## UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

**International General Certificate of Secondary Education** 

## MARK SCHEME for the May/June 2009 question paper for the guidance of teachers

## 0445 DESIGN AND TECHNOLOGY

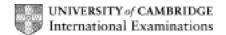
**0445/01** Paper 1 (Design), maximum raw mark 50

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 2009 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.



Page		je 2	Mark Scheme: Teachers' version	Syllabus	Paper	
			IGCSE – May/June 2009	0445	01	
1	(a)	Accept any <b>four</b> additional suitable points – accessible, stable in use, easy to refill, roll does not pull off easily, allow roll to rotate, hygienic, portable, etc.			1 × 4	[4]
	(b)	Accept drawings of any <b>two</b> positions – on work surface, on the wall, in a cupboard/drawer, etc.		2 × 2	[4]	
	(c)	Pro rata if fewer.  Communication				
		Clear di	drawings displaying a low standard or limited range rawings displaying a good standard and a range of the lower land and a range of the lower land and a range of the lower land at land a range of the lower land at land a range of the lower land at land a			
			ng/colour/annotation etc. quality drawings using a wide range of techniques with clear annotation etail		3–4 5–6	
		Suitabi Simplist Rather		truction	0–2 3–4 5–6	[12]
	(d)	each.	ion of each of the ideas. At least <b>three</b> evaluations on and justification. (1+1)	up to 2 marks	0–6 2	[8]
	(e)	Poor lin Good lin High sta detail Dimens Constru A simpli Most co annotat All cons	of drawing e quality, proportions, little detail ne work, use of colour, proportions, some detail andard throughout with a range of techniques that s sions two or three overall dimensions only – 1 Additional detail dimensions – 2 uction details istic approach showing little or no detail of construct onstructional detail may be obvious from overall view ion structional detail will be clear with good annotation a rawings as necessary	tion to be used vs or with some	1 2-3 4 2 0-2 3-4 5-6	[12]
	(f)		e <b>specific</b> materials stated. At least two. riate reasons for choice. At least two.		2 2	[4]
	(g)		e method stated. d description of process, including: <b>processes</b> lls.		1 3 2	[6]

[Total: 50]

	Page 3		Mark Scheme: Teachers' version	Syllabus	Paper	
			IGCSE – May/June 2009	IGCSE – May/June 2009 0445		
2	(a)	Accept any <b>four</b> additional suitable points – stable in use, attract attention, include real produce, all round view, easy to move, etc.			1 × 4	[4]
	(b)	<b>b)</b> Accept any <b>two</b> movement methods – rotation, electric/clockwork motors, pendulum, solenoid, etc.		2 × 2	[4]	
	(c)	(c) Any suitable ideas. At least <b>three different</b> ideas for maximum marks. Pro rata if fewer.  Communication				
Simple drawings displaying a low standa		drawings displaying a low standard or limited range	<u> </u>			
		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			
		Rather	lity tic designs showing outlines only more detail, sensible solutions that could work e solutions, good fitness for purpose, detailed const	truction	0–2 3–4 5–6	[12]
	(d)	each.	ion of each of the ideas. At least <b>three</b> evaluations on and justification. (1+1)	up to 2 marks	0–6 2	[8]
	(e)	Poor lin Good lin High sta detail Dimens Constru A simpli	e quality, proportions, little detail ne work, use of colour, proportions, some detail andard throughout with a range of techniques that si sions two or three overall dimensions only – 1 Additional detail dimensions – 2 uction details istic approach showing little or no detail of construct onstructional detail may be obvious from overall view ion	tion to be used	1 2–3 4 2 0–2 3–4	
			structional detail will be clear with good annotation a rawings as necessary	nd additional	5–6	[12]
	(f)	Suitable	e <b>specific</b> materials stated. At least <b>two</b> . riate reasons for choice. At least <b>two</b> .		2 2	[4]
	(g)		e method stated. d description of process, including: <b>processes</b> l <b>ls</b> .		1 3 2	[6] I: <b>50</b> 1
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	Page 4		Mark Scheme: Teachers' version	Syllabus	Paper	
			IGCSE – May/June 2009 0445		01	
3	(a)	Accept any <b>four</b> additional suitable points – lightweight, easy to operate, no bending down, picks up different shapes, single handed use, etc.			1 × 4	[4]
	` '		ccept any <b>two</b> suitable flexible joints – hinges, pins, bolts/nuts, rivets, owels, etc.		2 × 2	[4]
	(c)	(c) Any suitable ideas. At least <b>three different</b> ideas for maximum marks.  Pro rata if fewer.  Communication				
		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 detail  Suitability			5–6	
		Rather	nplistic designs showing outlines only ther more detail, sensible solutions that could work		0–2 3–4	
		Accurat	e solutions, good fitness for purpose, detailed const	truction	5–6	[12]
	(d)	Evaluation of each of the ideas. At least <b>three</b> evaluations up to 2 marks each. Selection and justification. (1+1)		0–6		
					2	[8]
	(e)		of drawing			
	Good I		ne quality, proportions, little detail ne work, use of colour, proportions, some detail andard throughout with a range of techniques that show clearly all		1 2–3	
deta <b>Dim</b> <b>Co</b> r A si		detail  Dimensions two or three overall dimensions only – 1  Additional detail dimensions – 2  Construction details		4		
				2		
		•	mplistic approach showing little or no detail of construction to be used t constructional detail may be obvious from overall views or with some		0–2	
	anno		<u> </u>	nd additional	3–4	
		detail d	rawings as necessary		5–6	[12]
	(f)		e <b>specific</b> materials stated. At least <b>two</b> . riate reasons for choice. At least <b>two</b> .		2 2	[4]
	(g)	Suitable method stated. Detailed description of process, including: <b>processes</b>		1 3		
and <b>tools</b> .		and <b>too</b>	ols.		2	[6]
					۱ota	l: 50]