(LH 4256)   **AUGUST 2015**   **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. Define diffusion. Describe steady state of diffusion. Explain the factors affecting dissolution.
2. What is buffer capacity? Explain the various methods for adjusting tonicity. Explain the importance of pharmaceutical buffers.

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

1. Protein binding of drugs.
2. Theory of emulsification.
3. Nernst and zeta potential.
4. Determination of order of reaction.
5. Particle size and size distribution.
6. Newtonian systems.
7. Clathrates.
8. Spreading coefficient.

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

1. Define osmosis
2. Brownian motion.
3. Multiple emulsion.
4. HLB values.
5. Noyes whitney equation.
6. Porosity.
7. Kinematic viscosity.
8. Rheopexy.
9. Chelates.
10. Specific rate constant.

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