

Rajiv Gandhi University of Health Sciences, Karnataka

Second year B.Pharm Degree Examination – August 2010

Time: Three Hours

Max. Marks: 80 Marks

PHYSICAL PHARMACEUTICS (Revised Scheme - 2)

Q.P. CODE: 1956

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. Define solubility, ideal and real solutions. Explain solubility of binary and ternary liquids
2. Explain Freundlich and Langmuir adsorption isotherms
3. What is meant by controlled flocculation? Discuss various means by which controlled flocculation can be achieved with example

SHORT ESSAYS (Answer any Eight)

8 x 5 = 40 Marks

4. How does complexation influence drug action? Explain with the help of suitable examples
5. Explain the procedure and principle involved in a simple diffusion cell
6. What is Critical Solution Temperature? What is the effect of impurity on critical solution temperature?
7. Give the principle of cup and bob viscometer
8. Define buffer capacity? Give the buffer systems used in pharmacy
9. How do you determine dielectric constant?
10. Explain DLVO theory
11. Give the application of spreading coefficient in pharmacy
12. Differentiate between the various types of porosities
13. Differentiate between half life of zero order and first order reactions

SHORT ANSWERS

10 x 2 = 20 Marks

14. Mention two applications of inclusion complexes
15. Thixotropy and its applications
16. What is CMC? Give its significance
17. What is plug flow?
18. Differentiate between partial and complete solubility
19. Give Henderson-Hasselbach equation
20. What is dipole-dipole moment?
21. Why are colloidal solutions colored?
22. Differentiate between adhesive forces and cohesive forces
23. Define creaming and cracking
