

PY - 403

B.Pharmacy IV Semester  
Examination, June 2015  
**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 questions 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) Define Redox titration.  
b) Write comprehensive note on Iodometric titrations with example.  
c) How to determine the % purity of ferrous sulphate as per IP.  
d) Discuss Mohr's method and Volhard's method.

OR

Discuss methods of determination of organic bound nitrogen by Kjeldahl method.

2. a) Define Lewis acid and Lewis base.  
b) Discuss preparation and standardization of 0.1 N NaOH.  
c) Explain theories of indicator action in acid base titration with example.

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- d) Discuss neutralization curve of strong acid and strong base.

OR

Discuss theory and procedure of assay of Boric acid.

3. a) How to prepare and standardize 0.1 N EDTA solution.  
b) Enlist PM indicator used in complexometric titrations.  
c) Explain masking and demasking agents with respect to complexometric titrations.  
d) Discuss different types of complexometric titrations with suitable examples.

OR

Elaborate the principle and assay procedure of calcium gluconate as per IP.

4. a) State Ohm's law.  
b) Explain the solvents used in non-aqueous titration.  
c) How to prepare and standardize 0.1 M perchloric acid.  
d) Write a brief note on Diazotization titration with example.

OR

Explain the principle and procedure to determine the water content by Karl-Fisher titration.

5. a) Explain the principle of potentiometry.  
b) Enlist different types of reference and Indicator electrodes used in potentiometry.  
c) Write application of potentiometry for end point determination in acid base titration.  
d) Discuss construction and working of silver calomel electrode.

OR

Write a brief note on construction and working of dropping mercury electrode.