

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

[LR 0121]

JANUARY 2021

Sub. Code: 2033

(MARCH 2020 EXAM SESSION)

B. PHARMACY DEGREE EXAMINATION

PCI REGULATION – 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. Enumerate the methods for analysis of complexes and explain in detail about solubility method.
2. Explain the phase rule for one and two component systems.
3. Define solubility. Describe solubility expression. Write the factors influencing solubility of drugs.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Explain Du - nouy ring method.
2. Eutectic mixtures.
3. Wetting phenomena and its applications.
4. Solvation and Association.
5. Write note on Protein binding of drugs.
6. Job's method of Complexation.
7. Sorensen's pH scale.
8. Mechanisms of solute solvent interactions.
9. Describe methods to adjust Tonicity.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Raoult's law.
2. Buffer capacity.
3. Vaporization.
4. Isotonic solution.
5. Ferrocene.
6. Spreading co-efficient.
7. Critical micelle concentration.
8. Liquid complex.
9. Real solution.
10. Henry's Law.
