



QP CODE: 25021666



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Reg No :

Name :

B.VOC DEGREE REGULAR/REAPPEARANCE EXAMINATIONS, MARCH 2025

Sixth Semester

B.Voc Agro Food Processing

AFP6S01 - ANALYTICAL METHODS IN FOOD PROCESSING

2018 Admission Onwards

D997DDA2

Time: 3 Hours

Max. Marks : 80

Part A

*Answer any **ten** questions.*

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

1. What is a chromatographic separation technique? Give example.
2. What is an ion-exchange resin?
3. Mention any three methods for obtaining samples from foods for a GC analysis.
4. What do you mean by a carrier gas in a GC system?
5. Mention any two applications of Gas Liquid Chromatography.
6. What do you mean by instrument noise in a spectrophotometric assay?
7. How an Infrared spectroscopy can be divided? Name them.
8. List any two applications of NMR spectroscopy.
9. Define a radioactive tracer.
10. What do you mean by a radioactive decay?
11. Define electrophoresis.
12. Mention any three important factors that affects enzyme activity.

(10×2=20)

Part B

*Answer any **six** questions.*

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

13. What do you mean by two-dimensional paper chromatographic technique? Explain.





14. How the qualitative and quantitative analysis of the results is done from the data obtained from the column liquid chromatography? Explain.
15. Write the functions of a detector and a data station unit in an HPLC system.
16. With the help of a diagram explain the wave nature of light.
17. What will happen if an energy from a photon of electromagnetic radiation is absorbed by an atom or a molecule? Explain.
18. Write a short note on the principle of a fluorescence spectrophotometer.
19. Explain the principle and instrumentation of Flame Emission Spectroscopy.
20. Differentiate between 1D and 2D Gel Electrophoresis.
21. Describe the lock and key theory mechanism of an enzyme action.

(6×5=30)

Part C

*Answer any **two** questions.*

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

22. Briefly explain the principle of an HPLC system. Write a detailed note on HPLC column.
23. Illustrate the arrangement of components in a double-beam UV-Vis Absorption spectrophotometer. Explain about each of the components.
24. Write an essay on Atomic Absorption Spectrophotometer.
25. Define enzymes. Write about its classifications. Explain about the enzyme assay methods.

(2×15=30)

