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UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2010 question paper for the guidance of teachers

0445 DESIGN AND TECHNOLOGY

0445/13

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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Page 2		ge 2	Mark Scheme: Teachers' version	Syllabus	0	1
			IGCSE – October/November 2010	0445	Jan .	
1	(a)	Accept any four additional suitable points – easy access under car, can be moved by legs, take person's weight, tools easily accessed, very low, head rest etc		(1 × 4)	ambridg	
	(b)	-	drawings of any two methods of movement – small , skis, rollers etc	wheels,	(2 × 2)	[4]
	(c)	Pro rata	table ideas. At least three different ideas for maxima if fewer unication drawings displaying a low standard or limited range	(0–2)		
		Clear drawings displaying a fow standard of limited 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	tic designs showing outlines only more detail, sensible solutions that could work		(0–2) (3–4)	
		Accurat	te solutions, good fitness for purpose, detailed const	ruction	(5–6)	[12]
	(d)		ion of each of the ideas. At least 3 evaluations up to on and justification. (1 + 1)	o 2 marks each.	(0–6) (2)	[8]
	(e)	Poor lin Good lin High sta detail Dimens Constr A simpl Most co annotat	r of drawing le quality, proportions, little detail le quality, proportions, little detail le quality, proportions, some detail le andard throughout with a range of techniques that shadows sions 2 or 3 overall dimensions only – 1 Additional detail dimensions – 2 uction details listic approach showing little or no detail of construct constructional detail may be obvious from overall view lion structional detail will be clear with good annotation as	ion to be used vs or with some	(1) (2-3) (4) (2) (0-2) (3-4)	
			rawings as necessary	na additional	(5–6)	[12]
	(f)		e specific materials stated (1 + 1) riate reasons for choice (1 + 1)		(2) (2)	[4]
	(g)	Suitable method stated Good detailed description of method, including:		(1)		
		Proces	•		(3)	

Processes

Tools

[Total: 50]

[6]

(3) (2)

Dogo 2		10.2	Mark Sahama, Tagahara' yaraian	Cyllohuo	20	
Page 3		je s	Mark Scheme: Teachers' version IGCSE – October/November 2010	Syllabus 0445	8	
<u> </u>			IGCSE - October/November 2010	U443	100	
2	(a)	Accept any four additional suitable points – attracts attention, colourful, surprises when catalogue opened, skiing theme, simple design etc		(1 × 4)	Moride	
	(b)	Accept drawings of any two types of mechanism – sliding parts, slots, pivots, fold out, etc		, ,		
				(2×2)	[4]	
	(c)	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 – shading/colour/annotation etc		(0–2) (3–4)		
		• .	uality drawings using a wide range of techniques with	n clear	(F 0)	
			tion and detail		(5–6)	
		Suitability Simplistic designs showing outlines only Rather more detail, sensible solutions that could work			(0-2)	
					(3–4)	
		Accurat	te solutions, good fitness for purpose, detailed const	ruction	(5–6)	[12]
	(d)		tion of each of the ideas. At least 3 evaluations up to on and justification(1 + 1)	o 2 marks each.	(0–6) (2)	[8]
	(e)	Quality	of drawing			
		Poor line quality, proportions, little detail		(1)		
High s detail Dime r			ne work, use of colour, proportions, some detail	ow doorly all	(2–3)	
		High standard throughout with a range of techniques that show clearly all detail Dimensions 2 or 3 overall dimensions only – 1			(4)	
					(')	
		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		ion to be used	(0, 2)	
					(0–2)	
		annotation			(3-4)	
		All constructional detail will be clear with good annotation and additional detail drawings as necessary		nd additional	(F, C)	[40]
				(5–6)	[12]	
	(f)		e specific materials stated (1 + 1)		(2)	
		Approp	riate reasons for choice (1 + 1)		(2)	[4]
(g)		Suitable method stated		(1)		
		Good detailed description of method, including:				
		Process	ses		(3)	FO3
		Tools		(2)	[6]	

[Total: 50]

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Page 4		ge 4	Mark Scheme: Teachers' version	Syllabus	00	
			IGCSE – October/November 2010	0445	P	
3	(a)	Accept any four additional suitable points – easy to set up, correct amount of water, large holding tank, linked to main supply, does not stop if power fails etc			(1 × 4)	3mbride
	(b)	Accept any two control methods – mechanical valve, switched pump, holding cistern, gate etc		(2 × 2)	[4]	
	(c)	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		-	(0–2)	
		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			(3–4)	
					(5–6)	
		Rather	tic designs showing outlines only more detail, sensible solutions that could work te solutions, good fitness for purpose, detailed const	ruction	(0–2) (3–4) (5–6)	[12]
	(d)		tion of each of the ideas. At least 3 evaluations up to on and justification (1 + 1)	o 2 marks each.	(0–6) (2)	[8]
	(e)	Poor lin Good lin High sta detail Dimens Constr A simpl	Additional detail dimensions – 2 ruction details listic approach showing little or no detail of construct onstructional detail may be obvious from overall view	ion 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)		e specific materials stated (1 + 1) riate reasons for choice (1 + 1)		(2) (2)	[4]
	(g)	Suitable method stated		(1)		
	(3)	Good detailed description of method, including:			(2)	

Processes Tools

[Total: 50]

[6]

(3) (2)