

**Subject Code: B132103/R13**

**II B. Pharmacy I Semester Regular Examinations Dec/Jan. – 2014-15**

**PHYSICAL PHARMACY-II**

**Time: 3 hours**

**Max. Marks: 70**

Question Paper Consists of **Part-A** and **Part-B**  
Answering the question in **Part-A** is Compulsory,  
Three Questions should be answered from **Part-B**

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**PART-A**

1. (i) Define and differentiate diffusion and osmosis
- (ii) Define rate and order of the reaction with simple examples
- (iii) Define and differentiate surface tension and interfacial tension?
- (iv) Why do we need to reduce the particle size of a drug and what are the advantages associated with it?
- (v) What is the main difference between Newtonian and non-Newtonian systems
- (vi) Define dispersion, dispersed phase and dispersion medium with a suitable examples

[4+4+4+4+3+3]

**PART-B**

2. (a) Define solubility and classify solubility according to I.P.
  - (b) Discuss in detail about factors influencing the solubility of solids in liquid
- [6+10]
3. Write a note on decomposition pathways of medicinal agents and strategies adopted for their stabilization in the pharmaceutical formulations.
- [16]
4. Describe the concept of HLB system along with its applications and limitations
- [16]
5. What are derived properties of powders and how they are useful in the design and development of various pharmaceutical formulations?
- [16]
6. What is thixotropy and mention its applications in the design of pharmaceutical formulations?
- [16]
7. Write in detail about stability of colloids?
- [16]

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