Water Quality Analysis

Reporting:

- The ultimate procedure of water analysis is to prepare a proper report against the submitted requisition.
- The report must be authenticated before handing over the authority.
- All data should be kept in the laboratory log and preferably in laboratory database.
- An alternative way to present the overall quality of water is to express it in the form of Water Quality Index (WQI).
- WQI is a concise numerical representation of overall water quality of a water body, which is convenient to interpret and used widely.
- WQI expresses the overall quality of water with a single digit, instead of many digits for all the WQP. Thus, it is readily conceivable for common people.

CONCLUSION:

- Assessment of water quality is essential to check the suitability of a water source for the designated use.
- Several water quality parameters are assessed and compared with their standard values to determine the acceptability of the water to be used.
- After prolonged research, the procedures for the assessment of the water have been standardized.
- In this article such guidelines are discussed concisely in one place for the convenience of the researchers and analysts.
- Thus, it may be helpful for them to get an overview of the water quality assessment standards and procedures.

Proper Labeling:

- Proper labeling prevents sample misidentification and ensures the responsibility and accountability of the collector.
- The sample container should be labeled properly, preferably by attaching an appropriately inscribed tag or label.
- Alternatively, the bottle can be labeled directly with a water- proof marker.
- Barcode labels are also available nowadays.

Information on the sample container or the tag should include at least:

(i) Sample code number (identifying location)
(ii) Date and time of sampling
(iii) Source and type of sample
(iv) Pre-treatment or preservation carried out on the sample
(v) Any special notes for the analyst
(vi) Sampler's name

Preservation:

- Usually a delay occurs between the collection and analysis of a sample.
- The characteristics of the sample can be changed
- during this period. Therefore proper preservation is required in the way to laboratory after collection, and in the laboratory upto when analysis starts.
- Complete and unequivocal preservation of samples, whether domestic wastewater, industrial wastes, or natural waters, is a practical impossibility because complete stability for every constituent never can be achieved.
- At best, preservation techniques only retard chemical (especially, hydrolysis of constituents) and biological changes that inevitably continue after sample collection.
- No single method of preservation is entirely satisfactory; the preservative is chosen with due regard to the determinations to be made.
- Preservation methods are limited to pH control, chemical addition, the use of amber and opaque bottles, refrigeration, filtration, and freezing.

Analysis:

- The samples, after reaching laboratory, are analyzed, according to the requisite parameters, following standard methods and protocols.