25019778

QP CODE: 25019778

Reg No : .....

Name : .....

B.Sc DEGREE (CBCS)) REGULAR/ IMPROVEMENT/ REAPPEARANCE / MERCY CHANCE EXAMINATIONS, FEBRUARY 2025

Fourth Semester

B.Sc Chemistry Model II Industrial Chemistry

Vocational Course - CH4VOT06 - INSTRUMENTAL METHODS OF CHEMICAL ANALYSIS - II

2017 Admission Onwards

827DCA4F

Time: 3 Hours Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. ----- is the most widely used liquid employed in glass thermometer.
2. Name the different types of pressure spring thermometers.
3. What is meant by specific gravity?
4. Define telemetry.
5. What is frequency shift keying?
6. What is auger effect?
7. Give any two uses of refractometry.
8. Give the principle involved in nephalometry.
9. List any two thermo analytical techniques
10. What is DMA?
11. Which is the solvent used in Super Critical Fluid Chromatography?
12. What is CZE?

(10×1=10)

Part B

*Answer any **six** questions.*

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

13. Describe the important features of resistance thermometer.

14. Write a short note on the Diaphragm pressure gauge.

15. How does telemetry work in an ammonia manufacturing plant?

16. List the components of frequency telemetering system.

17. What are the advantages of optic fibers over other types of transmission channels?

18. In terms of principle and applicability, how does a SEM differ from TEM.

19. What are the applications of differential thermal analysis?

20. Write a note on instrumentation used in differential scanning calorimetry.

21. List the advantages of super critical fluid chromatography over gas chromatography and liquid chromatography.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Write notes on (i) Bellow type pressure gauge (ii) Pirani gauge

23. Discuss the working principle and applications of i)STM ii) SPL

24. Explain the principle, instrumentation and applications of polarimetry.

25. a) Write a note on different modes of capillary electrophoresis.
    b) Discuss the applications of capillary electrophoresis.

(2×10=20)