Rajiv Gandhi University of Health Sciences, Karnataka

First Semester B. Pharm Degree Examination – 15-Jun-2022

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
All the questions are compulsory

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

1. What are errors and classify them. Define accuracy and precision. Describe the steps to minimize errors

   OR

   Explain the basic principles involved in redox titrations? Give the applications of titration with potassium iodate

2. Classify acid base titrations. Explain the Quinonoid theory of indicators with example.

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

3. How do you prepare and standardize the following compounds a) 500ml of 0.1N hydrochloric acid b) 250ml of 0.1N sodium hydroxide?

   OR

   Explain the principle and procedure involved in Volhard's method and modified Volhard's method

4. Explain the construction and working of glass electrode. Mention the advantages of glass electrodes

   OR

   What is precipitation titration and give the principle involved in Mohr's method.

5. Classify the various EDTA titrations and explain each one in detail.

6. What is Gravimetry? Explain the following terms a) Digestion b) Ignition   c) Ash treatment d) Inceneration

7. Enumerate the various types of electrodes in potentiometry. Give the working of calomel electrode.

8. Define Non-Aqueous titrations. Explain briefly the principle & reactions involved in estimation of sodium Benzoate.

9. Describe the strong acid with strong base titration with suitable graph.

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

10. What are systematic errors and random errors? Give examples.

11. What is specific conductance and molar conductance?

12. What is cerrimetry? Give its applications.

13. Define the terms normality and molarity.

14. Define Neutralization curve. Give its importance.

15. What is conductivity cell?

16. What is the role of starch as an indicator in redox titrations?

17. Name the solvents used in non-aqueous titrations.

18. Give the pH range of phenolphthalein and methyl orange indicators.

19. List the optimum conditions for precipitation in gravimetric analysis.

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