

## Chemistry - 12th Class Chemistry Chapter 16 Short Questions Preparation

Q1. What are the effects of dumping waste in sea and rivers.

**Ans 1:** Water covers more than 710% of the earth and is valuable source for food and mineral, Sea and rivers have long been used for dumping waste of industries and municipal discharges such as acids, refinery wastes, pesticides water, garbage and radioactive waste etc.

Q2. Explain purification of water by use of coagulating agent.

**Ans 1:** The coagulant such as aluminium sulphate or alum is added to the raw water, which cause the precipitation of suspended impurities, For example aluminium hydroxide is precipitated when alum is added to water in alkaline medium. Many suspended particles get absorbed on the surface of gelatinous aluminium hydroxide precipitate, Ferric salts are commonly used as coagulants but they are difficult to handle.

Q3. Discuss Detergent as water pollutants?

**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.

Q4. What does coagulation mean?

**Ans 1:** The material which are present or suspended in the colloidal form in raw water are removed by coagulation process, The coagulation such as aluminium sulphate or alum is added to the raw water which cause the precipitation of suspended impurities.

Q5. Why ozone layer has depleting?

**Ans 1:** The concentration of ozone in the stratosphere is behind depletion through various chemical reactions but it is seriously affected by chlorofluorocarbons. Chlorofluorocarbons used as refrigerants in air conditioning and in aerosol spray are inert in the troposphere but slowly diffuse into stratosphere, where they are subjected to ultraviolet radiation generating chlorine free radicals which react with ozone and cause depletion.

Q6. Define environmental chemistry and what are the components of Environment?

**Ans 1:** Environmental chemistry deals with the chemicals and other pollutants in the environment, In this way we study the sources, reaction, transportation of the chemical and other toxic substances especially created by human activity in the environment and their adverse effect on human beings.  
The environment consists of the following  
1. Atmosphere  
2. Hydrosphere  
3. Lithosphere  
4. Biosphere

Q7. 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 microorganisms 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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Q8. What is recycling of raw material?

**Ans 1:** In recycling some of the used or waste material are not discarded after their initial use but are processed so that they can be used again. The purpose of recycling is to conserve sources such as raw material and energy.

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Q9. Write the harmful effects of Chlorination of water?

**Ans 1:** Harmful effects of chlorination of water are due to its reaction with dissolved ammonia and organic matters present in water. The hypochlorous acid reacts with dissolved ammonia to form chloramines. Chlorination of water containing organic material also forms some organic compound which are toxic.

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Q10. Define ecosystem.

**Ans 1:** Ecosystem is a similar unit of biosphere which consists of community of organisms and their zone and depend on physical factors such as soil, water and air.

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