

# Determination of Physico-Chemical Parameters of Sewage Water Collected from Anna Nagar Area in Chennai

A. Adithya<sup>1</sup> and Mrs. M. A. Rajalakshmi<sup>2</sup>

Research Scholar, Department of Chemistry<sup>1</sup>

Assistant Professor, Department of Chemistry<sup>2</sup>

Kamban College of Arts and Science for Women, Tiruvannamalai, Tamil Nadu, India

**Abstract:** Sewage parameters are crucial indicators used to assess the quality and composition of waste water ensuring proper treatment and environmental protection. These parameters can be broadly classified into physical, chemical and biological categories. Physical parameters include temperature, turbidity, colour and total suspended solid (TSS) which affect efficiency of treatment processes. Chemical parameters such as pH, Biochemical Oxygen Demand (BOD), Chemical Oxygen Demand (COD), Nitrogen compounds, phosphates and heavy metals determine the level of organic and inorganic pollutants. Biological parameters, including coliform bacteria, virus and parasites, indicate the presence of pathogenic microorganisms that pose health risks. Monitoring these parameters is essential for compliance with environmental regulations, optimizing treatment efficiency, and minimizing the impact of sewage discharge on natural water bodies. Advanced analytical techniques and continuous monitoring systems help ensure waste water treatment plants operate effectively, protecting both public health and aquatic ecosystems.

**Keywords:** UV-Visible spectrophotometer, COD, TSS, Turbidity