

**Second B. Pharm (Ayurveda) Degree Regular/Supplementary
Examinations March 2025****Physical Pharmacy****Time: 3 Hours****Total Marks: 100**

- *Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space*
- *Answer all parts of a single question together • Leave sufficient space between answers*

Essays:**(2x10=20)**

1. Define dissolution. Explain the factors influencing the drug dissolution. Describe type II dissolution apparatus.
2. Explain the properties of different Non-Newtonian systems with rheograms and examples.

Answer briefly:**(10x5=50)**

3. Differentiate between first order and zero order with suitable example.
4. Any two methods for the preparation of Lyophobic colloids.
5. Define critical micelle concentration. Mention mechanism of micelles formation with suitable examples.
6. Theory of emulsification.
7. Optical properties of colloids.
8. Explain the kinetics of drug transportation.
9. Preservation and rheological properties of Emulsion.
10. Define Bulk density. How is it determined.
11. Define adsorption. Explain Difference between physical adsorption and chemical adsorption.
12. Particle size determination by Andreasen Pipette.

Short notes:**(10x3=30)**

13. Complex reactions.
14. Classify surfactants based on their applications.
15. Define porosity. Write their application in pharmacy.
16. Define intrinsic viscosity. What are their applications.
17. Ternary system
18. Ideal and real solutions.
19. Distribution Law and its applications.
20. Gel.
21. Reason for instability of colloids.
22. Viscoelasticity.