

QP Code: 403008

Reg. No.....

**Final Year B. Pharm (Ayurveda) Degree Supplementary Examinations
August 2023**

Pharmaceutical Analysis II

Time: 3 hrs

Total Marks: 100

- *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. With the help of neat and labeled diagram, write note on detectors used in IR spectroscopy.
2. Explain the principle and instrumentation of a spectrofluorimeter with a neat diagram.

Short notes:

(10x5=50)

3. Note on steps involved in paper chromatography.
4. Explain the solvent effect in UV-Visible spectroscopy.
5. Applications of thermal analysis.
6. Types of vibrational modes in polyatomic molecules for IR spectrometry.
7. Note on quenching of fluorescence, types of quenching and applications.
8. Explain the principle behind Chromatography
9. Theory and applications of DSC.
10. Explain the working of "rotary sample valve/loop injection used for sample injection in HPLC.
11. Note on absorption and intensity shifts in UV spectroscopy.
12. Explain atomic absorption spectroscopy and its applications.

Answer briefly:

(10x3=30)

13. Define Beers Lambert's law.
14. Why activation of chromatographic plate is important in adsorption TLC.
15. What are the ideal properties of a UV detector.
16. Differentiate monochromators and filters in spectroscopy.
17. Visualization methods used in paper chromatography.
18. Note on theory of NMR spectroscopy.
19. What are Stokes and Antistoke Fluorescence.
20. Types of relaxation process in NMR spectroscopy.
21. Sources of IR radiation.
22. Explain monochromatic light and polychromatic light.
