Chapter 1 : Intro

- Learned what is Analytical Instrumentation and its applications
- Analytical methodology, types of error & how to calculate ppm, ppb

Chapter 2 : Data handling, Errors & Statistics

- Highlighted importance of precision, accuracy & statistical analysis
- Understood different types of error
- Refreshed how to calculate mean, standard deviation & others.

Chapter 3 : Gravimetric analysis

- Explored principles & steps of ga for quantitative determination
- Understood importance of precipitation, filtration & drying
- Recognised advantages

Chapter 4 : Intro to Spectrochemical Methods

- Radiation
- Introduced key techniques : Absorption, emission & its process
- Learned of its instruments & differences in applications

Chapter 5 : Molecular Spectroscopy

- Learned to interpret FTIR

Chapter 6 : Atomic Spectroscopy (AAS, AES, AFS)

- Covered techniques for detecting & quantifying elements using AAS, AES & AFS
- Understood instruments of these device & differences in application.

Chapter 7: Chromatographic Methods

- Covered different types: GC, LC & TLC
- Understood significance of stationary & mobile phase in separation efficiency

Chapter 8: Gas Chromatography (GC)

- Explored working principle of GC for separating volatile compounds
- Learned about key components: carrier gas, columns, detectors (FID, TCD)

Chapter 9: Liquid Chromatography (LC)

- Focused on HPLC for separating non-volatile compounds
- Learned its principles, instruments & applications
- Understood different variations (ex: ion-exchange, affinity)