

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

| Page 1 | Mark Scheme | Syllabus | Paper |
|--------|------------------------------------|----------|-------|
| | IGCSE Examinations – November 2002 | 0653 | 5 |

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 |

| | | | |
|--------|------------------------------------|----------|-------|
| Page 2 | Mark Scheme | Syllabus | Paper |
| | IGCSE Examinations – November 2002 | 0653 | 5 |

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