(2) (10)

Roll No.....

Total No. of Questions : 10]

[Total No. of Printed Pages : 3

P.H.M.–1.2.3

PHARMACEUTICAL CHEMISTRY–II

(Physical Chemistry)

(B.Pharmacy., 2nd Semester, 2124)

Time : 3 Hours Maximum Marks : 80

Note :– Section A is compulsory. Attempt any *Four* questions from Section B and any *Three* questions from Section C.

Section–A Marks : 2 each

1. (a) Define specific heat.

(b) Define Parachor.

(c) Define molecular refraction.

(d) What are azeatropic mixtures ?

(e) Define Raoult's law.

(f) What is adsorption ?

(g) What are colligative properties ?

(h) Define Operator.

(i) What is congruent melting point ?

(j) Why do catalyst speed up a reaction ?

(k) What is cell constant ?

(l) What is Stark effect ?

(m) What is phase rule ?

(n) Define first law of thermodynamics.

(o) What do you understand by term Transition point ?

Section–B

Marks : 5 Each

2. What is significance of partition coefficient ?

3. A solution containing 1.5 g of barium nitrate in 0.1 kg of water freezes at 272.720 K. Calculate the apparent degree of dissociation of salt.

   $K_b = 1.86$; Mol. wt. of $Ba(NO_3)_2 = 261$.

4. Write a note on solubility curves.

5. Define and calculate critical constants.

6. Discuss working and principle of Abbe's refractometer.

Section–C

Marks : 10 Each

7. Write a note on Debye Huckel theory.

8. Discuss Langmuir theory of Adsorption.

9. Write a note on Catalysis.

10. Define viscosity and coefficient of viscosity. Give methods to determine viscosity.