

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**

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]
