UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

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for the guidance of teachers

0445 DESIGN AND TECHNOLOGY

0445/13

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.

Cambridge will not enter into discussions or correspondence in connection with these mark schemes.

Cambridge is publishing the mark schemes for the May/June 2011 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

Page 2		Mark Scheme: Teachers' version		Syllabus	2	
		IGCSE – May/Jun	e 2011	0445	Dec	
		our additional suitable lightweight, easy to ca	, <u>,</u>	ean, stable in use, priate height, etc.	panacar (1x4)	nbride
	Accept drawings of any two suitable construction methods – wooden frames, bent tube, welded tube, push together frames, folding carcases, etc.					
r	Any suitable ideas. At least three different ideas for maximum marks. Pro rata if fewer.					
	Communicati Simple drawing	on gs displaying a low star	ndard or limited rang	ge of techniques	(0–2)	
C	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					
F						
	annotation and detail					
S F	Rather more d	gns showing outlines or letail, sensible solutions ions, good fitness for pr	that could work	nstruction	(0–2) (3–4) (5–6)	[12]
(d) E	Evaluation of e	each of the ideas. At lea	ast 3 evaluations up	o to 2 marks each	(0–6)	
S	Selection and	justification. (1+1)			(2)	[8]
	Quality of dra	-	ail		(1)	
C	Poor line quality, proportions, little detail Good line work, use of colour, proportions, some detail				(1)	
	High standard throughout with a range of techniques that show clearly all detail			(4)		
		2 or 3 overall dimensio				
,	Construction	Additional detail dimen	sions – 2		(2)	
A	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				(0–2)	
					(3–4)	
	All constructional detail will be clear with good annotation and additional detail drawings as necessary				(5–6)	[12]
ŭ	······································					[·-]
(f) S	Suitable speci	i fic materials stated.			(2)	
	-	asons for choice.			(2)	[4]
					. /	
(g) S	Suitable metho	od stated.			(1)	
<u>.</u>						
	Good detailed	description of: processe tools.	es		(3) (2)	[6]

Page	3	Mark Scheme: Teachers' version	Syllabus	2	(
		IGCSE – May/June 2011	0445	Dec		
(a)		four additional suitable points – will attractified fiect 'lightweight' and 'waterproof', include r	ct attention, compact, name of phone, etc.	PanaCar (1x4)	hbridge	
(b)	Accept any t metal clips, t	(2x2)	[4]			
(c)	Any suitable rata if fewer.					
		Communication Simple drawings displaying a low standard or limited range of techniques				
	Clear drawin shading /colo	(3–4)				
	High quality	(5-6)				
	Suitability	annotation and detail Suitability				
	Simplistic de Rather more	(0–2) (3–4)				
		lutions, good fitness for purpose, detailed c	construction	(5–6)	[12]	
(d)	Evolution of	f each of the ideas. At least 2 evaluations	up to 2 marks cash	(0, 6)		
(d)		of each of the ideas. At least 3 evaluations dijustification. (1+1)	up to 2 marks each	(0–6) (2)	[8]	
				()	[]	
(e)	Quality of d Poor line qua	(1)				
	Good line wo	(2–3)				
	High standa detail	(4)				
	Dimensions	(2)				
	Constructio					
	A simplistic a Most constru	(0–2) (3–4)				
	annotation All constructional detail will be clear with good annotation and additional					
	detail drawin	(5–6)	[12]			
(f)	Suitable spe	cific materials stated.		(2)		
	Appropriate	reasons for choice.		(2)	[4]	
(g)	Suitable met	thod stated. ed description of: processes		(1) (3)		

[Total: 50]

	Mark Scheme: Teachers' version	Syllabus	2			
	IGCSE – May/June 2011	0445	Dan			
• •	ept any four additional suitable points – easy to at for person to use, no damage to bicycle, easy to sto	tach, stable in use, re, fits all sizes, etc.	panacar (1x4)	nbrides		
	Accept any two fixing places in a garage – on a bench, on the floor, on a wall, from the ceiling/joists, etc.					
rata	Any suitable ideas. At least three different ideas for maximum marks. Pro rata if fewer.					
	nmunication ple drawings displaying a low standard or limited rang	ge 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					
Higł						
	annotation and detail					
Sim Rati	Suitability Simplistic designs showing outlines only Rather more detail, sensible solutions that could work Accurate solutions, good fitness for purpose, detailed construction					
(d) Eva	luation of each of the ideas. At least 3 evaluations up		(5-6)	[12]		
Sele	ection and justification. (1+1)		(2)	[8]		
(e) Qua	lity of drawing					
Poo	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					
niu	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 annotation					
Mos						
All	All constructional detail will be clear with good annotation and additional					
deta	detail drawings as necessary					
(f) Suit	able specific materials stated.		(2)			
	ropriate reasons for choice.		(2)	[4]		
			-	-		
			(1)			
(g) Suit	able method stated.		(1)			

[Total: 50]