

Date = 5/3/22

Time - 2.30 - 4.30 pm

PAPER - CC - 1 - 2 - P

1. What is solubility and solubility product? Give the relation between solubility and solubility product of  $KHTA$ . What is the common ion?  $1+1+2+1=5$

2. Define the viscosity. Give the effect of temperature on viscosity. Why long chain molecules are less viscous than smaller spherical molecules.  $1+2+2=5$

3. How would you determine of viscosity of glycerol by Ostwald viscometer.

4. What is pseudo first order reaction? Show that for ester hydrolysis

$$k = \frac{2.303}{t} \log \frac{V_{\infty} - V_0}{V_{\infty} - V_t}$$

 $1+2+2=5$ 

5. What is the unit of rate constant in 3<sup>rd</sup> order reaction. What is the effect of  $KCl$  in solubility of  $KHTA$ ? Calculate the amount of oxalic acid is required to prepare  $0.1(N)$  100 ml oxalic acid  $1+2+2=5$

6. Give the method to determine boiling point butyl alcohol and cyclohexanol  $2.5 \times 2.5 = 5$