CAMBRIDGE INTERNATIONAL EXAMINATIONS

International General Certificate of Secondary Education

MARK SCHEME for the October/November 2012 series

0445 DESIGN AND TECHNOLOGY

0445/23 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.

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Cambridge is publishing the mark schemes for the October/November 2012 series for most IGCSE, GCE Advanced Level and Advanced Subsidiary Level components and some Ordinary Level components.

A1 (a) *Part octagon*
Length of one side (1)
45° line (1)
Part octagon shape (any size) (1)
Regular part octagon (1)
Straight line connecting part octagons (1) [5]

(b) *Cup*
Top (1)
Bottom (1)
Side (1) [3]

(c) Semi-circle to fit (1) [1]

[Total: 9]

A2 (a) Accuracy and proportion of
A (1)
U (1)
Spacing (1)
Height (1) [4]

(b) Border evident (1)
Symmetrical (1) [2]

[Total: 6]

A3 (a) Hexagon drawn pictorially (1)
Hexagon is isometric to O/L (1)
Depth of hexagon box correct to O/L (1) [3]

(b) Width of Burger 54 (1)1
Semi-circle plots evident (1)
Semi-circle drawn to O/L (1)
Burger filling 8 thick (1)
Burger bun (lower part) 54 x 8 (1) [5]

(c) Slot on top face (1)
slot 25 x 4 or greater (1) [2]

[Total: 10]

B4 (a) *F.E.*
Width 122 (61) (1)
Height of container 80 (40) (1)
Handle 110 (55) above container (1)
Finger slot correct size 78 x 20 (39 x 10) (1)
Two tapered sides 2 x 1 (2)
Tenon of divider (1) [7]

(b) *Plan*
External square 122 x 122 (61 x 61) (1)
Four spaces evident (1)
Four spaces 52 x 52 (26 x 26) (1)
Card walls shown 3 mm thick (1)
Hidden detail to show finger hole (1) [5]

(c) *E.E.*
Width 122 (61) (1)
Height projected from F.E. (to cand soln) (1)
Handle projected from F.E. (to cand soln) (1)
Hidden detail to finger slot (1) [4]

(d) *Drink Bottle*
Two concentric circles evident (1)
Ø26 circle in location **D** on plan (1)
Ø10 circle in location **D** on plan (1)
Ø26 – 100 mm (50) high on F.E. (1)
angle Ø26 to Ø10 on F.E. (1)
Ø10 to 75 high on F.E. (1)
Candidate solution projected to E.E. (1)
Hidden detail of bottle shape on F.E. (1)
Hidden detail of bottle shape on E.E. (1) [9]

[Total: 25]

B5 (a) 5 main panels (1)
Centre panel 100 wide (1)

Base 40 deep (1)
Two flaps to base min 10 wide (2 x 1) (2)   [3]

Back 120 tall rectangle (1)
Lettering wings (2 x 1) (2)
OUT added to R/H wing (1)   [4]

Ellipse shape evident (1)
Minor axis 50 (25 to scale) (1)
Some evidence of construction (1)
Correct construction shown (1)
Profile to candidate plots (1)   [5]

Two sides 40 x 70 (2 x 1) (2)
Two flaps added to 70 long (2 x 1) (2)
4 x main fold lines correctly shown (4 x 1) (4)   [8]

(b) Tab evident (1)
Slot evident (1)
Locking possible? (1)   [3]

[Total: 25]