

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS International General Certificate of Secondary Education

MARK SCHEME for the May/June 2010 question paper

for the guidance of teachers

0445 DESIGN AND TECHNOLOGY

0445/13

Paper 13 (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	Paper	
		IGCSE –	May/June 2010	0445	13	
1 (a)	books, i	Accept any four additional suitable points – accessible, easy to remove books, match surroundings, correct height, closed to keep out dust, transparent doors etc.				[4]
(b)		Accept drawings of any two fixing methods – screws through back, brackets underneath, screw plates etc.				[4]
(c)	rata if fe Commu Simple Clear du shading High qu and det Suitabi Simplist Rather	ewer. unication drawings displaying a la rawings displaying a go /colour/annotation etc. ality drawings using a ail. lity tic designs showing ou more detail, sensible s	wide range of techniques wit	of techniques techniques – h clear annotation	(0-2) (3-4) (5-6) (0-2) (3-4) (5-6)	[12]
(d)		ion of each of the idea on and justification. (1 -	s. At least 3 evaluations up t ⊦ 1)	o 2 marks each	(0–6) (2)	[8]
(e)	Poor lin Good lin High sta detail Dimens Constru A simpli Most co annotat All cons	andard throughout with sions 2 or 3 overall d Additional deta uction details istic approach showing onstructional detail may ion	proportions, some detail a range of techniques that s imensions only – 1 il dimensions –2 l little or no detail of construct be obvious from overall view clear with good annotation a	tion to be used vs or with some	 (1) (2-3) (4) (2) (0-2) (3-4) (5-6) 	[12]
(f)		Suitable specific materials stated. Appropriate reasons for choice.		(2) (2)	[4]	
(g)		e method stated. etailed description of:	processes tools.		(1) (3) (2) [Tota]	[6] I: 50]

Page 3		je 3	Mark Scheme: Teachers' version		Syllabus	Paper		
Ĺ				IGCSE –	– May/June 2010 0445		13	
2	(a)	Accept any four additional suitable points – simple, easy to create movement, all moving parts visible, parts labelled, will not wear out etc.			(1 × 4)	[4]		
	(b)	Accept any two moving joint methods – stationary rivets, slots, round pegs, folds 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 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				(0–2)		
						(3–4)		
						(5–6)		
		Rather		sensible s	tlines only olutions that could work ss for purpose, detailed cons	struction.	(0–2) (3–4) (5–6)	[12]
	(d)		ion of each o on and justific		s. At least 3 evaluations up t + 1)	to 2 marks each.	(0–6) (2)	[8]
(e)		Quality of drawing Poor line quality, proportions, little detail Good line work, use of colour, proportions, some detail				(1) (2–3)		
		High standard throughout with a range of techniques that show clearly all detail				(2-3)		
		Dimensions 2 or 3 overall dimensions only – 1 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				(0–2)		
						(3–4)		
		All constructional detail will be clear with good annotation and additional detail drawings as necessary.			(5–6)	[12]		
	(f)		e specific ma riate reasons				(2) (2)	[4]
	(g)		e method stat etailed descri		processes tools.		(1) (3) (2)	[6]
						[Total: 50]		

Page 4		Mark Scheme: Teachers' version		Syllabus	Paper		
		IGCSE –	CSE – May/June 2010 0445		13		
3 (a)	Accept any four additional suitable points – easy to operate, stable in use, safe for child to use, appealing to child, colourful, hygienic etc.		(1 × 4)	[4]			
(b)	-	Accept any two types of movement or sound – springs, electric motors, cams, gears, sliders, ratchet etc.				[4]	
(c)	rata if fe	num marks. Pro					
	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				(0–2)		
					(3–4)		
					(5–6)		
	Rather	tic designs showing ou more detail, sensible s	tlines only olutions that could work ss for purpose, detailed cons	truction.	(0–2) (3–4) (5–6)	[12]	
(d)		ion of each of the idea on and justification. (1	s. At least 3 evaluations up t + 1)	to 2 marks each.	(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			(1) (2–3)			
	 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. 				(4)		
					(2)		
					(0–2)		
					(3–4)		
					(5–6)	[12]	
(f)	Suitable specific materials stated. Appropriate reasons for choice.			(2) (2)	[4]		
(g)	Suitable	e method stated.			(1)		
	Good d	etailed description of:	processes tools.		(3) (2)	[6]	
						[Total: 50]	