Rajiv Gandhi University of Health Sciences, Karnataka

Third Semester B. Pharm Degree Examination – 04-Jan-2020

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

LONG ESSAYS (Answer any Two) **2 x 10 = 20 Marks**

1. Explain in detail factors influencing solubility of drugs.
2. Define Refractive Index. Discuss in detail working of Abbe's refractometer.
3. Define surface tension. Explain in detail measurement of surface tension by capillary rise method.

SHORT ESSAYS (Answer any Seven) **7 x 5 = 35 Marks**

4. Explain real solution with examples.
5. Define dielectric constant. Write a note on its application in pharmacy.
6. Describe the Griffin's HLB scale.
7. Describe the solubilisation process.
8. Write a note on complexation.
9. Describe pH titration method for analysis of complexes.
10. Describe in detail electrometric determination of pH.
11. Write a note on Buffer capacity.
12. Write a note on critical solution temperature and its applications.

SHORT ANSWERS (Answer All) **10 x 2 = 20 Marks**

13. Write the solubility expressions for the solubility of solids in liquids.
14. What do you mean by glassy states?
15. Write any two limitations of Freundlich adsorption isotherm.
16. What are real and ideal solutions?
17. What are chelates?
18. Write a note on inclusion complexes.
19. Define the term isotonicity with examples.
20. Write any two applications of buffered isotonic solutions in pharmacy.
21. What is Henderson Hasselbalch equation? Give its applications in pharmacy.
22. Mention the applications of optical rotation in pharmacy.

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