

Date:17-04-2018 (1PM)

**ST. JOSEPH’S COLLEGE (AUTONOMOUS), BENGALURU-27**

**M.Sc. MICROBIOLOGY - II SEMESTER**

**SEMESTER EXAMINATION- APRIL 2018**

**MB 8416 - Food Microbiology**

**Time: 2 1/2 hours Max Marks: 70**

(For supplementary candidates)

Do not write the register number on the question paper

Please attach the question paper along with the answer script.

This question paper has **1** printed page and **4** parts

1. **Answer any Five of the following 5X3=15**
2. Write Monod’s equation and mention its relationship with food borne microbes.
3. Comment on the spoilage of fish.
4. What are probiotics and mention its significance?
5. Comment on Blue Milk, Yellow milk and Red milk.
6. Mention the limitations of using coliforms as indicator organisms.
7. Write the mechanism and applications of artificial nose.
8. Comment on Ochratoxin A with structure.
9. **Answer any Five of the following 5X5=25**
10. Explain the various stages of spoiled cans.
11. What are the different sources of microorganisms in milk?
12. Tabulate different groups of food additives with example.
13. Write short notes on foods for space.
14. What are the strategies used to control food borne viruses.
15. Elaborate the usage of phages as food quality indicators.
16. Mention the applications of biosensors in pathogen detection.
17. **Answer any Two of the following 2X10=10**
18. Define SCP and add a note on its production and applications.
19. (a) Mention the various implicit factors that influence microbial growth in food.

(b) Explain the pathogenesis of *L. monocytogens.*

1. Write a short notes on (a) AGMARK (b) GMP
2. **Answer the following 1X10=10**
3. (a) Name the food borne pathogen associated with bloody diarrhoea and mention

 its virulence factors.

 (b) 2 milk samples, A and B have been collected from 2 different cows and the following observations are made;

* Sample A appeared slimy and stringy right after drawing
* Sample B appeared healthy without any anomalies

Sample B is stored at 40C for about 7 days and then checked. Upon checking it is found that the only the surface of the milk appears slimy and stringy.

Comment on the observations made for samples A and B with justification.

MB-8416-A-18