

Review on Analytical Techniques in Pharmaceutical Analysis

Mr. Sandesh Sanjay Mali, Miss. Pratiksha Channappa Tanangi, Mr. Vikas Pandit Tambe.

Guide Name – Miss. Supriya Jagtap

Department of Pharmaceutical Chemistry

Nootan College of Pharmacy, Kavthe Mahankal, India

Abstract: *Pharmaceutical analysis, which focuses on the procedures and techniques used to identify, measure, and describe medications and pharmaceutical formulations, is a crucial field in the pharmaceutical industry. Ensuring the safety, effectiveness, and quality of pharmaceutical goods is the main objective of pharmaceutical analysis since it is crucial for both patient safety and regulatory compliance. Traditional techniques like titrimetric and gravimetric analysis are included in this field, as are contemporary analytical methods like mass spectrometry, spectroscopy (UV-Vis, IR, NMR), and chromatography (HPLC, GC). These techniques are used in pharmacokinetic research, stability testing, quality assurance, and medication development. The demand for precise and effective ways to handle challenging pharmaceutical issues is driving the constant evolution of advanced procedures. Pharmaceutical analysis also plays a pivotal role in the development of generic formulations, biosimilars, and the analysis of drug impurities and degradation products.*

Keywords: Analytical techniques, Validation, Drug quality control, Impurity profiling

