*tirennepapers

CAMBRIDGE INTERNATIONAL EXAMINATIONS

NOVEMBER 2002

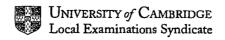
INTERNATIONAL GCSE

Mark scheme

MAXIMUM MARK: 45

SYLLABUS/COMPONENT: 0654/5

CO-ORDINATED SCIENCES (PRACTICAL TEST)



Page 1	Mark Scheme	Syllabus	Paper
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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	

	1			
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Q2		
(a)(i)	correct conversion to kg	
(ii)	correct value	
(b)	mass between limits	
	weighed to nearest 0.1g	
(ii)	both temperatures to nearest 0.5 C	
	any drop in temperature	
	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	
(iii)	correctly calculated	
(c)	e.g. how to read thermometers use some lagging	
(d)	endothermic because temperature falls	
(d)		
(e)	rise between 45 and 48 °C (TWO) (subject to SV value)	
	rise 42-44 °C (ONE)	
	description	-
	rough details taking water up to more than 60° C and wait to cool	

Q3.	Has five results	
(b)	rias live 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	

Mark Scheme

IGCSE Examinations - November 2002

Acceptable curve
(e) Time is read correctly

Scale is sensible

Plotting correct

Axes

Page 3

Temperature is read correctly

(f) non linear OR temp. is up as time goes down

(h) surround reagents in ice

use 1/time

(g)

repeat experiment as above

total 15

Syllabus 0654

Paper

4

2

1

1

2