

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

Term-End Examination

December, 2017

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) *All questions carry equal marks.*

1. (a) Define the following : **5x2=10**
- (i) Probiotics (ii) Sanitizer
(iii) Starter culture (iv) CCP
(v) OR potential
- (b) Give one example for each of the following : **5x1=5**
- (i) Aerobic Spore Former
(ii) Edible Fungi
(iii) Neuro toxin producer
(iv) Coliform
(v) Mycotoxin
2. (a) Explain the bacterial growth curve. **7+8=15**
- (b) What are the various growth factors which influence the growth of bacteria ? Explain briefly.

3. (a) Define a hazard. 3
(b) Classify the hazards associated with food giving examples. 12
4. State the significance of the following with respect to Food safety : 5x3=15
(a) Spores
(b) GHP's
(c) Temperature Danger Zone
(d) Antioxidants
(e) VRD's
5. (a) What is Risk Analysis ? Explain its significance. 5
(b) Explain the three components involved in Risk Analysis. Highlight their relationship among the three components. 10
6. (a) What are the types of spoilage associated with canned food ? How will you prevent spoilage in canned foods. 10
(b) State the difference between Food Infection and Food Intoxication giving appropriate examples. 5
7. Write short notes on **any three** of the following : 3x5=15
(a) Food Adulteration
(b) HACCP
(c) Codex Alimentarius
(d) Food Packaging material
(e) Emerging Food borne pathogens
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