UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the June 2005 question paper

0653 COMBINED SCIENCE

0653/05 Paper 5 (Practical Test), maximum raw mark 30

This mark scheme is published as an aid to teachers and students, to indicate the requirements of the examination. It shows the basis on which Examiners were initially instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began. Any substantial changes to the mark scheme that arose from these discussions will be recorded in the published *Report on the Examination*.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

Mark schemes must be read in conjunction with the question papers and the *Report on the Examination*.

- CIE will not enter into discussion or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the June 2005 question papers for most IGCSE and GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

Grade thresholds taken for Syllabus 0653 (Combined Science) in the June examination.

	maximum mark available	minimum mark required for grade:			
		A	C	E	F
Component 5	30	24	17	13	11

The threshold (minimum mark) for B is set halfway between those for Grades A and C.
The threshold (minimum mark) for D is set halfway between those for Grades C and E.
The threshold (minimum mark) for G is set as many marks below the F threshold as the E threshold is above it.
Grade A* does not exist at the level of an individual component.

June 2005

IGCSE

MARK SCHEME

MAXIMUM MARK: 30

SYLLABUS/COMPONENT: 0653/05

COMBINED SCIENCE
Paper 5 (Practical Test)

1 **(a)** **(i)** good quality diagram, clear, sharp pencil used, reasonable correspond
supervisor's diagram

(ii) sepal labelled correctly
protects flower in bud **[2]**

(b) **(i)** good quality diagram of a petal as in **(a)(i)** above
good quality diagram of a stamen as in **(a)(i)** above **[2]**

(ii) anther correctly labelled **[1]**

(iii) reasonable values for lengths (drawn length can be checked and should be within 1 mm) **[2]**

(iv) magnification = $\frac{\text{length of drawing}}{\text{length of original}}$ or evidence of use of formula

numerically correct answer **[2]**

Total 10

2 If any values are not recorded in mm, apply a penalty of one, but apply only once

(b) height of rule above the floor is 40-50 mm less than h_o **[1]**

Table

masses to nearest gram

value of h_o is realistic, compare to others

total mass correct

three values of h besides h_o with deflections

deflections are correct **[5]**

Graph

label for axes and suitable scale

plotting correct

line is **straight** and does or would go through origin **[3]**

proportional (line must be straight for this mark) **[1]**

Total 10

3 attempt to measure temperatures to 0.5 (.0 or .5)

initial temperatures within table are consistent with each other

temperature changes up to 5^{o} +/-1
up to 10^{o} +/-2
up to 20^{o} +/-3
above 20^{o} +/-5 **[3]**

observation for C correct i.e. spill pops **[1]**

Any other correct observation for any other metal e.g. bubbles **[1]**

(i) hydrogen is named **[1]**

(ii) order correct from the results but C must be first **[1]**

(iii) suitable observation **[1]**

Total 10