KIWAWU SENIOR SCHOOL

END OF TERM I CHEMISTRY ASSESSMENT

CHEMISTRY PAPER II

Instructions answer any five questions

(1) a) Explain what is meant by the following terms

(i) Order of reaction (2 mks)

(ii) Molecularity (1 mk)

(b) Sucrose is hydrolysed in prescence of hydrogen ions to form glucose and fructose. The data below was obtained by a student at 25°C for the reaction;

$$C_{12}H_{22}O_{11} + H_2O \xrightarrow{H^+} C_6H_{12}O_6 + C_6H_{12}O_6$$

glucose. fructose

Concentration of sucrose in $moldm^{-3}$	0.08	0.06	0.04	0.02
Rate in $mol\ dm^{-3} sec^{-1}$	0.004	0.003	0.002	0.001

(i) plot a ~~graph~~ suitable graph and use it to determine order of reaction (10 mks)

(ii) Calculate the rate of reaction when the concentration of sucrose is 0.12 $moldm^{-3}$ (3 mks)

c) Certain substance A reacts with water in a single stage.