

**B.Sc. 4th Semester (Honours) Examination, 2022**  
**SUB: MICROBIOLOGY**

**Course ID: 42213**

**Course Code: SH/MCB/403/C-10**

**Course Title: Food and Dairy Microbiology**

**Full Marks: 25**

**Time: 1h 15 Mins.**

*The figures in the margin indicate full marks.  
Candidates are required to give their answers in their own words as far as practicable.*

**UNIT I**

**1. Answer any five questions from the following:** **1×5=5**

- (a) What are osmotolerant species?
- (b) What is starter culture?
- (c) What is the full form of HACCP?
- (d) What is meant by lactic antagonism?
- (e) What are the antigen detection tests?
- (f) Write the use of pulse electric field in food preservation.
- (g) Define 'fermentation'.
- (h) What is meant by buffered food?

**UNIT II**

**2. Answer any two questions from the following:** **5×2=10**

- (a) How microbial spoilage of food can be determined? What should be the criteria for good storage condition of food? 2+3=5
- (b) Write some examples of fermented dairy products. Write the roles of microbes in sauerkraut preparation. 2+3=5
- (c) What are the symptoms of *Vibrio parahaemolyticus* poisoning? What measure should be taken to treat this poisoning? 2+3=5
- (d) Write and account on microbial spoilage of fresh fruits and fruit juice.

**UNIT III**

**3. Answer any one question from the following:** **10×1=10**

- (a) Write an account on salmonellosis. What is thermal death point? What are the health benefits of fermented foods? 4+4+2=10
- (b) What are the causes of microbial contaminations of meat and how can the microbial spoilages of meat be prevented? 4+6=10