

## Chemistry - 10th Class Chemistry English Medium Chapter 16 Preparation

Q1. Define Metallurgy.

**Ans 1:** The process of extraction of a metal in pure form on a large scale with minimum waste from its ore by physical or chemical means is called metallurgy.

Q2. Give the advantages of Solvay's process.

**Ans 1:** 1. It is a cheap process as raw materials are available at very low prices. 2. Carbon dioxide and ammonia are recovered and reused. 3. Process is pollution free, because the only waste is calcium chloride solution. 4. Sodium carbonate of very high purity is obtained.

Q3. Describe principle of fractional distillation.

**Ans 1:** The principle of fractional distillation is based upon a separation of substances depending upon their boiling points.

Q4. State Urea formation:

**Ans 1:** When ammonium carbonate is evaporated with the help of steam, it dehydrates to form Urea.  $\text{NH}_4\text{COONH}_2 \rightarrow \text{NH}_2\text{CONH}_2 + \text{H}_2\text{O}$

Q5. Define principle of Solvay's process.

**Ans 1:** Principle of Solvay's process lies in the low solubility of sodium bicarbonate at low temperature. i.e. at 15°C when  $\text{CO}_2$  is passed through an ammoniacal solution of  $\text{NaCl}$  called brine, only  $\text{NaHCO}_3$  precipitates.

Q6. Fraction of residual oil.

**Ans 1:** Lubricants, Asphalt, Paraffin wax, Petroleum coke

Q7. Define refining?

**Ans 1:** Refining process is the separation of crude oil mixture into various useful fractions.

Q8. ICI stand for.

**Ans 1:** Imperial Chemical Industries.

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Q9. Give two advantages of solvay's process.

**Ans 1:** 1. Carbon dioxide and ammonia are recovered and reused. 2. Sodium carbonate of very high purity is obtained.

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Q10. Why is lime added in the smelting process?

**Ans 1:** Lime is used to separate the gangue in the form of slag.

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