

(LQ 2042)

MARCH 2020

Sub. Code: 2042

**B.PHARM. DEGREE EXAMINATION**  
**PCI Regulation – SEMESTER IV**  
**PAPER III – PHYSICAL PHARMACEUTICS – II**

*Q.P. Code: 562042*

**Time: Three hours**

**Maximum: 75 Marks**

**I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)**

1. Describe the factors influencing the chemical degradation of pharmaceutical products.
2. Explain the methods to determine particle size.
3. What are suspensions? Describe formulation of suspensions. Add notes on theory of sedimentation.

**II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)**

1. Instabilities of emulsion.
2. Pharmaceutical application of colloids.
3. Non-Newtonian system.
4. Decomposition and stabilization of drugs.
5. Dilatant flow.
6. Cone and Plate viscometer.
7. Rate and order of reaction.
8. Air permeability technique for measurement of specific surface.
9. Determination of half-life and Shelf life of a drug.

**III. Short answers on: Answer ALL questions. (10 x 2 = 20)**

1. Coalescence and breaking.
2. Plastic flow.
3. Critical micelle concentration.
4. Kinematic viscosity.
5. Zeta potential.
6. Specific rate constant.
7. Hydrolysis.
8. Peptization.
9. Accelerated stability testing.
10. Micromeritics.