



QP CODE: 25050616



25050616

Reg No :

Name :

MSc DEGREE (CSS) EXAMINATION DECEMBER 2025

First Semester

M Sc FOOD AND INDUSTRIAL MICROBIOLOGY

Core Courses - MG020104 - FOOD CHEMISTRY

2019 Admission Onwards

1BDD6E9D

Time: 3 Hours

Weightage: 30

Part A (Short Answer Questions)

*Answer any **eight** questions.*

*Weight **1** each.*

1. Define water activity and its importance in food.
2. What is Retrogradation?
3. Define Amphoterism. What is its importance?
4. Comment on any two food proteins and their sources.
5. Explain the changes in edible fat prior to the onset of rancidity.
6. Explain Deodorisation of oil.
7. What are phospholipids? Explain its role in food technology with the help of an example.
8. Comment on the composition of oilseeds.
9. What are the methods to inhibit Non Enzymatic Browning?
10. Why is the formation of Acrylamide during food processing considered harmful?

(8×1=8 weightage)

Part B (Short Essay/Problems)

*Answer any **six** questions.*

*Weight **2** each.*

11. Explain gel formation in starch.
12. Illustrate the structure of Haemoglobin.
13. What are the factors which affect foam formation in proteins.
14. Explain the reactions of fat with OH and COOH groups.
15. Explain the manufacture of Margarine.





16. Explain the processing of wheat and rice.
17. How does sugar turn into caramel?
18. Comment on the antioxidant activity of Melanoidins.

(6×2=12 weightage)

Part C (Essay Type Questions)

*Answer any **two** questions.*

Weight 5 each.

19. Write down the composition and the factors affecting the composition of foods.
20. Explain the Kjeldahl and Dumas method to determine the protein content in foods.
21. What are essential oils? Explain the different extraction methods employed.
22. Explain all the reactions involved in browning using a detailed scheme.

(2×5=10 weightage)

