Rajiv Gandhi University of Health Sciences, Karnataka

First Semester B.Pharm Degree Examination – 24-Oct-2024

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. Explain the various methods for expressing concentrations. Define primary standard and secondary standard substances with suitable examples. List the criteria for a substance to called primary standard substance.

   OR

   Classify the various solvents used in non aqueous titrations with suitable examples. Explain the assay of sodium benzoate I.P.

2. Define and classify redox titrations with suitable examples and explain the assay of ferrous sulphate I.P. by cerimetry.

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

3. Define error. Explain four methods for minimizing errors

   OR

   Explain preparation of 1000 ml 0.1N perchloric acid and describe its standardization.

4. Name the theories of neutralization indicators and explain any one in detail.

   OR

   Explain Fajan's method with a suitable example.

5. Describe the steps involved in gravimetric analysis.
6. What are masking and de-masking reagents? Explain the assay of calcium gluconate I.P.
7. Define and classify conductometric titrations with suitable examples
8. Explain the different curves to determine the end point in potentiometry
9. Explain any one reference electrode with a neat labelled diagram. Indicate its use.

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

10. What is the difference between accuracy and precision?
11. Explain significant figure with an example.
12. Explain preparation of 500 ml 0.1N hydrochloric acid using concentrated hydrochloric acid.
13. Differentiate co- precipitation and post-precipitation.
14. What are metal ion indicators and give examples?
15. What are sequestering agents? Give examples
16. Write the difference between Iodimetry and Iodometry
17. What is the equivalence point in redox titration?
18. What is Polarography? List two applications in pharmaceutical analysis.
19. Explain the role of nitrobenzene and nitric acid in modified Volhard's method in estimation of chloride.

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