

**ACHARYA NAGARJUNA UNIVERSITY**

**DEPARTMENT OF CHEMISTRY**

**M.Sc. CHEMISTRY :: SEMESTER-II**

**PRACTICAL-I: INORGANIC & PHYSICAL CHEMISTRY (R22CH25)**

*(For the students admitted from the A.Y. 2022-2023 onwards)*

**Max. Marks: 100**

**(Internal-30M & External-70M)**

---

**A total Six (6) Experiments must be carryout taking minimum of '3' in each section**

**LIST OF EXPERIMENTS:**

**SECTION-I: INORGANIC CHEMISTRY**

Semimicro analysis of six radical mixtures containing one interfering radical and one less familiar cation each.

Interfering Anions : Oxalate, tartrate, phosphate, chromate.


Less familiar Cations : Thallium, molybdenum, thorium, zirconium, vanadium, uranium.  
(Minimum three Mixtures)

**SECTION-II: PHYSICAL CHEMISTRY**

- 1) Potentiometric determination of Fe(II) with Cr(VI)
- 2) pH-metric determination of strong acid with strong base.
- 3) Conductometric titration of strong acid with strong base
- 4) Verification of Beers Law using potassium permanganate.

**Reference Books:**

- 1) Vogels Text Books of Qualitative analysis, Revised. J. Vogel, R.C. Denny, G.H. Jeffery and J. Mendham. ELBS.
- 2) Synthesis and Characterisation of Inorganic Compounds, W.L. Jolly. Prentice Hall.
- 3) Practical Inorganic chemistry by G. Pass and H. Sutcliffe Chapman and Hall.
- 4) Practical Inorganic Chemistry by. K. Somasekhara Rao and K.N.K. Vani.

  
CHAIRMAN, BOS  
PG CHEMISTRY  
Dr. B. HARI BABU, M.Sc., Ph.D.  
CHAIRMAN, BOS IN CHEMISTRY (PG)  
✓ Acharya Nagarjuna University  
Nagarjuna Nagar-522 510, A.P., India