UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

www.papacambridge.com MARK SCHEME for the May/June 2010 question paper

for the guidance of teachers

0445 DESIGN AND TECHNOLOGY

0445/12

Paper 12 (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 May/June 2010 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	~	
	IGCSE – May	/June 2010	0445	Da	
	any four additional suitab s can be seen easily, matcl		e, easy to remove,	papaCar. (1 ×	nbrio
• •	drawings of any two pro terials, rubber, foam, etc.	tection methods – sma	ll contact surfaces,	(2 × 2)	10710- [4]
rata if f	table ideas. At least thre ewer. u nication	e different ideas for m	aximum marks. Pro		
Clear o	nple drawings displaying a low standard or limited range of techniques ear drawings displaying a good standard and a range of techniques –			(0–2) (3–4)	
High qi	shading/colour/annotation etc. High quality drawings using a wide range of techniques with clear annotation and detail				
Rather	lity tic designs showing outline more detail, sensible soluti te solutions, good fitness fo	ons that could work	struction	(5–6) (0–2) (3–4) (5–6)	[12]
	ion of each of the ideas. A on and justification. (1 + 1)	-	to 2 marks each	(0–6) (2)	[8]
Poor lir Good li	o f drawing e quality, proportions, little ne work, use of colour, pro andard throughout with a	portions, some detail	nat show clearly all	(1) (2–3)	
detail Dimen	sions 2 or 3 overall dim Additional detail d			(4) (2)	
A simp	uction details istic approach showing little	e or no detail of constru		(0–2)	
annota	onstructional detail may be ion structional detail will be o			(3–4)	
detail d	rawings as necessary			(5–6)	[12]
• •	e specific materials stated riate reasons for choice.			(2) (2)	[4]
	e method stated. etailed description of: pro too	ocesses Is.		(1) (3) (2)	[6]

IGCSE – May/June 2010 0445		a .
	Da	
age 3Mark Scheme: Teachers' versionSyllabusIGCSE – May/June 20100445Accept any four additional suitable points – attract attention, minimal use of materials, easy to pack, minimal storage space, high-tech appearance, easy to see MP3, cannot see other items, etc.Accept any two access methods – tuck-in flaps, lift off top, adhesive surfaces sliding sections etc.		nbrio
Accept any two access methods – tuck-in flaps, lift off top, adhesive surfaces, sliding sections, etc.	(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	(0–2)	
Clear drawings displaying a good standard and a range of techniques – shading/colour/annotation etc.	(3–4)	
High quality drawings using a wide range of techniques with clear annotation and detail	(5–6)	
Suitability Simplistic designs showing outlines only Rather more detail, sensible solutions that could work Accurate solutions, good fitness for purpose, detailed construction	(0–2) (3–4) (5–6)	[12]
Evaluation of each of the ideas. At least 3 evaluations up to 2 marks each Selection and justification. (1 + 1)	(0–6) (2)	[8]
Quality of drawingPoor line quality, proportions, little detailGood line work, use of colour, proportions, some detailHigh standard throughout with a range of techniques that show clearly alldetailDimensions2 or 3 overall dimensions only – 1	(1) (2–3) (4)	
Additional detail dimensions – 2 Construction details	(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	(3–4)	
All constructional detail will be clear with good annotation and additional detail drawings as necessary	(5–6)	[12]
Suitable specific materials stated. Appropriate reasons for choice.		[4]
) Suitable method stated. Good detailed description of: processes tools.	(1) (3) (2)	[6]
	[Tota	

Page 4		Mark Scheme: Teachers' version Syllabus		2	r	
		IGCSE –	May/June 2010	0445	Da	
(a)			itable points – easy to opera use, appealing to child, etc.	ate, minimal space,	papaca. (1 ×2	mbrides
(b)	Accept any two types of battery – AAA, AA, C, D, PP3, disc type, etc.					Ibrids [4]
rat Cc Sir Clo sh Hių an Su Sir Ra	rata if fe		hree different ideas for ma	aximum marks. Pro		
		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				
	shading					
	and det					
		Suitability Simplistic designs showing outlines only				
	Rather	Rather more detail, sensible solutions that could work				
	Accurat	e solutions, good fitnes	ss for purpose, detailed cons	struction	(5–6)	[12]
(d)		ion of each of the idea on and justification.(1	s. At least 3 evaluations up + 1)	to 2 marks each	(0–6) (2)	[8]
(e)	Quality	of drawing				
		e quality, proportions,	little detail proportions, some detail		(1) (2–3)	
			h a range of techniques th	at show clearly all	(2-3)	
	detail	sions 2 or 3 ovorall	dimonsions only 1		(4)	
C A N		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 co	Most constructional detail may be obvious from overall views or with some annotation				
			be clear with good annotat	tion and additional	(3–4)	
	detail d	rawings as necessary.			(5–6)	[12]
(f)	Suitable	e specific materials sta	ated.		(2)	
	Approp	riate reasons for choice	Э.		(2)	[4]
(g)	Suitable	e method stated.			(1)	
-	Good d	etailed description of:	processes tools.		(3)	IEI
			10015.		(2)	[6]
					[Tota	I: 501