

No. of Printed Pages : 5

MFN-003

**MASTER OF SCIENCE (DIETETICS
AND FOOD SERVICE
MANAGEMENT) [M. SC. (DFSM)]**

Term-End Examination

December, 2025

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

Time : $2\frac{1}{2}$ Hours

Maximum Marks : 75

Note : (i) Attempt *five* questions in all.

(ii) Question No. 1 is compulsory.

(iii) All questions carry equal marks.

1. Briefly explain any *five* of the following terms : 5×3=15

(i) Modified Atmospheric Packaging

A-19/MFN-003

P. T. O.

- (ii) Dioxins
- (iii) Antibiotics
- (iv) Allergens
- (v) Rancidity
- (vi) Prions

2. Write short notes on any *three* of the following : 3×5=15

- (i) Factors affecting the growth of microbes
- (ii) Food-borne intoxication
- (iii) Spoilage of milk and its products
- (iv) Street food and its safety

3. (a) How can chemicals be used for control of microorganisms ? Explain with the help of examples. 10

(b) How do harmful products enter food ? 5

4. (a) Describe any *three* of the following fermented foods, highlighting the microorganisms involved : $3 \times 3 = 9$

(i) Cheese

(ii) Dahi

(iii) Bread

(iv) Sauerkraut

- (b) What are food additives ? Give functional role of any *two* additives from the following : $2+4$

(i) Antioxidants

(ii) Preservatives

(iii) Food colours

5. (a) Why are adulterants added in food ?

Give harmful effects of any *three* adulterants found in foods. 4+3

(b) Discuss risk management and risk communication in reference to food safety. 8

6. (a) Expand the following : 5×1=5

(i) FAO

(ii) GHP

(iii) HDPE

(iv) ISO

(v) FSSAI

(b) What is HACCP ? Explain its *seven* principles. 3+7

7. (a) What are disinfectants ? Discuss their role in the food industry. 8
- (b) What do you understand by coding of food products ? Explain briefly. 7
8. (a) What are general hygiene requirements for licensing ? 7
- (b) Describe the various methods of food packaging. 8

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