Turn Over

QP CODE: 25020837

B.Sc DEGREE (CBCS) REGULAR / REAPPEARANCE / MERCY CHANCE EXAMINATIONS, FEBRUARY 2025

Sixth Semester

B.Sc Food Technology & Quality Assurance

CORE COURSE - FQ6CRT03 - FOOD ANALYSIS

2017 Admission Onwards

4FD76A47

Time: 3 Hours

Max. Marks: 80

Part A

Answer any ten questions. Each question carries 2 marks.

- 1. Comment on simple random sampling.
- 2. Write the principle behind Phenol-sulphuric acid method for total sugar.
- 3. Differentiate Goldfish method and Soxhlet method.
- 4. Enlist the advantages of kjeldahl method.
- 5. What is the principle behind determination of phosphurus using phosphomolybdovanadate reagent?
- 6. Add a note on hand-held refractometers.
- 7. Add a note on norcross viscometer.
- 8. Comment on Shortometer.
- 9. Define iodine value.

- 10. Add notes on stacking gel and resolving gel in gel electrophoresis.
- 11. Write the procedure for determination of titratable acidity of a food sample.
- 12. Comment on Resistant starch.

 $(10 \times 2 = 20)$

Part B

Answer any six questions. Each question carries 5 marks.



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- 13. Differentiate 'standards of identity', 'standards of quality' and 'grade standards'.
- 14. Add a note on volumetric and coulometric titration of Karl-Fischer method. List out the difficulties and sources of error in Karl-Fischer method.
- 15. Compare detergent method and gerber method for fat analysis.
- 16. There are two commonly used AOAC methods to measure the vitamin C content of foods. Identify these two methods and compare and contrast them with regard to the principles involved.
- 17. Give a brife note on hydrometry. Discuss about different types of hydrometers.
- 18. Elaborate on CIE system and write the application of tristimulus colorimeter.
- 19. Add a note on speration and purification of protein using size exclusion chromatography.
- 20. Explain affinity chomatography for protein seperation.
- 21. What is the principle behind estimation of total fiber in a food using gravimetric method?

(6×5=30)

Part C

Answer any **two** questions.

Each question carries **15** marks.

- 22. Explain the sample preparation for moisture analysis. Discuss about oven drying method and its limitations.
- 23. Discuss about dry ashing and wet ashing methods.
- 24. Elaborate protein characterization methods.
- 25. Describe Englyst -Cummings procedure for dietary fiber estimation with the help of a flow chart.

(2×15=30)