



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

PAPER ID : 150202

Roll No.

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B. Pharm.

(SEM. II) THEORY EXAMINATION, 2014-15
PHARMACEUTICAL CHEMISTRY - III

Time : 3 Hours]

[Total Marks : 70

SECTION - A

- 1 Attempt all questions each question carries **1x14=14**
one mark.
- (a) Give the geometry of methane molecule?
 - (b) Give unit of specific conductivity.
 - (c) Define ionic Bonding.
 - (d) What is effect of temperature on viscosity?
 - (e) Give the nature of bonding in SO₂.
 - (f) Nuclear fission is exothermic reaction.
(True / False)
 - (g) Define Entropy?
 - (h) What is optical activity?

- (i) Define Hydrogen bonding.
- (j) Define viscosity.
- (k) Give the unit of Equivalent conductance.
- (l) Define heat of neutralization.
- (m) Define Internal Energy.
- (n) In an ideal gas Joule-Thomson effect is zero.
(True / False)

SECTION - B

2 Attempt any six part, each carries 4 marks. **4x6=24**

- (a) Discuss hybridization and type of hybridizations, with suitable examples.
- (b) Give the difference between physical adsorption and chemisorptions.
- (c) Explain Faraday's laws of electrolysis.
- (d) Define surface tension. Discuss any one method for its determination.
- (e) Give pharmaceutical application of adsorption.
- (f) Define dipole moment and what is Debye?
- (g) Explain Hess's Law of constant heat summation.
- (h) Explain Joule-Thomson effect.

SECTION-C

3 Attempt any four parts each part carries **8x4=32**
8 marks.

- (a) Describe Ostwald's dilution law of weak electrolytes and give limitations.
 - (b) Explain phase rule. Discuss its application to water system.
 - (c) Explain second order reaction and derive its rate equation.
 - (d) Explain the distribution law. Discuss the limitation and practical application of the distribution law.
 - (e) Write notes on any two of the following.
 - (i) Optical rotation.
 - (ii) Enzyme catalysis
 - (iii) Bond energies.
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