

Note: There are three sections in this paper i.e. A, B &amp; C.

VERSION: C

## Instructions:

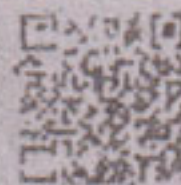
- Please attempt Section-A on the MCQs Answer Sheet only.
- Only black ball point or marker may be used for shading the relevant circle.
- Please make sure that there is no cutting, over writing, erasing, or multiple circles shading.

Time Allowed: 30 Minutes

## "Section - A"

Marks: 18

Q.1. Choose the correct option i.e. A, B, C or D.



- Passage of solvent molecules from dilute into concentrated solution is:
 

(A) Fluidity (B) Osmosis (C) Diffusion (D) Reverse osmosis
- Change in concentrations of reactants and products with change in time is:
 

(A) Order of reaction (B) Rate of reaction (C) Molecularity of reaction (D) Rate constant
- Reactions which never go to completion and finally attain a state of equilibrium, are:
 

(A) Endothermic (B) Exothermic (C) Reversible (D) Irreversible
- Existence of different crystalline solids in the same crystal form/shape is:
 

(A) Allotropy (B) Isotropy (C) Polymorphism (D) Isomorphism
- Boiling point of a liquid is not affected by:
 

(A) External pressure (B) Altitude (C) Amount liquid (D) Impurities
- Which one of the following is more temperature sensitive:
 

(A) Ionic crystals (B) Covalent Crystals (C) Metallic crystals (D) Liquid crystals
- Evaporation of a liquid is a spontaneous process that causes:
 

(A) Cooling (B) Heating (C) Constant temperature (D) Constant pressure
- One mole of NaCl contains  $6.02 \times 10^{23}$ :
 

(A) ions (B) Atoms (C) Molecules (D) Formula Units
- A yield of reaction that is independent of the reaction conditions, is:
 

(A) Actual (B) Theoretical (C) Percent (D) Standard
- Principal quantum number (n) describe which property of electron-cloud:
 

(A) Energy (B) Shape (C) Orientation (D) Spinning
- Carbon in carbon dioxide molecule is hybridized.
 

(A)  $sp^3$  (B)  $sp^2$  (C)  $sp$  (D)  $dsp^2$
- The geometrical shape of a triatomic molecule with zero dipole moment is:
 

(A) Linear (B) Angular (C) Trigonal planar (D) Tetrahedral
- The compressibility factor (Z) for an ideal gas is always:
 

(A) Zero (B) Equal to one (C) Less than one (D) Greater than one
- One molal aqueous solution of which compound has the lowest freezing point:
 

(A) Urea (B) Glucose (C) Sugar (D) Sodium chloride
- An increase in internal energy of a system may cause:
 

(A) Temperature rise (B) Phase Change (C) Chemical change (D) All of these
- Which of the following is calculated indirectly by Born Haber cycle:
 

(A) Internal energy (B) Kinetic energy (C) Lattice energy (D) Activation energy
- A substance that acts as oxidizing agent in the reaction  $H_2 + Cl_2 \rightarrow 2HCl$ 

(A)  $H_2$  (B)  $Cl_2$  (C) HCl (D) None
- The oxidation number of oxygen in super oxides is:
 

(A)  $-1/2$  (B) -1 (C) -2 (D) +2