

M. Sc. 4th Semester Examination, 2024

CLINICAL NUTRITION & DIETETICS

(Food microbiology & Food Preservation)

PAPER – CND-401

Full Marks : 50

Time : 2 hours

Answer all questions

The figures in the right hand margin indicate marks

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

GROUP – A

Answer any four questions : 2 × 4

- 1. How does rotavirus genome differ from Hepatitis A virus genome ?**

2. What is meant by dimorphic fungi ?
3. Discuss the economic importance of fungi.
4. What is meant by GRAS labelled food ?
5. How do viruses differ from bacteria ?
6. What are the benefits of natural preservatives ?

GROUP—B

Answer any **four** questions :

4 × 4

7. Discuss about the mode of action of prebiotics.
8. Why are *Fusarium* spp. known as food-borne fungi ?
9. Discuss the characteristics of two major food-borne viruses.
10. Write a brief note on psychrotrophic spoilage.

11. State about the complex symmetry viruses.
What is meant by ether sensitivity of viruses ?
2 + 2
12. Distinguish between pasteurization and sterilization. What is the mechanism of moist heat sterilization ? How are cereal food grains sterilized ?
2 + 1 + 1

GROUP - C

Answer any two questions : 8 × 2

13. What are the selection criteria and requirements for probiotic strains ? List the important probiotic organisms.
6 + 2
14. Why does dairy industry suffer frequent contamination with bacteriophages ? What are the strategies taken to combat the bacteriophage infection in dairy industry ? How is norovirus transmitted ?
2 + 4 + 2

15. What are reasons behind the resistivity of the bacterial endospores to environmental stress ?
What is the importance of bacterial endospore in food processing industry ? 3 + 5
16. Discuss about the health hazardous effects of different mycotoxins produced by food-borne pathogenic fungi. Mention some foods (fruits and vegetables) that contain probiotics. 6 + 2

[Internal Assessment – 10 Marks]
