

# Inter (Part-I) 2019

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- The dipole moment of  $\text{CO}_2$  is:
- (a) 0.95 D (b) 1.85 D  
(c) 1.61 D (d) 0 D ✓
- 2- Hydrogen bonding is maximum in:
- (a) HI (b) HBr  
(c) HCl (d)  $\text{H}_2\text{O}$  ✓
- 3- The pH of  $10^{-3}$  mole  $\text{dm}^{-3}$  of an aqueous solution of  $\text{H}_2\text{SO}_4$  is:
- (a) 3.0 (b) 2.7 ✓  
(c) 2.0 (d) 1.5
- 4- The volume occupied by 16 g of  $\text{CH}_4$  at STP is:
- (a)  $2.24 \text{ dm}^3$  ✓ (b)  $22.414 \text{ dm}^3$  ✓  
(c)  $1.3 \text{ dm}^3$  (d)  $1.8 \text{ dm}^3$
- 5- In zero order reaction, the rate is independent of:
- (a) Temperature of reaction  
(b) Concentration of reactants ✓  
(c) Concentration of products  
(d) Nature of reactants
- 6- The velocity of photon is:
- (a) Independent of its wavelength ✓  
(b) Depend on its wavelength  
(c) Depend on its source  
(d) Depend upon its amplitude
- 7- The unit millibar is commonly used by:
- (a) Meteorologists ✓ (b) Astronauts  
(c) Engineers (d) Dalton

- 8- The largest number of molecules are present in:  
 (a) 3.6 g of  $H_2O$  ✓ (b) 4.8 g of  $C_2H_5OH$   
 (c) 2.8 g of  $CO$  (d) 5.4 g of  $N_2O_5$
- 9- The type of hybridization in  $BeCl_2$  is:  
 (a)  $sp^3$  (b)  $sp^2$   
 (c)  $sp$  ✓ (d)  $dsp^2$
- 10- The molal boiling point constant is the ratio of the elevation in boiling point to:  
 (a) Molarity (b) Molality ✓  
 (c) Mole fraction of solute (d) Mole fraction of solvent
- 11- Splitting of spectral lines when atoms are subjected to strong electrical field is called:  
 (a) Zeeman effect (b) Stark effect ✓  
 (c) Photoelectric effect (d) Compton effect
- 12- The molar volume of  $CO_2$  is maximum at:  
 (a) S.T.P (b)  $127^\circ C$  and 1 atm. ✓  
 (c)  $0^\circ C$  and 2 atm. (d)  $273^\circ C$  and 2 atm.
- 13- The oxidation state of Mn in  $KMnO_4$  is:  
 (a) +7 ✓ (b) +6  
 (c) +2 (d) +5
- 14- The molecules of  $CO_2$  in dry ice form the:  
 (a) Ionic crystals (b) Covalent crystals  
 (c) Molecular crystals ✓ (d) Metallic crystals
- 15- Which one of the following compound is purified by sublimation:  
 (a) Benzoic acid ✓ (b)  $SiO_2$   
 (c)  $CS_2$  (d)  $NaI$
- 16- The term that is not state function:  
 (a) Enthalpy (b) Internal energy  
 (c) Work ✓ (d) Volume
- 17- Liquids which are practically immiscible:  
 (a)  $H_2O + C_6H_6$  ✓ (b)  $H_2O + C_2H_5 - OH$   
 (c)  $H_2O + HCl$  (d)  $H_2O + CH_3 - O - CH_3$