

Register Number:

**Date:15-04-2019**

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

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

**SEMESTER EXAMINATION - APRIL 2019**

**MB 8418 – FOOD MICROBIOLOGY**

**Time- 2 1/2 hrs Max Marks-70**

This paper contains**2** printed pages and **4**parts

1. **Answer any Five of the following 5 x 3 = 15**
2. Write a brief note on the Shiga toxin.
3. List the characters of an ideal food quality indicator.
4. What are fortified foods? Give examples.
5. Which factors make *Listeria monocytogenes* a potent food pathogen?
6. What is the importance of GMP in the food industry?
7. List the factors affecting spoilage of fish.
8. Discuss the chemical changes seen in nitrogenous content of food upon storage.
9. **Answer any Five of the following 5 x 5 = 25**
10. Discuss the scope of predictive food microbiology.
11. Explain how wood smoke acts as a food preservative.
12. The type of food we consume directly affects our gut micro flora. Justify.
13. Discuss how viruses can be used to assess food quality.
14. Describe how thermophillic spore formers spoil canned food having different acidities.
15. How can biosensors be used to detect food contamination?
16. Probiotics are good for us. Elaborate.
17. **Answer any Two of the following 2 x 10 = 20**
18. Explain the role of microorganisms in the production of cocoa beans.
19. Discuss the causal organism, sources and mechanism of botulinum poisoning.
20. a. How are radiations useful in preserving food?(5)

b. Describe ropiness of food.(5)

1. **Answer the following 1x 10 = 10**
2. 4 food samples were tested to check for contamination, if any. Among others, the results of 2 tests conducted were interesting. What can be concluded about the contaminants from the given results? Justify your answer. Comment on the 2 techniques used.

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| SAMPLE NO. | REAGENT ADDED | FORMATION OF GEL |
| S1 | *Limulus* Lysate | + |
| S2 | *Limulus* Lysate | - |
| S3 | *Limulus* Lysate | + |
| S4 | *Limulus* Lysate | + |

Table 1