

Rajiv Gandhi University of Health Sciences, Karnataka

Third Semester B. Pharm Degree Examination – 28-Apr-2025

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. Define azeotropic mixtures. With the help of neat diagram explain in detail fractional distillation process.

OR

Define optical rotation. Discuss in detail working of polarimeter.

2. Define interfacial tension. Explain in detail the working of stalagmometer. Write its applications.

SHORT ESSAYS

7 x 5 = 35 Marks

3. Explain ideal solution with examples.

OR

Define dipole moment. Write a note on its application in pharmacy

4. Describe the process of detergency

OR

Derive an equation of spreading coefficient. What is its significance in pharmacy

5. Define complex. Classify with examples.
6. What is HLB value? Describe different methods for its determination.
7. Describe in detail calorimetric determination of pH.
8. Define pH and write a note on Sorensen's pH scale.
9. Write a note on partially miscible liquids with examples.

SHORT ANSWERS

10 x 2 = 20 Marks

10. What are the limitations of distribution law?
11. What are aerosols?
12. Write BET equation.
13. What are sandwich complexes?
14. What are clathrates?
15. Write the applications of picric acid complexes.
16. Define the term paratonicity with example.
17. Write any two applications of buffers in pharmacy.
18. What is buffer capacity?
19. What are eutectic mixtures give an example.
