

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B. Pharm Degree Examination – DEC-2018

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. What is Nernst distribution law? What are its limitations? Derive expression applicable when solute undergoes association in one of the solvent.
2. Discuss the various properties of colloids in detail.
3. List-out the methods used to study the particle size distribution. Describe Anderson pipette method for analyzing the particle size.

SHORT ESSAYS (Answer any Eight)

8 x 5 = 40 Marks

4. Explain the electrical properties at the interface.
5. Write the different properties of inclusion complexes with suitable examples.
6. Define the term "conjugated solution". Explain phenol water system.
7. What is optical activity? Add a note on determination of optical activity.
8. What are Buffers? Derive an equation for weak acids and its salts.
9. Explain the factors influencing settling.
10. Deduce an equation for determining the specific reaction rate constant of a first order reaction.
11. How do you identify emulsion type?
12. Give the principle and procedure involved in capillary viscometer.
13. Describe dissolution apparatus with a neat labeled diagram.

SHORT ANSWERS

10 x 2 = 20 Marks

14. What is Bancroft's rule? Give its applications.
15. Define specific surface area of powder. What is its significance?
16. Define order and molecularity.
17. Contact angle
18. What is zeta potential? How does it differ from Nernst potential?
19. Protective colloid with examples
20. Dipole moment
21. What are isotonic solutions? Give example.
22. Raoult's law
23. Define Rheology and Thixotropy.
