

Total No. of Questions :6]

SEAT No. :

P1447

[5049]-404

[Total No. of Pages : 2

S.Y.B. Pharmacy

PHARMACEUTICAL ANALYSIS - II

(2013 Pattern) (Semester-IV)

Time : 3 Hours]

[Max. Marks : 70

Instructions to candidates:

- 1) *All questions are compulsory.*
- 2) *Answers to the two sections should be written in separate answer books.*
- 3) *Figures to the right indicate full marks.*

SECTION - I

Q1) Write principle of Potentiometry. Discuss in detail different types of electrodes. **[10]**

OR

Explain in detail types of polarographic techniques. Write applications of polarography. **[10]**

Q2) Attempt any five of the following: **[15]**

- a) Explain conductometric titration curve for weak acid vs strong base.
- b) Explain effect of dilution on specific, molecular and equivalent conductance.
- c) Define pH and discuss measurement of pH.
- d) Write about biamperometric titrations.
- e) Write advantages of high frequency titrations over conventional titrations.
- f) Draw neat labeled diagram of electrochemical cell. Explain terms associated with Nernst equation.
- g) What is half wave potential? Explain different parts of polarogram.

Q3) Write notes on any two of the following: **[10]**

- a) Rotating platinum electrode
- b) Conductivity meter
- c) Dropping mercury electrode
- d) Applications and advantages of amperometry.

P.T.O.

SECTION - II

Q4) Give an account on theory of optical activity and discuss in detail about spectropolarimeter used for measurement of plane polarized light. [10]

OR

What is coulometric analysis? Discuss in detail about constant current coulometric analysis. [10]

Q5) Attempt any five of the following: [15]

- a) Explain the terms specific and molar refraction.
- b) Add a note on silver coulometer.
- c) Give an account of cotton effect.
- d) Explain the effect of concentration, solvent and temperature on optical activity.
- e) Write about factors affecting angle of rotation.
- f) Write the applications of coulometric analysis.
- g) Discuss in brief oxygen combustion flask techniques.

Q6) Write notes on any two of the following: [10]

- a) Determination of nitrogen by Kjeldahl's method.
- b) Karl Fisher titration apparatus.
- c) ORD and CD curve.
- d) Construction and working of Abbe refractometer.

