MARK SCHEME for the October/November 2013 series

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 should be read in conjunction with the question paper and the Principal Examiner Report for Teachers.

Cambridge will not enter into discussions about these mark schemes.

Cambridge is publishing the mark schemes for the October/November 2013 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

	Page 2			Mark Scheme	Syllabus	Paper
				GCE O LEVEL – October/November 2013	7048	01
1	(a)	(i) F		Shelf extend [1] to correct length [1] End added of correct width [1] and height [1] – igno	re position	[4]
	((ii) E	E	End width(80) and height (100) [1] End in projection from F.E. [1]		[2]
	(i	, A	Circ Any	circle added to the right [1] le of 25mm or 12.5 diameter added on centre line [1 triangle added to the left [1]	-	
		I	rıa	ngle of 25mm or 12.5 in height added on centre line	[1] correct orienta	ation [1] [5]
				e dimensions of the correct size or scale size [1] ension completed to British Standards [1]		[2]
				on symbol attempted (circles and truncated cone) [1] gle projection symbol added correctly [1]	l	[2]
		Head Shaft Shaft Large Smal Ellips	l 6(: of : sh e er l en se d	c head of any size drawn on A [1] D × 30 × 30) [1] the correct length [1] own in isometric projection [1] nd of shaft 25 round or square [1] nd of shaft 15 round or square [1] rawn from Ø25 [1] rawn from Ø15 [1]		[8]
						[0]
	(e)			ne grain added [1] grain evident [1] and face grain match [1]		[3]
	(• •		ne attempt to add tone to top [1] ded tone to side [1]		[2]
	• •			″ added in upper case [1] ″ added in isometric [1]		[2]
						[30]

Page 3		3	Mark Scheme	Syllabus	Paper	
				GCE O LEVEL – October/November 2013	7048	01
2	(a)	(i)	Oblie	que (cavalier or cabinet not necessary for the mark)		[1]
		(ii)	three Som Thic Shae	tones shown [1] e tones shown [1] le thicker lines shown [1] k lines used correctly [1] dow added outside the building block [1] the given light source with an edge [1]		[6]
	(b)	RH LH Tw 'L' a 'L' a	vertic vertic o bac addec addec	corner to VP1 [1] cal to look square [1] al to look square [1] k 'top' lines to VP1 and VP2 [1] I to one surface [1] or I as in the question [1] erspective [1]		[6]
	(c)	(i)	Idea Stac	e dimensional sketch for idea 2 <i>and</i> 3 [1] 2 k adds up to 24 building blocks (new arrangement) s that define the blocks are parallel to the outer edge		
				3 k adds up to 24 building blocks (new arrangement) s that define the blocks are parallel to the outer edge		[5]
		(ii)	Widt Heig	gth 300mm [1] h 225mm [1] ht 150mm [1] ept sizes in any order		[3]
		(iii)	Two Two One 3 glu Fold Fold	piece development consisting of 9/10 surfaces that ends 45 × 30 [1] sides 60 × 30 (or to candidate solution) [1] glue tab shown to join sides & hold the box togethe te tabs to hold the base to the sides [1] shown top flaps to sides [1] shown base and side to sides [1] base 60 × 40 or two bases 60 × 22.5 (or to cand so	r [1]]
				lines shown correct convention [1]	, L _	[9]
						[30]

	Page 4			Mark Scheme	Syllabus	Paper
				GCE O LEVEL – October/November 2013	7048	01
3	(a)	On t 10m	the gi im ra	ameter circle drawn [1] iven centre line [1] dius circle drawn (in any position) [1] t 40mm from the given centre line [1]		
		L/H	h side side ∣ side		1	[6]
	(b)			agonal cam (award mark for hexagon) [1] I cam (award mark for snail, shell or drop) [1]		[2]
			Majo Evide	e [1] e with centre off centre [1] or axis and minor axis of the correct size [1] ence of construction [1] se profile [1]		[5]
	(c)	.,	Leng Each	netric drawing [1] hth (80) [1], width (40) [1] and depth (20) [1] h angled end (30 × 15) [2 × 1] h diameter hole [1]		[7]
		. ,	Skete Hole Axle	exploded view [1] ch of body of the toy [1] shown in body [1] evident [1]		
			Two	egg shaped cams [1]		[5]
						[25]

	Page 5			Mark Scheme	Syllabus	Paper
				GCE O LEVEL – October/November 2013	7048	01
4	(a)	Circ Fac Fac Evic	le dr e div e div lence	of clock used to draw a circle (any size) [1] rawn correct PCD [1] rided into 12 parts [1] ride into 12 equally spaced parts [1] e of centre lines drawn correctly [1] ining centres drawn to convention [1]		[6]
	(b)	Refl	ectiv	encil shading (blue or grey) added to edges [1] ve effect evident on one face [1] ve effect evident on second face [1]		[3]
	(c)	(i)		our scheme includes at least two colours [1] east two key parts identified (numbers and face) [1]		[2]
		(ii)		ue reasons given (looks nice) [1] cise reason related to colour theory (such as contrastir	ng colours) [1]	[2]
	(d)	sect Bolt	tiona add	nal view shown [1] Il view includes the face and two hands [1] ed with plain shaft to hands [1] g shown alternate to parts (bolt not hatched) [1]		[4]
	(e)	Finis All b Tex Corr Fee 'yes	sh bo boxes t add rect t dbac s' and	ore boxes added [1] ox added [1] s of a consistent width with 'start' box [1] ded to boxes [1] text to all boxes [1] ck box of correct shape added in correct place [1] d 'no' lines and arrows [1] iate text [1]		[8]
		r r	1.			
						[25]

Page 6		ge 6	Mark Scheme	Syllabus	Paper
			GCE O LEVEL – October/November 2013	7048	01
5	(a)	Stencil s	of stencil [1] hown in use [1] on of how to use it [1]		
		Triangula 4 surface	ar pyramid (or tetrahedron) [1] es [1]		
		Octagon Benefit s	al [1] uch as, lasts longer, available in different colours, r	numbers can be m	noulded [1] [7]
	(b)	Three pa Six parts Colour a	awn [1] vided into six parts [1] arts correct [1] correct [1] dded to enhance the pie chart [1] dded to the pie chart (numbers 1–6) [1]		[6]
	(c)	Correct s Correct h	neight used [1] e drawn [1] size [1] [1]		[7]
	(d)	Bottom c Glue tab Truncate Glue tab	s [1] ed cone [1]		
			nd notes [1]		[5]
					[25]

	Page 7		Mark Scheme	Syllabus	Paper
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6	(a)	Three po More tha Three or MP to L Load is f	t to show the arm swinging [1] ositions for the arm drawn [1] an three [1] more positions plotted for L [1] must be consistent [1] finally positioned on the ground [1] ined together to form a smooth curve for L [1]		[7]
	(b)	Horizont Corner 8 Radius 8 Horizont R10 arc R50 arc	30 to the right of A [1] al 80 up from A [1] 30 to the left of A [1] 30 circle to top and corner 80 to left of A [1] al 30 long to bottom left [1] [1] [1] (centre parallel and arc) orrectly lined in [1]		[8]
	(c)		from internet, books or use a questionnaire (2 × 1) reasonable variations on these answers)		[2]
	(d)	Must hav Must be	rk for each specification point (3 × 1). For example: ve no sharp edges colourful/non-toxic finish ne must move smoothly		[3]
	(e)	Suitable Five equ	al and vertical axis [1] vertical scale evident [1] al width bars [1]		
		Years ple Sales ple	otted [1] otted correctly to candidate scale [1]		[5]
					[25]