

**Subject Code: B13202/R13**

**I B. Pharmacy II Semester Regular/Supply Examinations July/Aug. - 2015**

**PHYSICAL PHARMACY-I**

**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. (a) Classify different pharmaceutical formulation based on states of matter with one or two examples for each state of matter?  
(b) Define the terms (i) Isolated system, (ii) Closed system, (iii) Open System  
(c) Why is a study of physical properties of drug molecules necessary?  
(d) Define solute, solvent, and solution with examples.  
(e) Write the postulates of Debye-Huckel theory of electrolytes  
(f) Define buffer, buffer capacity? Write buffer equation

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

**PART-B**

2. (a) Define Intermolecular forces and explain different types of intermolecular forces with suitable examples?  
(b) What is the difference between intra molecular forces and intermolecular forces?  
[10+6]
3. Discuss in detail the concept of Gibbs free energy by explaining the key terms involved it?  
[16]
4. Elaborate physical properties of drug molecules with suitable examples?  
[16]
5. Discuss ideal and real solutions using Raoult's and Henry's laws?  
[16]
6. Discuss in brief about the theories of electrolytes?  
[16]
7. Discuss in detail about methods of adjusting tonicity and pH?  
[16]

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