

# Inter (Part-I) 2018

Chemistry	Group-II	PAPER: I
Time: 20 Minutes	(OBJECTIVE TYPE)	Marks: 17

**Note:** Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

**1-1- An ionic solids are characterized by:**

- (a) Low melting point.
- (b) Good conductivity in solid state.
- (c) High vapour pressure.
- (d) Solubility in polar solvents. ✓

**2- Which one of the following molecules has zero dipole moment:**

- (a)  $H_2S$
- (b)  $SO_2$
- (c)  $H_2O$
- (d)  $CH_4$  ✓

**3- Molarity of pure water is:**

- (a) 45.5
- (b) 55.5 ✓
- (c) 65.5
- (d) 75.5 ✓

**4- Photochemical reactions are usually:**

- (a) Zero order ✓
- (b) First order
- (c) Second order
- (d) Third order

**5- One mole of  $SO_2$  contains:**

- (a)  $6.02 \times 10^{23}$  atoms of oxygen
- (b)  $18.1 \times 10^{23}$  molecules of  $SO_2$
- (c)  $6.02 \times 10^{23}$  atoms of sulphur ✓
- (d) 4 gram atoms of sulphur

**6- Rainwater is:**

- (a) Slightly acidic ✓
- (b) Slightly basic
- (c) Neutral
- (d) Highly basic

**7- Solvent extraction is an equilibrium process and is controlled by:**

- (a) Law of mass action
- (b) Distribution law ✓
- (c) Amount of solute used
- (d) Amount of solvent used

- 8- For the given process, the heat changes at constant pressure ( $q_p$ ) and constant volume ( $q_v$ ) are related to each other as:
- (a)  $q_p = q_v$  (b)  $q_p < q_v$   
 (c)  $q_p > q_v$  ✓ (d)  $q_p = q_v / 2$
- 9- Stronger is the oxidizing agent, greater is the:
- (a) Oxidation potential (b) Reduction potential ✓  
 (c) Redox potential (d) EMF of cell
- 10- Quantum number values of 2p orbitals are:
- (a)  $n = 2, l = 1$  ✓ (b)  $n = 1, l = 2$   
 (c)  $n = 1, l = 0$  (d)  $n = 2, l = 0$
- 11- Number of isotopes of arsenic are:
- (a) 1 ✓ (b) 2  
 (c) 9 (d) 11
- 12- Rutherford's model of atom failed because:
- (a) The atom did not have a nucleus and electrons.  
 (b) It did not account for attraction between protons and neutrons.  
 (c) It did not account for the stability of the atom. ✓  
 (d) There is actually no space between nucleus and electrons.
- 13- Boiling point of water at Mount Everest is:
- (a)  $69^\circ\text{C}$  ✓ (b)  $78^\circ\text{C}$   
 (c)  $98^\circ\text{C}$  (d)  $45^\circ\text{C}$
- 14- Bond energy of hydrogen ( $\text{H}_2$ ) molecule is:
- (a)  $470 \text{ kJ mol}^{-1}$  (b)  $450 \text{ kJ mol}^{-1}$   
 (c)  $436 \text{ kJ mol}^{-1}$  ✓ (d)  $415 \text{ kJ mol}^{-1}$
- 15- Partial pressure of oxygen in air is:
- (a) 110 torr (b) 112 torr  
 (c) 114 torr (d) 159 torr ✓
- 16- An excess of aqueous silver nitrate is added to aqueous barium chloride and precipitate is removed by filtration, what are main ions in the filtrate:
- (a)  $\text{Ag}^+$  and  $\text{NO}_3^-$  only (b)  $\text{Ag}^+$ ,  $\text{Ba}^{2+}$  and  $\text{NO}_3^-$  ✓  
 (c)  $\text{Ba}^{2+}$  and  $\text{NO}_3^-$  only (d)  $\text{Ba}^{2+}$ ,  $\text{NO}_3^-$  and  $\text{Cl}^-$
- 17- The molal boiling point constant is the ratio of the elevation of boiling point to:
- (a) Molality ✓ (b) Molarity  
 (c) Mole fraction of solute (d) Mole fraction of solvent