

① What is the main purpose for the separation of mixtures?

→ The main purpose for the separation of mixtures is to get the pure substance and remove the harmful substance from the mixture.

② Define Handpicking.

→ The method of separating the harmful particles from the mixture by hands is called handpicking.

③ Define winnowing.

→ The process of separation of grain from husk and hay with the help of wind is called winnowing.

④ Define Magnetic separation.

→ Magnetic separation is the process of separating components of mixtures by using magnets to attract magnetic materials.

⑤ Define sublimation.

→ The process in which a solid changes directly into its vapour on heating is called sublimation.

⑥ The solid particle that remains on the filter paper after the filtration. Residue

⑦ The liquid which evaporates and then condenses during the process of distillation. Distillate

⑧ The process of transferring the clear liquid after the solid settles at the bottom of the container. Decantation

⑨ The process by which two miscible liquids are separated. Fractional Distillation

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① A pure liquid is obtained from a solution by:

→ Distillation

② Components of crude petroleum can be separated by:

→ Fractional distillation

③ Example of a homogeneous mixture is:

→ Tap water

④ In chromatography the filter paper is:

→ Whatman filter paper

⑤ A set of mixtures is:

→ Ink, honey, ice-cream, milk

Short Questions

① What do you understand by? -

① Metalloids

② Noble gases

① → Metalloids :- These elements show some properties of metals and some of non-metals.
Ex → Boron, Silicon etc.

② → Noble gases :- These elements don't react chemically with other elements or compounds.
Ex → Helium, Argon etc.

② Name the main metal present in:

① Haemoglobin

② Chalk

① → Haemoglobin → Iron

② → Chalk → Calcium

③ Mention any two characteristics of compound.

→ Two characteristics are:-

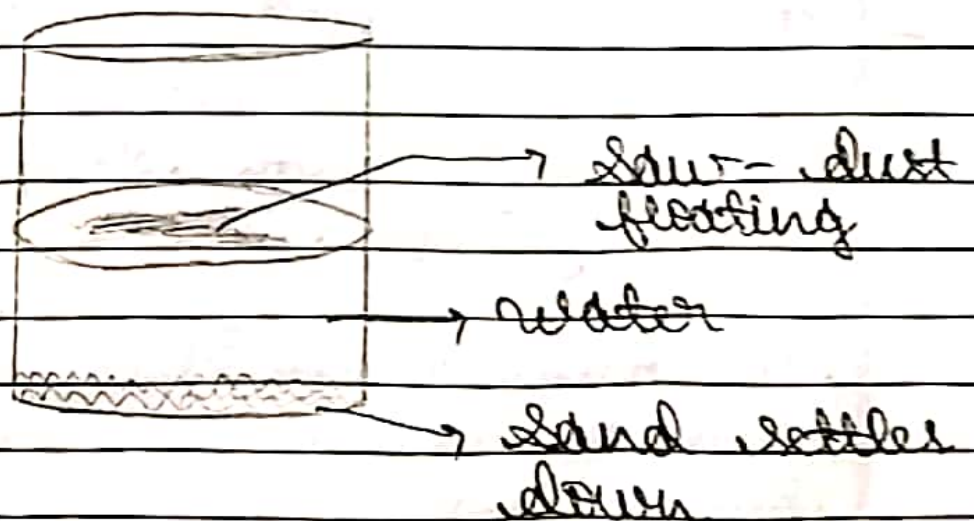
① The properties of compounds are entirely different from those of its constituent elements.

② Compounds have a fixed composition of their own.

Long Questions

④ Explain with diagram how can you separate a mixture of sand, saw-dust and salt.

→



(5) What is crystallisation? Explain by giving an example. Mention how is it a better technique as compared to evaporation?

→ Crystallisation is the process in which slow evaporation of a solution containing more of the solid component is done.

Ex → At first the sugar solution is heated to evaporate water at a faster speed. When very less of water is left, the solution is cooled. On cooling, the sugar dissolved in it starts separating out in the form of crystals.

→ The crystallisation is better than evaporation because the extent of purification with crystallisation is very high as it does not require very high-temperature conditions. Hence, there is no need to boil the solvent in this method.