



QP CODE: 21100897



Reg No : .....

Name : .....

**B.Sc DEGREE (CBCS) EXAMINATION, MARCH 2021**

**Fourth Semester**

B.Sc Food Science & Quality Control Model III

**Core Course - FS4CRT12 - ANALYTICAL INSTRUMENTATION**

2017 Admission onwards

25053503

Time: 3 Hours

Max. Marks : 80

**Part A**

*Answer any **ten** questions.*

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

1. List an example of basic adsorbant.
2. Mention the other names of size exclusion chromatography.
3. Define resolution in column chromatography.
4. Explain what type of mobile phase can be used for HPLC?
5. Define PLOT columns.
6. Explain FID in GLC.
7. Define absorbed radiation.
8. Define excitation beam.
9. Define free radical polymerisation.
10. Define antibodies.
11. Define curie.
12. Differentiate between enzymes and coenzymes.

(10×2=20)

**Part B**

*Answer any **six** questions.*

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

13. Explain the supports in partition chromatography.
14. Explain how the ligands are attached to the support?





15. Mention the applications of thin layer chromatography.
16. Explain the principle of GLC.
17. Explain the pump used in HPLC system.
18. Mention about the light source used in AAS.
19. Discuss about the preparation of agarose gel for electrophoresis
20. Discuss about the casting of gel for native gel electrophoresis.
21. Explain the applications of liquid scintillation counting.

(6×5=30)

### **Part C**

*Answer any **two** questions.*

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

22. Explain the different types of paper chromatography.
23. Explain the qualitative analysis of column packing materials.
24. Explain double beam UV visible spectrophotometer with a schematic diagram.
25. Explain indirect ELISA.

(2×15=30)

