



Sainath Education Trust's  
**Rajiv Gandhi College**  
of Arts, Commerce, & Science. Vashi Navi Mumbai.  
{Permanently Affiliated to University Of Mumbai}  
ACCREDITED BY NAAC, GRADE 'B'

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**Sample Multiple Choice Questions**

**Class :- S.Y.B.Sc.**

**Subject :- CHEMISTRY PAPER II**

**Semester :- IV**

- 1) pKa range for feebly acidic cations is between -----
  - a) 6-11.5
  - b) 11.5-14
  - c) 1-6
  - d) 1-14
- 2) Hydration energy calculated using ----- equations
  - a) Latimer
  - b) Drago-way land
  - c) Born Lande
  - d) Kapustinskii
- 3) Oxoanions are formed by ----- atoms and oxide ions
  - a) Non-metals
  - b) Metals
  - c) Metalloids
  - d) Minerals
- 4) ----- is used in pharmaceutical application
  - a) HCl
  - b) MgCl
  - c) H<sub>3</sub>PO<sub>4</sub>
  - d) H<sub>2</sub>O
- 5) The smallest building block of crystal consisting of atoms, ions or molecules whose geometric arrangement when repeated in three dimensions will generate the complete crystal called as-----.
  - a) Unit Cell
  - b) Simple Cell
  - c) Multiple cell
  - d) Space lattice

- 6) What is Bragg equation?
- $2d \sin \Theta = n \lambda$
  - $3d \sin \Theta = n \lambda$
  - $2n \sin \Theta = d \lambda$
  - $3n \sin \Theta = d \lambda$
- 7) ----- type of catalysed reactions in which the catalyst is in the same phase as the reactants.
- Homogeneous
  - Heterogeneous
  - Amorphous
  - Crystalline
- 8) What is the method through which we can prepared catalyst support?
- Soaking the support material
  - Spraying the metal salt solution
  - Reducing the metal
  - All of the given options
- 9) .....amines are obtained when two hydrogen atom of  $\text{NH}_3$  is replaced by an alkyl group.
- Primary
  - Tertiary
  - Quaternary
  - Secondr
- 10) The amines react with Mineral acid to form water soluble .....
- Base
  - Acid
  - Salt
  - Carboxylic acid
- 11) The primary amine reacts with acyl halide to form.....
- N-substituted amide
  - Anhydride
  - Ester
  - carboxylic acid
- 12)  $\text{ArN}_2\text{X}$  is general formula for.....compounds
- Diazo
  - Halo
  - Nitro
  - Aldehyde

- 13) Acid is substance ----- donar
- Proton
  - Hydronium
  - Water
  - Neutron
- 14) Formation of adduct is equal to formation of ----- bond
- Covalent
  - Ionic
  - Co-ordinate
  - Dative
- 15) -----which of the following acid autoionization take place at room temperature
- Nitric acid
  - Sulphuric acid
  - Hydrochloric acid
  - Phosphoric acid
- 16) Fixation of P in soil by ----- matter
- Organic
  - Inorganic
  - Hybride
  - Phosphorus
- 17) Alum's capacity to purify water is due to
- softens hard water
  - pathogenic bacteria get destroyed
  - impurities' coagulation
  - it improves taste
- 18) Which of the following gases is not a greenhouse gas
- CO
  - O<sub>3</sub>
  - CH<sub>4</sub>
  - H<sub>2</sub>O vapour
- 19) Water is often treated with chlorine to -----
- Remove hardness
  - Increases oxygen content
  - Kill germs
  - Remove suspended particles

- 20) The greatest affinity for haemoglobin is shown by which of the following
- NO
  - CO
  - O<sub>2</sub>
  - CO<sub>2</sub>
- 21) The type of pollution caused by spraying of DDT
- Air and soil
  - Air and water
  - Air
  - Air, water and soil
- 22) Production of X-rays are done in ----- tube.
- Cathode
  - Anode
  - Anticathode
  - Coolidge
- 23) A cube which contains one atom at each corner of the crystal is called as-----.
- Simple Cube
  - Multiple cube
  - Body centered cube
  - Face centered cube
- 24) .....is saturated heterocyclic compound.
- Tetrahydrofuran
  - Furan
  - Pyrrrole
  - Pyridine
- 25) The resonance energy of Benzene is.....
- 25
  - 29
  - 31
  - 36