

LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034



M.Sc. DEGREE EXAMINATION – FOOD CHEMISTRY AND FOOD PROCESSING

FIRST SEMESTER – APRIL 2018

17PFP1MC03– FOOD MICROBIOLOGY

Date: 28-04-2018

Dept. No.

Max. : 100 Marks

Time: 09:00-12:00

Part A

Answer ALL the questions.

10 x 2 = 20 marks

1. What are psychrophilic organisms and obligate anaerobes?
2. Differentiate between perishable and non perishable foods.
3. Name four organisms that enter food through contaminated water.
4. What is metabiosis?
5. Define foodborne outbreak and infectious dose.
6. What are pathogens? Give two suitable examples.
7. Write the benefits of fermentation.
8. Define fermentation and starter cultures.
9. What are the advantages of microbiological reference criterion of foods?
10. Name any four rapid methods for detection of food borne pathogens.

Part B

Answer any EIGHT questions.

8 x 5 = 40 marks

11. Write short notes on binomial nomenclature.
12. Comment on foodbiowars.
13. Explain microbial growth curve with a diagram
14. Briefly spell out any five types of spoilage reactions in food.
15. What are the factors that accelerate microbial spoilage of fish?
16. Explain aerobic microbial spoilage in meat.
17. Discuss the importance of water activity in spoilage of fruits.
18. Classify food borne diseases and discuss Botulism.
19. Explain the role of *Staphylococcus aureus* in food borne diseases.
20. Elaborate on natural, controlled and back slopping fermentation.
21. Discuss fermentation biochemistry in food.
22. Differentiate between conventional and rapid testing methods.

Part C

Answer any FOUR questions.

4 x 10 = 40 marks

23. Discuss any five possible sources of microbial contamination of foods.
24. Elaborate on Specific spoilage organisms and antagonism in food spoilage.
25. Discuss mycotoxins of importance in foods.
26. Describe the role of starter culture in fermentation of milk to yoghurt.
27. Give a detailed account on Single cell proteins.
28. i. Write the protocol for microbial sampling of foods. (5 marks)
ii. Diagrammatically represent sandwich ELISA and explain. (5 marks)
