# CAMBRIDGE
### INTERNATIONAL EXAMINATIONS

**NOVEMBER 2002**
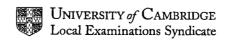
## INTERNATIONAL GCSE

**MARK SCHEME**

**MAXIMUM MARK : 30**

**SYLLABUS/COMPONENT : 0653/5**

**COMBINED SCIENCE
(PRACTICAL TEST)**

UNIVERSITY of CAMBRIDGE
Local Examinations Syndicate

**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

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