**Exam 27-11-2023 Student Name:**

**Q1: Arrange the following compounds in order of basicity (draw the Structures)**

1. Aniline, *p*-Nitroaniline, *p*-Chloroaniline, *p*-Toluidine, 2,4-Dinitroaniline
2. Ammonia, Methyl amine, Dimethyl amine, Aniline, Benzylamine

**Q2: Write balanced equations, naming all organic products for the following reactions**

1. *p*-Nitroaniline + HCl, Sn heat
2. Acetaldehyde + dimethylamine + H2, Ni

1. Trimethyl-*n*-propylammonium hudroxide, heat
2. *N*-methylaniline + NaNO2 + HCl
3. *N*-Butylamine + dil NaOH
4. Isovaleryl chloride + dimethylamine

7-*m*-Toluidine + Br (*aq*) in excess

**Q3: Outline all steps to synthesis the following compounds from benzene**

1- *m-*Bromochlorobenzene

2- *m*-Bromobenzoic acid