

QP CODE: 22002308



22002308

Reg No : .....

Name : .....

**MSc DEGREE (CSS) EXAMINATION , NOVEMBER 2022**

**Second Semester**

M Sc FOOD TECHNOLOGY AND QUALITY ASSURANCE

**CORE - FQ010202 - FOOD ANALYSIS AND INSTRUMENTATION**

2019 Admission Onwards

79331992

Time: 3 Hours

Weightage: 30

**Part A (Short Answer Questions)**

*Answer any **eight** questions.*

*Weight **1** each.*

1. Distinguish the difference between manual sampling & continuous sampling.
2. Identify various solvent system used in paper chromatography.
3. Explain the principle of modified Munson and Walker method.
4. What is a Saccharometer?
5. Criticize the importance of fat analysis.
6. Discuss about Dielectric method of fat analysis.
7. Explain the principle of Lowry method.
8. Explain the principle & procedure of UV 280 nm absorption method.
9. List out the factors affecting mineral analysis.
10. Compare soluble and insoluble ash.

(8×1=8 weightage)

**Part B (Short Essay/Problems)**

*Answer any **six** questions.*

*Weight **2** each.*

11. Describe the sampling techniques used in infrared spectrophotometer.
12. Discuss about the types of gels used in gel electrophoresis.
13. Explain Maltose/Sucrose/D-glucose method for the analysis of carbohydrates.
14. Explain the procedure of a modernized version of the South gate method.





15. Discuss about the continuous solvent extraction method in fat analysis.
16. Compare and contrast convection oven, forced draft oven and vacuum oven.
17. Explain BCA method with principle, procedure, applications, advantages & disadvantages.
18. Explain different biological assays used in vitamin analysis.

(6×2=12 weightage)

**Part C (Essay Type Questions)**

*Answer any **two** questions.*

*Weight **5** each.*

19. Compare the working of a colorimeter & a refractometer.
20. Discuss about the sample preparation methods for carbohydrate analysis.
21. Discuss about the physical methods used in moisture analysis.
22. Explain the importance of HPLC method used in analysis of various vitamins.

(2×5=10 weightage)

