

6417
BOARD DIPLOMA EXAMINATION
JUNE - 2019

* **DIPLOMA IN APPLIED ELECTRONICS AND INSTRUMENTATION**
ANALYTICAL INSTRUMENTATION
FOURTH SEMESTER EXAMINATION

Time: 3 Hours

Total Marks: 80

PART - A (3m x 10 = 30m)

Note 1: Answer all questions and each question carries 3 marks

2: Answers should be brief and straight to the point and shall not exceed 5 simple sentences

1. List the types of UV light sources
2. List any three applications of visible spectrophotometer
3. State the principle of Spectrofluorometer
4. List any three applications of Polarimeter
5. List the applications of mass spectrometer.
6. Draw the block diagram of single deflection 180° mass spectrometer
7. List the advantages of liquid chromatography
8. List the applications of gas chromatography
9. State the effect of Temperature on pH
10. State the properties of Gamma particles.

PART - B (10m x 5 = 50m)

Note 1: Answer any five questions and each carries 10 marks

2: The answers should be comprehensive and the criteria for valuation is the content but not the length of the answer

11. Explain the block diagram of Analytical Instrumentation
12. Explain electromagnetic spectrum with diagram
- * 13. Explain the principle of operation and applications of Zirconia gas analyzer
14. Explain the principle of operation and applications of Auto analyzer
15. Explain the block diagram of mass spectrometer
16. Explain the principle of operation and applications of gas chromatography with diagram

17. Explain the principle of operation of conductivity meter with diagram

18. Explain the working of Detection of neutrons with diagram

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