



(LI 4256)

**FEBRUARY 2016**

Sub. Code: 4256

**B.PHARM. EXAMINATION  
SECOND YEAR  
PAPER I – PHYSICAL PHARMACEUTICS**

*Q.P. Code: 564256*

**Time: Three hours**

**Maximum: 100 Marks**

**I. Essay:**

**(2 x 20 = 40)**

1. a) Explain objective, procedure and limitations of accelerated stability testing.  
b) Explain briefly on degradation and stabilization of pharmaceutical products.
2. a) Explain various methods of complex analysis.  
b) Discuss shear thickening systems with suitable examples.

**II. Short notes:**

**(8 x 5 = 40)**

1. Discuss Sedimentation technique that used for particle size analysis.
2. Briefly explain the diffusion principles in biological systems.
3. Write short notes on different colloidal systems.
4. Dilatant flow.
5. Describe Cone and Plate viscometer
6. Explain instabilities of emulsion
7. Explain pharmaceutical applications of surfactants according to HLB values.
8. Brief about Factors affecting dissolution.

**III. Short answers:**

**(10 x 2 = 20)**

1. Factors causing breaking in emulsion.
2. Zeta potential.
3. Noyes Whitney equation.
4. Define Yield value in plastic systems.
5. Thixotropy.
6. Porosity.
7. Define Protective colloids.
8. Buffer capacity.
9. Dissolution.
10. Stoke's law.

\*\*\*\*\*

