

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

**[BPHARM 1022]**

**OCTOBER 2022  
(AUGUST 2022 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 Colloids. Discuss their Optical and Kinetic properties.
2. a) What is order of reaction? Explain the methods to determine the order of reaction.  
b) Explain briefly on decomposition and stabilization study of medicinal agents.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Particle size analysis by coulter current method.
2. Shear thinning and shear thickening system of Rheology.
3. Inclusion complexes.
4. Spreading co- efficient.
5. Ostwald Viscometer.
6. Compare lyophilic, lyophobic and association colloids.
7. Methods to determine pH of the solution.
8. Fisher subsieve sizer.

**III. Short answers on:**

**(10 x 2 = 20)**

1. Multiple emulsion.
2. Factors affecting rate of dissolution.
3. Angle of repose.
4. Sedimentation volume.
5. Isotonic solution.
6. Total porosity.
7. Zeta potential.
8. Newtonian system.
9. Active transport.
10. Phase inversion.

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