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#### UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

## MARK SCHEME for the JUNE 2005 question paper

### 0654 CO-ORDINATED SCIENCES

0654/05

Paper 5 (Practical Test), maximum raw mark 45

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 0654 (Co-ordinated Sciences) in the June 2005 examination.

	maximum	minimum mark required for grade:				
	mark available	AA	CC	EE	FF	
Component 5	45	36	27	19	14	

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.

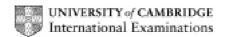
## **IGCSE**

# MARK SCHEME

**MAXIMUM MARK: 45** 

SYLLABUS/COMPONENT: 0654/05

CO-ORDINATED SCIENCES
Paper 5 (Practical Test)



Page 1		Mark Scheme					Syllabus	Paper		
				IGCSE	– JUNE	2005			0654	5
(a)	) (i) good quality diagram, clear, sharp pencil used, reasonable correspondence to supervisor's diagram [1]									
	(ii) sepal labelled correctly protects flower in bud [2]									
(b)	(i)	aood a	uality diagram	of a neta	l as in <b>(</b> a	a <b>)(i)</b> ahov	'Δ			
(13)	(1)		uality diagram							[2]
	(ii)	anther	correctly labe	led						[1]
	(iii)		able values for give this marl							e within 1 mm). er than mm [2]
	(iv)	magnif	ication = <u>leng</u> leng	<u>h of drawi</u> h of origin		/idence o	f use of	formula	a	
		numeri	cally correct a	nswer						[2]
(c)	any flow		e feature e.g.	<b>brightly</b> c	oloured	petals, la	arge peta	als, antl	hers and	stigma inside
	IIOV	/CI								
	corresponding explanation e.g. bright or large petals attract insects, reproductive organs inside flower so insects brush against them etc. [2]						_			
(d)	) separate petals and grind up (with water) add Benedict's solution and <b>heat</b>									
	red colour indicates reducing sugar [3]									
										Total 15
If a	If any values are not recorded in mm, apply a penalty of one, but apply only once									
(b)	hei	ght of ru	le above the f	loor is 40-	50 mm l	ess than	h <sub>o</sub>			[1]
	Tab	ole								
	mas	sses to	nearest gram							
	valu	ue of h <sub>o</sub>	is sensible an	d fits value	e in <b>(b)</b>					
	eac	h mass	of plasticine i	s similar (i	f all the	same, do	not giv	e this m	nark)	
	tota	ıl mass (	correct							
	foui	r values	of h besides	n <sub>o</sub> with def	ections	, so long	as h de	creases	3	
	defl	ections	are correct							[6]

1

2

Page 2	Mark Scheme Syllabus	Paper
	IGCSE – JUNE 2005 0654	5
Graph		
axes corre	ect, labelled with units	
suitable so	cale	
plotting co	rrect	
line is <b>stra</b>	night and does or would go through origin	[4
(h) one fo	or each correct reading (only if line is straight)	[2
(i) propo	rtional	[1
(j) they w	vould be smaller	[1
		Total 1
(a)-(e)		
at least one ter	mperature is measured to 0.5 (.0 or .5)	[1
initial temperat	cures within are consistent with each other	[1
temperature ch		
	up to $10^{\circ}$ +/-2 up to $20^{\circ}$ +/-3	
	above 20° +/-5	[4
observation for	r C correct i.e. spill pops	[1
Any other corre	ect observation for any other metal e.g. bubbles	[1
(f) (i) hydrog	gen is named	[1
(ii) only a	cceptable answer is <b>C</b>	[1
(iii) two re	easons given, one for each	[2
	er to tie in with results but ${\bf C}$ must be first and ${\bf D}$ last unless sted otherwise	supervisor has

3

[2]

(g) put  ${\bf E}$  into aqueos CuSO $_4$  if reaction etc. OR if not reaction etc.