

**PHARMACEUTICAL ANALYSIS
(2010 Scheme)**

Time: 3 Hours

Total Marks: 100

- Answer all Questions.
- Write equations wherever necessary.

Essay

(3x10=30)

1. What are redox titrations. Discuss the principle and theory of redox titrations with a brief note on its indicators.
2. Explain the Kjeldahl method of nitrogen estimation. Mention the principle involved in Karl Fischer method.
3. Define buffer and derive Henderson-Hasselbatch equation. Explain any two acid-base concept.

Short notes

(14x5=70)

4. Precision, accuracy and standard deviation.
5. pH indicators.
6. Masking and de-masking agents.
7. What is common ion effect and how does it affect the solubility and solubility product.
8. Diazotization titrations and its application in pharmacy.
9. What is precipitation titration and explain the types of precipitation.
10. Principle involved in gravimetric analysis.
11. Buffer solutions.
12. Define primary and secondary standards by giving suitable examples.
13. Assay of nitrous oxide by gasometry.
14. Types of errors.
15. How will you measure the electrode potential.
16. Explain briefly about modified Volhard's method.
17. What is co-precipitation and post-precipitation.
