Cambridge IGCSE

Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

DESIGN AND TECHNOLOGY **0445/02**
Paper 2 Graphic Products **For Examination from 2015**
SPECIMEN MARK SCHEME **1 hour**

MAXIMUM MARK: 50

This document consists of **4** printed pages.

CAMBRIDGE International Examinations

A1 **(a)** *Octagon*

Constructional square 80 A/F	(2)	
Centre determined	(1)	
Arcs drawn	(1)	
Side drawn to arc/square plot	(1)	**[5]**

(b) *Semi-circle*

Semi-circle to length of side	(1)	**[1]**

(c) *Triangles*

Two triangles equilateral	(2)	**[2]**

[Total: 8]

A2 **(a)** *lettering*

Accuracy and proportion of:		
K	(1)	
Spacing	(1)	
Height	(1)	**[3]**
border		
horizontal	(1)	
Repeat angle	(1)	**[2]**

(b) **(i)** digital camera / scanner (1) **[1]**

(ii) readily retrieved, can be scaled up/down
printed out when needed (1) **[1]**

[Total: 7]

A3 **(a)**

Isometric rectangular base	(2)	
Top rectangle 40 tall	(1)	
In line with base	(1)	
Central pillar 20 × 30	(1)	
Semi – octagon top evident	(1)	
Construction of octagon evident	(1)	**[7]**

(b) Pencil tone to rectangle (1) **[1]**

(c) **(i)** the first trial version (1) **[1]**

(ii) hot wire cutter (1) **[1]**

[Total: 10]

B4 **(a)** *Development*

Extra sides (7) shown in correct position	(7)	
2 side flaps	(1)	
Radius on side flap	(1)	
Side flaps 45 long	(1)	
Tuck-in flap 10	(1)	
Tuck-in flaps angled	(1)	**[12]**

(b) *Arrow-tabs*

Symmetrical (1) Stand off (1) Neck (1)	(3)	
Slot size to match neck	(1)	
Min 4 arrow-tabs shown 4 × 1	(4)	**[8]**

(c) **(i)** Die stamping / punching (1) **[1]**

(ii) creasing (1) **[1]**

(d) three (3) (1) **[1]**

(e) Halving slots or similar 0–2 PR
(repeat of arrow tab/slot = 0) (2) **[2]**

[Total: 25]

B5 **(a)** *Front view*

Depth of top 40	(1)	
2 mm thickness to top surface & base	(1)	
2 mm thickness to sides	(1)	**[3]**

(b) *Hole positions and cone **C***

Centre line at 50 horizontally	(1)	
Centre of one hole 50 in from RHS	(1)	
Centre of one hole 50 in from LHS	(1)	
Centre line projected to F.E.	(1)	
Cone in position C on PLAN	(1)	
Ø80 circle representing top of cone	(1)	**[6]**

(c)

Ø10 evident in base on FE	(1)	
60° included angle drawn	(1)	
60° included angle drawn through Ø10	(1)	
Ø80 projected from plan 2 × 1	(2)	
Cone complete (2 × sides = 2) (top = 1)	(3)	
Centre line evident	(1)	**[9]**

(d) Hole size Ø56 +/–2 mm (1)
In remaining position (1)
Evidence of projection 0–2 pr (2) **[4]**

(e) *Use of:* Compass/circle cutter
Plotter cutter, single hole punch (2) **[2]**

(f) *Use of:* die stamping/cutting machine (1) **[1]**

[Total: 25]