

QP Code: 721006

Reg. No.....

**Seventh Semester B. Pharm Degree Supplementary Examinations
May 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. Explain the construction and working of a double beam UV – Visible Spectrophotometer
2. Explain various types of interferences in atomic absorption spectroscopy and methods to reduce the same

Short Notes

(7x5=35)

3. Beer-Lambert's equation
4. What is a grating. Explain its construction and working
5. Explain the construction and working of Nichrome Wire and Nerst Glower
6. List any five applications of turbidometry
7. Differentiate between Thin Layer Chromatography and High Performance Thin Layer Chromatography
8. Explain derivatisation in Gas Chromatography with suitable examples
9. Explain the principle of ion exchange chromatography in detail

Answer Briefly

(10x2=20)

10. Define chromophore with an example
11. Name the types of wavelength selectors used in UV _Visible spectrophotometer
12. What is inner filter effect in fluorescence quenching
13. Why Infra-Red Spectrum generally has an inverted peak
14. Name any two radiation sources used in Atomic Absorption Spectrophotometer
15. Explain intersystem crossing in fluorimetry
16. Name the different types of vibrational modes in infrared spectroscopy
17. Explain electrophoretic mobility and factors affecting it
18. List any two commonly used column dimensions of Gas Chromatography
19. List pharmaceutical applications of gel filtration
