UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

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for the guidance of teachers

0445 DESIGN AND TECHNOLOGY

0445/11 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.

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

Pag	je 2	Mark Scheme: Teachers' version	Syllabus	S	κ
		IGCSE – October/November 2010	0445	200	
				м. рараса (1 × 4)	2
(a)	keeps c	Accept any four additional suitable points – easy access, away from door, keeps contents dry, can be locked by postman without key, not an eyesore outside house, easy to spot, etc			
(b)	•	drawings of any two locking devices – padlock, coml king catch, etc	bination lock,	(2 × 2)	[4]
(c)	Any suitable ideas. At least three different ideas for maximum marks. Pro rata if fewer Communication				
	Clear di	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				
	Suitabi Simplist			(5–6) (0–2) (3–4)	
		te solutions, good fitness for purpose, detailed constr	uction	(5–6)	[12]
(d)		tion of each of the ideas. At least 3 evaluations up to on and justification (1 + 1)) 2 marks each.	(0–6) (2)	[8]
(e)	Poor lin Good lir High sta Dimens	r of drawing ne quality, proportions, little detail ne work, use of colour, proportions, some detail andard throughout with a range of techniques that show sions 2 or 3 overall dimensions only – 1 Additional detail dimensions – 2 uction details	v clearly all detail	(1) (2–3) (4) (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				
		structional detail will be clear with good annotation an	nd additional	(3-4)	[40]
	detail di	rawings as necessary		(5–6)	[12]
(f)		e specific materials stated (1 + 1) riate reasons for choice (1 + 1)		(2) (2)	[4]
(g)		e method stated etailed description of method, including:		(1)	
	Process			(3) (2)	[6]
				(-)	L

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	Day	0445	IGCSE – October/November 2010			
1	10					
Onin		Accept any four additional suitable points – attracts attention, colourful,				
300	(1 × 4)	easy to read, easy for child to handle, keeps clean, hygienic, etc				
	1. Papacali (1 × 4)					
[4]	(2 × 2)	Accept drawings of any two types of movement – sliding parts, slots, pivots, fold out, etc				
		Any suitable ideas. At least three different ideas for maximum marks.				
		Pro rata if fewer Communication				
	(0–2)	Simple drawings displaying a low standard or limited range of techniques				
	(3–4)	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				
	(5–6)	annotation and detail Suitability				
	(0-2)		Simplistic designs showing outlines only			
[12]	(3–4) (5–6)	Rather more detail, sensible solutions that could work Accurate solutions, good fitness for purpose, detailed construction				
[]	()		· · · · · · · · · · · · · · · · · · ·			
	(0–6)	o 2 marks each.) Evaluation of each of the ideas. At least 3 evaluations up t	(d)		
[8]	(2)	Selection and justification (1 + 1)				
) Quality of drawing	(e)		
	(1)		Poor line quality, proportions, little detail	(0)		
	(2–3) (4)	Good line work, use of colour, proportions, some detail High standard throughout with a range of techniques that show clearly all detail				
	(4)	Dimensions 2 or 3 overall dimensions only – 1				
	(2)		Additional detail dimensions – 2 Construction details			
	(0–2)	tion to be used	A simplistic approach showing little or no detail of construct			
	(2Λ)	vs or with some	Most constructional detail may be obvious from overall view annotation			
	(3–4)	nd additional	All constructional detail will be clear with good annotation a			
[12]	(5–6)		detail drawings as necessary			
	$\langle \mathbf{O} \rangle$			(E)		
[4]	(2) (2)		Suitable specific materials stated (1 + 1) Appropriate reasons for choice (1 + 1)	(f)		
[,]	(_)					
	(1)) Suitable method stated	(g)		
	(2)		Good detailed description of method, including:			
[6]	(3) (2)		Processes Tools			
	[Tota					

Page 4		Mark Scheme: Teacl	hers' version	Syllabus	S.	K
		IGCSE – October/No	vember 2010	0445	No.	
					Co	2
	Accept any four additional suitable points – easy to move, minim force, safe in use, use with range of vehicles/heights, stable in us				1 × 4)	noride
• •	Accept ar levers, et	ny two mechanisms – winch c	, rack and pinion, blo	ck and tackle,	(2 × 2)	[4]
	Any suitable ideas. At least three different 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				(3–4) (5–6)	
	annotation and detail Suitability Simplistic designs showing outlines only					
	Rather m	ore detail, sensible solutions solutions, good fitness for p	s that could work	truction	(0–2) (3–4) (5–6)	[12]
		n of each of the ideas. At le and justification(1 + 1)	east 3 evaluations up t	o 2 marks each.	(0–6) (2)	[8]
	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			(1) (2–3) (4)		
	Dimensions 2 or 3 overall dimensions only – 1 Additional detail dimensions – 2				(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			(0–2)		
i	annotation All constructional detail will be clear with good annotation and additional				(3–4)	
	detail dra	wings as necessary	-		(5–6)	[12]
		specific materials stated te reasons for choice	(1 + 1) (1 + 1)		(2) (2)	[4]
(0)	Suitable method stated			(1)		
	Good detailed description of method, including: Processes Tools		(3) (2)	[6]		
				[Tota		