

MARKING SCHEME

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+U & Su L
PROCE R€ A

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A' Co10PLETE TABLE -----1ml
CONDITIONS

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- j) Incoptete bate H 2tkahons done-- /poi«
- k) Insaputo +zkte untt l#hale doe --Oralie

4

- l) p€ALT=s
- m) hxon9 arfsaete (sukar con)
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- q) 8) USE er bEcIAuS - lsa <Tied4 |ad 2d
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CONDITIONS AND PENALTIES

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- s) olarws penaluse fully Ce Oua Oma<9)

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school value to be the teachers correct average

- 1) If at least one is within ±0.1 of SV award - 1mk
- ii) If none is within ±0.1 of SV but a least one is within ±0.2 of SV award -- 1/2 mk

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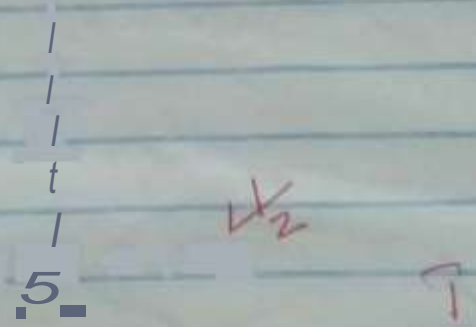
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t i 'i) N.1a,SO = % + 2++% = 10%

$$\text{Cnc.} = \frac{8}{106} = 0.075\%$$

$$= 0.075 \sqrt{2}$$

- 4 -

NOTES

- i) Answer tied to correct arithmetic, accept rounding to 3rd or 4th decimal place if not exact.
- ii) Accept arithmetic error if within ± 2 units in the 3rd decimal place, otherwise penalise $\frac{1}{2}$ mk
- iii) Units may not be shown, but if shown must be correct, otherwise penalise $\frac{1}{2}$ mk for wrong units
- iv) If a candidate works beyond the expected answer penalise FULLY

$$\text{b(iii) Moles of Na}_2\text{CO}_3 = \frac{\text{Pipette} \times 0.075}{1000} \checkmark \checkmark$$

$$= \text{ans (I)}$$

$$\text{Moles of H}_2\text{SO}_4 \text{ in titre} = \text{ans (I)} \quad \text{R: 1} \checkmark \checkmark$$

$$\text{Conc. H}_2\text{SO}_4 = \frac{\text{ans (I)} \times 1000}{\text{Titre}} \checkmark \checkmark$$

$$= \text{ans b(iii)} \checkmark \checkmark$$

OR Formula method

$$M_a V_a = M_b V_b \checkmark \checkmark$$

$$M_a = \frac{M_b V_b}{V_a}$$

$$\text{Conc. of H}_2\text{SO}_4 = \frac{\text{Ans b(ii)} \times \text{Pipette}}{\text{Titre}} \checkmark \checkmark$$

$$= \text{Ans b(iii)} \checkmark \checkmark$$

NOTES

- i) Answer tied to correct arithmetic, accept

blm

Moles of A in 1000cm³ = $\frac{\text{Ansib(m)} \times 250 \times 1000}{1000 \times 25}$

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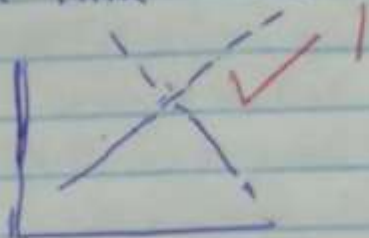
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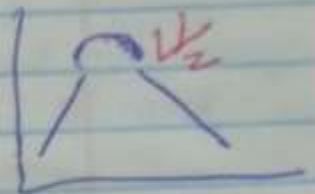
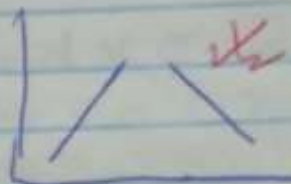
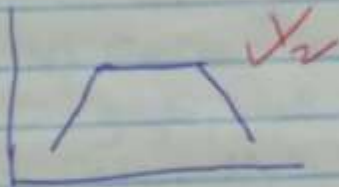
~~B~~ -7-

d The LINES - - - 1mk

i) Accept two straight lines intersecting on extrapolation for 1mk as



ii) Accept the other versions shown for $\frac{1}{2}$ mk



3
1
1
1

6

B (ii)

i) Showing on the graph the value of AT on an extrapolated graph, award $\frac{1}{2}$ mk

ii) For correct value of AT award $\frac{1}{2}$ mk

CONDITION

For the value of AT to be accepted, extrapolation must be shown CORRECTLY

... the value of AT is ... ✓ or X

-&•

■ Vouno *afsdaw* A - VCX°

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INFERENCES

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OBSERVATIONS

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INFERENCES

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lu) No «wtz ppt/seed

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At peek

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INFERENCES **6** = et

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SO₄²⁻ present
 penalise fully. If
CO₃²⁻ and **SO₃²⁻** mentioned present

OBS EQN9 (DNS

bci-) wlwb ppt fnwe

Ecolebooks.com



-10-

Q3

OBSERVATIONS

a) Liquid burns with a blue flame ✓

INFERENCES

Saturated organic compound / Low C:H ratio ✓ 2

OBSERVATIONS

b) Forms a uniform mixture / miscible ✓

INFERENCES

polar compound ✓ 2

OBSERVATIONS

c) Purple KMnO_4 turns colourless / purple KMnO_4 is decolourised ✓

INFERENCES

-OH present ✓
penalise fully if $\text{C}=\text{C}$ and $\text{-C}\equiv\text{C-}$ present 2

OBSERVATIONS

orange / yellow dichromate turns to green ✓

INFERENCES

-OH ✓
confirmed 2