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Sub. Chemistry copy

Worksheet

Very short questions

1. Why? What is the main purpose for the separation of mixture?

The main purpose for the separation of mixture are -
To get useful substances

2. Define Handpicking.

Handpicking - This method is used when the quantity of a mixture is small and the substances to be separated from a small portion of the mixture. Example - Small stones are picked from rice, pulses etc.

3. Define winnowing

The process of separation of grain from husk with the help of the wind is called winnowing. Example - ~~mix~~ separation of rice from husk.

4. Define Magnetic separation

This method is used when one of the components of the mixture is magnetic in nature. Example - Iron and sulphur.

5. Define sublimation.

Sublimation is the process in which solid directly changes to gaseous state. Example - salt and a solid such as ammonium chloride.

Give one word for the following (1x4=4)

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. **distillation**

MCQ (1x5=5)

1. A pure liquid is ~~not~~ obtained from a solution by:
a) Evaporation ~~b) Distillation~~ c) Filtration d) Crystallization
2. Component of crude petroleum can be separated by:
a) Distillation b) Evaporation c) Filtration ~~d) Fractional distillation~~
- 3) examples of a homogeneous mixture is:
~~a) Tap water~~ b) Distilled water
c) Sand and water. d) Water and oil.
4. In chromatography the filter paper is:
~~a) Stationary phase~~ b) Mobile phase
c) Mixture d) None of the above.

5. A set of mixture is:

- a) Ink, honey, ice-cream, milk b) Tap water, gold, common salt
c) Milk, brass, silver, honey d) Butter, petroleum, tap water, iron.

Short Question (2x3=6)

What do you understand by:-

a) Metalloids - Metalloids are those elements that show both metallic as well as non-metallic properties.
Examples - boron, silicon, germanium etc.

b) Noble gases - Noble gases are chemically unreactive elements and also they are found in the atmosphere in very less amount so they are also called rare gases or inert gases. ~~Examples~~ There are 6 noble gases are - helium, neon, argon, krypton, xenon and radon.

2. Name the main metal present in:

a) Haemoglobin - Iron

b) Chalk - Calcium

3) Mention any 2 characteristics of compound:

The 2 characteristics of compound are-

* elements react to form new compounds.

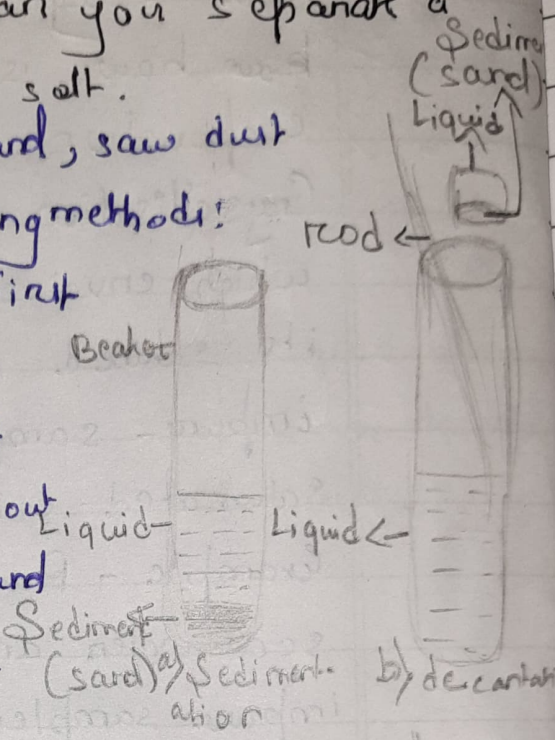
* The compound has a fixed composition.

1a)
2a)

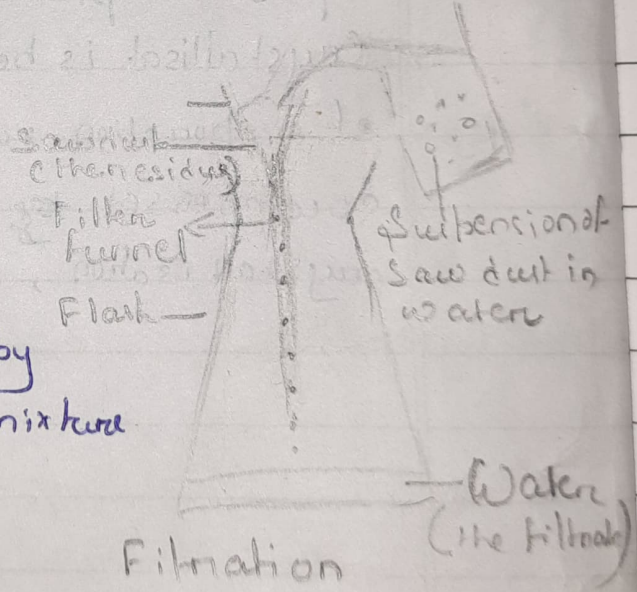
4. Explain with diagram how can you separate a mixture of sand, saw-dust and salt.

We can separate a mixture of sand, saw dust and salt by the following methods:

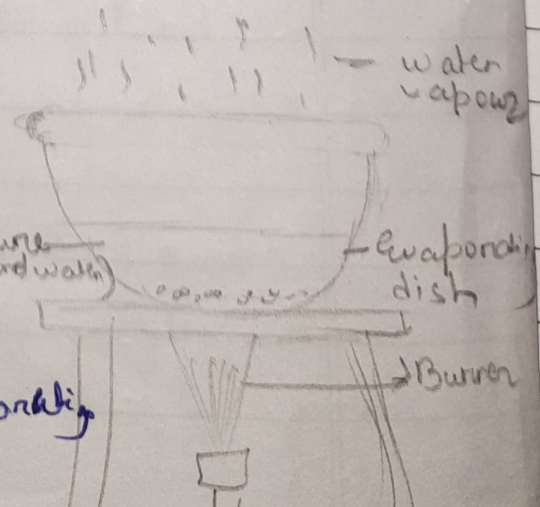
* Sedimentation and decantation - First we will let the sediments to settle down and then without disturbing them we will pour out the liquid and in this way the sand is separated from the mixture of saw dust and water.



* Filtration - The mixture is then separated by the process of filtration. In this process the saw dust will be separated by the filter paper, from the mixture of salt and water.



* Evaporation - At last we will separate the mixture of salt and water by the process of evaporation. Here we will separate the salt and water by evap or boiling the solvent.



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

Crystallisation is a separation and purification method which involves the precipitating of solid crystals from its saturated solution on cooling. In this process the impure sample is dissolved in solution heated to get a saturated solution.

Example - Purification of salt ~~water~~ that we get from sea water and separation of crystals of alum from impure samples.

Crystallisation is better than evaporation as, in the method of evaporation some solid particles in mixtures get decomposed ~~by~~ leaving behind impurities whereas in crystallisation, pure crystals of solids are obtained.