CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the May/June 2013 series

0445 DESIGN AND TECHNOLOGY

0445/12 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 should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

Page		e 2	Mark Scheme	Syllabus	· D
			IGCSE – May/June 2013	0445	Ag.
1	resist		ot any four additional suitable points – easy to clean, is water, appropriate height/position, boots easy to s/remove, stable in use, etc.	(1 × 4)	A. Pabacambi
	(b)	rods, i	ot drawings of any two suitable methods – inverted on n vertical/horizontal boxes, on shelves, on slats, in in slots, etc.	(2 × 2)	[4]
	(c)	maxim Comn Simple of tech Clear techni High of	uitable ideas. At least three different ideas for num marks. Pro rata if fewer. nunication e drawings displaying a low standard or limited range nniques. drawings displaying a good standard and a range of ques – shading/colour/annotation, etc. quality drawings using a wide range of techniques with annotation and detail.	(0–2) (3–4) (5–6)	
		Rathe Accura	cility stic designs showing outlines only. r more detail, sensible solutions that could work ate solutions, good fitness for purpose, detailed ruction.	(0–2) (3–4) (5–6)	[12]
	(d)		ation of each of the ideas. At least 3 evaluations up toks each.	(0–6)	
		Select	tion and justification. (1+1)	(2)	[8]
	(e)	Poor li Good High s show o Dimer	ty of drawing ine quality, proportions, little detail. line work, use of colour, proportions, some detail. standard throughout with a range of techniques that clearly all detail. nsions 2 or 3 overall dimensions only – 1 Additional detail dimensions – 2	(1) (2–3) (4) (2)	
		A simp constr Most of views All cor	collistic approach showing little or no detail of ruction to be used. constructional detail may be obvious from overall or with some annotation. Instructional detail will be clear with good annotation detail drawings as necessary.	(0–2) (3–4) (5–6)	[12]
	(f)	Suitab	ole specific materials stated.	(2)	
		Appro	priate reasons for choice.	(2)	[4]

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Page 3		e 3	Mark Scheme	Syllabus	7.0 r
	. ug		IGCSE – May/June 2013	0445	80
	(g)		ole method stated/described. detailed description of: processes; tools.	(1) (3) (2)	[6] [Total: 50]
2	(a)	childre	ot any four additional suitable points – appealing to en, colourful, interesting topic, will not tear/damage, d by child, etc.	(1 × 4)	[4]
	(b)	-	ot any two forms of movement – pop-up, rotating disc, ut, slider, hinge, paper spring, etc.	(2 × 2)	[4]
	(c)	maxin	uitable ideas. At least three different ideas for num marks. Pro rata if fewer. nunication		
		of tecl	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.	(0–2)	
		techni		(3–4)	
			quality drawings using a wide range of techniques with annotation and detail.	1 (5–6)	
		Rathe Accur	bility istic designs showing outlines only. In more detail, sensible solutions that could work. In ate solutions, good fitness for purpose, detailed ruction.	(0–2) (3–4) (5–6)	[12]
				()	
	(d)		ation of each of the ideas. At least 3 evaluations up to ks each.	(0-6)	
		Selec	tion and justification. (1+1)	(2)	[8]
	(e)	Poor I Good	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	(1) (2–3)	
		High standard throughout with a range of techniques that show clearly all detail.	(4)		
			Dimensions 2 or 3 overall dimensions only – 1 Additional detail dimensions – 2 Construction details 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 annotation.	(2)	
		A sim		(0–2)	
		views		(3–4)	
			nstructional detail will be clear with good annotation dditional detail drawings as necessary.	(5–6)	[12]

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		321				
Page 4		Mark Scheme	Syllabus	To large		
		IGCSE – May/June 2013	0445	ASC.		
(f)	Suital	Suitable specific materials stated. Appropriate reasons for choice.		Strate.		
	Appro			[4] OG		
(g)		ole method stated/described. detailed description of: processes; tools.	(1) (3) (2)	[4] Papa (4) [6]		
			[Total: 50]		
(a)	acces	ot any four additional suitable points – hygienic, eassible, easy to clean, fits in with garden surrounding ful, anchored to ground, etc.	_	[4]		
(b)		ot any two safety considerations – falling from heig ed fingers/limbs, slipping, location in seats, sharp s, etc.	yht, (2 × 2)	[4]		
(c)	maxin Comr Simpl of tec Clear techn	uitable ideas. At least three different ideas for num marks. Pro rata if fewer. nunication e drawings displaying a low standard or limited rar hniques. drawings displaying a good standard and a range iques – shading/colour/annotation, etc. quality drawings using a wide range of techniques	(0–2) of (3–4)			
	clear	clear annotation and detail. Suitability	(5–6)			
	Simpl Rathe	Simplistic designs showing outlines only. Rather more detail, sensible solutions that could work. Accurate solutions, good fitness for purpose, detailed				
		ruction.	(5–6)	[12]		
(d)		ation of each of the ideas. At least 3 evaluations uks each.	up to (0–6)			
	Selec	tion and justification. (1+1)	(2)	[8]		

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[Total: 50]

Page 5		Mark Scheme	Syllabus	*A
ı ag		IGCSE – May/June 2013	0445	8
		-	0440	A. PapaCambridge
(e)		y of drawing	44)	104.
		ne quality, proportions, little detail.	(1)	10
		line work, use of colour, proportions, some detail.	(2–3)	
	•	standard throughout with a range of techniques that	(4)	
		clearly all detail.	(4)	
	Dimei	nsions 2 or 3 overall dimensions only – 1 Additional detail dimensions – 2	(2)	
	Const	ruction details	(2)	
		plistic approach showing little or no detail of		
		uction to be used.	(0–2)	
	Most	constructional detail may be obvious from overall	()	
		or with some annotation.	(3–4)	
	All cor	nstructional detail will be clear with good annotation		
	and a	dditional detail drawings as necessary.	(5–6)	[12]
(f)	Suitab	le specific materials stated.	(2)	
	Annro	priate reasons for choice.	(2)	[4]
	Дррго	priate reasons for choice.	(2)	נדן
(g)	Suitah	le method stated/described.	(1)	
(8)		detailed description of: processes;	(3)	
	0 000	tools.	(2)	[6]
			` '	F - J