

Printed Pages : 3



PH121

(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 150206

Roll No.

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B. PHARM.

(SEM. II) THEORY EXAMINATION, 2014-15
PHYSICAL PHARMACY - I

Time : 3 Hours]

[Total Marks : 80

- 1 Attempt all question. 1×16
- (A) The change of state from a solid directly to a gas is known as
 - (B) The phenomenon in which a substance exists in more than one crystalline form is known as
 - (C) Define vapor.
 - (D) Give any one example of eutectic mixture
 - (E) The phase rule was first discovered by
 - (F) A system containing liquid water and water vapor has the number of phase equal to
 - (G) The concentration of a solution is defines
 - (H) Define triple point
 - (I) For a Bivariant system the degree of freedom are

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[Contd...

- (J) A dilatometer is an apparatus used to measure
- (K) The pH value is define as
- (L) For one mole of gas the Ideal gas equation is
- (M) The unit of R, gas constant is
- (N) Write any two application of buffer in pharmaceutical dosage formulation.
- (O) All nucleophiles are
- (P) According to Lewis concept acid is

2 Attempt any six questions : 4×6

- (A) Explain the principle of sublimation, with the help of neat diagram.
- (B) What are Ideal and Non- Ideal solution? Also give examples of each.
- (C) Describe the effect of ionic strength and dielectric constant on reaction rate.
- (D) What do you understand by buffer capacity?
- (E) Write short notes on any two
 - (i) Liquid crystals
 - (ii) Glassy state
 - (iii) Relative humidity
- (F) Explain Degree of Freedom and Phase Rule.
- (G) Describe a suitable method for determining the saturation solubility of a solid in a liquid.

- 3** Attempt any four questions. **4×10**
- (A) Compare first and second order reactions with respect to their rates and half life.
 - (B) Define buffer isotonic solution. Discuss methods for measurement and adjustment of tonicity.
 - (C) Write comparative notes on crystalline, amorphous and polymorphism with suitable examples.
 - (D) Define Debye Huckel theory and also discuss its role in conductance measurement.
 - (E) Discuss in detail the properties of the various states of mater, how does transition take place from one state of matter to other.
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