

**2023**

**M.Sc**

**4th Semester Examination**

**CLINICAL NUTRITION AND DIETETICS**

**PAPER : CND-401**

**( Food Microbiology and Food Preservation )**

*Full Marks : 50*

*Time : 2 hours*

*The figures in the right-hand margin indicate marks.*

*Candidates are required to give their answers  
in their own words as far as practicable.*

*Illustrate the answers wherever necessary.*

*Answer from **all** the Groups as directed.*

**GROUP—A**

Answer *any* **four** questions from the following :

2×4=8

1. Why are mycotoxins considered as secondary metabolites?

( 2 )

2. Differentiate between pasteurization and sterilization.
3. What are bread moulds?
4. What are the economic importances of fungi?
5. What are the major food sources of *Clostridial* diseases?
6. What is the importance of temperature danger zone in food spoilage?

### GROUP—B

Answer *any four* questions from the following :

4×4=16

7. Compare the characteristics of two food-borne viruses, norovirus and hepatitis A virus.
8. Discuss the importance of bacterial endospore in food processing industry.

( 3 )

9. Discuss the significance of disinfectants in food preservation.
10. Discuss briefly 5Q network.
11. Write the symptoms and precautionary measures of food-borne infection due to salmonellosis.
12. What is the importance of 'D value' in food preservation?

### GROUP—C

Answer *any two* questions from the following :

8×2=16

13. Why is diabetic individual predisposed to invasive fungal infections? Discuss about the dietary recommendations for diabetic individuals to reduce the occurrence of invasive fungal infections.

2+6=8

( 4 )

14. What is ergotism? Discuss about the health hazardous effects of different mycotoxins produced by food-borne pathogenic fungi.

2+6=8

15. Why does dairy industry suffer frequent contamination with bacteriophages? What are the strategies taken to combat the bacteriophage infection in dairy industry?

2+6=8

16. The protein content (g/kg) of a processed food for 15 consecutive days are as follows :

50, 51, 58, 49, 56, 53, 54, 47, 48, 59, 50, 50, 60, 58, 56

CV should be maintained <5%. Interpret your result.

8

**[ Internal Assessment : 10 Marks ]**

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