

Second Year B.Pharm Degree Examinations - August 2014

**(2012 Scheme)****PHARMACEUTICAL ANALYSIS****Time: 3 Hours****Total Marks: 100**

- Answer all Questions.
- Write equations wherever necessary.

**Essay****(3x10=30)**

1. Discuss Ostwald's theory of acid base indicators taking examples of phenolphthalein and methyl orange indicators as examples
2. Distinguish between the following:
  - Accuracy and precision
  - Determinate and proportional errors
  - Absolute and relative errors
3. What is EDTA and mention the EDTA titrations. Describe in brief the type of indicators used in such titrations and explain its working nature

**Short notes****(14x5=70)**

4. What do you understand by masking and demasking agents and why it is required.
5. Explain the terms: Normal and molal solutions, equivalent point and end point.
6. Buffer solutions and its importance in pharmacy
7. Explain the requisites of a gravimetric precipitates
8. What are redox titrations. Enumerate the different types of redox titrations with suitable examples
9. Describe how surface adsorption, mixed crystal formation, occlusion and mechanical entrapment help towards co-precipitation
10. Explain the preparation and standardization of ceric ammonium sulphate solution
11. Explain why calibration of analytical instruments is necessary.
12. Why high acidity is maintained in redox titrations. What are redox indicators.
13. Explain in detail Kjeldhal method of nitrogen determination
14. Define co-precipitation and post precipitation
15. Explain the reaction involving a titration of potassium permanganate and ferrous sulphate solutions in the presence of dilute sulphuric acid
16. Standard oxidation potential and oxidation number
17. Diazotisation titrations

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