Rajiv Gandhi University of Health Sciences, Karnataka

First Semester B. Pharm Degree Examination – 17-Mar-2021

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. Explain the terms 'Molarity', 'Normality', 'parts per million', '% w/w' and 'equivalent weight of an acid'. If 2.45 grams of pure sulphuric acid is present 50 ml of solution, determine is strength in terms of molarity and normality

   OR

   Define non-aqueous titration and give its application. Classify the non-aqueous solvents with suitable example each. Explain the assay of ephedrine HCI.IP

2. Define and classify redox titrations with suitable examples. Explain any one in detail

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

3. Explain the terms 'absolute error', 'relative error', 'accuracy' and 'precision'

   OR

   Explain quinonoid theory of neutralization indicator.

4. What are alkalimetric determinations? How will you prepare 250ml of 0.1N NaOH solution and standardize it?

   OR

   With suitable equation, explain the principle of assay of calcium gluconate I.P.

5. Explain Fajan's method of determination of halides.
6. Explain the assay of barium sulphate by gravimetry.
7. Explain the construction and working of a standard hydrogen electrode.
8. Explain the terms 'conductance', 'conductivity', 'molar conductivity' and indicate their units.
9. Give the construction and working of a dropping mercury electrode.

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

10. Short note on significant figures.
11. Mention two neutralization indicators, which work in alkaline pH along with their pH interval and respective colours.
12. Differentiate between 'end point' and 'stoichiometric point'.
13. Define the role of nitrobenzene in modified Volhard's method.
14. Define and classify ligand with an example each.
15. A note on screened indicator along with an example and use.
16. Give the equation of reaction of sodium thiosulphate with iodine.
17. Elaborate on the oxidizing properties of potassium permanganate.
18. Illustrate the Nernst equation and elaborate the terms.
19. Define polarography. Give its applications.

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