UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS GCE Ordinary Level

MARK SCHEME for the October/November 2011 question paper 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	Syllabus	Paper
		GCE O LEVEL – October/November 2011	7048	01
1 (a) (i)	Any Hex Any Slot	Hexagon drawn agon correct to size Slot drawn correct size and position agon and slot in correct orientation		1 1 1 1
				[5]
(ii)	Fror Box Box Two Bac	nt view Int view projected from plan (candidate solution) width correct height correct inner lines in correct position k panel correct to height k panel correct width		1 1 1 1 1
				[6]
(iii)	Widt Heig Box Bac	view th – consistent with plan (regardless of size) th – projected from front view (regardless of size) outer correct size k panel correct height k panel correct side (check projection)		1 1 1 1 1 [5]
				[16]
Six Six Or Bo 9/* Ba	k surfa k surfa ne lonç ottom h 10 glue nck par	d answers in reasonable proportion lices for the box lices that match the width from hex top g glue tab to hold box together liexagon le tabs to hold bottom and top in place linel in correct position 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)	The Imag	ge of house used word HAVEN included in the design ge and words combined (brought together) s developed (progression)		1 1 1 1
				[4]
				[4]
(ii)	Desi	I design accurately drawn in the box gn fills the space appropriately ur used appropriately		1 1 1
				[3]
				[3]
				[30]

	Page 4		Mark Scheme: Teachers' version	Syllabus	Paper
			GCE O LEVEL – October/November 2011	7048	01
2	(a)	(a) Isometric drawing (30 degrees left and right) Overall height of drawing (180 mm) Overall width of drawing (120 mm) Overall depth of drawing (80 mm) Tubular frame largely the correct size (6 mm) Two feet (2x1) Two uprights (2x1) Top Bottom rail Information board drawn Information board of correct size 120 x 96			1 1 1 1 2 2 1 1 1
					[13]
					[13]
					[10]
	(b)	Horiz Vertic Vertic Chee Plain Barre Posit	oded three dimensional sketch ontal section drawn cal section drawn cal section drawn square use head bolt shank and thread shown el nut with threads shown ioning of the four parts to form an exploded view parts (1), three parts (2) or four parts (3)		1 1 1 1 1 1 3
					[10]
	(c)	(Clip fastens to the frame Clip holds the foam board in position Foam board easily removed from the clip deas developed (progression)		1 1 1
					[4]
		F	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: Teach	ers' version Syllabus	Paper
		GCE O LEVEL – October	November 2011 7048	01
3	(a) (i)	Design 1 Bottom circle 24 mm diameter Top circle 16 mm diameter Height to second circle – 16 Height to top point – 25 Sloping lines (awarded if circles inco	orrect)	1 1 1 1
	(ii)	Design 2 End view width in proportion End view height in proportion End view pitch in proportion Front view width and height in propo	rtion	[5] 1 1 1 1 [5]
	(iii)	Design 3 Eye line and two VP's used Left hand side in good proportion Right hand side in good proportion Any sloping roof Centre of roof determined & drawn t	o corners	[5] 1 1 1 1 1 [5]
				[15]
	(b) (i)	Idea plus notes/development of wate Suitable symbol that communicates Idea plus notes/development of quic Suitable symbol that communicates	waterproof k assembly	1 1 1 1 [4]
	(ii)	At least two tones/colour applied to	nouse	[4]

Developed Waterproof symbol added

Acceptable quality of graphic

Developed Quick assembly symbol added

in correct circle

High quality graphic

1

1

1

1

[6]

[6]

[25]

				GCE O LEVEL – October/November 2011	7048	01
4	(a)	(i)	AQL	JA written in capitals JA on correct surface and approximate size JA in isometric/perspective		1 1 1
						[3]
		(ii)		re added to correct surface re in the correct orientation		1 1
				waves in reasonable proportion		1
						[3]
						[6]
	(b)	Six Coi Exi	equanstruc eting	ded horizontally into any six divisions I divisions ction evident 5 vertical divisions extended accurately		1 1 1 1
		Div	isions	s projected to front view		1
						[5]
						[5]
	(c)	(i)	'Ope 'Ope Isom Rein L/H R/H	en' isometric tray – sides en' isometric tray – ends en' isometric tray – bottom netric tray in good proportions aforcing visible and tucked in handle handle e tabs visible (inside or outside)		1 1 1 1 1 1 1
						[8]
						[8]
		(ii)	Put to for 5	g applied to tabs together mins – word or clock		1 1 1 1 1
						[6]
						[6]
						[25]

Syllabus

Paper

Page 7		ge 7	Mark Scheme: Teachers' version	Syllabus	Paper
			GCE O LEVEL – October/November 2011	7048	01
5	(a)	direction Length of direction Length of	of line – 50 mm of line – north f line – 80 mm of line – north east f line – 40 mm of line – south		1 1 1 1 1
					[6]
					[6]
	(b)	Diamono Circle ad Circle co DROP ad Correct s	correct size I correct size and position Ided rrect size and position		1 1 1 1 1 1 1 [8]
	(c)	Circle div Chord of Radius T At least t At least t Cross-ov Curve T	1 and T2 located on start circle vided into min 12 (half into 6) 5 1/12 th outer circle stepped off six times 5 1/T2 drawn 5 our points (1) or six points (2) of T1 correctly plotted four points (1) or six points (2) of T2 correctly plotted ver of plots at quarter roll 1 joined with a smooth curve 2 joined with a smooth curve		1 1 1 2 2 1 1 1 [11]
					[25]

ge 8	Mark Scheme: Teachers' version	Syllabus	Paper
	GCE O LEVEL – October/November 2011	7048	01
One/two all segme Colour u	correct segments ents correct sed		1 1 1 1 1 [5]
Appropri 2 points 4 points	ate scale plotted correctly and joined plotted correctly and joined		1 1 1 1 1 [5]
Appropri 2 bars pl 4 bars pl	ate scale otted correctly otted correctly		1 1 1 1 [5]
Outer elli Inner elli Inner elli Construc Outline o Outline o Four box Words a	ipse drawn to size pse drawn pse drawn to size pse of overlay pse sof approximate size and position/orientation pse dded – correct name and position		1 1 1 1 1 1 1 [10] [10]
	Pie chart One/two all segme Colour u Appropri X and Y Appropri 2 points 4 points 4 points Appropri 2 bars pl 4 bars pl Hours ar Outer ell Inner elli Inner elli Construct Outline co Outline co Four box Words ac	U	Pie chart shown One/two correct segments all segments correct Colour used Appropriate labels/key to show types of disaster X and Y axis evident Appropriate scale 2 points plotted correctly and joined 4 points plotted correctly and joined Appropriate labels to axis 3D Bar chart (horizontal or vertical) Appropriate scale 2 bars plotted correctly 4 bars plotted correctly Hours and Years to show fall in response times Outer ellipse drawn Outer ellipse drawn to size Inner ellipse drawn to size Construction evident Outline of outer ellipse to overlay Outline of inner ellipse to overlay Outline of inner ellipse to overlay Four boxes of approximate size and position/orientation Words added – correct name and position