

CAMBRIDGE
INTERNATIONAL EXAMINATIONS

NOVEMBER 2002

INTERNATIONAL GCSE

MARK SCHEME

MAXIMUM MARK : 30

SYLLABUS/COMPONENT : 0653/5

**COMBINED SCIENCE
(PRACTICAL TEST)**



UNIVERSITY of CAMBRIDGE
Local Examinations Syndicate

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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) 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

total 10

Q2

- (a)(i) correct conversion to kg 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) endothermic because temperature falls 1

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Q3.

(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

Scale is sensible

Plotting correct

Acceptable curve

3

(e) surround reagents in ice

repeat experiment as above

2

total 10