MARK SCHEME for the October/November 2011 question paper

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for the guidance of teachers

7048 CDT: DESIGN AND COMMUNICATION

7048/01

Paper 1, maximum raw mark 80

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 October/November 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 Sylla	abus	Paper
				GCE O LEVEL – October/November 2011 704	48	01
1 (;	a)	(i)	Plan Any Hexa Any Slot Hexa	view Hexagon drawn agon correct to size Slot drawn correct size and position agon and slot in correct orientation		1 1 1 1 [5]
		(ii)	Fron Fron Box Box Two Bacł Bacł	nt view t view projected from plan (candidate solution) width correct height correct inner lines in correct position c panel correct to height c panel correct width		1 1 1 1 1 1
						[6]
	(iii)	End Widt Heig Box Bacł Bacł	view h – consistent with plan (regardless of size) ht – projected from front view (regardless of size) outer correct size k panel correct height k panel correct side (check projection)		1 1 1 1 [5]
						[16]
(1	 (b) Sketched answers in reasonable proportion Six surfaces for the box Six surfaces that match the width from hex top One long glue tab to hold box together Bottom hexagon 9/10 glue tabs to hold bottom and top in place Back panel in correct position No fold lines indicated on back panel 			1 1 1 1 1 1 (7)		

Page 3	Mark Scheme: Teachers' version	Syllabus	Paper
	GCE O LEVEL – October/November 2011	7048	01
(c) (i) In T In Ic	nage of house used he word HAVEN included in the design nage and words combined (brought together) leas developed (progression)		1 1 1 1
			[4]
			[4]
(ii) F D C	inal design accurately drawn in the box esign fills the space appropriately olour used appropriately		1 1 1
			[3]
			[3]
			[30]

	Page 4		Mark Scheme: Teachers' version	Syllabus	Paper
	GCE O LEVEL – O2(a) Isometric drawing (30 degrees lego Overall height of drawing (180 mm) Overall width of drawing (120 mm) Overall depth of drawing (80 mm) Tubular frame largely the correct Two feet (2x1) Two uprights (2x1) Top Bottom rail Information board drawn Information board of correct size		GCE O LEVEL – October/November 2011	7048	01
2			netric drawing (30 degrees left and right) rall height of drawing (180 mm) rall width of drawing (120 mm) rall depth of drawing (80 mm) ular frame largely the correct size (6 mm) feet (2x1) uprights (2x1) om rail rmation board drawn rmation board of correct size 120 x 96		1 1 1 1 2 2 1 1 1
					[13]
					[13]
	(b)	Expl Hori Vert Che Plain Barr Posi Two	loded three dimensional sketch zontal section drawn ical section drawn sical section drawn square ese head bolt n shank and thread shown rel nut with threads shown itioning of the four parts to form an exploded view parts (1), three parts (2) or four parts (3)		1 1 1 1 1 3 [10]
	(c)	(i)	Clip fastens to the frame Clip holds the foam board in position Foam board easily removed from the clip Ideas developed (progression)		1 1 1 1
					[4]
		(ii)	Three dimensional sketch of the final design Function of the clip shown Colour used to show an appropriate material		1 1 1
					[3]
					[7]
					[30]

	Page	5	Mark Scheme: Teachers' version GCE O LEVEL – October/November 2011	Syllabus 7048	Paper 01
3	(a) (i)	Des Bott Top Heig Slop	ign 1 om circle 24 mm diameter circle 16 mm diameter ght to second circle – 16 ght to top point – 25 ing lines (awarded if circles incorrect)		1 1 1 1 1
					[5]
	(ii)	Des End End End Fror Fror	ign 2 view width in proportion view height in proportion view pitch in proportion at view width and height in proportion at view roof line to end view		1 1 1 1 1
					[5]
	(iii)	Des Eye Left Righ Any Cen	ign 3 line and two VP's used hand side in good proportion it hand side in good proportion sloping roof tre of roof determined & drawn to corners		1 1 1 1 1
					[5]
					[15]
	(b) (i)	ldea Suit Idea Suit	plus notes/development of waterproof able symbol that communicates waterproof plus notes/development of quick assembly able symbol that communicates quick assembly		1 1 1 1
					[4] [4]
	(ii)	At le Dev in co Dev Acco High	east two tones/colour applied to house eloped Waterproof symbol added orrect circle eloped Quick assembly symbol added eptable quality of graphic a quality graphic		1 1 1 1 1 1 1
					[6]
					[6]
					[25]

Mark Scheme: Teachers' version	Syllabus	Paper
GCE O LEVEL – October/November 2011	7048	01
JA written in capitals JA on correct surface and approximate size JA in isometric/perspective		1 1 1
		[3]
ve added to correct surface		1
r waves in reasonable proportion		1 1
		[3]
		[6]
ded horizontally into any six divisions Il divisions		1 1
ction evident		1
s projected to front view		1
		[5]
		[5]
		4
en isometric tray – sides en' isometric tray – ends		1
en' isometric tray – bottom		1
nforcing visible and tucked in		1
handle		1
e tabs visible (inside or outside)		1
		[8]
		[8]
9		1
g applied to tabs		1
5 mins – word or clock		1
ons a put in the trav		1 1
<u> </u>		[6]
		[6]
		[25]
	Mark Scheme: Teachers' version GCE O LEVEL – October/November 2011 JA written in capitals JA on correct surface and approximate size JA in isometric/perspective we added to correct surface we in the correct orientation r waves in reasonable proportion ded horizontally into any six divisions a divisions ction evident 5 vertical divisions extended accurately s projected to front view en' isometric tray – sides en' isometric tray – ends en' isometric tray – bottom netric tray in good proportions iforcing visible and tucked in handle tabs visible (inside or outside) e g applied to tabs together 5 mins – word or clock ions ig put in the tray	Mark Scheme: Teachers' version Syllabus GCE O LEVEL - October/November 2011 7048 JA written in capitals JA on correct surface and approximate size JA in isometric/perspective ve added to correct surface ein the correct orientation reversal ve added to correct surface ein the correct orientation reversal ve added to correct surface ein the correct orientation reversal ve added to correct surface ein the correct orientation reversal ve added to correct surface ein the correct orientation reversal versal divisions tivisions tivisions closed horizontally into any six divisions tivisions tivisions closed horizontally into any six divisions tivisions tivisions toring visions toring tivision extended accurately s projected to front view an' isometric tray – sides en' isometric tray – sides en' isometric tray – bottom netric tray in good proportions forcing visible and tucked in handle handle e tabs visible (inside or outside) e g gaplied to tabs together finins – wo

	Page 7	Mark Scheme: Teachers' version	Syllabus	Paper
		GCE O LEVEL – October/November 2011	7048	01
5	(a) Length directio Length directio Length directio	of line – 50mm n of line – north of line – 80mm n of line – north east of line – 40mm n of line – south		1 1 1 1 1
				[6]
				[6]
	(b) Any Sq Square Diamor Circle a Circle o DROP Correct Correct	uare correct size ad correct size and position added correct size and position added : style and size : position / spacing		1 1 1 1 1 1 [8]
	(c) Points Circle of Chord of Radius At leas At leas Cross-of Curve	T1 and T2 located on start circle livided into min 12 (half into 6) of 1/12 th outer circle stepped off six times T1/T2 drawn t four points (1) or six points (2) of T1 correctly plotted t four points (1) or six points (2) of T2 correctly plotted over of plots at quarter roll T1 joined with a smooth curve T2 joined with a smooth curve		1 1 1 2 2 1 1 1
				[11]
				[11]

[25]

Page 8		Mark Scheme: Teachers' version	Syllabus	Paper
		GCE O LEVEL – October/November 2011	7048	01
6 (a)	Pie char One/two all segm Colour u Appropri	t shown correct segments ents correct sed ate labels/key to show types of disaster		1 1 1 1 [5]
(b)	X and Y Appropri 2 points 4 points Appropri	axis evident ate scale plotted correctly and joined plotted correctly and joined ate labels to axis		1 1 1 1 [5]
(c) 3D Bar c Appropri 2 bars pl 4 bars pl Hours ar	chart (horizontal or vertical) ate scale otted correctly otted correctly nd Years to show fall in response times		1 1 1 1 [5]
(d)	Outer ell Outer ell Inner elli Construc Outline o Four box Words a Four arro	ipse drawn ipse drawn to size pse drawn pse drawn to size ction evident of outer ellipse to overlay of inner ellipse to overlay tes of approximate size and position/orientation dded – correct name and position ows of approximate size – correct position/orientation		1 1 1 1 1 1 1 1 1 1 1 1

[10]

[25]