Rajiv Gandhi University of Health Sciences, Karnataka

Third Semester B. Pharm Degree Examination – 27-Jun-2022

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

PHYSICAL PHARMACEUTICS - I
Q.P. CODE: 5010

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. Describe the method of determining solubility of solids in liquids.

   OR

   Describe various techniques of solubility enhancement.

   OR

   Define dipole moment. Explain in detail its method of determination.

2. Define adsorption. Explain in detail the process of adsorption at solid interface.

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

3. Write the calorimetric method of determination of pH.

   OR

   Explain the various applications of distribution law.

4. Differentiate between physical and chemical adsorption process

   OR

   Explain the method for determination of CST.

5. Discuss inorganic complexes with example.
6. Write a note on buffer action and buffer capacity.
7. Explain in detail different states of matter with examples.
8. Discuss the significance of protein binding in complexation process.
9. Define and derive Langmuir adsorption isotherm.

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

10. Define polymorphism with example.
11. What are Quinhydrone complex? Give example.
12. Differentiate between isotonic and iso-osmotic solutions
13. Write the principle involved in the pH titration method of analysis.
14. Give the limitations of Distribution law.
15. Write any two applications of buffered isotonic solutions.
16. Refractive index and its application
17. What do you mean by sequestering agent?
18. Write the significance of BET equation.
19. Write any four examples of pharmaceutical buffers.

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