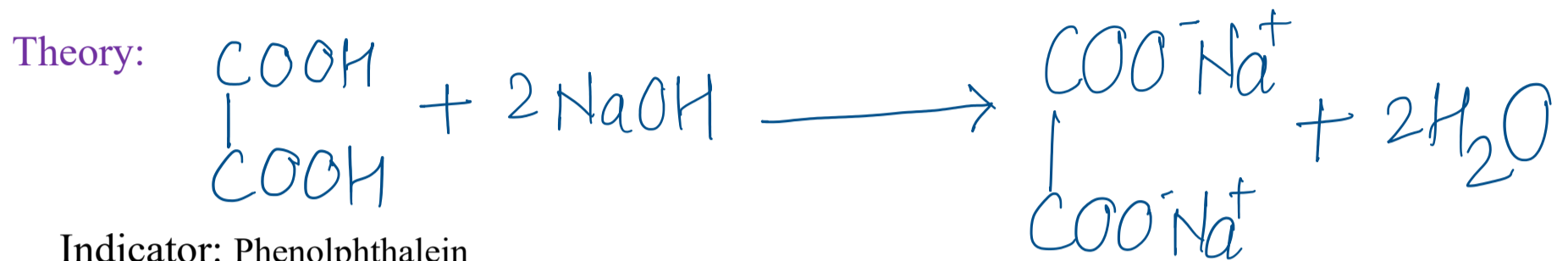# Aim: Determine the strength of oxalic acid solution using approximately N/30 NaOH as an intermediate solution.

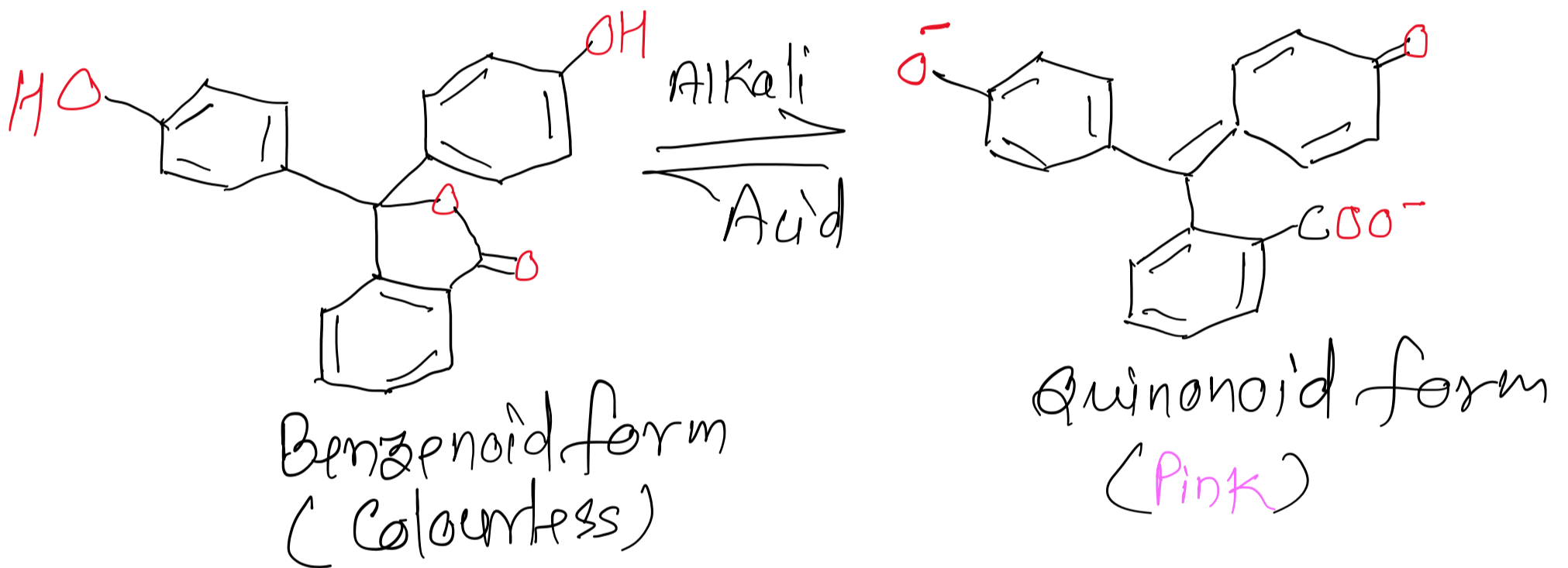Sunday, 30 August 2020   12:50 AM

Requirements: Standard flask, conical flask, burette, pipette, burette stand, beaker, wash bottle, spatula etc.

Solutions and Reagents: Oxalic acid, NaOH, Phenolphthalein indicator and oxalic acid.

Theory:

$$\begin{matrix} COOH \\ | \\ COOH \end{matrix} + 2NaOH \longrightarrow \begin{matrix} COO^-Na^+ \\ | \\ COO^-Na^+ \end{matrix} + 2H_2O$$

Indicator: Phenolphthalein

p^H Range of Indicator $\Rightarrow 8.3 - 10$

Benzenoid form
(Colourless)

Quinonoid form
(Pink)

Calculations:

Preparation of $\frac{N}{30}$ oxalic acid : (100mL)

$$N = \frac{1}{30}$$

$$W = \frac{NEV}{1000}$$

$$W = \frac{1}{30} \times \frac{63.04 \times 100}{1000}$$

$$\boxed{W = 0.210\,g}$$

Equivalent wt. of O.A.
↓
$$\frac{Molecular\ wt.}{2}$$

Result: Strength of given oxalic acid = ……g/L