

Rajiv Gandhi University of Health Sciences, Karnataka

First Semester B.Pharm Degree Examination – June-2019

Time: Three Hours

Max. Marks: 75 Marks

Pharmaceutical Analysis - I

Q.P. CODE: 5002

Your answers should be specific to the questions asked

Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two)

2 x 10 = 20 Marks

1. With suitable examples, define primary standard substances and secondary standard substances. What are the requirements for a substance to be designated as a primary standard? How will you prepare 250 ml of 0.5N HCl solution and standardize it? (Sp.gravity of conc HCl=1.18 g/ml and concentration 37% w/w).
2. Explain the theories of neutralization indicators. Write a note on mixed indicators.
3. What is cerimetry? How is it useful? Explain the preparation, standardization of 0.1N ceric ammonium sulphate solution and assay of ferrous sulphate I.P

SHORT ESSAYS (Answer any Seven)

7 x 5 = 35 Marks

4. Enumerate the techniques of minimizing errors.
5. Define non-aqueous titration and give its application. Write a note on 'effect of temperature' and 'levelling solvents'.
6. Explain the titration curve of strong acid versus weak base. Mention the choice of indicator for the titration with suitable reasons.
7. Define and explain the principle of complexometric titrations.
8. With suitable equations, explain the principles of assay of NaCl I.P
9. What is gravimetric analysis? Explain the precautions during washing of a precipitate.
10. Explain the working of a calomel electrode. Give its uses.
11. Define conductometry. Mention its applications. Explain conductometric titration curve of strong acid versus strong base.
12. Give the construction and working of a dropping mercury electrode.

SHORT ANSWERS

10 x 2 = 20 Marks

13. Define the terms 'titrand' and 'titrant'.
14. Name any four indicators used in non aqueous titrations.
15. Define acidimetry. Mention two compounds assayed by this technique.
16. Explain 'masking' and 'demasking' in complexometry.
17. What are the limitations of Mohr's method?
18. Explain the terms 'molarity' and '% w/w'.
19. Short note on Iodimetry.
20. Why is starch not used as an indicator in redox titrations having high acid concentrations?
21. What is a reference electrode? Name two.
22. Define molar conductivity, its equation and describe the terms.
