



(Academic Session: 2024 - 2025)

## **HAND WRITTEN SOLUTIONS**

**CLASS VI**

**CHEMISTRY**

## **SEPARATION OF SUBSTANCES**

**Your Hard Work Leads to Strong Foundation**

Dear students,

These are some suggested ways to write/solve exam questions.

1. Write answers according to word limit/marks given.
2. Handwriting should be neat and clean and the answer should be written pointwise (stepwise).
3. Draw neat and labelled diagrams using pencils wherever required.
4. For doing rough work, draw a margin on the right side of a page and mark it as "Rough" so that answer copy looks clean.
5. Leave at least 2 lines before and after every question.
6. Avoid overthinking.

NOTE:- These are some standard instructions given by school teacher should also be kept in mind.



## Separation of Substances

Q.1 When hand-picking is used? [1 mark]

Sol. Hand-picking is used to separate undesirable components having different shape, size, colour and are present in small amount.

Q.2 Why is separating different components of a mixture necessary? [2 marks]

Sol. Need of separation-

- (i) To separate two different but useful components.
- (ii) To remove impurities or non-useful component from a mixture.

Q.3. How is sieving use to separate particles of a mixture? Give example. [2 marks]

Sol. Sieving allows the fine particles to pass through the holes of a sieve while bigger impurities remain on sieve. for e.g. - separation of bran from flour.



Q. NO.

CANDIDATE ANSWER

Q.4. Name and describe briefly a method which can be helpful in separating a mixture of husk from grains. What is the principle of this method? [3 marks]

Sol. Winnowing is a method used for separating a mixture of husk from grains. It is based on the principle that the lighter husk particles are carried away by the wind leaving behind the grains.

Q.5. How is Common Salt obtained from sea? [3 marks]

Sol. Sea water contains many salts mixed in it. When sea water is allowed to stand in shallow pits, water gets heated by sunlight and slowly turns into water vapour, through evaporation. In few days water is evaporated completely leaving behind solid salts. Common salt is obtained from mixture of salts by further purification.



Q.6. Lemonade is prepared by mixing lemon juice and sugar in water. You wish to add ice to cold it. Should you add ice to the lemonade before or after dissolving sugar? In which case it be possible to dissolve more sugar and why? [2 marks]

Sol. We should dissolve before adding ice. More sugar will be dissolved before adding the ice as cooling decrease the solubility.

Q.7. How will you separate the following mixtures? [5 marks].

(a) Grass, pebbles and sand

(b) Water, sand, salt and iron fillings. [which property of iron can be used here?]

Sol. (a) Grass can be separated by using hand-picking and winnowing. Pebbles and sand ~~iron~~ are separated by sieving.

(b) Sand and iron fillings will settle down. [sedimentation]

Salty water can be poured out by decantation.

Salt and water can be separated by evaporation and condensation.

Now sand and iron can be separated by a magnet.