INTRODUCTION:

Water is the elixir for life. The quality of water is of vital concern for mankind because it sustains life. It is a matter of history that pollution of drinking water caused water born disease, epidemics and is still looming large of the horizon of developing countries like India [1].

Adequate supply of potable safe water is absolutely essential and is the basic need for all human being on the earth. Due to rapid industrialization and subsequent contamination of surface and ground water sources, water conservation and water quality management has now-a-days assumed a very complex shape? Attention on contamination and its management has become a need of the hour, because of its for reaching impact on human health [2-3-4].

The major source of contamination of underground water is the industrial waste, hospital waste and domestic discharge etc. In order to ensure the right quality of water for this purpose it is extremely important to monitor underground water with all aspects into consideration.

Water is one of the most useful, most abundantly available substances in nature. It is an essential constituent of all animal and plant life. Water covers nearly 3/4th of the earth surface by liquid as well as solid ice. Water is distributed in nature in different forms, such as rain water, river water, lake water, sea water, ground water etc.
Rain water is the purest form of naturally occurring water. It evaporates from sea as a result of extensive heat. Since rain water is produced by a process of distillation, it is considered to be the purest form of water. The rain water, however, is associated with dissolved gases such as CO$_2$, SO$_2$, and NH$_3$ etc. from the atmosphere.

Water is used for Domestic purposes such as drinking, cooking, washing, bathing. It is also used in Agricultural and Industrial purposes.

**The Sources of Water:**

1. **Surface Water**: Surface water sub-classified into following types.

   
   (a) **Rain water**: Rain water is most pure form of water. It is naturally occurring as it is obtained by process of natural distillation. (evaporation and condensation).

   (b) **River Water**: River water is another form of surface water. River water mainly contains dissolved inorganic salts comprising chlorides, sulphates, bicarbonates of Ca, Mg and Fe.

   (c) **Lake Water**: The chemical composition of lake water is almost fixed. It, usually, contains much less amounts of dissolved minerals than even well water, but quantity of organic matter present in it is quite high.

   (d) **Sea Water**: It is the most impure form of natural water. All impurities from river water are carried into the sea. Hence, sea water
becomes more and more salty. Sea water contains about 3.5% of dissolved salts, out of which about 2.6% is sodium chloride (NaCl).

Other salts present are sulphates, chlorides, bicarbonates, carbonates of calcium, magnesium and number of other compounds.

2. Underground Water: The rain water when reaches to ground, gets percolated in soil and becomes underground water. Generally, underground water is clear and colourless, but when water seeps down the ground, it dissolved inorganic salts.