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

## 0445 DESIGN AND TECHNOLOGY

0445/21 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)
$80 \times 80$ (1)
[2]
(b) Any quadrant (1)

R40 (1)
Two missing lines from hull (1+1) (2)
(c) Any half octagon (1)

Half regular octagon (1)
90 A/F (1)

A2 (a) Missing line (1)
(b) Accuracy and proportion of:
$\mathbf{R}$ (2)
E (1)
Spacing (1)
Height (1)

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 $\varnothing$ or crate (1)
(b) Thin line front edge (1)

Thick line outer edge (1)
Thick / thin on square hole (1)
[Total: 10]

B4 (a) Development
Six connected surfaces (1)
5 extra surfaces to O/L tolerance $+/-5 \mathrm{~mm}$ 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 ( $4 \times 1$ ) (4)
Coin slot correct size (1)
Coin slot on lid (1)
Coin slot correct orientation (1)

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(b) Sketch: - suitable method

Slot on lid / extra tab etc Pr 0-2 (2)
Notes:
Evident (1)
Good (1)

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)
$40 \times 80$ rectangle to $R$ of mast (1)
$20 \times 80$ 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)
(b) Plan view

Bends at correct position (2×1) (2)
Triangle $70 \times 70 \times 100$ shown (1)
(c) Joining

Tabs / slots etc. $\operatorname{Pr}$ 0-2 (2)
Notes Pr 0-2 (2)
[Total: 25]

