CHE – CHANGES OF MATTER

Matter undergoes changes. These changes may be temporary and easily reversible or they may be permanent and very difficult to reverse. The former is known as physical change and the latter as chemical change.

Physical Change

A physical change is one which is easily reversed and in which no new substances are formed. For example, if you put water into a freezer, it would change to ice; and when you boil the ice, it would reverse to water again. Such change like this is a physical change.

In essence, changes in state of a substance, some dissolution changes and some compounds mixing changes, and even magnetization and demagnetization of iron rods are physical changes.

salt + water → salt solution

Chemical Change

A chemical change is one which is not easily reversed and in which new substances are formed.

A piece of firewood burns with a flame, giving out heat and light. As it burns, the wood slowly disappears until only a little ash is left. This is a chemical change as we cannot reverse the process to get bk the firewood. Burning of substances is a chemical change.

wood → ash + gases

More examples of chemical changes are as follows:

1. The dissolution of metals and limestone in acids.
2. The rusting of iron.
3. The addition of water to quicklime, i.e. the slaking of lime.
4. Fermentation and decay of substances.
5. The changes in an electrochemical cell.