Printed Pages : 1 **Roll No.** | | | | | | | | | | | **RPH207**

B.PHARM.

THEORY EXAMINATION (SEM–II) 2016-17

PHARMACEUTICAL CHEMISTRY-III

Time : 3 Hours ***Max. Marks : 70***

Note : *Be precise in your answer. In case of numerical problem assume data wherever not provided.*

SECTION – A

1. Explain any seven of the following: **7 x 2 = 14**

(a) Degree of freedom
(b) Types of adsorption
(c) Molar conductance
(d) Faraday's first law of electrolysis
(e) Enthalpy
(f) Bond enthalpies
(g) Absolute temperature scale
(h) Parachor
(i) Liquid crystals
(j) Phase rule

SECTION – B

2. Attempt any five parts of the following questions: **5 x 7 = 35**

(a) Give the phase diagram for one component system.
(b) Derive an expression for second order reaction when both reactants are unequal
(c) Give the pharmaceutical applications of adsorption
(d) Prove that during an ideal gas Joule-Thomson effect, enthalpy change is zero.
(e) Describe heat of combustion and Hess law of constant summation.
(f) Describe partition coefficient and its application.
(g) Discuss homogenous and heterogeneous catalysis with suitable examples.
(h) Explain molar and equivalent conductivity and its variation with dilution.

SECTION – C

Attempt any two of the following questions: **2 x 10.5 = 21**

3. Discuss the degree of ionization and qualitatively the Debye–Huckel interionic attraction theory for the conductance of strong electrolyte

4. Explain hybridization and the various types of hybridizations with suitable examples.

5. Write note on any Three
   (i) Refractive index
   (ii) Electrovalent bond
   (iii) Polymorphism
   (iv) Complex reaction