

ADM.....NAME.....CLASS.....

GATITU SECONDARY SCHOOL P.O BOX 327- 01030 GATUNDU

FORM FOUR CHEMISTRY PAPER 3 END TERM I EXAM

TERM I 2015

TIME 2HRS

Instructions

- Write your name admission number and class in the spaces provided above
- Answer all the questions in the spaces provided in the question paper.
- Mathematical tables and electronic calculators may be used.
- All working must be shown clearly.

1. You are provided with exactly 2g of solid D, (Oxalic acid molecular formula; $H_2C_2O_4 \cdot 2H_2O$)

You are required to determine the molar heat of solution of solid D.

PROCEDURE

- Place 30cm³ of distilled water into a 100ml plastic beaker.
- Measure the initial temperature of the water and record it in table III below. Add all the solid D at once. Stir the mixture carefully with the thermometer until all the solid dissolves. Measure the final temperature reached and record it in table III below.

TABLE III

Final temperature (°C)	
Initial temperature (°C)	
Change in temperature (ΔT)	

(3mark)

(i) Calculate the

I. the mass of solution formed (M).

(1mk)

II. Heat change(H) when solid D dissolves in water. (Assume the heat capacity of the solution(C) is $4.2kJK^{-1}K^{-1}$ and density solution is $1gcm^{-3}$)
($H = M \times C \times \Delta T$)

(2marks)

