

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

**B.Sc. (Microbiology) (Sem.-4)**  
**FOOD AND DAIRY MICROBIOLOGY**

Subject Code : BSMB-405-20

M.Code : 92103

Date of Examination : 11-07-22

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is **COMPULSORY** consisting of **TEN** questions carrying **TWO** marks each.
2. SECTION-B contains **FIVE** questions carrying **FIVE** marks each and students have to attempt any **FOUR** questions.
3. SECTION-C contains **THREE** questions carrying **TEN** marks each and students have to attempt any **TWO** questions.

**SECTION-A**

1. Write briefly :

- a) What do you understand by the term '*lyophilisation*'?
- b) Enlist applications of vinegar in food technology.
- c) Explain the term '*ripening*' of cheese.
- d) State two applications of amylase in food industry.
- e) How does lactobacillus cause curdling of milk?
- f) Enlist some of the harmful mushrooms.
- g) Which enzymes are used in brewing industry?
- h) What are osmophilic microorganisms?
- i) Mention the microorganisms used for the production of tempeh and tofu.
- j) State contributions of Louis Pasteur in microbiology.

## SECTION-B

2. Write a brief note on the extrinsic factors affecting microbial growth in food.
3. a) Differentiate between radappertization and radurization.  
b) How does radiation affect microbial activity in food?
4. What do you understand by the term pickling? Explain the physicochemical changes which occur in food after pickling process.
5. Explain the importance of lactase enzyme in dairy technology.
6. With reference to the new concept in dairy technology, write short notes on the following :
  - a) Cream powder
  - b) Lactose powder.

## SECTION-C

7. Define single cell proteins. Discuss any two methods of SCP production, and importance of single cell proteins.
8. Write detailed note on the method used for mushroom production. Also describe the different types and significance of mushroom cultivation in India.
9. Describe the composition of milk. State the environmental and biological factors affecting composition of milk.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**