

B.Pharm II Year II Semester (R13) Supplementary Examinations December 2017

PHYSICAL PHARMACY – II

Time: 3 hours

Max. Marks: 70

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- Define Henry's law.
 - What is steady state diffusion?
 - Define pseudo first order reaction.
 - What is molecularity of reaction? Give one example.
 - Define surface tension.
 - What is contact angle? Give its applications.
 - Define plug flow. How it can be overcome?
 - Give four applications of micromeritics.
 - Write a note on rheology of emulsions.
 - What is Tyndall effect?

PART – B

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

UNIT – I

- 2 Classify the complexes. Explain inclusion complexes with applications.

OR

- 3 (a) Explain the method of determination of distribution coefficient.
(b) Give the limitations of distribution law.

UNIT – II

- 4 (a) Deduce an integrated rate equation for second order reaction when $a = b$.
(b) Explain the relationship between half-life period and initial concentration of second order reaction.

OR

- 5 Discuss how temperature influences on drug decomposition with the help of Arrhenius theory.

UNIT – III

- 6 (a) Derive an equation for the determination of surface tension by capillary rise method.
(b) Discuss the method to determine surface tension by capillary rise method.

OR

- 7 (a) How interfacial tension is determined by Du Nouy ring method?
(b) Write a note on HLB scale.

UNIT – IV

- 8 Define specific surface area. Discuss the method of determination of surface area by air permeability method.

OR

- 9 What is thixotropy? How it can be measured? Give its applications.

UNIT – V

- 10 What are the causes of instability in emulsions? How emulsions can be stabilized?

OR

- 11 (a) Discuss the factors influencing on settling in suspensions
(b) How do you evaluate physical stability of suspensions?
