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## **UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS**

**International General Certificate of Secondary Education** 

## MARK SCHEME for the May/June 2010 question paper for the guidance of teachers

## 0445 DESIGN AND TECHNOLOGY

0445/13

Paper 13 (Design), maximum raw mark 50

This mark scheme is published as an aid to teachers and candidates, to indicate the requirements of the examination. It shows the basis on which Examiners were instructed to award marks. It does not indicate the details of the discussions that took place at an Examiners' meeting before marking began, which would have considered the acceptability of alternative answers.

Mark schemes must be read in conjunction with the question papers and the report on the examination.

• CIE will not enter into discussions or correspondence in connection with these mark schemes.

CIE is publishing the mark schemes for the May/June 2010 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

Page 2		Mark Scho	eme: Teachers' version	Syllabus	D	,
raţ	y · ·		E – May/June 2010	0445	800	
(a)	Accept any <b>four</b> additional suitable points – accessible, easy to remove books, match surroundings, correct height, closed to keep out dust, transparent doors etc.				OdbaCa (1 × 4)	nbridg
(b)	Accept drawings of any <b>two</b> fixing methods – screws through back, brackets underneath, screw plates etc.				(2 × 2)	[4]
(c)	rata if for Common Simple Clear destruction Shading High quand det Suitabit Simplis Rather	ewer. unication drawings displaying rawings displaying g/colour/annotation uality drawings usin ail. lity tic designs showing more detail, sensib	g a wide range of techniques wit	e of techniques techniques – th clear annotation	(0-2) (3-4) (5-6) (0-2) (3-4) (5-6)	[12]
(d)		cion of each of the identification.	deas. At least 3 evaluations up t (1 + 1)	to 2 marks each	(0–6) (2)	[8]
(e)	Poor lin Good li High sta detail Dimens Constr A simpl Most co annotat All cons	andard throughout sions 2 or 3 overa Additional couction details istic approach show onstructional detailstion	our, proportions, some detail with a range of techniques that sall dimensions only – 1 detail dimensions –2 wing little or no detail of constructions be obvious from overall view to be clear with good annotation a	tion to be used ws or with some	(1) (2-3) (4) (2) (0-2) (3-4 (5-6)	[12]
(f)		e <b>specific</b> materials riate reasons for ch			(2) (2)	[4]
(g)		e method stated. etailed description	of: processes tools.		(1) (3) (2)	[6]

1

[Total: 50]

Page 3		Mark Scheme	: Teachers' version	Syllabus	D.	
	<u>, , , , , , , , , , , , , , , , , , , </u>		May/June 2010	0445	OD3	
(a)	Accept any <b>four</b> additional suitable points – simple, easy to create movement, all moving parts visible, parts labelled, will not wear out etc.			ARDACA!	Abrido	
(b)	Accept any <b>two</b> moving joint methods – stationary rivets, slots, round pegs, folds etc.			(2 × 2)	[4]	
(c)	Any suitable ideas. At least <b>three different</b> ideas for maximum marks. Pro rata if fewer. <b>Communication</b>					
	Simple drawings displaying a low standard or limited range of techniques Clear drawings displaying a good standard and a range of techniques – shading/colour/annotation etc High quality drawings using a wide range of techniques with clear annotation and detail. Suitability				(0–2)	
					(3–4)	
					(5–6)	
	Rather		tlines only olutions that could work ss for purpose, detailed cons	truction.	(0–2) (3–4) (5–6)	[12]
(d)		tion of each of the ideas on and justification.(1 ·	s. At least 3 evaluations up t + 1)	to 2 marks each.	(0–6) (2)	[8]
(e)	(e) Quality of drawing Poor line quality, proportions, little detail Good line work, use of colour, proportions, some detail High standard throughout with a range of techniques that show clearly all detail Dimensions 2 or 3 overall dimensions only – 1			harrada ada all	(1) (2–3)	
				(4)		
			il dimensions – 2		(2)	
	A simplistic approach showing little or no detail of construction to be used Most constructional detail may be obvious from overall views or with some				(0–2)	
		structional detail will be	clear with good annotation a	and additional	(3–4)	[40]
	detail d	rawings as necessary.			(5–6)	[12]
(f)		e <b>specific</b> materials sta riate reasons for choice			(2) (2)	[4]
(g)		e method stated. etailed description of:	processes tools.		(1) (3) (2)	[6]

[Total: 50]

2

Page 4		e 4	Ma	rk Scheme	: Teachers' version	Syllabus	D.	,
	. ug		ivia		May/June 2010	0445	ODS.	
}	(a)	Accept any <b>four</b> additional suitable points – easy to operate, stable in use, safe for child to use, appealing to child, colourful, hygienic etc.				PapaCal.	nbridge	
	(b)	Accept any <b>two</b> types of movement or sound – springs, electric motors, cams, gears, sliders, ratchet etc.				(2 × 2)	[4]	
	(c)	Any suitable ideas. At least <b>three different</b> ideas for maximum marks. Pro rata if fewer. <b>Communication</b>						
		Simple drawings displaying a low standard or limited range of techniques  Clear drawings displaying a good standard and a range of techniques –				(0–2)		
		shading/colour/annotation etc High quality drawings using a wide range of techniques with clear annotation				(3–4)		
and deta <b>Suitabili</b>			lity	ala avviira av avv	4linga ank		(5–6)	
		Rather		sensible s	tlines only olutions that could work ss for purpose, detailed cons	truction.	(0–2) (3–4) (5–6)	[12]
	(d)		ion of each on and justif		s. At least 3 evaluations up t + 1)	o 2 marks each.	(0–6) (2)	[8]
	(e)	Poor lin Good lir High sta detail	andard thro	roportions, le of colour, ughout with	little detail proportions, some detail a range of techniques that s imensions only – 1 il dimensions – 2	how clearly all	(1) (2–3) (4) (2)	
		A simpli	<b>uction deta</b> istic approa	i <b>ils</b> ch showing	little or no detail of construc		(0–2)	
		Most constructional detail may be obvious from overall views or with some annotation All constructional detail will be clear with good annotation and additional				(3–4)		
			rawings as		<b>3</b>		(5–6)	[12]
	(f)		e <b>specific</b> n riate reasor				(2) (2)	[4]
	(g)		e method st etailed desc		processes tools.		(1) (3) (2)	[6]

3

[Total: 50]