

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

(LP 2033)

SEPTEMBER 2019

Sub. Code: 2033

B.PHARM. 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. Define complexes. Classify the complexes with suitable examples. Write about the inclusion complexes.
2. Explain the Freundlich and Langmuir adsorption isotherm.
3. Define surfactants. Explain classification of surfactants with suitable examples.

II. Write notes on: Answer any SEVEN questions.

(7 x 5 = 35)

1. Significance of protein binding.
2. Describe with examples of polar, non polar and semi polar solvents.
3. Crystalline structure of complexes.
4. Wilhelmy plate method.
5. Liquid crystalline state and Supercritical fluids.
6. Dielectric constant and Dipole movement.
7. Application of buffers in pharmaceutical and biological system.
8. Vapour pressure and Liquid crystals.
9. Application of surface active agent.

III. Short answers on: Answer ALL questions.

(10 x 2 = 20)

1. Buffer equation.
2. Surface free energy.
3. Ideal solution.
4. Common ion effect.
5. Olefin complexes.
6. Latent Heat.
7. Sublimation.
8. Critical solution temperature.
9. Distribution law.
10. Mechanism action of detergent.
