ww.xtrapapers.com

CAMBRIDGE
INTERNATIONAL EXAMINATIONS

NOVEMBER 2002

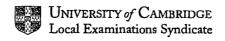
INTERNATIONAL GCSE

Mark scheme

MAXIMUM MARK: 45

SYLLABUS/COMPONENT: 0654/5

CO-ORDINATED SCIENCES (PRACTICAL TEST)



Mark Scheme Syllab Page 1 **IGCSE Examinations – November 2002**

WANN. Papa Cambridge.com 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 Both answers should be within 3mm of each other and at least 8cm. (b) 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 higher water potential of soil water means water will always enter cells; (ii) 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

www.xtrapapers.com

Page 2	Mark Scheme	Sylla	2
	IGCSE Examinations – November 2002	0654	100

Q2 (a)(i) 1 correct conversion to kg 1 (ii) correct value (b) mass between limits 2 weighed to nearest 0.1g both temperatures to nearest 0.5 C (ii) 2 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 2 (iii) correctly calculated 1 e.g. how to read thermometers (c) 1 use some lagging endothermic because temperature falls 1 (d) rise between 45 and 48 °C (TWO) (e) (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 2

			www.xtrapapers.com
_	Page	Mark Scheme	Syllabo
		IGCSE Examinations – November 2002	0654
	Q3. (b)	Has five results Good spread of temperatures Within 10secs of SV for 35°C Within 2 secs of SV at 65°C	Syllab. 0654
		All points for curve within 2 secs of curve	5
	(d)	Graph Axes Scale is sensible Plotting correct	
	(e)	Acceptable curve Time is read correctly	4
	(0	Temperature is read correctly	2
	(f)	non linear OR temp. is up as time goes down	1
	(g)	use 1/time	1
	(h)	surround reagents in ice	

repeat experiment as above

total 15

2