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Code: 13R00304

B.Pharm II Year I Semester (R13) Supplementary Examinations November 2016 PHYSICAL PHARMACY – I

Time: 3 hours

Max. Marks: 70

PART – A

(Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
 - (a) Define Gas law.
 - (b) What is eutectic mixture?
 - (c) Explain refractive index.
 - (d) What is enthalpy?
 - (e) How will you prepare molal solution?
 - (f) Define Henry's law.
 - (g) What is activity coefficient?
 - (h) Define pH.
 - (i) What is buffer?
 - (j) What is isotonic solution?

PART – B

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

UNIT – I

2 Write briefly on super critical fluid state with diagram.

OR

- 3 Explain the following:
 - (a) Van der Waals forces.
 - (b) Hydrogen bonds.

UNIT – II

- 4 (a) Define and derive first law of thermodynamics.
 - (b) Explain reversible process with diagram.

OR

5 Write in detail about molar refraction and refractive index.

UNIT – III

6 Write in detail about depression of freezing point with diagram.

OR

7 Explain the coefficient for expression colligative property.

UNIT – IV

- 8 (a) Write the calculation of pH for proton balance equations.
 - (b) Write the conjugate acid base pairs.

OR

9 Write in detail species concentration as function of pH.

UNIT – V

10 Explain in detail buffer capacity.

OR

- 11 Write a note on the following:
 - (a) Influence of buffer capacity & pH on tissue irritation.
 - (b) General procedure for preparing pharmaceutical buffer solutions.

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