

Group - II

Chemistry (Objective Type)

Time: 20 Minutes

Marks: 17

NOTE: Write answers to the questions on objective answer sheet provided. Four possible answers A, B, C & D to each question are given. Which answer you consider correct, fill the corresponding circle A, B, C or D given in front of each question with marker or pen ink on the answer sheet provided.

1. A filtration process could be very time consuming if were not aided by a gentle suction which is developed.
 - (A) If the paper covers the funnel up to its circumference
 - (B) If the paper has got small sized pores in it
 - (C) If the stem of the funnel is large so that it dips into the filtrate
 - (D) If the paper fits tightly
2. When 6d orbital is complete, the entering electron goes into.
 - (A) 7s
 - (B) 7p
 - (C) 7f
 - (D) 7d
3. Which one of the following hydrocarbons has shortest C - C bond length?
 - (A) Ethyne
 - (B) Ethene
 - (C) Ethane
 - (D) Benzene
4. NH₃ shows a maximum boiling point among the hydrides of Vth group elements due to:
 - (A) Enhanced electronegative character of nitrogen
 - (B) Pyramidal structure of NH₃
 - (C) Lone - pairs of electrons present on nitrogen
 - (D) Very small size of nitrogen
5. If the absolute temperature of a gas is doubled and the pressure is reduced to one half, the volume of the gas will.
 - (A) Remains unchanged
 - (B) Reduced to $\frac{1}{4}$
 - (C) Increases four times
 - (D) Be doubled
6. Splitting of spectral lines when atoms are subjected to strong magnetic field is called:
 - (A) Zeeman effect
 - (B) Stark effect
 - (C) Photoelectric effect
 - (D) Compton effect
7. Gases deviate from ideal behaviour at high pressure. Which of the following is correct for non-ideality?
 - (A) At high pressure, the gas molecules move in one direction only
 - (B) At high pressure, the intermolecular attractions becomes significant
 - (C) At high pressure, the collisions between the gas molecules are much increased
 - (D) At high pressure, the volume of the gas becomes insignificant
8. Dipole - dipole forces are present among the.
 - (A) Atoms of helium gas
 - (B) Molecules of CCl₄
 - (C) Molecules of solid I₂
 - (D) Molecules of HCl
9. Which of the following statements is not correct about galvanic cell?
 - (A) Reduction occurs at cathode
 - (B) Anode is negatively charged
 - (C) Cathode is positively charged
 - (D) Reduction occurs at anode
10. Oxidation of nitric oxide with ozone has been shown to be:
 - (A) First order reaction
 - (B) Pseudo first order reaction
 - (C) Second order reaction
 - (D) Third order reaction
11. A solution of glucose is 10% W/v. The volume in which 1g mole of it is dissolved will be:
 - (A) 900Cm³
 - (B) 200Cm³
 - (C) 1.8dm³
 - (D) 1dm³
12. The aqueous solution of BiCl₃ is cloudy. The cloudiness of BiCl₃ solution can be vanished by:
 - (A) Addition of BiCl₃
 - (B) Addition of H₂O
 - (C) Addition of HCl
 - (D) Addition of both BiCl₃ and H₂O
13. 22g of CO₂ sample has:
 - (A) $\frac{1}{2}$ mole of O atoms
 - (B) 1 mole of O atoms
 - (C) 1.5 moles of O atoms
 - (D) 6.02×10^{23} molecules of CO₂
14. Which one of the following maybe employed as drying agent in a desiccator?
 - (A) P₂O₅
 - (B) Animal charcoal
 - (C) KMnO₄
 - (D) NH₄Cl
15. In endothermic reactions, the heat contents of:
 - (A) Products is more than that of reactants
 - (B) Reactants is more than that of products
 - (C) Both (A) and (B)
 - (D) Reactants and products are equal
16. The volume occupied by 16g of O₂ at S.T.P is :
 - (A) 22.4 dm³
 - (B) 2.24 dm³
 - (C) 11.2 dm³
 - (D) 1.12 dm³
17. According to VSEPR theory, the shape of SO₃ molecule is.
 - (A) Trigonal pyramidal
 - (B) Bent or angular
 - (C) Triangular planer
 - (D) Tetrahedral