CHEMISTRY   PAPER-I (NEW SCHEME)   TIME ALLOWED: 20 Minutes
GROUP-I   **OBJECTIVE**   MAXIMUM MARKS: 17

Note: You have four choices for each objective type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave others blank. No credit will be awarded in case BUBBLES are not filled.   Do not solve question on this sheet of OBJECTIVE PAPER.

Q.No.1

(1)   The mass of one mole of electron is:-   (A) 1.008 mg   (B) 0.55 mg   (C) 0.184 mg   (D) 1.673 mg

(2)   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

(3)   The comparative rates at which the solutes move in paper chromatography depend on:-

 (A) The size of paper   (B) Rf value of solutes   (C) Temperature   (D) Size of chromatographic tank

(4)   The molar volume of CO_2 is maximum at:-
(A) STP   (B) $127^o C$ and 1atm   (C) $0^o C$ and 2atm   (D) $273^o C$ and 2atm

(5)   The deviation of a gas from ideal behaviour is maximum at:-   (A) $-10^O C$ and 5.0 atm

(B) $-10^O C$ and 2.0 atm   (C) $100^O C$ and 2.0 atm   (D) $0^O C$ and 2.0 atm

(6) NH_3 shows a maximum boiling point among the hydrides of Vth group elements due to:-

(A) Very small size of Nitrogen   (B) Lone pair of electrons present on Nitrogen

(C) Pyramidal Structure of NH_3 (D) Enhanced electronegative character of Nitrogen

(7)   Ionic solids are characterized by:-   (A) Low melting point

(B) High vapour pressure   (C) Good conductivity in solid state   (D) Solubility in polar solvents

(8)   In ground state of an atom, the electron is present:-

(A) In the nucleus   (B) In the second shell   (C) Nearest to nucleus   (D) Farthest from the nucleus

(9)   Orbitals having same energy are called:-
(A) Hybrid orbitals   (B) Valence orbitals   (C) Degenerate orbitals   (D) d–orbitals

(10)   ____ molecule has zero dipole moment.   (A) NH_3 (B) $CHC\ell_3$ (C) H_2O (D) BF_3

(11)   ____ is the Hydrogen halide which has the highest percentage of Ionic character.

(A) $HC\ell$ (B) HBr (C) HF (D) HI

(12)   If an endothermic reaction is allowed to take place very rapidly in the air, the temperature of the surrounding air:-   (A) Remains constant (B) Increases   (C) Decreases   (D) Remains unchanged

(13)   Which statement about the following equilibrium is correct:-

$$2SO_2 + O_2 \rightleftharpoons 2SO_3 \qquad \Delta H = -183\,KJ\,mol^{-1}$$

(A) The value of Kp falls with rise in temperature (B) The value of Kp falls with increasing pressure

(C) Adding V_2O_5 catalyst increase the yield of SO_3 (D) The value of Kp is equal to Kc

(14)   The pH of 10^{-3} mole dm^{-3} of an aqueous solution of H_2SO_4 is:- (A) 3.0 (B) 2.7 (C) 2.0 (D) 1.5

(15)   The molal boiling point constant is the ratio of the elevation in boiling point to:-

(A) Molarity   (B) Molality   (C) Mole fraction of solvent   (D) Mole fraction of solute

(16)   Stronger the oxidizing agent, greater is the:-

(A) Oxidation potential   (B) Reduction potential   (C) Redox potential   (D) E.M.F. of cell

(17)   If the rate equation of a reaction $2A + B \rightarrow$ product is,   rate $= K[A]^2[B]$ and A is present in large excess, then order of reaction is:-   (A) 1   (B) 2   (C) 3   (D) 4