



QP CODE: 24020922



24020922

Reg No :

Name :

B.Sc DEGREE (CBCS) REGULAR EXAMINATIONS, APRIL 2024

Fourth Semester

B.Sc Food Science & Quality Control Model III

Core Course - FS4CRT12 - ANALYTICAL INSTRUMENTATION

2017 Admission Onwards

9CC3C962

Time: 3 Hours

Max. Marks : 80

Part A

*Answer any **ten** questions.*

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

1. Mention about the specific ligands in affinity chromatography.
2. Define ideal size exclusion system.
3. Define thin layer chromatography.
4. Define internal standards.
5. List some sample derivatisation methods in GLC.
6. Define column hardware in chromatography.
7. Define emission beam.
8. Define atomiser in AAS.
9. Define loading wells in SDS PAGE.
10. Define antigens.
11. Define ELISA.
12. Differentiate between enzymes and coenzymes.

(10×2=20)

Part B

*Answer any **six** questions.*

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

13. Define adsorption and explain why adsorption is a concentration dependant process.





14. Explain the different phases in partition chromatography.
15. Explain the applications of paper chromatography.
16. Explain the principle of GLC.
17. Explain FID in GLC.
18. Explain the particle and wave nature of light.
19. Discuss about the preparation of agarose gel for electrophoresis.
20. Mention about the decay by gamma rays.
21. Explain the applications of liquid scintillation counting.

(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. Draw the components of HPLC and explain with a schematic diagram.
24. Explain double beam UV visible spectrophotometer with a schematic diagram.
25. Explain methods based upon gas ionisation.

(2×15=30)

