

PHARMACEUTICAL ANALYSIS – I

Time: 3 hours

Max. Marks: 70

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- Write short notes on significant figures.
 - List out any five solvents used in non-aquometry.
 - Write the principle involved in Mohr's method.
 - Write the principle involved in precipitation methods.
 - Write a brief note on conductivity cell.
 - What is migration current and diffusion current?
 - List out the physical and chemical methods for the determination of moisture content in pharmaceutical formulations.
 - Define and write the significance of theoretical plates and HETP.
 - Write the detection techniques used for the identification of compounds by TLC.
 - How do you calibrate volumetric flask?

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

- 2 Define indicator. Discuss Ostwald and Quinonoid theories of indicators.

OR

- 3 Write the applications of non-aqueous titrations.

UNIT – II

- 4 Give an account on indicators used in precipitation titrations. Add a note on adsorption indicators.

OR

- 5 Discuss in detail about masking and demasking procedures in complexometry.

UNIT – III

- 6 Explain different types of conductometric titrations in detail.

OR

- 7 Discuss the principle and apparatus used in polarography with a neat sketch.

UNIT – IV

- 8 Discuss the theory, principle and applications of polarimetry.

OR

- 9 Explain the method of estimation of moisture content in pharmaceutical formulations by Karl-Fischer method with a neat labeled sketch.

UNIT – V

- 10 Write a detailed note on column chromatography with special emphasis on adsorbents used, preparation of column and methods of detection.

OR

- 11 Explain principle, preparation of plates and visualization of spots and applications of TLC including stationary phases used.
