

**Rajiv Gandhi University of Health Sciences**  
**First Year M.Pharm Degree Examination – May 2013**

[Time: 3 Hours]

[Max. Marks: 100]

**PHARMACEUTICAL AND COSMETIC ANALYSIS****(RS 2 & RS 3)****Q.P. CODE: 9222**

Your answers should be specific to the questions asked.  
Draw neat labeled diagrams wherever necessary. Answer all questions

**LONG ESSAY (Answer any TWO)****2 X 20 = 40 Marks**

1. a) Briefly discuss the principles and procedures involved in argentometric analysis with examples.  
b) Explain various thermo analytical methods of analysis.
2. a) State titrimetric analysis. Discuss in detail neutralisation curves of strong acid v/s weak base and reactions in titrimetric weak acid v/s weak base.  
b) Describe the preparation, standardization and application of Cerium ammonium sulphate and titanous chloride.
3. a) Briefly explain the powder analysis techniques in quantitative microscopy and also discuss applications of microchemical tests in pharmacy.  
b) Explain the quality control of any two cosmetic products.

**SHORT ESSAY (Answer any FIVE)****5 X 10 = 50 Marks**

4. What are ligands? Explain in detail the various types of ligands with examples and also point out the applications of masking and de-masking agents.
5. Discuss principles and procedures involved in gravimetric analysis with its applications.
6. Discuss the principles and applications of conductometric titrations.
7. Describe the complexometric titrations involving direct titration of polymetallic system with sodium edetate.
8. What do you mean by redox titrations? Discuss any two types of redox titrations.
9. Explain various steps in identifying and quantitative determining of preservatives in pharmaceutical formulations.

**SHORT NOTES****2 X 5 = 10 Marks**

10. State the principle and reaction involved in the assay of Bisacodyl suppositories I.P. 1996.
11. What are the secondary standards? Write an example and various properties of primary standard.

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