

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

[BPHARM 0921]

**SEPTEMBER 2021
(SEPTEMBER 2020 EXAM SESSION)**

Sub. Code: 2033

**B.PHARM. DEGREE EXAMINATION
PCI Regulation 2017 – SEMESTER III
PAPER II - PHYSICAL PHARMACEUTICS I
*Q.P. Code: 562033***

Time: Three hours

Maximum: 75 Marks

I. Elaborate on: Answer any TWO questions. (2 x 10 = 20)

1. Classify Complexes. Explain organic molecular complexes and inclusion Complexes.
2. What are the various methods of determination of surface tension of Liquids? Explain any two methods.
3. Explain briefly Freundlich and Langmuir adsorption Isotherms.

II. Write notes on: Answer any SEVEN questions. (7 x 5 = 35)

1. Solubility expressions.
2. Discuss Crystalline state of matter.
3. Critical solution temperature of Phenol-water system.
4. Describe application of Buffers.
5. The pH titration method for studying Complexation.
6. HLB scale and its significance.
7. Eutectic Mixtures.
8. Aerosols.
9. Surface active agents and their pharmaceutical applications.

III. Short answers on: Answer ALL questions. (10 x 2 = 20)

1. Define surface tension.
2. Distinguish between adsorption and absorption.
3. Define Optical rotation.
4. Define Dielectric constant.
5. What are Isotonic solutions?
6. Define Critical Micelle Concentration.
7. Sorensen's pH scale.
8. Define Refractive index.
9. Polymorphism.
10. Define relative humidity.
