

1. (c) Iron
2. (c) Black
3. (a) Tap water
4. (b) Distillation

Give one word for the following

1. Residue
2. Distillate
3. Decantation
4. Fractional distillation

Level-2

1. Define matter

Matter is anything that has mass, occupies space and can be perceived by our senses

2. Name a chemical reaction that take place in the presence of heat.

A chemical reaction that take place in the presence of heat is 'cooking of food.'

3. Mention any one of

3. Floods and Epidemics are undesirable changes.

4. When a candle is lit, the wax melts and turns into liquid state and after some time it solidifies it is a physical change. And when a ^{wick of the candle} candle is burnt the wick produce water vapour and carbon dioxide.

5. The main purpose of separating a mixture is

(i) to remove undesirable and harmful substances.

(ii) get useful substances

(iii) get completely pure substances for preparing other useful substances.

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

7. Some physical applications of centrifugation are

(i) The extraction of fat from milk in order to produce skimmed milk.

(ii) The Spin-drying of water in washing machines in order to remove water.

8. The principle involved in magnetic separation are:
- The mixture should contain magnetic and non-magnetic components.
 - There should be a magnet.
9. The advantage of this process is that both the components of the solid liquid mixture are obtained.
10. The need for the separation of substances are:
- (i) to remove undesirable and harmful substances
 - (ii) get useful substances
 - (iii) to get completely pure substance for preparing other useful substances.
11. The characteristic properties of a pure substance are
- They have a definite composition and a definite set of properties such as boiling point, melting point, etc.
 - They are all homogeneous.

Level-3

1) The process of separating different dissolved constituents of a mixture by their absorption on an appropriate material, is called chromatography.

Two advantages of chromatography

- (i) A very small quantity of the substance can be separated.
- (ii) It identifies the different constituents of a mixture.

Use of chromatography

It can be used to separate:

- pigments from natural colours
- drugs from blood
- colours in a dye

3. Evaporation

1. Evaporation is a slow process.
2. It takes place from the surface of the liquid.
3. It takes place at all temperatures below its boiling point.

Boiling

1. Boiling is a fast process.
2. It takes place from all parts of the liquid.
3. It takes place at a fixed temperature on heating.

Atom

- An atom is the smallest possible unit of matter that exhibits all the properties of that matter.
- It does not have independent existence.
- They are very small.

Molecule

- A molecule is the smallest unit of matter which exhibits all the properties of that kind of matter.
- It has an independent existence.
- They are bigger than atom.