

Seat No.:-----

Enrolment No.:-----

**UKA TARSADIA UNIVERSITY**

Maliba Pharmacy College

B. Pharm. 3<sup>rd</sup> Semester Internal Examination 2013 (*Mid-Sem 1*)

**030020301- Physical Pharmacy - I**

Time: 1:30 p.m. To 3:30 p.m.

Max. Marks: **40**

Date: 30/08/2013

**Instructions:**

- Attempt any **FIVE** questions.
- Each question carries **08** marks.
- Make suitable assumption whenever necessary.
- Figures to the right indicate full marks.

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|-----|----|---|----|
| Q.1 | A) | Enlist the methods for determining particle size of powder? Describe Any Two of them.                                       | 04 |
|     | B) | Define: Specific surface and Bulkiness. Write a note on particle shape and surface area.                                    | 04 |
| Q.2 | A) | Explain the volume measurement method with the help of a labeled diagram.   | 04 |
|     | B) | Enumerate the derived properties of powder & explain any two in detail.   | 04 |
| Q.3 | A) | Define: Rheology, Kinematic viscosity, Bulges, Rheopexy.  | 04 |
|     | B) | Give the difference between Shear thinning and Shear thickening system.   | 04 |
| Q.4 | A) | Write a note on Thixotropy.   | 04 |
|     | B) | Classify various instruments for measurement of viscosity. Give principle, diagram and procedure of cup and bob viscometer. | 04 |
| Q.5 | A) | Define: Liquid complex, Latent heat, Super Critical Fluid, Tie line.  | 04 |
|     | B) | Explain phase diagram for one component system.   | 04 |
| Q.6 | A) | Explain two component systems containing solid - liquid phase.  | 04 |
|     | B) | Discuss structure, properties & significance of liquid crystal.   | 04 |
| Q.7 | A) | Enlist methods for the measurement of true volume and explain any one in detail.  | 04 |
|     | B) | Write a note on polymorphism.   | 04 |