

Sl. no.

### Level - 1

- A) 1 Iron  
2 Black  
3 Tap water  
4 Distillation
- B) 1 Residue  
2 Distillate  
3 Decantation  
4 Distillation

### Level - 2

- Q1) Matter is anything that has mass, occupies space and can be perceived by our senses.
- 2) Burning of a paper is an example of chemical change which takes place in presence of heat.
- 3) Cyclone is one of the undesirable changes.
- 4) When a candle is lit, the wax melts and turns into liquid state. As some of the molten wax drops on the floor or table, it solidifies again. Therefore, this is a physical change. Simultaneously, most of the molten wax rises up the wick, turns into vapour and burns with the flame. Two new substances are formed: water vapour and carbon dioxide. The candle becomes smaller and smaller. This is a chemical change.
- 5) We need to separate different components of a mixture to separate the useful components from the non-useful components from the non-useful or some harmful components.
- 6) The change of solid on heating to vapours directly and vice-versa without passing through the liquid state is called sublimation.

S/no

- 7) \* The extraction of fat from milk in order to produce skimmed milk.
- \* The spin-drying of water in washing machine in order to remove water from the clothing.
- 8) This method is used when one of the components is magnetic in nature.
- 9) In distillation, the liquids with boiling points close to each other can be separated whereas in <sup>evaporation</sup> ~~boiling~~, the difference in boiling points has to be large.
- 10) \* Remove undesirable and harmful substances.
- \* Get useful substances.
- 11) \* Pure substances have a definite set of properties such as boiling point, melting point etc.
- \* They are all homogeneous.
- \* Pure substances are needed to :
  - 1) Manufacture medicines.
  - 2) For scientific purposes (to prepare chemicals)
- 12) When the mixture is heated, camphore shall sublime. We can separate the mixture of common salt and chalk powder by putting the mixture in water. As we know that common salt is a homogeneous mixture, so it will dissolve with the water and chalk powder is heterogeneous so it could be separated by the filter paper.

Level-3

- i) \* The process of separating different dissolved constituents of a mixture by their absorption on an appropriate material is called chromatography.
- ii) \* Advantages of chromatography :-
  - \* A very small quantity of the substances can be separated.
  - \* It identifies the different constituents of a mixture.

3)

### Evaporation

- \* Evaporation is slow process.
- \* Evaporation takes place from the surface of the liquid.
- \* Evaporation takes place at all temperatures.

### Condensation

- \* Boiling is a fast process
- \* Boiling takes place from all the parts of the liquid.
- \* Boiling takes place at a fixed temperature on heating.