(LK 4256) FEBRUARY 2017 **Sub. Code: 4256**

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

Q.P. Code: 564256

Time: Three hours **Maximum: 100 Marks**

I. Elaborate on: **(2 x 20 = 40)**

1. a) Explain theory of micelle formation. Add note on factors influencing critical micelle concentration.
   b) Write note on HLB scale.

2. a) Define physical stability of a suspension. Discuss the principles involved in the formulation of a physically stable suspension.
   b) Discuss different experimental methods of determining protein binding of drug.

II. Write notes on: **(8 x 5 = 40)**

1. Explain the term thixotropy and negative thixotropy.
2. How do you determine particle size by coulter-counter method?
3. pH titration method for complex analysis.
4. Discuss about electrical properties of colloids.
5. Explain rate and order of reaction.
6. Write short note on steady state diffusion.
7. Explain isotonic solution and methods of adjusting tonicity.
8. Describe multiple and micro emulsion.

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

1. Factors affecting dissolution.
2. Define Newtonian systems.
3. Complexation.
4. BET equation.
5. Angle of repose.
6. Define Clathrates.
7. Brownian movement.
8. Tyndall effect.
9. Application of buffer in biological system.
10. Spreading coefficient.

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