



DESIGN AND TECHNOLOGY

0445/22

Paper 2 Graphic Products

May/June 2016

MARK SCHEME

Maximum Mark: 50

Published

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Page 2	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0445	22

Section A

- A1 (a)** Right base added [1]
Triangle added [1]
Triangle in correct orientation [1]
Right triangle correct to overlay [1]
Top right glue tab added [1]
Left bottom glue tab added [1]
Left side glue tab added [1]
All fold lines and cut lines correctly shown [1] **[8]**
- A2 (a)** Top right side line draw at 60 degrees (joins two given points) [1]
Top horizontal line extended [1]
Top horizontal line extended to the correct length [1]
Top left line at 60 degrees [1]
Bottom left line at 60 degrees [1] **[5]**
- (b)** Notes or labels indicate the text is raised or indented [1]
Sketch shows the text is raised or indented [1] **[2]**
- A3 (a)** Some grain added to the top and sides [1]
End grain added (annual rings) [1]
Rendering with side and end grain matching [1] **[3]**
- (b)** Right half of base correct to overlay [1]
Right half of top correct to overlay [1]
Line across the top of the recess [1]
Some hatching [1]
Sectional view hatched correctly [1] **[5]**
- (c)** The sides are angled so that the vacuum forming [1] can easily
be removed from the former [1] **[2]**
- [Total: 25]**

Page 3	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0445	22

Section B

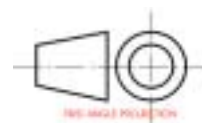
B4 (a) (i) Front view

- Outer edge of left side added [1]
- Inner edge of left side added [1]
- Top completed [1]
- Horizontal line shows top edge of seat in projection [1]
- Horizontal line shows bottom edge of seat to candidate's soln [1] [5]

(ii) Plan

- Left inner vertical line added [1]
- Inner edge of back of seat shown [1]
- Line shows front of seat [1]
- Two part lines show angle of top on sides [1] [4]

- (iii) Two concentric circles drawn [1]
 Truncated cone drawn [1]
 Truncated cone and circles in correct orientation for first angle projection [1] [3]



- (b) No. of sides 2 [1]
 Seat and back [1]
 Length of seat between 170 and 190 [1]
 No. of (1) seats and back [1] [4]

(c) Sketches and/or notes show:

Marking out

- Use of a pencil/pen [1] & ruler/template/set square /try square [1] [2]

Cutting

- Use of a craft knife [1], safety/steel rule [1] and cutting mat [1] [3]

Folding

- Part of foam board removed [1] and understanding of 45 degree v cut [1]
- or
- Cut through the top layer or paper and foam [1] and back layer of paper used as a hinge [1] [2]
- Or
- Part of foam board removed [1] and understanding of Slot and tennon [1]

Joining

- Method – glue or joint [1] accept Glue Gun
- Explanation – PVA or housing joint [1]

[Total: 25]

Page 4	Mark Scheme	Syllabus	Paper
	Cambridge IGCSE – May/June 2016	0445	22

- B5 (a)** The paper band can be drawn in any orientation.
 Bottom surface drawn in isometric (any size) [1]
 Bottom surface correct to overlay (100mm x 30mm) [1]
 Right end surface drawn in isometric (any size) [1]
 Right end surface correct to overlay (25mm x 30mm) [1]
 Top surface drawn in isometric (any size) [1]
 Top surface correct to overlay (100mm x 30mm) [1]
 Left end surface drawn in isometric (any size) [1]
 Left end surface correct to overlay (25mm x 30mm) [1]
 Joining tab (over or under) [1]
 Drawing shown open not closed box [1] **[10]**
- (b)** Sketches and or notes show:
 The method is non-permanent (slots but will not hold) [1]
 The method will not easily pull apart [1]
 Sketches and notes show method clearly [1] **[3]**
- (c)** *Left side of top*
 Top and bottom lines extended to the left [1]
 45 degree line added to the left [1]
 Left side of top correct to overlay (matches right side) [1]
 Left end drawn at right angles to top [1]
 Left end correct to overlay [1]
Right side (bottom)
 Bottom at right angles to top [1]
 Ends of bottom evident [1]
 Method of joining shown [1] **[8]**
- (d)** CAD
 Understanding that the term refers to design [1]
 Brief description of how the band could be designed on a computer [1] *For example, Open a programme [1] and draw design on the screen [1].* **[2]**
- CAM
 Understanding that the term refers to make [1]
 Brief description of how the band could be made on a computer [1] *For example, Send the drawing to a plotter cutter [1] and it will cut out the design [1].* **[2]**
- [Total: 25]**