
CDT: DESIGN AND COMMUNICATION

7048/01

Paper 1

October/November 2017

MARK SCHEME

Maximum Mark: 80

Published

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This document consists of **5** printed pages.

Question	Answer	Marks
A1(a)(i)	Side view P correct to format given [1] Detail for handle correct to overlay [1] Hidden detail shown by a dashed line [1]	3
A1(a)(ii)	End view Any rectangle for the handle added to the end view [1] Rectangle correct to overlay [1] Detail for handle correct to overlay [1] Hidden detail shown by a dashed line [1]	4
A1(a)(iii)	Plan view Rectangle added to the plan view correct to overlay [1] Hidden detail shown by a dashed line [1]	2
A1(b)	Any two from: Try square, set square, Rule Stencil, template Marker Pen, felt tip pen, (do not accept pencil / pen)	2
A1(c)	Some thick and thin lines added [1] Thick lines applied to the outside edges [1] Thick and thin line technique applied correctly to the hole [1]	3
A1(d)	Second large side added [1] Side the same size as that given (ignore slots) [1] Second smaller end added [1] End the same size as that given (ignore slots) [1] ----- Bottom drawn (correct size to fit inside or on the bottom of the mug) 3 · 3 blocks or 5 · 5 blocks [1] Slot or space shown for handle [1] Please note: There are a number of different positions that the parts can be placed on the grid – accept any positions as long as the parts do not overlap	6
A1(e)	Isometric drawing (30 degrees) [1] *Height of front box correct to overlay (84) [1] *Width correct to overlay (50) [1] *Depth correct to overlay (54) [1] ----- Hanging surface correct to overlay (40 · 50) [1] Hole B included in the hanging surface [1] Some inner detail added [1] Inner detail correct to overlay or candidate solution [1] * must be an isometric drawing of a cuboid	8
A1(f)(i)	Hole A is for the handle to go through [1]	1
A1(f)(ii)	Hole B is for hanging the package on a rack [1]	1

Question	Answer	Marks
B2(a)(i)	Outer rectangle correct to overlay [1] Inner rectangle correct to overlay [1] Inner rectangle in the middle of the outer rectangle [1]	3
B2(a)(ii)	Major axis 100 mm [1] Minor axis 60 mm [1] Some evidence of ellipse construction [1] Clear evidence of construction with min four points plotted [1] Five or more points plotted [1] Ellipse profile correct to overlay [1]	6
B2(a)(iii)	Any hexagon drawn [1] Any regular hexagon drawn [1] Hexagon correct to overlay [1]	3
B2(b)	Material marked out to be folded in some way [1] Foam board folded into a square shape [1] Some understanding of how to cut and fold foam board [1] Clear understanding of how the outer skin of foam board Is preserved for folding [1] One cutting tool named (for example, a Stanley knife) [1] two other pieces of equipment required to cut the foam board named (mat and safety rule) [1] Joining method named (double sided tape, PVA Epoxy PATTEX) [1]	7
B2(c)(i)	Specification points must be justified (<i>what</i> and <i>why</i>). Acceptable answers include: <i>The model must stand on a flat surface [1] so that it does not wobble in use [1]</i> <i>The model must have a flat top [1] so cups and ornaments can sit on it [1]</i> <i>The top and the bottom must be firmly joined to the base [1] so they do not fall apart in use [1]</i> <i>The base would be made of wood [1] so that it is strong enough to hold the weight of cups and ornaments [1]</i> <i>No one-word answers</i> [2 · 2]	4
B2(c)(ii)	Appropriate method [1] of evaluating a specification point [1]. For example: <i>You could check if people think it looks nice [1] by showing them a photograph of the table and getting them to fill in a questionnaire [1]</i> <i>You could check how strong it is [1] by loading it with weights until it collapses [1]</i>	2

Question	Answer	Marks
B3(a)	Some corrugations added [1] Square or sine wave corrugations added correctly [1]	2
B3(b)(i)	N, T and H added in any style [1] N, T, and H added in capital letters with thickness [1] Height of letters consistent [1] Spacing of letters to overlay or candidate solution [1]	4
B3(b)(ii)	Five more squares added [1] At least one square the correct size [1] ----- One mark for each square correct to overlay (size and position) 5 · 1 [1] [1] [1] [1]	7
B3(c)	Sketch shows a method [1] Notes or labels name a method [1] ----- Clear evidence of the joining method allowing the circle to rotate [1]	3
B3(d)	Identify the following stages: Letters drawn out on the self-adhesive vinyl <u>or</u> on a computer screen [1] Letters cut out (by hand <u>or</u> by cutter plotter) [1] Letters weeded (middle of letters removed) [1] Letters peeled off the sheet (either individually or on transfer sheet) [1] Letters applied to the sign by pressing in place [1]	5
B3(e)	Sketched and notes show: An idea for holding the sign in an upright position [1] It is unlikely to fall over (stability) [1] Idea clearly communicated by sketches [1] Notes clearly explain the idea [1]	4

Question	Answer	Marks	
B4(a)	Right side of box (a) completed and in proportion	[1]	10
	Left side of box (b) completed and in proportion	[1]	
	Inner corner (c) of box completed	[1]	

	Correct shape (d) added to the given flap	[1]	

B4(b)	Flap 2 drawn	[1]	8
	Correct to overlay	[1]	
	Flap 3 drawn	[1]	
	Correct to overlay	[1]	
	Flap 4 drawn	[1]	
	Correct to overlay	[1]	
B4(b)	Three dimensional bar chart	[1]	8
	Three bars drawn	[1]	
	Scale applied to the cost (vertical) axis	[1]	

B4(b)	One mark for correctly plotting each of the three bars against the scale	[1] + [1] + [1]	8
	Appropriate colour / shading added	[1]	
	Appropriate labels added	[1]	
B4(c)(i)	Reasons must include an explanation. e.g. More material used (1) and materials are expensive (1) Made from different materials (1) costs of materials vary (1) Different construction methods used [1] and in some cases this might involve expensive adhesives (1)	[1] + [1] [1] + [1]	4
B4(c)(ii)	Example given of the use of colour in packaging (red lettering)	[1]	3
	Appropriate example of the use of colour in packaging (red for a warning sign)	[1]	
	Reason why the use of colour is important (the colour stands out)	[1]	