

**CHEMISTRY PAPER-I (NEW SCHEME)
GROUP-II****OBJECTIVE**

TIME ALLOWED: 20 Minutes

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 molar volume of CO_2 is maximum at:-
(A) STP (B) $127^\circ C$ and 1atm (C) $0^\circ C$ and 2atm (D) $273^\circ C$ and 2atm
- (2) When water freezes at $0^\circ C$, its density decreases due to:-
(A) Cubic structure of ice (B) Empty spaces present in the structure of ice
(C) Change of Bond lengths (D) Change of Bond angles
- (3) Amorphous solids:- (A) Have sharp melting points (B) Undergo clean cleavage when cut with knife
(C) have perfect arrangement of atoms (D) Can possess small region of orderly arrangement of atoms
- (4) In the ground state of an atom, the electron is present:- (A) In the nucleus
(B) In the second shell (C) Nearest to the nucleus (D) Farthest from the nucleus
- (5) Splitting of spectral lines when atoms are subjected to strong electric field is called:-
(A) Zeeman effect (B) Stark effect (C) Photoelectric effect (D) Compton effect
- (6) _____ of the Hydrogen halides has the highest percentage of Ionic character.
(A) HCl (B) HBr (C) HF (D) HI
- (7) _____ species has unpaired electrons in antibonding Molecular Orbitals.
(A) O_2^{2+} (B) N_2^{2-} (C) B_2 (D) F_2
- (8) For the reaction $NaOH + HCl \rightarrow NaCl + H_2O$ the change in enthalpy is called Heat of:-
(A) Reaction (B) Formation (C) Neutralization (D) Combustion
- (9) The solubility product of $AgCl$ is $2.0 \times 10^{-10} \text{ mol}^2 \text{ dm}^{-6}$. The maximum concentration of Ag^+ ions in the solution is:- (A) $2.0 \times 10^{-10} \text{ mol dm}^{-3}$
(B) $1.41 \times 10^{-5} \text{ mol dm}^{-3}$ (C) $1.0 \times 10^{-10} \text{ mol dm}^{-3}$ (D) $4.0 \times 10^{-20} \text{ mol dm}^{-3}$
- (10) _____ statement about the following equilibrium is correct.
 $2SO_{2(g)} + O_{2(g)} \rightleftharpoons 2SO_{3(g)}, \Delta H = -188.3 \text{ kJ/mol}^{-1}$
(A) The value of K_p falls with a rise in temperature (B) The value of K_p falls with increasing pressure
(C) Adding V_2O_5 catalyst increase the equilibrium yield of Sulphur Trioxide
(D) The value of K_p is equal to K_c
- (11) 18 gm of glucose is dissolved in 90 gm of water. The relative lowering of vapor pressure is equal to:-
(A) $\frac{1}{5}$ (B) 5.1 (C) $\frac{1}{51}$ (D) 6
- (12) _____ statement is correct about Galvanic Cell. (A) Anode is negatively charged
(B) Reduction occurs at anode (C) Cathode is positively charged (D) Reduction occurs at Cathode
- (13) The unit of the rate constant is the same as that of the rate of reaction in:-
(A) First Order Reaction (B) Second Order Reaction
(C) Zero Order Reaction (D) Third Order Reaction
- (14) 27 gm of Al will react completely with how much mass of O_2 to produce Al_2O_3 .
(A) 8gm (B) 16gm (C) 32gm (D) 24gm
- (15) The number of moles of CO_2 which contain 8.0gm of Oxygen. (A) 0.25 (B) 0.50 (C) 1.0 (D) 1.50
- (16) Solvent extraction method is useful technique for separation when the product to be separated is:-
(A) Non-volatile or thermally unstable (B) Volatile or thermally stable
(C) Non-volatile or Thermally stable (D) Volatile or Thermally unstable
- (17) Number of Molecules in one dm^3 of water is close to:-
(A) $\frac{6.02}{22.4} \times 10^{23}$ (B) $\frac{12.04}{22.4} \times 10^{23}$ (C) $\frac{18}{22.4} \times 10^{23}$ (D) $55.6 \times 6.02 \times 10^{23}$