

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

[BPHARM 0522]

**MAY 2022
(SEPTEMBER 2021 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. Discuss a descriptive note on pH determination methods.
2. Give a brief review on surface active agents.
3. Write a note on factors influencing solubility of drugs.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Explain about Azeotropic mixtures.
2. Differentiate between crystalline and amorphous solids.
3. Discuss ideal gas equation.
4. Write a note on Polymorphism.
5. Briefly write a note on HLB system.
6. Applications of complexes in pharmacy.
7. Write a note on factors affecting protein drug binding.
8. Write short notes on buffers in biological system.
9. Explain two methods of measuring tonicity.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. What is phase rule?
2. Define critical solution temperature.
3. Define partition coefficient.
4. Define latent heat.
5. Refractive index.
6. Dielectric constant.
7. Spreading coefficient.
8. Chelates.
9. Write the methods of analysis of Complexation.
10. Examples of Pharmaceutical buffers.
