

Second Year B.Pharm Degree Examinations - October 2013

**PHARMACEUTICS - II**  
**(Physical Pharmacy)**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Write equations wherever necessary.

**Essay**

**(3x10=30)**

1. Differentiate flocculated and deflocculated suspensions. Explain the necessity of suspending agents in suspension stability.
2. What is order of reaction. Explain accelerated stability studies
3. Explain the different theories of emulsification. Describe the instability problems of emulsion and its remedy.

**Short notes**

**(14x5=70)**

4. Explain the kinetic properties of colloids
5. Define zeta and Nernst potential and explain the formation of electrical double layer
6. Describe the factors affecting dissolution
7. Explain the working principle of cone and plate viscometer
8. Explain Newtonian and non-Newtonian fluids with examples
9. Explain in brief the zero order kinetics
10. Explain the two Ficks law of diffusion
11. What is protein binding explain with examples
12. Describe the derived properties of powders
13. Explain the mechanism of solute-solvent interactions
14. Add a note on HLB classification
  
15. Describe the determination of surface area by air permeability method
16. Explain the terms true density and bulk density and its application in pharmacy
17. Describe the various factors which influence the flow property of a drug

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