Rajiv Gandhi University of Health Sciences, Karnataka

First Semester B.Pharm Degree Examination – 15/Oct/2025

Time: Three Hours **Max. Marks: 75**

PHARMACEUTICAL ANALYSIS - I
Q.P. CODE: 5002

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary
All the questions are compulsory

LONG ESSAYS **2 x 10 = 20 Marks**

1. Define and explain the different types of errors with examples. Describe the methods of minimizing errors

OR

What is titration curve? Write its significance. Explain the titration curve for the titration of strong acid against strong base

2. Define oxidation and reduction. Explain the principles of standardization of 0.1 N potassium permanganate and assay of hydrogen peroxide I.P. with suitable equations.

SHORT ESSAYS **7 x 5 = 35 Marks**

3. How do you prepare and standardize 500 ml of approximately 01. N sodium hydroxide solution

OR

Write the principle and applications polarographic analysis

4. Define non-aqueous titration. Explain the principle and reactions involved in the assay of ephedrine hydrochloride I.P.

OR

Explain the Ostwald's theory of neutralization indicators with example

5. Explain the conductometric titration curve of strong acid with strong alkali. Mention applications of conductometry
6. Explain principle and reactions involved in the Volhard's method and modified Volhard's method
7. Classify complexometric titrations. Explain each type with suitable examples
8. Explain the various steps involved in gravimetry
9. Explain the construction, working and uses of calomel electrode

SHORT ANSWERS **10 x 2 = 20 Marks**

10. Define normality and molarity
11. Define significant figure
12. Explain amphiprotic solvent with suitable examples
13. Write about mixed indicator
14. Define co-precipitation and post-precipitation
15. Define masking and demasking in complexometry
16. Enlist the indicators used in redox titrations
17. Differentiate between Iodometry and Iodimetry
18. Write the Nernst equation with notation
19. Define indicator and reference electrode

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