

## Chemistry - 10th Class Chemistry English Medium Chapter 14 Preparation

Q1. What are major constituents of troposphere?

**Ans 1:** The major constituents of troposphere are nitrogen and oxygen gases. These gases comprise 99% by volume of earth's atmosphere.

Q2. Tell two reasons and importance of water .

**Ans 1:** Firstly , it is essential and major components of each and every living cell  
Secondly , it provides an environment for animals and plants that live in water

Q3. Comment burning in open air is preferred.

**Ans 1:** Because in closed area. CO is produced instead of CO<sub>2</sub> CO causes suffocation and ultimately death.

Q4. Why non-polar compounds are insoluble in water ?

**Ans 1:** Many covalent substances like benzene , ether , octane etc , which do not have polar ends or bonds are not attached by water molecules . Therefore non-polar compounds do not dissolve in water

Q5. Define water softening and name the method of removing hardness ?

**Ans 1:** The removal of Mg<sup>2+</sup> and Ca<sup>2+</sup> ions which are responsible for the hardness is called water softening Methods

**Ans 2:** 1: Temporary hardness removal :

By boiling

By Clark's method

2: Permanent hardness removal :

By using washing soda

Using sodium zeolite

Q6. Define water born diseases

**Ans 1:** Diseases that spread because of drinking polluted water or eating food prepared with polluted water are called waterborne infectious disease

Q7. Why is CO<sub>2</sub> called a greenhouse gas?

**Ans 1:** Because CO<sub>2</sub> in the atmosphere acts like a glass wall of a green house. It allows visible radiations to pass through it but

does not allow the IR radiations to pass through it. It traps some of the infrared radiations emitted by the Earth. Hence, increased concentration of CO<sub>2</sub> layer absorbs the infrared radiations emitted by the Earth's surface that prevents heat energy escaping from the atmosphere. It helps to stop surface from cooling down during night. As the concentration of CO<sub>2</sub> in air increases, less heat energy is lost from the surface of the earth. Therefore the average temperature of the surface gradually increases. This is called greenhouse effect

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Q8. How are sulphur containing compounds emitted naturally?

**Ans 1:** Naturally occurring sulphur containing compounds are emitted in the bacterial decay of organic matter, in volcanic gases and forest fires

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Q9. Why the water molecule is polar ?

**Ans 1:** Water molecule has polar structure i-e one end of the molecule is partially positive while the other end is partially negative because of electronegativity difference between oxygen and hydrogen atoms

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Q10. What primary pollutants

**Ans 1:** These are waste or exhaust products driven out because of combustion of fossil fuels and organic matter. These are oxides of sulphur oxides, of carbon and oxides of nitrogen.

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