

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

[BPHARM 0921]

**SEPTEMBER 2021
(FEBRUARY 2021 EXAM SESSION)**

Sub. Code: 4256

**B. PHARMACY DEGREE EXAMINATION
SECOND YEAR – (NON-SEMESTER)
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. a) Explain in detail different types of Complexes with suitable examples.
b) Enlist the methods of analysis of Complexes and explain in detail about pH titration method.
2. a) Describe the various theories of Emulsification.
b) Write about the instabilities of Emulsion.

II. Write notes on:

(8 x 5 = 40)

1. Factors influencing rate of reaction.
2. Fisher Subsieve Sizer.
3. Determination of Particle size by sedimentation method.
4. Describe the various methods of purification of Colloids.
5. Explain shear thinning and shear thickening system of flow.
6. Explain the principles of Gastro-intestinal absorption of drugs.
7. Theory of Micelle formation.
8. Describe controlled flocculation.

III. Short answers on:

(10 x 2 = 20)

1. Types of Viscometer.
2. Fick's first law of diffusion.
3. Zeta potential.
4. Classification of Colloids.
5. Isotonic solutions.
6. Spreading co-efficient.
7. Multiple emulsions.
8. Gold number.
9. Degree of Flocculation.
10. Brownian movement.
