



QP CODE: 21102877



21102877

Reg No :

Name :

B.Sc DEGREE (CBCS) EXAMINATIONS, OCTOBER 2021

Fourth Semester

B.Sc Food Science & Quality Control Model III

Core Course - FS4CRT12 - ANALYTICAL INSTRUMENTATION

2019 Admission only

887AF2D7

Time: 3 Hours

Max. Marks : 80

Part A

*Answer any **ten** questions.*

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

1. Mention the components that can be separated by using adsorption chromatography.
2. Mention the other names of size exclusion chromatography.
3. Define theoretical plate height.
4. Define HPLC.
5. Define gradient elution system.
6. Mention the particle size distribution in column packing.
7. Define phosphorescence.
8. Define AAS.
9. Define N,N' methylene bisacrylamide.
10. Define native gel electrophoresis.
11. Define sandwich ELISA.
12. Define cofactors.

(10×2=20)

Part B

*Answer any **six** questions.*

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

13. Explain the different phases in partition chromatography.





14. Write down the principle of affinity chromatography.
15. Write down the thin layer preparation in thin layer chromatography.
16. Discuss about the stationary phases in GLC.
17. Explain FID in GLC.
18. Explain the basis of quantitative absorption spectroscopy.
19. Mention the applications of radio immuno assay.
20. Discuss about the decay by electron capture.
21. Explain the applications of liquid scintillation counting.

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Draw paper chromatography and explain with a schematic diagram.
23. Explain the principle of separation of GLC with a schematic diagram.
24. Differentiate between single beam and double beam UV visible spectrophotometers.
25. Explain agarose gel electrophoresis.

(2×15=30)

