

Rajiv Gandhi University of Health Sciences, Karnataka

First Semester B. Pharm Degree Examination – 04-Jan-2020

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. Define error; classify determinate error with suitable examples. Explain the terms 'accuracy' and 'precision'.
2. Write a note on solvents used in non-aqueous titrations. Explain the preparation and standardization of 0.1N perchloric acid.
3. Define oxidizing and reducing agents with a suitable example each. Discuss the principle of redox titrations. Explain standardization of 0.1N sodium thiosulphate solution.

SHORT ESSAYS (Answer any Seven)

7 x 5 = 35 Marks

4. Define 'normal solution'. Explain preparation and standardization of 0.1N potassium permanganate solution (Mol. Wt: 158)
5. Explain the titration curve of strong acid versus strong base. How are these curves useful in titrimetric analysis?
6. Write a note on universal indicators and mixed indicators with examples and their uses.
7. Explain Mohr's method of determination of halides.
8. With a suitable example each, explain the terms 'masking', 'demasking', 'ligand' and 'chelate' in complexometric determinations.
9. Define gravimetry. Mention two compounds assayed by gravimetry. Explain the advantages and disadvantages of this technique.
10. Explain the construction and working of a glass membrane electrode.
11. Explain any two conductometric titration curves.
12. Define polarography and indicate its applications. Enumerate the Ilkovic equation.

SHORT ANSWERS

10 x 2 = 20 Marks

13. With an example, define primary standard substance. Give its significance.
14. Mention two neutralization indicators, which work in acidic pH along with their pH interval respective colours.
15. Define equivalent weight of: 'base' and 'reducing agent' with an example each.
16. Illustrate effect of temperature in non-aqueous titrations.
17. Name four complexometric indicators.
18. Differentiate between 'iodometric' and 'iodimetric determinations'.
19. Short note on 'ignition' and 'peptization'.
20. How does starch act as an indicator in iodimetric titrations?
21. Differentiate between reference electrode and indicator electrode.
22. Define molar conductivity.
