

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

**MARK SCHEME for the May/June 2011 question paper  
for the guidance of teachers**

**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.

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**A1 (a)** Any right-angled triangle (1)  
80 x 80 (1) [2]

**(b)** Any quadrant (1)  
R40 (1)  
Two missing lines from hull (1+1) (2) [4]

**(c)** Any half octagon (1)  
Half regular octagon (1)  
90 A/F (1) [3]

**[Total: 9]**

**A2 (a)** Missing line (1) [1]

**(b)** Accuracy and proportion of:  
R (2)  
E (1)  
Spacing (1)  
Height (1) [5]

**[Total: 6]**

**A3 (a)** 60 & 40 of rectangular upright (2)  
Height of rectangular upright 100 (1)  
15 SQ hole on correct face (1)  
Ø80 two circles (2)  
50 high on Ø or crate (1) [7]

**(b)** Thin line front edge (1)  
Thick line outer edge (1)  
Thick / thin on square hole (1) [3]

**[Total: 10]**

**B4 (a)** *Development*  
Six connected surfaces (1)  
5 extra surfaces to O/L tolerance +/-5mm on 54 slope to lid allow for error c/f (5)  
Two further glue tabs (any base position) (2)  
Glue tabs correct width (1)  
Glue tabs with angled ends (1)  
One glue tab on (sloping) side (1)  
3 fold in flaps with radius (3)  
Fold lines (4 x 1) (4)  
Coin slot correct size (1)  
Coin slot on lid (1)  
Coin slot correct orientation (1) [21]

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- (b) Sketch: – suitable method  
Slot on lid / extra tab etc Pr 0-2 (2)

Notes:

Evident (1)

Good (1)

[4]

**[Total: 25]**

**B5 (a) Flat View**

Outer rectangle 240 length + 120 width (1)

Mast correct 10 wide (1)

Mast correct position 140 from RHS (1)

Mast protruding (1)

'Burgee':

80 tall (1)

40 x 80 rectangle to R of mast (1)

20 x 80 rectangle to L of mast (1)

semi-circle R30 on centre line (1)

2 fold lines shown (2x1) (2)

Two 'wings' 50 long (2x1) (2)

Semi-ellipse:

Major axis 100 (50 shown) (1)

Minor axis 80 (1)

On centre lines given (1)

Construction Pr 0-2 (2)

Accurate outline to construction (1)

[18]

**(b) Plan view**

Bends at correct position (2x1) (2)

Triangle 70 x 70 x 100 shown (1)

[3]

**(c) Joining**

Tabs / slots etc. Pr 0-2 (2)

Notes Pr 0-2 (2)

[4]

**[Total: 25]**