

## **NOVEMBER 2002**

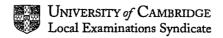
## INTERNATIONAL GCSE

## **MARK SCHEME**

**MAXIMUM MARK: 45** 

**SYLLABUS/COMPONENT: 0654/5** 

CO-ORDINATED SCIENCES (PRACTICAL TEST)



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Q1		
(a)(i)	Both answers should be within 3mm of each other and less than 8cm. Not more than 3mm on average different from SV	2
(ii)	correct calculation	1
(iii)	correctly calculated	1
(b)	Both answers should be within 3mm of each other and at least 8cm. Not more than 3mm on average different from SV	2
(c) (i)	solution A lower water potential than potato cells water moves out of potato by osmosis	
	solution B higher water potential than potato cells/same water potential as cells, water moves into potato by osmosis/no net movement	4
(ii)	higher water potential of soil water means water will always enter cells; needed to ensure continuous water supply for plant/supply of minerals/	
	support of plant	2
(d)(i)	drawings showing more bending for chip A	1
(ii)	water makes plant cells turgid; this gives plant rigidity	2
	total 15	

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. 02		
Q2	Contract to the second	
(a)(i)	correct conversion to kg	1
<i>-</i>		1
(ii)	correct value	1
(b)	mass between limits	
	weighed to nearest 0.1g	2
(ii)	both temperatures to nearest 0.5 C	
	any drop in temperature	2
	temperature change correct 2.5g gives 6.0°C fall 3.0g gives 7.0°C fall	
	two marks if within 1°C allow one if within 2°C	2
(iii)	correctly calculated	1
(c)	e.g. how to read thermometers	_
	use some lagging	1
(d)	endothermic because temperature falls	1
(e)	rise between 45 and 48 °C (TWO)	
	(subject to SV value) rise 42-44 °C (ONE)	2
	description	
	rough details taking water up to more than 60° C and wait to cool	_
	taking water up to more than oo C and wait to coor	2

Q3.	는 사람들이 가는 사람들은 사용을 가능하는 것이 되었다. - 10 공급과 사용하는 경우	
(b)	Has five results	
	Good spread of temperatures	
	Within 10secs of SV for 35°C	
	Within 2 secs of SV at 65°C	
•	All points for curve within 2 secs of curve	5
(d)	Graph	
	Axes	,
	Scale is sensible	
	Plotting correct	
	Acceptable curve	4
(e)	Time is read correctly	
	Temperature is read correctly	2

non linear OR temp. is up as time goes down

Mark Scheme

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**(f)** 

(g)

(h)

use 1/time

surround reagents in ice

repeat experiment as above

total 15

1

1

2

Syllabus 0654

Paper