

BRAIN INTERNATIONAL SCHOOL

Science Assignment

Class: VI

July'21

L -5:Separation of substances .

Q. Answer the following questions:

1. Distinguish between the following ;
 - (a) Pure substances and Mixture.
 - (b) Threshing and Winnowing
2. Name the steps and methods you will use to separate the following :
 - (i) Coconut oil, salt and water.
 - (ii) Chalk powder ,water and stones .
 - (iii) Iron filings , sand and salt.
3. Why do we need to separate different components of a mixture? Give two examples.
4. What is saturated solution ?
5. How would you obtain clear water from a sample of muddy water ?
6. For questions given below ,two statements are given –one labelled Assertion

(A) and the other labelled Reason (R). Select the correct answer to these

questions from the codes (a) ,(b) ,(c) and (d),(e) as given below :

- (a) Both A and R are true , and R is correct explanation of the assertion.
- (b) Both A and R are true , and R is not the correct explanation of the assertion.
- (c) A is true , but R is false .
- (d) A is false, but R is true.
- (e) Both A and R are false.

Assertion : Cobalt can be attracted by a magnet .

Reason :It is a magnetic material.

7. This question has contain four sub-parts each. You are expected to answer four sub-parts in these questions.

Handpicking, winnowing, sieving, sedimentation, decantation and filtration are some of the methods of separating substances from their mixtures. Husk and stones could be separated from grains by handpicking. Husk is separated from heavier seeds of grain by winnowing. Difference in the size of particles in a mixture is utilized to separate them by the process of sieving and filtration. In a mixture of sand and water, the heavier sand particles settle down at the bottom and the water

can be separated by decantation. Filtration can be used to separate components of a mixture of an insoluble solid and a liquid. Evaporation is the process in which a liquid gets converted into its vapour.

- (i) Define evaporation .
- (ii) Method of filtration can be used to separate what kind of mixtures?
- (iii) Which method is used to separate heavier seeds of grains from husk ?
- (iv) Name any four methods of separation .