

Chapter- 5Separation Of SubstancesNotes:-1) METHOD OF SEPRATION:-a) Hand- picking:-

Slightly larger size impurities like the piece of dirt, stone and husk from wheat, rice or pulses.

Quantity of impurity is not very large.

b) Threshing:-

Stalks are dried in sun and grain separated.

Separate grains from stalks (some times are beating by hand bullocks or machines).

c) Winnowing:-

Separated component of mixture based on weight separate heavy and light component by blowing air.



d) Sieving:

Separate bigger impurities from smaller impurities removing pieces of stones, stalk and husk, that may still remain with what after threshing and winnowing.

2) SEDIMENTATION:

When the heavier component in a mixture settle after water is added to it the process is called sedimentation.

3) DECANTATION:

When the water (along with the dust) is removed the process is called decantation.

4) FILTRATION:

Impurities are removed (small in size) used in making soap, juice, paneer (cottage cheese) at home.

5) SOLUTION:

The composition of solute and solvent together to form the solution.

Example-

Solute (salt) + Solvent (water) = solution



6) SATURATED:

A given amount of water dissolves only the definite amount of substances (salt) at a given temperature.

A saturated solution is one in which no more of that substances can be dissolved.

7) UNSATURATED:

A solution in which solute can be dissolved in solvent are called an unsaturated solution.



Chapter-6.5Separation of SubstancesShort Answer:-

Que-1> Why is water called universal solvent?

Ans- Water can dissolve many substances (like sugar and salt). Therefore, it is called universal solvent.

Que-2> Define solubility. How can it be increased?

Ans- The extent to which a substance gets dissolved in a liquid is called its solubility.

Solubility of a solid solute generally increases with the rise in temperature.

Que-3> Soni is helping her mother and accidentally she mixes the arhar dal with gram seeds and rice flour. Her brother helps her in separating the things from each other.

Q) Which method they would have used to separate things?

Ans- To separate rice flour we use sieving method and to separate arhar dal and gram seeds we use hand-picking.



b) What value do you learn from Soni's brother?

Ans- Value we learn from Soni's brother is to help others in their needs.

Que-4> Differentiate between filtrate and residue.

Ans- The process of separating ~~insol~~ insoluble substances from a liquid using a filter is called filtration while residue is whatever remains after something else has been removed.

Que-5> Can a liquid dissolve any amount of a given substance at a particular temperature? Explain.

Ans- No. ~~Only at a certain amount~~ Any liquid amount of substance ^{that} cannot be dissolved in liquid. Only a certain amount can be dissolved.

Que-6> Define the terms (a) decantation
(b) filtration

Ans- (a) In notes.

(b) In notes.



Long Answer:

Que-1- (a) How will you separate (i) mustard seeds and common salt (ii) chalk powder and water (iii) sand and water (iv) grains and stones?

Ans- (i) mustard seeds and common salt → ~~sedimentation and decantation~~, winnowing.

(ii) chalk powder and water → evaporation

(iii) sand and water → filtration.

(iv) grains and stones → hand-picking.

(b) How are pebbles and stones separated from sand? Describe the process involved.

Ans- ~~Pebbles and stones are separated from sand with the process of shieving. A shi sieving. A sieve is used to separate sand and stones~~

Ans- Pebbles and stones are separated from sand with the process of sieving. A sieve is a shallow vessel that has small holes. Sand is put on the sieve and sieve separates sand and pebbles.

