Roll No...

PY - 403

B.Pharmacy IV Semester

Examination, December 2014

Pharmaceutical Analysis - I

Time : Three Hours

Maximum Marks : 70

Note: i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.

ii) All parts of each question are to be attempted at one place.

iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.

iv) Except numericals, Derivation, Design and Drawing etc.

1. a) Discuss preparation and standardization of 0.1 M Sodium Hydroxide.
   b) What are aprotic and amphiprotic solvents?
   c) Elaborate the principle and procedure of assay of Boric acid as per I.P.
   d) Explain the neutralization curve for titration of a weak acid against a strong base. Give details of neutralization indicator employed in this titration.

   OR

   Discuss choice of indicators in various types of neutralization titrations.

2. a) Give examples of self-indicators and external redox indicators.
   b) Discuss Ferroin as a redox indicator.
   c) Describe the principle and procedure of assay of ferrous sulphate as per I.P.
   d) List the differences between iodometric and iodimetric titrations. Discuss one application from each category.

   OR

   Discuss preparation and standardization of 0.05 M iodine, 0.1 M ceric ammonium sulphate and 0.1 M sodium thiosulphate solutions as per I.P.

3. a) How co-precipitation differs from post-precipitation?
   b) How 0.1 M Silver Nitrate is prepared and standardized?
   c) Elaborate two examples of adsorption indicators.
   d) Discuss Mohr's and Volhard's method of end point detection in precipitation titrations.

   OR

   Discuss the determination of aluminium and barium using gravimetry.

4. a) Give details of Solochrome Black as pM indicator.
   b) What are masking and demasking agents?
   c) Discuss principle and procedure of assay of Calcium Gluconate as per I.P.
   d) Explain preparation and standardization of 0.05 M EDTA. Describe various types of EDTA titrations with examples.

   OR

   How metal ion indicators work? Explain metal ion indicators by giving suitable examples.

5. a) Explain conductometric titration curve for titration of HCl against NaOH
   b) List out the differences between Polarography and Amperometry.
   c) Describe the construction, working, merits and demerits of Glass electrode.
   d) Discuss Ilkovic equation and factors affecting it. Elaborate use and care of Dropping Mercury Electrode.

   OR

   Elaborate determination of water using Karl-Fischer reagent.

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