

PRACTICALS

B. Sc. (Hons.) Part I

Section A : *Quantitative Analysis (Physical and Volumetric)*

Marks : 25

1. Determination of water equivalent of calorimeter (cooling curve).
2. Heat of neutralization (strong acid-strong base).
3. Heat of dissociation of weak acid.
4. Heat of solution (NH_4NO_3 , CaCl_2).
5. Basicity of an acid by thermochemical method.
6. Kinetics of First Order reaction.
7. Redox titration : (a) Iodometry (b) Fe^{2+} / $\text{K}_2\text{Cr}_2\text{O}_7$

Section B : *Qualitative Analysis (Organic and Inorganic)*

Marks : 25

1. *Qualitative Organic Analysis :*

(i) Detection of elements (X, N, S)

(ii) Detection of functional groups :

PhOH, -COOH, C-O, -CHO, Ar-NH₂, Ar-NO₂, -CONH₂

2. *Qualitative Inorganic Mixture Analysis :* Not containing more than 4 ions with combination and upto one interfering anion

Note : Experiments may be added/deleted subject to availability of time and facilities.
