



Sainath Education Trust's
Rajiv Gandhi College
of Arts, Commerce, & Science. Vashi Navi Mumbai.
{Permanently Affiliated to University Of Mumbai}
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F.Y BSC SEMESTER – 2 PAPER 1 CHEMISTRY

1.----- analysis involves the various chemical processes

- a) Physical
- b) **Chemical**
- c) Qualitative
- d) Quantitative

2. A substance that donates a pair of electrons to form a coordinate covalent bond is called -----

- a) Lewis acid
- b) **Lewis base**
- c) Bronsted-Lowry acid
- d) Bronsted-Lowry base

3. When an acid reacts with a metal, which one of the following gas is usually liberated -----

- a) Ammonia gas
- b) Chlorine
- c) Oxygen
- d) **Hydrogen gas**

4. Reagent used for testing in qualitative analysis are -----

- a) Solid
- b) Liquid
- c) **Solid and Liquid**
- d) Gas

5. Arrhenius defined an acid as-----

- a) a species that can donate a proton.
- b) a species that can accept a proton.
- c) a source of OH⁻ ions in water
- d) **a source of H⁺ ions in water.**

6. The unit of 'a' i.e van der waal's constant is----- --.

- a) atm / lit² mol
- b) **atm / lit² mol²**
- c) atm / lit mol⁻²
- d) atm lit /mol²

7) According to Charle's law " At constant volume the pressure of a given amount of gas varies directly with its -----
-----.

- a) **Absolute temperature**
- b) Temperature
- c) Average temperature
- d) Ideal temperature

8. The phenomenon of lowering in temperature produced when a real gas is allowed to expand adiabatically by passing it through a porous plug is known

as -----.

- a) **Joule - Thomson effect**
- b) Boyle's thomson effect
- c) Charles's thomson effect
- d) Dalton's thomson effect

9. The average kinetic energy of the gas molecules is directly proportional to the -----.

- a) Inversion temperature
- b) **Absolute temperature**
- c) Average temperature
- d) Perfect temperature

10) If one mole of PCl_5 is heated in 2.0 lit vessel at 250°C . At equilibrium, the vessel was found to contain 0.250 moles of PCl_3 and Cl_2 each. Calculate the equilibrium constant.

- a) **0.0416**
- b) 0.0576
- c) 0.0676
- d) 0.0276

11. Formation of sulphur dioxide and oxygen gases from sulphur trioxide gas is an example of-----.

- a) **Reversible reaction**
- b) Irreversible reaction
- c) Consecutive reaction
- d) Parallel reaction

12. Which of the following is correct equation?

- a) $K_p = K_c (RT)^{\Delta n}$
- b) $K_c = K_p (RT)^{\Delta n}$
- c) $K_p = K_c (RT)^{2\Delta n}$
- d) $K_p = K_c (2RT)^{\Delta n}$

13 The coupling of alkylhalides with sodium metal is known as.....

- a) **Wurtz reaction**
- b) β -Elimination
- c) α -Elimination
- d) γ -Elimination

14. Halogenation of alkanes take place by... mechanism.

- a) **Free radical**
- b) Friedel Crafts
- c) Wurtz -Fittig reaction
- d) Wurtz reaction

15. Chlorine is.....reactive and hence isselective in attacking hydrogen atoms in propane.

- a) **More, less**
- b) less less ,
- c) more less,less
- d) more,more

16. Alcohols when heated in presence of sulphuric acid undergo.....to form an alkene.

- a) Dehydration
- b) Rehydration
- c) rearrangement
- d) substitution

17. Dehydrohalogenation reaction is an... reaction.

- a) elimination
- b) addition
- c) substitution
- d) rearrangement

18.alkyl halide follow E1 Mechanism .

- a) tertiary
- b) primary
- c) secondary
- d) quaternary

19. The acid used for the manufacture of fertilizers and explosives is -----

- a) Nitric acid
- b) Sulfuric acid
- c) Phosphoric acid
- d) Hydrochloric acid

20. Methyl orange is ----- points

- a) **Pink in acidic medium, yellow in basic medium**
- b) Yellow in acidic medium, pink in basic medium
- c) Colourless in acidic medium, pink in basic medium
- d) Pink in acidic medium, colourless in basic medium

21. Name the most common indicator used in laboratory -----

- a) Methyl Orange
- b) Red Litmus
- c) **Universal Indicator**
- d) Phenolphthalein

22 Uncommon ion effect is also known as -----

- a) Buffer action
- b) **Diverse ion**
- c) Negative ion
- d) positive ion.

23. Which of the following is neither an acid nor base -----

- a) CH_3COOH
- b) HCl
- c) **KCl**
- d) CH_3OH

24. During the collision of gas molecules there is no net loss or gain of energy hence these collision are called as-----

- a) **elastic collision**
- b) absolute collision
- c) perfect collision
- d) effective collision

25. Every gas has a particular temperature at which gas shows neither cooling not heating on adiabatic expansion which is known as -----.

- a) **Inversion temperature**
- b) Absolute temperature
- c) Average temperature
- d) Perfect temperature