

QP Code: 721006

Reg. No.....

**Seventh Semester B. Pharm Degree Regular/Supplementary
Examinations September 2024
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. Write a note on solid sample handling in Infra-Red Spectroscopy
2. List various types of electrophoresis techniques. Explain any two which are relevant to Pharmaceutical Analysis

Short Notes

(7x5=35)

3. Write a note on deviations from Beer Lambert's equation
4. Write a note on various types of photometric titrations with examples
5. Explain the differences between thermocouple and thermistors as Infra-Red detectors
6. Explain the principle of adsorption and partition chromatography giving suitable examples
7. Write a note on development techniques in paper chromatography
8. What is temperature programmed gas chromatography. Explain the working of a detector which can be used in the same
9. Explain the principle of gel filtration

Answer Briefly

(10x2=20)

10. Define auxochrome with an example
11. What are singlet and doublet transition states
12. Name any four types of vibrations in Infra-Red Spectroscopy
13. Name any two oxidants used in flame photometry
14. Which type of compounds can be estimated using atomic absorption spectroscopy
15. Write the formula calculate Height Equivalent to Theoretical Plates
16. List one major advantage and one major disadvantage of polymer as a support phase in High Performance Thin Layer Chromatography
17. Name the types of columns used in Gas Chromatography
18. List the dimensions commonly used columns in High Performance Liquid Chromatography
19. Name any two stationary phases used in Ion Exchange Chromatography
