

# Shri R. K. Parikh Arts & Science College, Petlad.

## Add-on Certificate Course

Course Title	: Water analysis
Coordinator	: Prof. S. V. Patel
Department	: Chemistry
Duration	: 30 Hours (Theory :15 hrs., Practical : 15 hrs.)

### Course Content :

- ❖ Introduction
- ❖ Hard and soft water
- ❖ Impurities in water - dissolved, suspended, colloidal
- ❖ **Physiochemical parameters:** pH, Electrical Conductivity (E.C), Total Solids (TS), Total Dissolved Solids (TDS), Total Suspended Solids (TSS), Total Hardness, Calcium Hardness, Magnesium Hardness, Nitrates, Phosphates, Sulphates, Chlorides, Dissolved Oxygen (D.O), Biological Oxygen Demand (BOD), **Chemical** Oxygen Demand (COD).
- ❖ To study the WHO & BIS (Bureau of **Indian Standards**) quality parameters for drinking water

### Outcome:

- ❖ On completion of Water analysis course students will be able to:
- ❖ Familiar with the parameters used to characterize water quality.
- ❖ Describe various types of process units used for preliminary and primary treatment.
- ❖ The WHO & BIS (Bureau of **Indian Standards**) quality parameters helps to determine the quality of drinking water.

### Reference Books:

1. Chemistry for environmental Engineering and Science by Sawyer, C. and Mc Carty P. and Parkin, G.
2. Analytical Chemistry by Dr. Alka L. Gupta.
3. Environmental Biology and Toxicological By P. D. Sharma.