

CHEMISTRY PAPER – II

Q1. If ethanol reacts with oxygen it produces

- (a) Acetic Acid
- (b) Hydrochloric Acid
- (c) Sulphuric Acid
- (d) Sulphur dioxide

Ans. (a) $C_2H_5OH + O_2 \xrightarrow{K_2Cr_2O_7} CH_3COOH + H_2O$
Acetic Acid

Q2. Fill the question mark in following reaction



- (a) $2 C_2H_6$
- (b) CH_4
- (c) C_2H_4
- (d) None of these

Ans. When Sodium acetate react with sodalime, methane is produced

Q3. A burner consumes one gram of LPG in 11 sec. What is the power of consumption of burner in KW if C_v of LPG is 55 kJ/g.

- (a) 5 kW
- (b) 10 kW
- (c) 5.5 kW
- (d) None of these

Ans. (a) Power = E / T = 55 / 11 = 5 kW, Time (T) = 1 sec.

Q4. The ideal gas equation is

- (a) $P_1T_1 / V_1 = P_2V_2 / T_2$
- (b) $P_1V_1 / T_1 = P_2V_2 / T_2$
- (c) $P_1V_1T_1 = P_2V_2T_2$
- (d) $P_1V_1 / T_2 = P_2V_2 / T_1$

Ans. (b)

Q5. Dalton's Law of partial pressure is obeyed in which one of the following pair of gases

- (a) Oxygen & Nitrogen
- (b) Nitrogen & Hydrogen
- (c) Hydrogen & Argon
- (d) Hydrogen & oxygen

Ans. (c)

Q6. The molecular formula of a compound in $(CO)_x$ and its vapour density is 70. Then the possible value of x is

- (a) 2
- (b) 10
- (c) 5
- (d) 9

Ans. (c)

Q7. Number of groups present in the long form of the periodic table are

- (a) 16
- (b) 8
- (c) 2
- (d) 18

Ans. (a)

Q8. Which of the following is a neutral oxide

- (a) NO
- (b) NO₂
- (c) N₂O₅
- (d) CO₂

Ans. (a)

Q9. Molecular weight of a substance is equivalent to

- (a) Sum of atomic wt. of each element present in the given substance
- (b) Sum of At.wt of each element with their respective number present in each compound
- (c) Sum of equivalent wt. of each element present in the given substance
- (d) None of these

Ans. (b)

Q10. Covalent linkages is formed by

- (a) Transfer of electrons
- (b) Mutual sharing of electrons
- (c) Transfer as well as mutual sharing of electrons
- (d) None of these

Ans. (b)

Q11. If an acid having construction as 0.01 N is diluted to 1000 times then the PH of that acid is ?

- (a) 5
- (b) 2
- (c) 3
- (d) 10

Ans. (a)

Q12. Oxygen has two isotopes O¹⁶ & O¹⁸. If the percentage of O¹⁶ is 90 then the atomic weight of oxygen will be

- (a) 16
- (b) 16.2
- (c) 16.4
- (d) None of these

Ans. (b)

Q13. Atom that can neither gain nor lose electrons is said to be

- (a) an Inert
- (b) Atomsperic
- (c) Metallic
- (d) Non – metallic

Ans. (a)

Q14. When a burning splinter is brought near the gas jar containing hydrogen gas a popping sound is observed. It is due to

- (a) exothermic
- (b) endothermic
- (c) exothermic & endothermic
- (d) None of these

Ans. (a)

Q15. In which of the following preparation Hydrogen is not used?

- (a) preparation of Ammonia (NH_3)
- (b) Hydrogenation of oil
- (c) Synthesis of water gas
- (d) all of these

Ans. (d)

Q16. Deacon's process is used for the manufacturing of

- (a) Bleaching powder
- (b) Sulphuric acid
- (c) chlorine
- (d) Hydrochloric acid (HCL)

Ans. (c)

Q17. Which one of the following method is considered to be a best method for the removal of temporary hardness of water

- (a) Caylon's process
- (b) Clark's process
- (c) Vesence process
- (d) Permutti's process

Ans. (b)

Q18. When chlorine gas is passed through NaOH , it forms

- (a) Sodium chloride
- (b) Sodium chlorate
- (c) Sodium hypochlorite
- (d) All of these

Ans. (d)

Q19. Skin becomes yellow in Conc. H_2SO_4 as

- (a) HNO_3 acts as an oxidizing agent
- (b) HNO_3 acts as a dehydrating agent
- (c) Nitro – cellulose is formed
- (d) The proteins are converted into xantho proteins

Ans. (d)

Q20. Which of the following is used as a moderator in nuclear reactor

- (a) Water
- (b) Heavy water
- (c) Active Hydrogen
- (d) Heavy Hydrogen

Ans. (b)

Q21. Which one of the following is known as “King of Chemicals”

- (a) Hydrochloric acid
- (b) Sulphuric acid
- (c) Nitric acid
- (d) Phosphoric acid

Ans. (b)

Q22. The common gas used in our refrigerator

- (a) marsh gas
- (b) producer gas
- (c) freon
- (d) water gas

Ans. (c)

Q23. Alum is added with muddy water to

- (a) Kill bacteria
- (b) Make filtration of milk
- (c) Make the sedimentation process quick
- (d) None of these

Ans. (c)

Q24. Alloy is a homogenous mixture of

- (a) two or more metals
- (b) a metal & a non metal
- (c) metals as well as non metals
- (d) all of these

Ans. (c)

Q25. To protect the metal from corrosion it is some times coated with a thin layer of Al_2O_3 (Aluminium oxide) and the process is called

- (a) Electroplating
- (b) Electroforming
- (c) Aluminizing
- (d) None of these

Ans. (b)

Q26. The I.U.P.A.C. name of the compound $\text{CH}_2 = \text{CH}(\text{CH}_3)_2$ is

- (a) N – Propene
- (b) 3 methyl butane
- (c) 2 methyl butene
- (d) None of these

Ans. (c)

Q27. Fuel in Automobiles is a mixture of

- (a) saturated hydrocarbons
- (b) unsaturated hydrocarbons
- (c) crude oil
- (d) saturated & unsaturated hydrocarbons

Ans. (c)

Q28. In the soda fire extinguishes due to

- (a) formation of CO_2
- (b) presence of sodium bicarbonate
- (c) formation of water as a product
- (d) None of these

Ans. (a)

Q29. The glasses which is used for making lenses and prisms for optical instrument

- (a) Hard glass
- (b) Pyrex glass
- (c) Croked glass
- (d) Tint glass

Ans. (c)

Q30. Which of the following is of a thermoplastic?

- (a) Teflon
- (b) Orlon
- (c) Bakelite
- (d) Polythene