T.Y.B.Sc. CHEMISTRY (Practical)

(Three and Six Units)

SEM V

2018-2019

Physical Chemistry Exercise (INSTRUMENTAL)

Experiment 5

Conductometry

(Time 3 2 hours) *(Total Marks:40)*

Aim:To determine the rate constant for hydrolysis of Ethyl acetate by sodium Hydroxide conductomectrically.

Requirements:- Conductometer, Conductance cell, Thermostat, Boiling tube & cork, Distilled water, 5,10,25cm3 Pipette, burette,0.01M NaOH, 0.05M NaOH, 0.2M ethyl acetate ,0.01M Sodium acetate.

Procedure

1) Measure the conductance of 0.01MNaOH.This is the initial conductance Go.

2) Measure the conductance of 0.01M sodium acetate. This is final

conductance Go

3)In one boiling tube take 20cm3 of 0.05M NaOH and 50cm3 of distilled water

Cone

beakes

2SDml he

& cork it.

41 In other boiling tube, take 5cm3 of 0.2M ethyl acetate and 25cm3 of distilled

water and cork it. Keep the two boiling tube in a thermostat at 250c for 20

Water kt

minutes.

NaOH Chynda

(ms)

5) Mix the two solution well. Record the time of mixing.

)Dip the conductance cell in it. Measure the conductance of this mixture at

2.4,6,8,10,15,20,25 and 30 minutes from the time of mixing