[Time: 3 Hours] [Max. Marks: 100]

## PHARMACEUTICAL AND COSMETIC ANALYSIS (RS2 & RS3)

Q.P. CODE: 9222

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

## LONG ESSAY (Answer any TWO)

2 X 20 = 40 Marks

- a) Write a neat diagram and explain working of dropping mercury electrode.
  - Explain the principle, construction and working of a glass membrane electrode.
- a) Explain the principle, types and application of complexometric titrations.
  - b) Discuss quality control of secondary packing materials, like paper and board for pharmaceuticals.
- a) Explain the assay of any one compound in IP 1996 done by Potassium bromate and ceric ammonium sulphate titrations.
  - b) Explain the various steps in quantitative analysis by gravimetric method.

## SHORT ESSAY (Answer any FIVE)

5 X 10 = 50 Marks

- 4. Explain the principle, procedure and application of differential thermal analysis.
- Discuss about neutralization curve obtained when weak acid is titrated against strong base.
- Discuss the quality control tests for ointments and suppositories.
- 7. Explain the detection and quantitative determination of preservatives and colouring materials.
- 8. Write a note on safety of cosmetic products.
- Discuss the quality control of dental products.

SHORT NOTES 2 X 5 = 10 Marks

- Explain the assay of two compounds in IP1996 done by non-aqueous titrations.
- Importance of extraction value in quality control of crude drugs

