv) TMA
 - (v) FSMS 5

2. (a) Define **any five** of the following : **5x2=10**
- (i) Food safety
 - (ii) Food Adulteration
 - (iii) Risk Management
 - (iv) PRP's
 - (v) Food Intoxication
 - (vi) Antioxidant
- (b) What are the factors which affect the safety of food ? **5**
3. (a) What food safety measures should be followed in a food service establishment for ensuring food safety ? **10**
- (b) State the significance of personal hygiene in food safety ? **5**
4. (a) What is Risk Analysis ? **5**
- (b) What are the components of Risk Analysis ? Explain. **10**
5. (a) What is the need of HACCP in the food industry ? **7**
- (b) What is the role of food laws and standards in maintaining food safety ? Explain giving examples. **8**
6. State the significance of **any three** of the following in food safety : **3x5=15**
- (a) Biological hazards
 - (b) Veterinary Drug Residues
 - (c) Food Adulteration
 - (d) GHP's
 - (e) Plant Toxicants

7. Write short notes on **any three** of the following : **3x5=15**
- (a) Bacterial Growth Curve
 - (b) Spoilage of Canned Foods
 - (c) Seafood toxins
 - (d) Sources of contamination of food
 - (e) Heavy metals and their impact on health
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