

QP Code: 721006

Reg. No.....

**Seventh Semester B. Pharm Degree Regular/Supplementary
Examinations August 2025
Instrumental Methods of Analysis
(2017 Scheme)**

Time: 3 Hours

Max. Marks: 75

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*
- *Draw diagrams wherever necessary*

Essays

(2x10=20)

1. Explain briefly the instrumentation of double beam UV-Visible Spectrophotometer.
2. Explain the different sampling techniques in IR spectroscopy.

Short Notes

(7x5=35)

3. Explain the estimation of non-fluorescent compound by Fluorimetry.
4. Applications of Atomic absorption spectroscopy.
5. Explain the burners used in Flame photometry.
6. Explain the factors affecting electrophoretic mobility in Electrophoresis.
7. Mention the carrier gases used in gas chromatography and give their merits and limitations.
8. Classify and explain different types of columns used in HPLC.
9. Enumerate the column efficiency parameters in column chromatography.

Answer Briefly

(10x2=20)

10. Define gradient elution.
11. Write a note on adsorbents used in HPTLC.
12. List the types of Whatman filter papers and their applications in Paper Chromatography.
13. Write a note on frontal analysis.
14. Write the difference between Nephelometry and Turbidimetry.
15. Expand and explain HETP.
16. What is Absorption maxima and mention its significance.
17. Write the difference between Normal Phase and Reverse Phase chromatography.
18. Explain anion exchange resins.
19. Write the principle of separation in Gel chromatography.
