



CLASS NOTES-ANSWERS

1. Why do we need to separate different components of a mixture? Give two examples.

Answer: Among different components of a mixture, there are many substances which are harmful or not useful for us. To remove these harmful or unwanted components, we need to separate them.

For example, tea leaves are separated from the liquid with a strainer while preparing tea and stone pieces from wheat, rice or pulses are picked out by hand.

2. What is winnowing? Where is it used?

Answer: Winnowing is used to separate heavier and lighter components of a mixture by wind or by blowing air. This process is used by farmers to separate lighter husk particles from heavier seeds of grain.

3. How will you separate husk or dirt particles from a given sample of pulses before cooking?

Answer: Husk or dirt particles can be separated from pulses by winnowing.

4. What is sieving? Where is it used?

Answer: Sieving is a process by which fine particles are separated from bigger particles by using a sieve. It is used in flour mills or at construction sites. In flour mill, impurities like husks and stones are removed from wheat. Pebbles and stones are removed from sand by sieving.

5. How will you separate sand and water from their mixture?

Answer: Sand is insoluble in water. We will separate sand and water from



their mixture by sedimentation and decantation method. First we leave this mixture undisturbed for some time. After sometime, the sand, which is heavier is settled down at the bottom. After that, we will pour water into another container and the mixture will be separated.

6. Is it possible to separate sugar mixed with wheat flour? If yes, how will you do

it?

Answer: Sugar can be separated from wheat flour by sieving. Due to the difference in the size of particles, sugar will stay on sieve and wheat flour will pass through it.

7. How would you obtain clear water from a sample of muddy water?

Answer: We will obtain clear water from a sample of muddy water by the process of filtration. A filter paper is one such filter that has very fine pores in it. A filter paper folded in the form of a cone is fixed in a funnel. The muddy water is then poured on the filter paper. Solid particles in the muddy water do not pass through it and remain on the filter.

8. Fill in the blanks.

a) The method of separating seeds of paddy from its stalks is called -----

Answer: threshing

b) When milk, cooled after boiling, is poured onto a piece of cloth the cream [malai] is left behind on it. This process of separating cream from milk is an example of -----.

Answer: filtration



c) Salt is obtained from seawater by the process of -----.

Answer: evaporation

d) Impurities settled at the bottom when muddy water was kept overnight in

a

bucket. The clear water was then poured off from the top. The process of separation used in this example is called -----.

Answer: sedimentation and decantation

9. True or false?

a) A mixture of milk and water can be separated by filtration.

Answer: False

b) A mixture of powdered salt and sugar can be separated by the process of winnowing.

Answer: False

c) Separation of sugar from tea can be done with filtration.

Answer: False

d) Grain and husk can be separated with the process of decantation.

Answer: False

10. Lemonade is prepared by mixing lemon juice and sugar in water. You wish to

add ice to cool it. Should you add ice to the lemonade before or after dissolving sugar? In which case, would it be possible to dissolve more sugar?

Answer: Ice should be added to lemonade after dissolving sugar. It is possible to add more sugar before adding ice, because when the



temperature is high, more sugar can be dissolved. After mixing ice, it gets cool and less sugar will dissolve in it.

