



19101438

QP CODE: 19101438

Reg No :

Name :

B.Sc DEGREE (CBCS) EXAMINATION, MAY 2019

Fourth Semester

B.Sc Food Science & Quality Control Model III

Core Course - FS4CRT12 - ANALYTICAL INSTRUMENTATION

2017 Admission onwards

5B287C76

Maximum Marks: 80

Time: 3 Hours

Part A

Answer any **ten** questions.

Each question carries **2** marks.

1. Define reversed phase chromatography
2. Explain the basis of affinity chromatography
3. List some examples of prepared plates used in thin chromatography
4. Write down the principle of HPLC
5. Define WCOT columns
6. Mention the linearity of ECD in GLC
7. Define radiant power or intensity of a beam of radiation
8. Draw a schematic diagram of components of single beam UV-Visible spectrophotometer
9. Mention the application of agarose gel electrophoresis
10. Define alpha particle
11. Define ionisation of gases
12. Define prosthetic groups

(10×2=20)

Part B

Answer any **six** questions.

Each question carries **5** marks.

13. Explain the components that can be separated by using adsorption chromatography
14. Write down the principle of size exclusion chromatography
15. Write down the principle of paper chromatography
16. Write down the applications of HPLC
17. Explain the column packing conditions in chromatography





18. Discuss about the two types of atomisation in AAS
19. Explain about separating gel in SDS PAGE
20. Discuss about radio labelling
21. Explain energy transfer in 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. Explain the principle of separation of GLC with a schematic diagram
24. Explain the fluorescence spectrophotometer with a schematic diagram
25. Explain direct ELISA

(2×15=30)

