Code: 15R00404

R15

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)

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1 Answer the following: (10 X 02 = 20 Marks)

(a) State Fick's first law of diffusion.
(b) Write a note on inclusion complexes.
(c) How spreading coefficient is determined?
(d) Classify surfactants based on HLB value.
(e) Specify the derived properties of powders.
(f) Define various types of powder densities.
(g) Discuss power law of fluids.
(h) Write a note on flocculating agents.
(i) Write a note on thixotropic coefficient.
(j) 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.

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