

**MARK SCHEME for the May/June 2010 question paper
for the guidance of teachers**

0445 DESIGN AND TECHNOLOGY

0445/22

Paper 22 (Graphic Products), maximum raw mark 50

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Page 2	Mark Scheme: Teachers' version	Syllabus
	IGCSE – May/June 2010	0445

- A1** Rectangular body 50 × 80 (2)
 Radius to top corners (1)
 R10 radius (1)
 Square column 20 side (1)
 Hexagonal top [any size/irregular] (1)
 Hexagonal top 30 side regular (1)
 Second pump handle (1)
 2 triangles 45° × 90° (1)

[9]

[Total: 9]

A2 Accuracy and proportion of:

- T (1)
- I (1)
- O (1)
- N (1)
- Spacing (1)
- Height (1)

[6]

[Total: 6]

A3 (a) Development [net]

- 4 sides (1)
- 88 × 54 rectangle (1)
- 2 semi-circles R27 (2)
- 2 semi-circles R44 (2)

[6]

(b) Plan

- Correct end folded next (1)
- Top folded down last (1)
- Slot determined (1)
- Straight line slot drawn to size (1)

[4]

[Total: 10]

B4 (a) Division by construction [evident] (2)

- Verticals 93/94 spacing (1)

[3]

(b) 75 × 70 rectangle (2)

- Ø20 for head and body (2)
- Body correct height 35 (1)
- Ø8 on hand [1] correct position [1] (2 × 1)
- Shoulder position (1)
- Arm [two parts at an angle] (2)
- Pump same height as man (1)
- Hexagon top to pump (2)
- Pump handle (1)
- Pump handle aligned with hand (1)

[15]

Page 3	Mark Scheme: Teachers' version	Syllabus
	IGCSE – May/June 2010	0445

- (c) (i) Suitable chart/graph type 0–2 (2)
 Data represented accurately 0–2 (2)
- (ii) Suitable chart/graph type 0–2 (2)
 Data represented correctly (1) [3]

[Total: 25]

- B5 (a) (i) Front View**
 Length of stand 150 (1)
 Height of stand 20 (1)
 Top of stand to C Line of Ellipse 32 +/-2 (1)
 Major axis correct size 40 (1)
 Minor axis correct size 24 (half12) (1)
 Construction for ellipse (0–2pr) (2)
 Curve line quality (0–2pr) (2)
 Car body 24 high +/-2 (1)
 Rear tail in line with end of stand (1)
 Tail fin R30 (1)
 R 20 to horizontal evident (1) [13]

- (ii) *Plan*
 In projection from *Front View* (1)
 Width of stand 60 (1)
 Thickness of foamboard 2mm (1)
 Wing 20 wide each side (1)
 Wing 70 from nose (1)
 2 Wings 30 long (1+1) (2) [7]

- (b) *Symbol*
 Symbol matching projection (1)
 Quality drawing (1) [2]

- (c) *Joint at A*
 Slot (1)
 Shouldered tab (0–2 pr) (2) [3]

[Total: 25]