

Time: 20 Minutes**OBJECTIVE Code : 6486****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.

1. In zero order reaction, the rate is independent of
 - (A) temperature of reaction
 - (B) concentration of reactants
 - (C) concentration of products
 - (D) none of these
2. The pH of 10^{-3} mol dm⁻³ of an aqueous solution of H₂SO₄ is
 - (A) 3.0
 - (B) 2.7
 - (C) 2.0
 - (D) 1.5
3. If a strip of Cu metal is placed in a solution of FeSO₄
 - (A) Cu will be deposited
 - (B) Fe is precipitated out
 - (C) Cu and Fe both dissolve
 - (D) no reaction takes place
4. Calor is equal to
 - (A) 0.4184 J
 - (B) 41.84 J
 - (C) 4.184 J
 - (D) 418.4 J
5. The oxidation No. of Nitrogen in HNO₃ is
 - (A) +3
 - (B) -3
 - (C) -5
 - (D) +5
6. The change in heat energy of a chemical reaction at constant temperature and pressure is called
 - (A) enthalpy change
 - (B) heat of sublimation
 - (C) bond energy
 - (D) internal energy change
7. An aqueous solution of ethanol in water may have vapour pressure
 - (A) equal to that of water
 - (B) equal to that of ethanol
 - (C) more than that of water
 - (D) less than that of water
8. Feeling uncomfortable breathing in unpressurized cabin is due to
 - (A) high pressure of CO₂
 - (B) low pressure of CO₂
 - (C) low pressure of O₂
 - (D) high pressure of O₂
9. The value of pH of pure water at 25° C is
 - (A) 14
 - (B) 7
 - (C) 1×10^{-14}
 - (D) 1×10^{14}
10. Pressure remaining constant, at which temperature the volume of a gas will become twice of what it is at 0° C
 - (A) 546° C
 - (B) 200° C
 - (C) 546 K
 - (D) 273 K
11. Which of the following species has unpaired electrons in the antibonding molecular orbitals ?
 - (A) O₂²⁺
 - (B) N₂²⁻
 - (C) B
 - (D) F₂
12. During the process of crystallization the hot saturated solution
 - (A) is cooled very slowly to get large size crystals
 - (B) is cooled at a moderate rate to get medium size crystals
 - (C) is evaporated to get the crystals of the product
 - (D) is mixed with immiscible to get the pure crystals of the product
13. When 6 d orbital is complete, the entering electron goes in to
 - (A) 7 f
 - (B) 7 p
 - (C) 7 s
 - (D) 7 d
14. 27 g of Al will react how much mass of O₂ to produce Al₂O₃
 - (A) 8 g of Oxygen
 - (B) 16 g of Oxygen
 - (C) 32 g of Oxygen
 - (D) 24 g of Oxygen
15. Diamond is a bad conductor because
 - (A) it has a tight structure
 - (B) there are no free electrons present in the crystal of diamond to conduct electricity
 - (C) it has a high density
 - (D) is transparent to light
16. The mass of one mole of electron is
 - (A) 1.008 mg
 - (B) 0.55 mg
 - (C) 0.184 mg
 - (D) 1.673 mg
17. Liquid Hydrocarbon is
 - (A) Methane
 - (B) Pentane
 - (C) Hexane
 - (D) Propane