

QP CODE: 302326

Reg. No:

Third Year Pharm D Degree Supplementary Examinations April 2022

Pharmaceutical Analysis

Time: 3 Hours

Total Marks: 70

- *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

(3x10=30)

1. Explain the different types of conductometric titrations with example and mention its applications.
2. Classify High Performance Liquid Chromatography (HPLC) based on mode of separation and explain the working principle involved in HPLC with the help of a neat diagram.
3. Explain the theory of fluorescence and the factors influencing fluorescence intensity. Draw a neat sketch of a single beam spectrofluorimeter and explain the functions of each unit.

Short notes

(8x5=40)

4. What are chromophores and auxochromes. Add a note on various shifts of absorption maxima.
5. Describe the principle involved in IR spectroscopy and explain the various types of vibrational transitions of molecules.
6. Explain the construction and working of flame ionization detector and electron capture detector used in gas chromatography.
7. Principle and types of ions produced in mass spectroscopy.
8. Explain the principle and applications of atomic absorption and atomic emission spectrometry.
9. Explain the various types of preparation of column and elution analysis in column chromatography.
10. Differentiate between validation and calibration and add a note on validation of analytical methods.
11. Theory and application of differential scanning calorimetry (DSC).
