

**THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY**

**[BPHARM 0122]**

**JANUARY 2022  
(AUGUST 2021 EXAM SESSION)**

**Sub. Code: 4256**

**B.PHARMACY DEGREE COURSE (NON-SEMESTER EXAMINATIONS)**

**SECOND YEAR (Regulation 2009-2010)**

**PAPER I – PHYSICAL PHARMACEUTICS**

***Q.P. Code: 564256***

**Time: Three hours**

**Answer ALL questions**

**Maximum: 100 Marks**

**I. Elaborate on:**

**(2 x 20 = 40)**

1. Define Thixotropy. Mention the types of Thixotropy. Explain the measurement and applications of Thixotropy.
2. a) Describe the different methods of analysis of Complexes with examples.  
b) Discuss the experimental methods for determining protein binding of drugs.

**II. Write notes on:**

**(8 x 5 = 40)**

1. How do you determine Particle size by coulter-counter method?
2. Discuss about electrical properties of Colloids.
3. Explain rate and order of reaction with examples.
4. Give notes on spreading co-efficients.
5. Write short notes on steady state diffusion.
6. Give notes on isotonic solution and methods of adjusting tonicity.
7. Write about the pharmaceutical applications of Colloids.
8. Describe stability problem in emulsion?

**III. Short answers on:**

**(10 x 2 = 20)**

1. Creaming.
2. Define Porosity.
3. Write the Noyes Whitney equation with its uses.
4. Define the term diffusion.
5. What you mean by half-life.
6. Define Zeta potential.
7. Define Glidants with suitable examples.
8. Define buffer capacity.
9. Write the Edmundson equation with its uses.
10. List out the methods for determination of surface/interfacial tension.

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