



‘সমানো মন্ত্র: সমিতি: সমানী’

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 4th Semester Examination, 2022

CC10-MICROBIOLOGY

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

1. Answer any **five** questions from the following: 1×5 = 5
- (a) What is ‘flash pasteurization’?
 - (b) Define water activity.
 - (c) Why minced meat has more redox potential than a big piece of meat?
 - (d) What are xerophiles? Give an example.
 - (e) What is D-value?
 - (f) Name one microorganism responsible for spoilage of egg.
 - (g) Define bacteriocins.
 - (h) Give an example of an antibiotic used to prevent the growth of harmful bacteria in canned foods.
2. Answer any **three** questions from the following: 5×3 = 15
- (a) With the help of a flowchart explain the method of production of cheese. 5
 - (b) What are probiotics? How is it different from prebiotics? 2+3
 - (c) Define critical control point. What is meant by critical limit? 3+2
 - (d) Explain how weak acids have more inhibitory action to microbes. 5
 - (e) Write the symptoms and preventive measures for food infection salmonellosis. 5
3. Answer any **two** questions from the following: 10×2 = 20
- (a) What are ‘Perigo factors’? How is it different from nitrite in showing antibacterial action in food products? 4+6
 - (b) How do parabens differ from the other organic acids? Briefly explain the seven principles of HACCP. 4+6
 - (c) Why benzoic acid shows its best effect in acidic foods? How does it inhibit the growth of microbes on food products? Give examples of two food items where benzoic acid is found naturally. 3+5+2
 - (d) Elucidate the mechanisms of preservation of foods using chemicals. Discuss the spoilage of vegetables. 5+5

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