

Code: 15R00404

B.Pharm II Year II Semester (R15) Regular Examinations May/June 2017

PHYSICAL PHARMACY – II

Time: 3 hours

Max. Marks: 70

PART - A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- State Fick's first law of diffusion.
 - Write a note on inclusion complexes.
 - How spreading coefficient is determined?
 - Classify surfactants based on HLB value.
 - Specify the derived properties of powders.
 - Define various types of powder densities.
 - Discuss power law of fluids.
 - Write a note on flocculating agents.
 - Write a note on thixotropic coefficient.
 - Name the factors affecting the physical stability of emulsions.

PART - B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT - I

- 2 Classify complexes. What are the factors influencing the solubility of solids in liquids. Explain distribution law.

OR

- 3 List out methods of analysis of complexation. Describe any two methods.

UNIT - II

- 4 Describe adsorption isotherms with suitable graphs.

OR

- 5 Specify the methods for the measurement of surface tension. Describe the principle, procedure involved for the determination of surface tension by drop count method.

UNIT - III

- 6 Name the methods of determining particle size. Describe any two methods.

OR

- 7 Describe particle size distribution analysis with suitable graphs.

UNIT - IV

- 8 (a) Discuss thixotropy with its pharmaceutical applications.
(b) Describe rotational viscometer.

OR

- 9 (a) Describe different non-Newtonian systems.
(b) Write the procedure for determination of plastic viscosity.

UNIT - V

- 10 Explain different theories of emulsification.

OR

- 11 (a) Discuss the factors affecting the sedimentation in suspensions.
(b) Write a note on pharmaceutical applications of colloids.
