Code No: F-7177/PCI

FACULTY OF PHARMACY

B. Pharmacy IV - Semester (PCI) (Backlog) Examination, April 2024

Subject: Physical Pharmaceutics-II

Time: 3 Hours **Max. Marks: 75**

PART-A

Note: Answer all the questions. **(10 x 2 = 20 Marks)**

1. What is coacervation?
2. Define yield point and mention its importance in rheology.
3. What is dilatant flow and give an example.
4. What is Ostwald ripening and its effect on the stability of dispersed systems?
5. Write the importance of stress and strain diagrams.
6. What is flocculated suspension?
7. Mention characteristics and applications of microemulsion.
8. What is sedimentation volume and its applications?
9. What is % porosity and mention its significance.
10. Write kinetic equation for second order reaction.

PART-B

Note: Answer any two questions. **(2 x 10 = 20 Marks)**

11. Describe different methods of determining viscosity.
12. Explain the derived properties of powder and describe a method to determine surface area by adsorption method.
13. What is accelerated stability testing and its use in determination of expiration date?

PART-C

Note: Answer any seven questions. **(7 x 5 = 35 Marks)**

14. Explain optical properties of colloids.
15. Classify colloids. Write the effect of electrolytes on colloids.
16. Write the Heckel equations and mention their impotence.
17. Describe the formulation of emulsions by HLB method.
18. Explain the preservation of emulsions.
19. Write the working principle of the counter counter with the help of a diagram.
20. What is specific and general acid base catalysis?
21. Explain the equations applicable to pseudo zero order reactions.
22. The first order rate constant of a drug is 0.003 per month. Calculate the shelf-life and half-life in years with help of relevant equations.

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