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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

0445/12

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 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 October/November 2010 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

		Marila Oalea T. J. J.	0.11.1	20	
Page 2		Mark Scheme: Teachers' version IGCSE – October/November 2010	Syllabus 0445	as .	V
		IGCSE – October/November 2010	U 44 0	ASC.	
(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			M. Adda Co	mbridg
(b)	 Accept drawings of any two methods of movement – small wheels, castors, skis, rollers etc 				[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				
	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 Simplistic designs showing outlines only Rather more detail, sensible solutions that could work Accurate solutions, good fitness for purpose, detailed construction			(0–2)	
				(5–6)	
				(0-2) (3-4) (5-6)	[12]
(d)		tion of each of the ideas. At least 3 evaluations up ton and justification. (1 + 1)	o 2 marks each.	(0–6) (2)	[8]
(e)	Poor lin Good lin High sta detail Dimens Constru A simpl Most co	r of drawing ne quality, proportions, little detail ne work, use of colour, proportions, some detail andard throughout with a range of techniques that s sions 2 or 3 overall dimensions only – 1 Additional detail dimensions – 2 uction 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)	
	annotation All constructional detail will be clear with good annotation and additional detail drawings as necessary				[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)		
	Processes Tools			(3) (2)	[6]

1

[Total: 50]

		A.C.	2
(a)	Accept any four additional suitable points – attracts attention, colourful, surprises when catalogue opened, skiing theme, simple design etc	(1 × 4)	Mbride
(b)	Accept drawings of any two types of mechanism – sliding parts, slots, pivots, fold out, etc	(1×4) (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 Simplistic designs showing outlines only Rather more detail, sensible solutions that could work Accurate solutions, good fitness for purpose, detailed construction		
			[12]
	7. todarato condutorio, geca introcco for purpoco, dotalica concuración	(5–6)	[]
(d)	Evaluation of each of the ideas. At least 3 evaluations up to 2 marks each. Selection and justification (1 + 1)	(0–6) (2)	[8]
(e)	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	(1) (2-3) (4) (2) (0-2) (3-4) (5-6)	[12]
(f)	Suitable specific materials stated (1 + 1) Appropriate reasons for choice (1 + 1)	(2) (2)	[4]
(g)	Suitable method stated Good detailed description of method, including: Processes Tools		
			[6]

Mark Scheme: Teachers' version IGCSE – October/November 2010

Page 3

2

Syllabus 0445

[Total: 50]

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Page 4		je 4	Mark Scheme: Teachers' version IGCSE – October/November 2010	Syllabus 0445	80.	
			1000L - October/November 2010	UTT3	30	1
3	(a) (b)			1. Add Acc	Mbride	
	(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 technique of the displaying a good standard and a range of technique of the displaying a good standard and a range of technique of the displaying a state of the dis			(0–2)	
		High qu	g/colour/annotation etc uality drawings using a wide range of techniques with clear		(5–6)	
		annotation and detail Suitability				
		Rather	tic designs showing outlines only more detail, sensible solutions that could work te solutions, good fitness for purpose, detailed c	construction	(0–2) (3–4) (5–6)	[12]
	(d)		tion of each of the ideas. At least 3 evaluations on and justification (1 + 1)	up to 2 marks each.	(0–6) (2)	[8]
	(e)	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		(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			(0–2)	
		annotation All constructional detail will be clear with good annotation and additional			(3–4)	
			rawings as necessary		(5–6)	[12]
	(f)		e specific materials stated (1 + 1) riate reasons for choice (1 + 1)		(2) (2)	[4]
	(g)		able method stated		(1)	
		Good detailed description of method, including: Processes Tools		(3) (2)	[6]	

[Total: 50]