

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

**[LR 1220]**

**DECEMBER 2020**

**Sub. Code: 4256**

**(AUGUST 2020 EXAM SESSION)**

**B. PHARMACY DEGREE EXAMINATION**

**SECOND YEAR – (Regulation from 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 Surface tension and Interfacial tension. Discuss about the different methods used to measure surface and interfacial tension.
2. a) What are Suspensions? Describe formulation of Suspensions.  
b) Define Colloids? Explain the stability of colloids using DLVO theory.

**II. Write notes on:**

**(8 x 5 = 40)**

1. Organic molecular complexes.
2. Determination of surface area of the Powder.
3. Cone and plate Viscometers.
4. Accelerated stability testing.
5. Derived properties of Powders.
6. Measurement of Thixotropic co-efficient.
7. Factors affecting dissolution.
8. Significance of Protein binding.

**III. Short answers on:**

**(10 x 2 = 20)**

1. Spreading coefficient.
2. Yield value.
3. Creaming.
4. First order reaction.
5. Isotonic Solution.
6. Newtonian system.
7. Sedimentation volume.
8. Critical micelle concentration.
9. Zeta potential.
10. Kinematic viscosity.

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