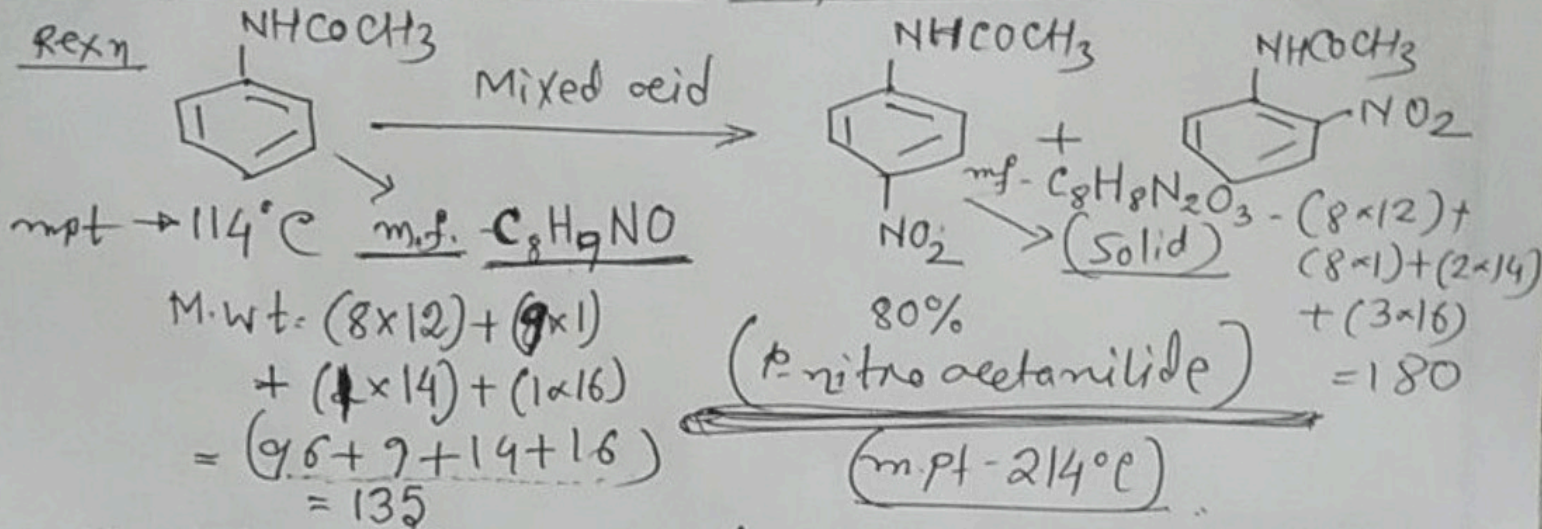
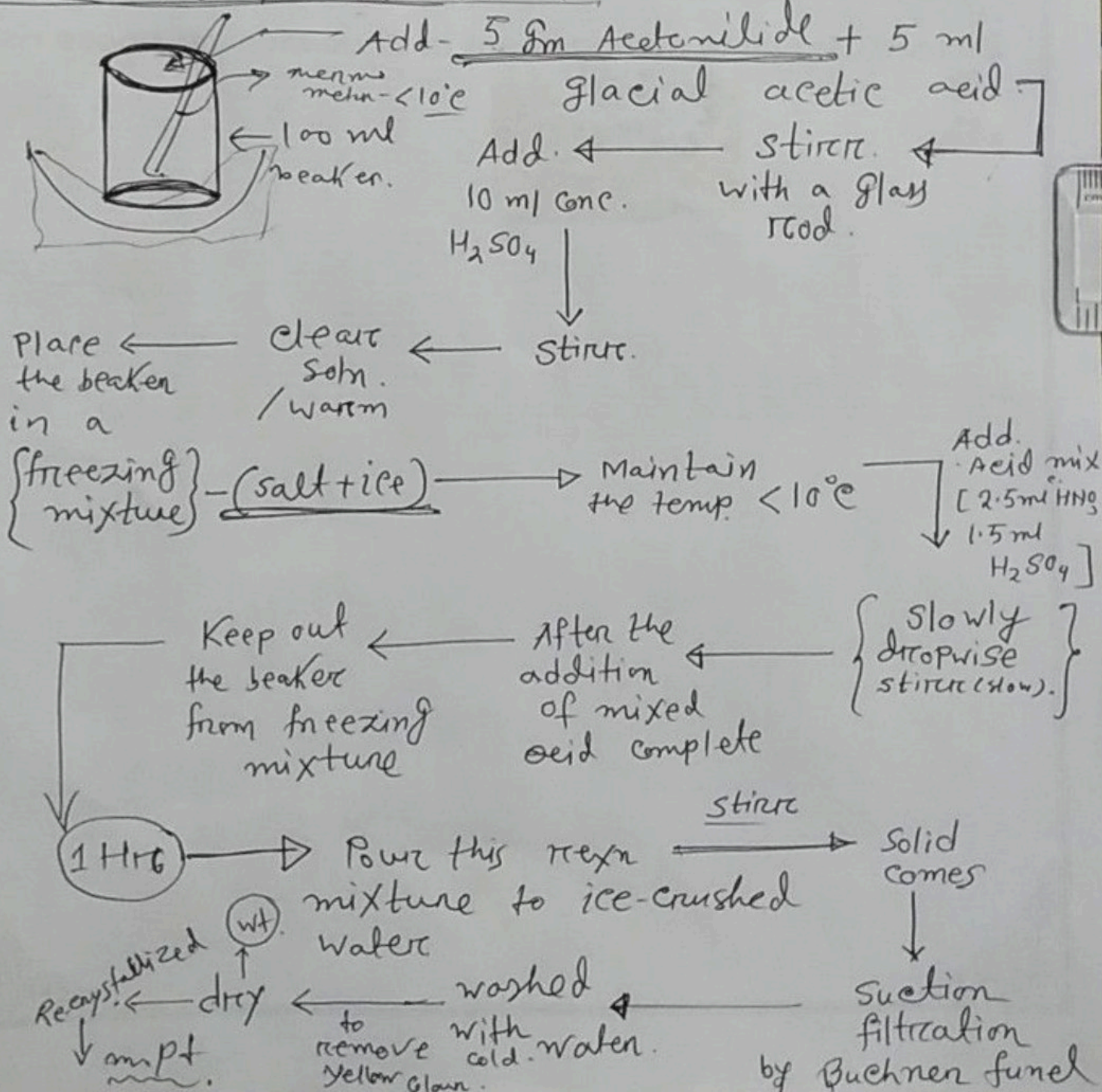


Nitration Rxn of acetanilide.



Procedure of Preparation



6.65 gm Product.
% age yield = ? (ex- chemical yield).

$$\text{No. of moles of Product} = \frac{\text{wt}}{\text{mole. wt}} \\ = \frac{6.65}{180}$$

$$\text{No. of moles of reactant} = \frac{\text{wt}}{\text{mole. wt}} \\ = \frac{5}{135}$$

$$\% \text{ age of yield} = \frac{\text{No. of moles of Pdt} \times 100}{\text{No. of moles of reactant}} \\ = \frac{6.65/180}{5/135} \times 100\% \\ = 99.75\%$$

* 85% yield. / Pdt = ? (gm)

Let x gm.

$$\therefore \frac{\frac{x}{180}}{\frac{5}{135}} \times 100\% = 85\%$$

$$\Rightarrow \frac{135 \times x}{180 \times 5} \times 100\% = 85\%$$

$$\Rightarrow x = \frac{85 \times 5 \times 180}{135 \times 100} \\ = 5.66 \text{ gm.}$$