

**FACULTY OF PHARMACY**

**B. Pharm IV-Semester (PCI) (Main) Examination, July / August 2019**

**Subject : Physical Pharmaceutics-II**

**Time: 3 Hours**

**Max. Marks: 75**

**Note:** Answer all Questions from Part-A, any Two Questions from Part-B.  
and Any Seven Questions From Part-C

**PART- A (10 x 2 = 20 Marks)**

1. Classify colloids with examples.
2. What is HLB mention HLB Value ranges for any four surfactants
3. What is bulk density? How it is useful in pharmacy
4. What is micro emulsion and mention its advantages.
5. What is angle of repose and mention its significance.
6. What is thixotropy. Explain with examples
7. Classify non-Newtonian systems with examples.
8. What is specific viscosity and mention its importance.
9. List the physical factors affecting degradation of drug product.
10. What are the equations for half-life and shelf life.

**PART - B (2 x 10 = 20 Marks)**

11. Explain different optical properties of colloids with help of diagrams and equations.
12. Explain different methods to determine the surface area of pharmaceutical powders.
13. Describe the factors affecting stability of drug product.

**PART - C (7 x 5 = 35 Marks)**

14. Write the effect of electrolytes on lyophilic colloid.
15. Write the formulation of flocculated and deflocculated suspensions.
16. Explain the formulation of emulsion by HLB method.
17. What is thixotropy explain with Rheograms.
18. Explain the plastic and elastic deformation of solids during compression
19. Explain the procedure to determine the particle size by microscopy.
20. What is porosity and mention the significance of Heckle plots.
21. Explain the factors improving the stability of emulsions.
22. Explain the methods to determine order of reactions.