M.Sc. - Semester – III
Organic Chemistry
(PRACTICALS)

1	Green Synthesis	4- Credit
2	Preparation (From Given Name reactions)	
3	Estimation	4- Credit
4	Viva-Voce	

1 Green Synthesis (Any four)

1.Preparation of acetanilide from aniline and acetic acid using Zn dust.
2.Base catalyzed aldol condensation using LiOH.H2O as a Catalyst.
3.Bromination of *trans*-stilbene using sodium bromide and sodium bromated.
4.[4+2] cycloaddition reaction in aqueous medium at room temperature.
5.Benzil Benzilic acid rearrangement under solvent free condition

2 Preparation of industrially important compounds by following Name reactions (Any four)

1. Sandmayer reaction
   (p-chloro toluene from p-toluidine)
2. Fischer indole synthesis
   (1,2,3,4-tetrahydrocarbazole from cyclohexanone and phenylhydrazine)
3 .Riemer-Tiemann reaction (Salicyladehyde from phenol)
4. Skraup synthesis (Quinoline from aniline)
5. Gebriel phthalimide synthesis
   (Anthranilic acid from phthalic anhydride and phthalimide)
6. 2-hydroxy 1-naphthaldehyde from β – naphthol

3 Organic Estimations (Any Six)

1.Determination of Sulphonamides with Silver Nitrate solution by Volumetrically.
2.Determination of aromatic primary amines by either diazotization or indirect diazotization.
3.Estimation of Benzyl Penicillin.
4.Determination of coupling value (C.V.) of Dye intermediates.
5.Non-aqueous titration of Sodium Benzoate.
6.Estimation of Isonazid.
7.Enzyme inhibition
8. -NO_2 and-OH group

Reference Books Recommended

1. Comprehensive Practical Organic Chemistry by V.K. Ahluwalia and Ren Aggarwal
2. Monograph on Green Chemistry Laboratory Experiments by Green Chemistry Task Force Committee, DST
3. Quantitative analysis by Arther I.Vogel
4. Quantitative analysis by V.K.Ahluwalia
5. Quantitative analysis by Mann and sanders