

ISC Class 12 Chemistry Important Questions

- Write the chemical equations to illustrate the following name reactions:
 - Wolff-Kishner reduction.
 - Aldol condensation.
 - Cannizzaro reaction.
- Account for the following:
 - CH_3CHO is more reactive with HCN than CH_3COCH_3 .
 - Carboxylic acids are stronger acids than phenol.
- Give *one* chemical test each to distinguish between the following pairs of compounds:
 - Benzaldehyde and Benzoic acid
 - Propanal and Propanone
- Explain why:
 - PCl_5 exists but NCl_5 does not.
 - Fluorine is a stronger oxidising agent than chlorine.
 - Bond enthalpy of F_2 is less than that of Cl_2 .
- Account for the following
 - Interhalogens are more reactive than halogens.
 - N_2 is less reactive at room temperature.
 - Reducing character increases from NH_3 to BiH_3 .
- State Faraday's first law of electrolysis. Calculate the charge required in terms of Faraday for the reduction of 1 mole of Cu^{2+} to Cu .
- Define the following terms:
 - Limiting molar conductivity.

- b. Fuel cell.
8. How is silver extracted from its ore? Explain the process with relevant equations.
9. Arrange the following in the increasing order of basic strength:
Aniline, p – nitroaniline and p – toluidine.
10. Explain why transition metals and their compounds act as a catalyst.
- a. Physisorption decreases with an increase in temperature. Give reason.
- b. Why does addition of alum purify water?
- c. Brownian movement stabilizes colloidal solutions. How?
11. A substance decomposes by following first order kinetics. If 50% of the compound is decomposed in 120 minutes, how long will it take for 90% of the compound to decompose?
12. How is phenol converted to benzoic acid? Explain with the help of balanced chemical equations.
13. Write the mechanism of acid dehydration of ethanol to yield ethene.
14. Explain the amphoteric behavior of amino acids.
15. Write the names of the monomers of the following polymers:
- a. Nylon-6
- b. Buna-N
16. What will be the major product obtained when 2-bromobutane reacts with alcoholic potassium hydroxide? State the type of reaction involved in it.
17. Differentiate between an *antiseptic* and a *disinfectant*.
18. Name a biodegradable detergent.
19. Write *two* differences between ‘*order of reaction*’ and ‘*molecularity of reaction*’.
20. Write balanced chemical equations for *Carbylamine reaction* and *Diazotization reaction*.



