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

Q1. Which forces are responsible for dissolving polar substances in water ?

**Ans 1:** Water is the universal solvent because it can dissolve almost all the minerals . Its ability to dissolve substances is because of two unique properties of water
1: Polarity of water molecule
2: Exceptional hydrogen bonding ability

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Q2. Define water softening and name the method of removing hardness ?

**Ans 1:** The removal of $Mg^{2+}$ and $Ca^{2+}$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

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Q3. Where is the ozone layer found?

**Ans 1:** Ozone is present throughout the atmosphere. But its maximum concentration called ozone layer lies in stratosphere region about 25 to 30 km away from the Earth's surface.

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Q4. What is an industrial waste ?

**Ans 1:** Industrials units are installed to produce the desired substances (chemicals , cloth , leather goods , paper, plastic , items , petrochemicals and rubber items) on commercial scale to meet the needs of the society . But unfortunately al the industrial units discharge their wastes (chemicals and solid materials) either to open the ground or to water channels . This is called industrial effluent . The industrial effluent may be highly toxic organic chemicals , inorganic salts , heavy metals , minerals acids , oil and greases etc

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Q5. How water rises in plants ?

**Ans 1:** It has high surface tension . This unique property of water is responsible for its high capillary action . Capillary action is the process by which water rises up from the roots of plants to leaves . This process is vital for the survival of the land plants

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Q6. Which air pollutant is produced on anaerobic decomposition of organic matter ?

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

Q7. What is the principle of removing permanent hardness of water ?

**Ans 1:** Permanent hardness can only be removed by using chemicals . Calcium ($Ca^{2+}$) and magnesium ($Mg^{2+}$) are removed as insoluble salts by adding washing soda ($Na_2Co_3$) or sodium zeolite

Q8. Name preventive methods of waterborne disease

**Ans 1:** 1: Provision of safe water
2: Disposal of sewage
3: Control of toxic chemicals

Q9. What primary pollutants

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

Q10. Comment burning in open air is preferred.

**Ans 1:** Because in closed area. CO is produced instead of CO2CO causes suffocation and ultimately death.