UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

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## 0445 DESIGN AND TECHNOLOGY

0445/01

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.

All Examiners are instructed that alternative correct answers and unexpected approaches in candidates' scripts must be given marks that fairly reflect the relevant knowledge and skills demonstrated.

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 2007 question papers for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level syllabuses and some Ordinary Level syllabuses.

Page	2	Mark Scheme	Syllabus	. Q	er
		IGCSE – May/June 2007	0445	"Day	
					an.
		<b>our</b> suitable points – stable in use, lightwei o position, hygienic, etc. (no repeats of questic	ght, easy to on).	(1x4)	10
•	•	ngs of any <b>two</b> suitable constructions – halving g, bolts, rivets, etc.	g joints, M&T	(2x2)	[4]
, F	Any suitable i Pro rata if few		marks.		
S	Simple draw echniques	ings displaying a low standard or limite	-	0-2	
s	Clear drawings displaying a good standard and a range of techniques – shading/colour/annotation etc.				
a	High quality drawings using a wide range of techniques with clear annotation and detail.				
S	Rather more	igns showing outlines only detail, sensible solutions that could work tions, good fitness for purpose, detailed const	ruction	0-2 3-4 5-6	[12]
e	each	each of the ideas. At least 3 evaluations up justification. (1+1)	o to 2 marks	0-6 2	[8]
•	<b>Quality of dr</b> Poor line qua	<b>awing</b> lity, proportions, little detail		1	
F	ligh standar	rk, use of colour, proportions, some detail d throughout with a range of techniques that	show clearly	2-3	
	all detail <b>Dimensions</b>	2 or 3 overall dimensions only – 1 Additional detail dimensions – 2		4	
	<b>Constructio</b> r		ruction to be	Z	
u	ised	ctional detail may be obvious from overall v		0-2	
A		onal detail will be clear with good annotation a	nd additional	3-4	
d	letail drawing	as necessary		5-6	[12]
•	-	<b>cific</b> materials stated. easons for choice.		2 2	[4]
<b>U</b> /	Suitable meth			1	
	Good detailed 2)	d description of process, including processes	(3) and tools	5	[6]

Paç	ge 3		Mark Scheme		Syllabus	.A.	er
			IGCSE – May/June 200	)7	0445	Day	
							an
(a)		•	suitable points – stable arry, etc. (no repeats of q	•	, lightweight,	(1x4)	nbr.
b)		-	of any <b>two</b> suitable hai rced card, etc.	ndles – string/	'cord, cutout,	(2x2)	[4]
(c)	Pro rata Commu	if fewer. Inication	At least 3 <b>different</b> idea				
	techniqu	Jes	displaying a low stan		-	0-2	
		rawings disp /colour/anno	blaying a good standard a otation etc.	and a range of	techniques –	3-4	
	High qu		ngs using a wide rang	e of technique	es with clear	5-6	
	Suitabil	lity	howing outlines only			0-2	
	Rather r	more detail,	sensible solutions that c good fitness for purpose		truction	3-4	[12]
(d)	each		of the ideas. At least 3 cation. (1+1)	evaluations u	p to 2 marks	0-6 2	[8]
(2)	Quality	of drawing					
(e)	-	-	oportions, little detail			1	
	Good lir	ne work, use	of colour, proportions, s			2-3	
	High sta all detai		ughout with a range of t	echniques that	show clearly	4	
	Dimens	ions 2	2 or 3 overall dimensions Additional detail dimensions			2	
		uction detai			ruction to be	-	
	used		-			0-2	
		onstructional	I detail may be obvious	from overall \	views or with	3-4	
		tructional de awings as r	etail will be clear with goo necessary	od annotation a	and additional	5-6	[12]
		č					• -
(f)		-	aterials stated. s for choice.			2 2	[4]
(g)			presenting fast food on skills – colour/shading			3 2	

	ge 4	Mark Scheme	Syllabus	~	er
		IGCSE – May/June 2007	0445	No.	
		• • • • • • • • • • • • • • • • • • •		1	am
(a)	•	any <b>four</b> suitable points – colourful, lightweight, s to small parts, etc. (no repeats of question)	sate, easy to	MM, Bahat (1x4)	
(b)	•	any <b>four</b> suitable methods – cams, cranks, gears reak switch, clicking on gear, etc.	s, electronic,	(2x2)	[4]
(c)	Any suitable ideas. At least 3 <b>different</b> ideas for maximum marks. Pro rata if fewer. <b>Communication</b>				
	Simple techniqu	drawings displaying a low standard or limite ues	ed range of	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.				
	<b>Suitabi</b> l Simplist			0-2 3-4	
		e solutions, good fitness for purpose, detailed const	ruction		[12]
(d)	Evaluati each	ion of each of the ideas. At least 3 evaluations up	p to 2 marks	0-6	
	Selectio	on and justification. (1+1)		2	[8]
(e)	-	of drawing		4	
	Good lir	e quality, proportions, little detail ne work, use of colour, proportions, some detail		1 2-3	
	all detai		show clearly	4	
	Dimens	Additional detail dimensions – 2		2	
	A simpl	u <b>ction details</b> istic approach showing little or no detail of constr	ruction to be	<b>-</b> -	
		onstructional detail may be obvious from overall v	views or with	0-2	
		nnotation tructional detail will be clear with good annotation a	nd additional	3-4	
	detail dr	rawings as necessary		5-6	[12]
(f)		e <b>specific</b> materials stated. riate reasons for choice.		2	[4]
	יקסיקקי			2	[ד]
(g)	Suitable	e method stated.	/a	1	
(9)	Cood	etailed description of process, including processes	(2) and table		