

Time: 20 Minutes**OBJECTIVE - - - - Code : 6488****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.

1. The pH of $10^{-3} \text{ mol.dm}^{-3}$ of an aqueous solution of H_2SO_4 is _____.
 (A) 1.5 (B) 2.0 (C) 3.0 (D) 2.7
2. _____ substance is used as decolourizing agent in crystallization process.
 (A) silica gel (B) animal charcoal (C) CaCl_2 (D) H_2SO_4
3. Bohr model of atom is contradicted by _____.
 (A) planks quantum theory (B) dual nature of matter
 (C) Heisenberg's uncertainty principle (D) all of these
4. When water freezes at 0°C its density decreases due to _____.
 (A) cubic structure of ice (B) changes bond length
 (C) empty spaces present in structure of ice (D) changes bond angles
5. The largest number of molecules are present in _____.
 (A) 3.6 g of H_2O (B) 4.8 g of $\text{C}_2\text{H}_5\text{OH}$ (C) 2.8 g of CO (D) 5.4 g of N_2O_5
6. An aqueous solution of ethanol in water may have vapour pressure _____.
 (A) equal to that of water (B) more than that of water
 (C) equal to that of ethanol (D) less than that of water
7. _____ is a pseudo solid.
 (A) glass (B) CaF_2 (C) NaCl (D) HCl
8. Orbitals having same energy are called _____.
 (A) degenerate orbitals (B) S and P orbitals (C) molecular orbitals (D) valence orbitals
9. In Sp^3 hybrid orbital "S" character is _____.
 (A) 25% (B) 50% (C) 75% (D) 100%
10. 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) $55.6 \times 6.02 \times 10^{23}$
11. Solvent extraction is an equilibrium process and is controlled by _____.
 (A) law of mass action (B) amount of solvent used (C) distribution law (D) amount of solute
12. If the rate equation of a reaction $2\text{A} + \text{B} \longrightarrow \text{products}$ is, rate = $\text{K} [\text{A}]^{-2} [\text{B}]$ and A is present in large excess then order of reaction is _____.
 (A) 1 (B) 2 (C) 3 (D) 4
13. The number of bonds in nitrogen molecule is _____.
 (A) one σ and one π (B) one σ and two π (C) three sigma only (D) two σ and one π
14. How many subatomic particles are thought to exist in an atom.
 (A) 3 (B) 20 (C) 50 (D) 100
15. Stronger the oxidizing agent greater is the _____.
 (A) redox potential (B) E.M.F. of cell (C) oxidation potential (D) reduction potential
16. The molar volume of CO_2 is maximum at _____.
 (A) STP (B) 127°C and 1 atm (C) 0°C and 2 atm (D) 273°C and 2 atm
17. For the reaction $\text{NaOH} + \text{HCl} \longrightarrow \text{NaCl} + \text{H}_2\text{O}$ the enthalpy change is called _____.
 (A) heat of reaction (B) heat of formation (C) heat of neutralization (D) heat of combustion