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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.

			n	
Page	2	Mark Scheme	Syllabus	
		IGCSE – May/June 2013	0445	
(a)	resists	t any four additional suitable points – easy to clean, water, appropriate height/position, boots easy to s/remove, stable in use, etc.	Syllabus 0445 (1 × 4)	
(b)	rods, i	t drawings of any two suitable methods – inverted on vertical/horizontal boxes, on shelves, on slats, in n slots, etc.	(2 × 2)	
(c)	Any su maxim Comm Simple of tech	(0–2)		
		drawings displaying a good standard and a range of ques – shading/colour/annotation, etc.	(3–4)	
	High q	th (5–6)		
	Rathe	stic designs showing outlines only. r more detail, sensible solutions that could work	(0–2) (3–4)	
	Accurate solutions, good fitness for purpose, detailed construction.		(5–6)	
(d)		ation of each of the ideas. At least 3 evaluations up as each.	to (0–6)	
	Select	ion and justification. (1+1)	(2)	
(e)	Poor li Good l High s	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.		
		isions 2 or 3 overall dimensions only – 1 Additional detail dimensions – 2	(4)	
	Const	(2)		
	A simp constru Most of	(0–2)		
	views	(3–4)		
	All constructional detail will be clear with good annotation and additional detail drawings as necessary.		(5–6)	
(f)	Suitab	le specific materials stated.	(2)	
	Approp	oriate reasons for choice.	(2)	

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Pag	e 3	Mark Scheme	Syllabus	7.0 T
		IGCSE – May/June 2013	0445	No.
(g)		ele method stated/described. detailed description of: processes; tools.	(1) (3) (2)	[6] [Total: 50]
2 (a)	childre	t any four additional suitable points – appealing to en, colourful, interesting topic, will not tear/damage, d by child, etc.	(1 × 4)	[4]
(b)	-	t any two forms of movement – pop-up, rotating disc, ut, slider, hinge, paper spring, etc.	, (2 × 2)	[4]
(c)	maxim Comn Simple of tech Clear technic	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)	
	Simpli Rathe Accura	stic designs showing outlines only. r more detail, sensible solutions that could work. ate solutions, good fitness for purpose, detailed uction.	(0-2) (3-4) (5-6)	[12]
(d)	2 marl	ation of each of the ideas. At least 3 evaluations up to ks each. ion and justification. (1+1)	(0–6) (2)	[8]
(e)	Poor li Good High s show o Dimer Const A simp constr Most o views	ine quality, proportions, little detail. line work, use of colour, proportions, some detail. standard throughout with a range of techniques that clearly all detail. Insions 2 or 3 overall dimensions only – 1 Additional detail dimensions – 2 Eruction details Dilistic approach showing little or no detail of uction to be used. Econstructional detail may be obvious from overall or with some annotation. Instructional detail will be clear with good annotation.	(1) (2-3) (4) (2) (0-2) (3-4)	
		dditional detail drawings as necessary.	(5–6)	[12]

Pag	je 4	Mark Scheme	Syllabus	1.0
		IGCSE – May/June 2013	0445	ASC.
(f)	Suita	ble specific materials stated.	(2)	
	Appro	opriate reasons for choice.	(2)	MMM. PapaCal
(g)		Suitable method stated/described. Good detailed description of: processes; tools.		
	G000			[6]
				[Total: 50]
(a)		Accept any four additional suitable points – hygienic, easily accessible, easy to clean, fits in with garden surroundings, colourful, anchored to ground, etc.		
				[4]
(b)		Accept any two safety considerations – falling from height,		
		ed fingers/limbs, slipping, location in seats, sharp s, etc.	(2 × 2)	[4]
(c)		suitable ideas. At least three different ideas for num 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		
	Clear			
	techniques – shading/colour/annotation, etc. High quality drawings using a wide range of techniques with clear annotation and detail.		(3–4)	
			(5–6)	
	Simp	bility listic designs showing outlines only.	(0–2) (3–4)	
		Rather more detail, sensible solutions that could work. Accurate solutions, good fitness for purpose, detailed		
	construction.		(5–6)	[12]
(d)		Evaluation of each of the ideas. At least 3 evaluations up t 2 marks each.		
		ction and justification. (1+1)	(0–6) (2)	[8]
		, ,	` '	

Page 5		Mark Scheme	Syllabus	· Po
		IGCSE – May/June 2013	0445	120
(e)	Poor li Good High s show Dimer	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 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. All constructional detail will be clear with good annotation and additional detail drawings as necessary.		A. PapaCambri
	constr Most oviews All cor			[12]
(f)		priate reasons for choice.	(2) (2)	[4]
(g)		ole method stated/described. detailed description of: processes; tools.	(1) (3) (2)	[6] [Total: 50]