

Roll No .....

**PY - 202**

**B.Pharmacy II Semester**

Examination, December 2015

**Pharmaceutics-II**

**(Physical Pharmacy)**

*Time : Three Hours*

*Maximum Marks : 70*

- Note:* i) Answer five questions. In each question part A, B, C is compulsory and D part has internal choice.  
ii) All parts of each questions are to be attempted at one place.  
iii) All questions carry equal marks, out of which part A and B (Max.50 words) carry 2 marks, part C (Max.100 words) carry 3 marks, part D (Max.400 words) carry 7 marks.  
iv) Except numericals, Derivation, Design and Drawing etc.

1. a) What is Phase Rule?  
b) What are ideal solutions?  
c) What is common ion effect?  
d) What are the factors affecting solubility of gases in liquids? Discuss in detail.

OR

Describe the methods for determining surface tension.

2. a) What is buffer capacity?  
b) Define HLB.  
c) Enumerate derived properties of powder.  
d) Discuss various methods for determination of surface area of particles.

OR

Describe Hixson-Crowell cube root law in detail.

3. a) Define CMC.  
b) Define Solubility.  
c) Enumerate pharmaceutical applications of colloids.  
d) Explain electrokinetic properties of colloids.

OR

Write a note on DLVO Theory.

4. a) State Newton's law of flow.  
b) What is protein binding?  
c) Write Henderson-Hasselbalch equation for a weak acid.  
d) Give detail account on classification of complexes.

OR

Discuss about pharmaceutical application of complexes.

5. a) Define Suspension.  
b) What are sedimentation parameters?  
c) Write a notes on non-newtonian system.  
d) Differentiate between flocculated and deflocculated system.

OR

Discuss theories of emulsification in detail.

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