Date:



Registration number:

# ST. JOSEPH'S COLLEGE (AUTONOMOUS), BENGALURU-27 M.Sc. MICROBIOLOGY - II SEMESTER SEMESTER EXAMINATION: APRIL 2022

(Examination conducted in JULY 2022)

# **MB 8418 - FOOD MICROBIOLOGY**

Time- 2 ½ hrs Max Marks-70

This question paper contains 2 printed pages and 4 parts

## I. Answer any Five of the following

5x3=15

- 1. List the measures to be taken to minimize contamination in milk.
- 2. Define probiotics and its significance.
- 3. Comment on milk pasteurization.
- 4. Which organisms are associated with mastitis and its symptoms?
- 5. Define D, F and Z values.
- 6. What are starter cultures? Give example.
- 7. List the general characteristics of an indicator organism.

### II. Answer any Five of the following

5x5=25

- 8. Write a short note on canned food spoilage.
- 9. Give a brief account on nutraceuticals.
- 10. Describe the effect of low temperature in food preservation.
- 11. Write a note on fortified foods.
- 12. Illustrate the production of SCP and mention its significance.
- 13. Explain MPN method.
- 14. Write a short note on mycotoxins.

#### III. Answer any <u>Two</u> of the following

2X10=20

- 15. Explain various extrinsic factors that affect microbial growth in foods.
- Describe the properties and advantages of different types of packaging materials used in food industries.
- 17. Explain the principles of HACCP.

#### IV. Answer the following

1x10=10

18. This neurotoxin producing organism transmitted mostly through canned foods produce abdominal cramp, blurred vision, difficulty in breathing etc., Name the neurotoxin and the pathogen associated with it. Mention its prevention and treatment.