



22102780

QP CODE: 22102780

Reg No :

Name :

B.Sc DEGREE (CBCS) REGULAR EXAMINATIONS, AUGUST 2022

Fourth Semester

B.Sc Food Science & Quality Control Model III

Core Course - FS4CRT12 - ANALYTICAL INSTRUMENTATION

2020 Admission Only

C43E042F

Time: 3 Hours

Max. Marks : 80

Part A

*Answer any **ten** questions.*

*Each question carries **2** marks.*

1. Define adsorption coefficient.
2. Define reversed phase chromatography.
3. Define the mobile phase in paper chromatography.
4. Write down the principle of HPLC.
5. Explain ECD in GLC.
6. Mention the particle size distribution in column packing.
7. Define absorption of radiation.
8. Define fluorimetry.
9. Mention the use of cooling plate in electrophoresis.
10. Define becquerel.
11. Define liquid scintillation.
12. Differentiate between direct and indirect ELISA.

(10×2=20)

Part B

*Answer any **six** questions.*

*Each question carries **5** marks.*





13. Write down the elution methods for affinity chromatography.
14. Write down the principle of size exclusion chromatography.
15. Write down the analyte detection in thin layer chromatography.
16. Explain the principle of GLC.
17. Explain about the analytical columns of HPLC.
18. Mention the applications of AAS.
19. Mention the principle of radio immuno assay.
20. Explain the effect of voltage on gas ionisation.
21. Explain application of pectinases in food industry.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **15** marks.*

22. Draw column chromatography and explain with a schematic diagram.
23. Discuss the components of GLC with a schematic diagram.
24. Differentiate between single beam and double beam UV visible spectrophotometers.
25. Explain about native gel electrophoresis.

(2×15=30)

