

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

[BPHARM 1022]

**OCTOBER 2022
(MARCH 2022 EXAM SESSION)**

Sub. Code: 2033

B.PHARMACY DEGREE COURSE (SEMESTER EXAMINATIONS)

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. What is partially miscible liquids, explain it with neat diagram.
2. Define complex. Write in detail about metal ion complex.
3. Explain the determination of optical rotation with neat diagram.

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

1. Explain about the mechanism of solute solvent interactions.
2. Dielectric constant.
3. Explain Dunouy Ring method with neat diagram.
4. Write the different methods by which the pH can be determine.
5. Describe Sublimation critical point with neat diagram.
6. Write in detail about polymorphism.
7. Explain the Job's method of analysis with neat diagram.
8. State and derive Raoult's law.
9. Thermodynamic treatment of stability constant.

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

1. Define association.
2. Snell's law.
3. Define interfacial tension and write its units.
4. Write any two examples of complexation.
5. Define Sublimation.
6. Distribution Law.
7. Hypertonic solution.
8. Write few applications of buffer.
9. Define CMC.
10. Detergent.
