

Roll No.

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. (Non Medical) (Sem.-2)

PHYSICAL CHEMISTRY-I

Subject Code : BSNM-202-18

M.Code : 76300

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) Answer briefly :**

- a) What is ideal gas equation?
- b) What is surface tension?
- c) What is compressibility factor in ideal gas?
- d) What are emulsions?
- e) What is gold number?
- f) Explain the vapour pressure.
- g) What is the osmosis?
- h) Explain the osmotic law.
- i) Explain the water in oil emulsions.
- j) What is effect of the temperature on viscosity?

SECTION-B

- 2) Explain the kinetic gas molecular theory of gas.
- 3) Explain the cause of deviation from ideal gas behaviour.
- 4) Explain the general applications of colloids.
- 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) Derive the relation between critical constants and van der waals constant.
- 9) Explain the kinetics and optical properties of sols.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.