CAMBRIDGE INTERNATIONAL EXAMINATIONS

Cambridge International General Certificate of Secondary Education

MARK SCHEME for the October/November 2015 series

0445 DESIGN AND TECHNOLOGY

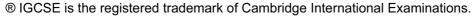
0445/22 Paper 2 (Graphic Products), maximum raw mark 50

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 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 2015 series for most Cambridge IGCSE[®], Cambridge International A and AS Level components and some Cambridge O Level components.





Pá	age 2		Syllabus	Paper	
		Cambridge IGCSE – October/November 2015	0445	22	
A 1	(a)	Isometric drawing (1) Block 60 mm square (1) and 20 mm high (1) 30 mm square in centre position (overlay or candidate solution) (1) Square 15 mm vertically above (overlay or candidate solution) (1) Tapered sides to O/L (1) Circle added (1) Isometric circle (could be freehand) (1) Isometric circle correct to overlay (1)		[9]	
	(b)	Two vertical lines added (corners of switch) (1) Curved line to front bottom of switch (1)		[2]	
A2	Material Styrofoam (award mark for naming another specific material such as MDF, card etc., no marks for generic terms) (1)				
	(On	e mark for each acceptable answer that relates to the specific material r Styrofoam: easy to shape (1) accepts a paint finish (1)	named) (1 × :	2)	
А3	(a)	Front view Top and R/H vertical lines added (1) Right half of tab completed (1)			
		Plan Horizontal and vertical line to overlay (1) Circle evident in hidden detail in plan (1)		[4]	

(b) Four connected surfaces drawn (1) End surface the largest and the smallest surface two away from largest (1)

Glue tab added to correct end (1)

All fold lines shown by dashed lines or labels (1)

Hole evident on the correct surface (next to the largest surface) (1)

*ignore the slot and accept answers drawn either way around

(c) One mark for stating a reason or identifying a feature (1)

One mark for explaining why it is considered environmentally friendly (1) For example:

- The package is made from recycled / unbleached card (1) so trees do not need to be cut down (1)
- The ends have been left open (1) so the minimum amount of card is used (1)
- Using vegetable based ink (1) reduces use of crude oil/fossil fuels (1)

[Total 25]

[max 2]

[5]

Pa	Page 3		Mark Scheme	Syllabus	Paper
			Cambridge IGCSE – October/November 2015	0445	22
В4	(a)	To	rtical line drawn to show back edge of left end (1) p of left end drawn to VP1 (1) o uprights for right end completed (1)		
		To _l Bo	p inner edge of right end drawn to VP1 (1) ttom inner edge of right end drawn to VP1 (1) her back vertical (1), correct height (1) p edge of back drawn to VP2 (1)		
		Bo	erall drawing in good proportion and correctly lined in (1)		[10]
	(b)	Gra Sid	lour added to surfaces (brown/yellow) (1) ain shown on the top surface (1) le grain matches top surface (correct direction) (1) d grain matches the side grain (1)		[/1]
			u grain matches the side grain (1)		[4]
	(c)	De Ор	r example: sign en a programme such as Word (1)		
		Туј	lect a font (1) with an outline profile (1) pe in the letters (1) just to the correct size (1)		[5]
		Loa Se	anufacture ad vinyl in to the plotter cutter (1) nd design to plotter cutter (1) ife cuts out the shape (1)		[3]
			ply ed transfer film to lift design from vinyl sheet (1)/weeding (1)		
	S		el-off transfer film (1)		[max 3]
		*hand methods of cutting out of letters are likely to be restricted to 5 m size, cut out, peel-off backing and stick in place)			
					[Total 25]
B5	(a)	(i)	Major axis 66 mm (1) Minor axis 40 mm (1) Some construction (1) or clear construction (2) Six or less points plotted (1) or seven or more points plotted (2) (Trammel evident or attached if used) Ellipse profile correct to overlay (1) Ellipse in the correct orientation (1)		[max 8]
		(ii)	Any N and E added (1) N <u>or</u> E added in the same style as given letters (1) N and E to the correct height and with appropriate spacing (1)		[3]

Mark Scheme

Syllabus

Paper

[3]

Page 3

N and E to the correct height and with appropriate spacing (1)

Page 4	Mark Scheme	Syllabus	Paper
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(b) High (1) Density (1)

AND

One mark for identifying the 'information' in a drawing and two marks for explaining why it is included on the bottle. For example:

- A bar code (1) is added so that the product can be scanned at the till to find out the price (1) stock control (1)
- The contents are included (1) so that people can check there is nothing they are allergic to (1) and can use it safely (1)
- Manufacturer's name (1) is included so you remember the product (1) and buy the same again (1)
- Volume or weight (1) to give customer information on contents (1) and value (1)

Other answers might refer to quantity, expiry date or health and safety. [max 8]

(c) Three bars drawn (1)
Scale used on the vertical axis (1)
Labels used on the horizontal axis (1)
One or two bars plotted correctly (1), or three bars plotted correctly (2)
Appropriate colour used to enhance the illustration (1)

[max 6]

[Total 25]