UNIVERSITY OF MADRAS

B.Sc. DEGREE COURSE IN CHEMISTRY

SYLLABUS WITH EFFECT FROM 2020-2021

BCY-DSC03

CORE-III: MAJOR PRACTICALS - I

(90 HOURS: I & II SEMESTERS 3 CREDITS)

[The procedure for the practical examination will be given by the examiner]
The following volumetric analyses are prescribed.

1. Estimation of HCl by NaOH using a standard oxalic acidsolution
2. Estimation of $Na_2CO_3$by HCl using a standard Na_2CO_3solution
3. Estimation of oxalic acid by $KMnO_4$ using a standard oxalicacid.
4. Estimation of Ferrous sulphate by $KMnO_4$ using a standard Mohr's saltsolution.
5. Estimation of $KMnO_4$ by sodium thiosulphate using a standard $K_2Cr_2O_7$solution
6. Estimation of iron by $K_2Cr_2O_7$ solution using a standard Ferrous sulphate solution
7. Estimation of Copper sulphate using a standard$K_2Cr_2O_7$solution.
8. Estimation of Mg(II) by EDTA solution using standard Zinc sulphate solution.
9. Estimation of Zn(II) by EDTA solution using standard Magnesium sulphate solution.
10. Estimation of total hardness of water.

The following inorganic preparations are prescribed

1. Preparation of Ferrous ammonium sulphate or Mohr'ssalt
2. Preparation of potash alum or potassium aluminium sulphate
3. Preparation of microcosmic salt
4. Preparation of tetrammine copper(II) sulphate

Learning outcomes

1. To understand about the origin and physical properties of Soil.
2. To understand the chemical properties of soil and methods of analysing.
3 To learn about the different types of plant nutrients and their importance.
4. To learn about the fertilizers and their uses.
5. To understand about the classification of various pesticides, fungicides and herbicides.