Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. (Non Medical)   (Sem.–2)
PHYSICAL CHEMISTRY-I
Subject Code : BSNM202-18
M.Code : 76300
Date of Examination : 15-12-2022

Time : 3 Hrs.   Max. Marks : 50

INSTRUCTIONS TO CANDIDATES :
1. SECTION-A is COMPULSORY consisting of TEN questions carrying ONE marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A

1) **Write briefly :**

   a) What is Ideal gases?

   b) What is coefficient of viscosity?

   c) What is compressibility factor in ideal gas?

   d) What are colloidal solutions?

   e) What is gold number?

   f) Explain the continuity of state.

   g) What is the activity and activity coefficient?

   h) Explain the oil in water emulsions.

   i) Explain the law of corresponding states.

   j) What is effect of the temperature on viscosity?

SECTION-B

2)   Derive the kinetic gas equation.

3)   Explain the physical properties of liquids.

4)   Explain tile types of emulsions in detail.

5)   Derive the Raoult's law.

6)   Derive the expression of elevation in boiling point.

SECTION-C

7)   Derive the expression for relation between molecular weight in depression in freezing point.

8)   Explain the vander waal equation state.

9)   Explain the stability of colloids and types of emulsions.