

## Chemistry - 12th Class Chemistry Full Book Short Questions Preparation

Q1. Write any two use of Krypton?

**Ans 1:** Krypton is used to fill fluorescent tubes and in flash lamps for high speed photography.

Q2. What is sodium nitroprusside test?

**Ans 1:** Ketones produce a wine red or orange red color on adding alkaline sodium nitroprusside solution drop wise, Aldehyde don't give this test.

Q3. Write the advantages of Nelson's cell.

**Ans 1:** i) By using this method sodium hydroxide is manufactured on large scale.  
 ii) Sodium hydroxide is product of this process but some by products are also achieved like hydrogen gas and chlorine gas.  
 iii) It is very cheap process because its raw material is sodium chloride which is not costly.

Q4. What is peculiar behaviour of Fluorine?

**Ans 1:** The halogen form a homologous series but fluorine differ from the other halogens in many respects which is due to :

1. Small in size of D atom and F ion,
2. High first ionization energy and electronegativity.
3. Low dissociation energy of  $F_2$  molecule as compared to  $Cl_2$  and  $Br_2$ .
4. Restriction of the valence shell to an octet
5. Direct combination with inert gasses.

Q5. What is the role of potassium in growth of plants?

**Ans 1:** Potassium is required for the formation of starch sugar and the fibrous material of the plant. They increase resistance to disease and make the plant strong by helping in healthy root development. Potassium fertilizers are especially used for tobacco, coffee and corn.

Q6. Give uses of iodine.

**Ans 1:** The major application of iodine are in pharmaceutical industry, It is used as disinfectants and germicides, Tincture of iodine and Iodex are popular preparation of iodine. Diet with insufficient iodine ions leads to an enlargement of the thyroid, To ensure the presence of iodine ion in the diet, sodium or potassium iodine is added to the common salt which is known as iodized salt.

Q7. Classify polymer on the basis of monomers?

**Ans 1:** Homopolymer: A homopolymer is formed by the polymerization of a single type or monomer.

Copolymer : A copolymer is formed by the polymerization of two monomer together e.g vinyl acetate reacts with butyl maleate to give a copolymer..

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Q8. Write any two points of difference of Be with its family members.

**Ans 1:** Beryllium is the lightest member of the series,.The main points of difference are:

- 1) Beryllium metal is almost as hard as iron and hard enough to scratch glass.The other alkaline earth metals are much softer than beryllium but still harder than the alkali metals.
  - 2) The melting and boiling points of beryllium are higher than other alkaline earth metals.
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Q9. What is haloform reaction?

**Ans 1:** Acetaldehyde and methyl ketones react with halogens in the presence of sodium hydroxide to give haloform this reaction is called haloform reaction,The term haloform is used for the distinguish acetaldehyde from other aldehydes.

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Q10. Aluminium is not found free in nature.Comment the statement?

**Ans 1:** It occurs primarily as alumino-silicate minerals found in the rocks of the outer portion of the earth.So,Aluminium is not found free in nature.

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Q11. Write four uses of each methanol and ethanol.

**Ans 1:** Methanol is used as solvent for fats oil ,paints ,varnishes,It is also used as antifreeze in the radiators of automobiles and for denaturing of alcohol.

Ethanol is used as solvent as a drink and as a fuel in some countries.Moreover it is used in pharmaceutical preparation and as preservation for biological specimen.

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Q12. Describe the mechanism of base catalyst nucleophilic addition to a carbonyl compound?

**Ans 1:** A base catalyzed nucleophilic addition will take place with strong nucleophilic reagent which has general mechanism.

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Q13. Define "disproportion reaction".

**Ans 1:** A reaction in which a species(molecule atom or ion )is simultaneously oxidized and reduced is called disproportion reaction.

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Q14. Describe nitration of methane.

**Ans 1:** It is substitution reaction of alkanes in which a hydrogen atom of an alkane is replaced by nitro group .Alkanes undergo vapour -phase nitration under drastic condition to give nitroalkanes.

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Q15. Define open chain compound.

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**Ans 1:** Open chain may be branched or non branched .Open chain hydrocarbons are also called aliphatic compounds. Branched chain compounds: Those organic compounds in which the carbon atom are attached on the side of the chain.

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Q16. How detergent are treat to aquatic animal?

**Ans 1:** Detergents are excessively used in industry and household as cleaning agents, The amount of disposed detergent in waste water is increasing day by day, This waste water when discharged in rivers, sea ,greatly affects the aquatic life. Detergent content of waste water mobilize the bound toxic ions of heavy metals.

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Q17. What is biochemical oxygen demand?

**Ans 1:** It is the capacity of an organic matter in natural water to consume oxygen within a period of five days. The value of BOD is the amount of oxygen consumed as a result of biological oxidation of dissolved organic matter in a sample. The oxidation reaction is catalyzed by microorganism which are already present in a natural water. It is measured experimentally by calculating the concentration of oxygen at the beginning and at the end of 5 days period in which a sealed water sample is maintained in dark at constant temperature either at 20 degree or 25 degree.

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Q18. What is Ninhydrin Test?

**Ans 1:** Ninhydrin reacts with amino acids to form an intensely coloured bluish violet product, The ninhydrin reaction is also widely used to visualize amino acids separately by paper chromatography.

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Q19. Define functional group isomerism .

**Ans 1:** An atom or group of atoms or a double bond or a triple bond whose presence imparts specific properties to organic compounds is called a functional group because they are chemically functional part of molecules.

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Q20. What is cement plaster and Hard finish plaster?

**Ans 1: Cement Plaster:** It is Plaster of Paris to which usually glue or other oils have been added as retarders to prolong the time of setting.

**Ans 2: Hard finish plaster:** These are made by the calcination of anhydrous sulphate with alum or borax. These plaster are set very slowly but give a hard finish.

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