



QP CODE: 20100897



Reg No :

Name :

B.Sc DEGREE (CBCS) EXAMINATION, MARCH 2020

Fourth Semester

B.Sc Food Science & Quality Control Model III

Core Course - FS4CRT12 - ANALYTICAL INSTRUMENTATION

2017 Admission onwards

92D17DDA

Time: 3 Hours

Marks: 80

Part A

*Answer any **ten** questions.*

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

1. List an example of polar adsorbent.
2. Define elution volume.
3. Define equilibration in paper chromatography.
4. Define GLC.
5. Mention the linearity of NPD in GLC.
6. Mention the particle size distribution in column packing.
7. Define reference cell in spectroscopy.
8. Draw a schematic diagram of components of double beam UV-Visible spectrophotometer.
9. Mention the role of beta mercaptoethanol in SDS PAGE.
10. Define PAGE.
11. Define antigens.
12. Differentiate between direct and indirect ELISA.

(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 procedure of column packing.
16. Write down the advantages of HPLC over traditional method of column chromatography.
17. Explain the application of sample in GLC.
18. Explain the need of two wavelength isolators for fluorescence spectrophotometers.
19. Discuss about the interaction of alpha particle with matter.
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. Explain thin layer chromatography.
23. Discuss the components of HPLC with a schematic diagram.
24. Explain Atomic absorption spectroscopy.
25. Explain about the electrophoresis of nucleic acids by agarose gel electrophoresis.

(2×15=30)

