



(LP 4256)

**AUGUST 2019**

Sub. Code: 4256

**B.PHARM. DEGREE 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 in detail about properties of colloids.  
b) Explain about the types of thixotropy with suitable examples and application of thixotropy.
2. Explain theory of micelle formation. Add a note on factors influencing critical micelle concentration.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Write an account on different colloidal systems with examples.
2. How do you determine particle size by coulter-counter method?
3. Explain the factors influencing rate of reaction.
4. What is an emulsifier? Explain the mechanism of action of emulsifier.
5. Explain isotonic solution and methods of adjusting tonicity.
6. Explain the principles of gastro intestinal absorption of drugs.
7. Describe the pH titration method for complex analysis.
8. Discuss about the electric double layer at interface.

**III. Short answers on:**

**(10 x 2 = 20)**

1. Define shelf life.
2. Buffer solution.
3. Write the equation by Edmondson to determine particle size.
4. What is rheology?
5. Define diffusion.
6. Define Dialysis.
7. What are the methods used to measure the surface & interfacial tension?
8. What is Newtonian system?
9. What are the factors causing breaking in emulsion?
10. Define protein binding.

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