Specimen for 2007

International General Certificate of Secondary Education

MARK SCHEME

MAXIMUM MARK: 75

SYLLABUS/COMPONENT: 0445/02

DESIGN AND TECHNOLOGY

Communication



A 1.	. Hexagonal hole 30 side Diamond hole 50 x 60 Equilateral triangle hole 50 side Semi-circular hole Ø60 Rectangular hole 50 x 40			
A2.	Accu K I N G Heig Space		1 1 1 1 1	6
А3	(i)	Width Overall Height Height to top of shoulder 30 x 5 recess R15 curve Thickness on curve	1 1 1 1 1	6
	(ii)	Thick line applied: All outside edges (Pr 1-2) Top edge of 30 x 5 recess Back shoulder	2 1 1	4
В4	(a)	Wheel:		25
	()	width height angle ends position	1 1 1 1	5
	(b)	semi-octagon: length of side 48 / 50 +/- 2mm construction 1 + 1 accuracy of semi-octagon	1 2 2	5
	(c)	semi-ellipse: correct orientation suitable construction 1 + 1 accuracy of construction outline (constructed)	1 2 1 1	5
	(d)	Two inner arcs:		
		joins to semi-circle construction 1 + 1 R55 accurate line (even if not constructed)	1 2 1 1	5

	(e)	construction evident overall height of rectangle triangle added circle touching sides	2 1 1 1	5
В5	(a)	EV		25
		1 st angle projection in line from plan overall height angle of top position of slot size of slot	1 1 1 1 1	6
		PLAN		
		pentagon correct size orientation accuracy (Pr 1-2)	1 1 2	4
	(b)	Development Top:		
		T/L of top taken from EV projection width accuracy (Pr 1-2)	1 1 1 2	5
		Development sides:		
		two long sides (2 x 1) two short sides (2 x 1) slot position slot size	2 2 1 1	6
	(c)	sketch of support		
		looks like a pentagon satisfies brief has fold down flaps quality of sketch (0 - 1)	1 1 1	4

4

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The following worked answers represent a typical candidate answer giving the style of response expected to gain full marks and not necessarily a 100% perfect answer.

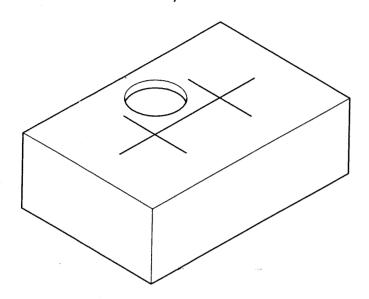
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Section A

Answer all questions in this section.

A1 A child's shape sorter box is shown below with one of the six shape holes drawn in position.

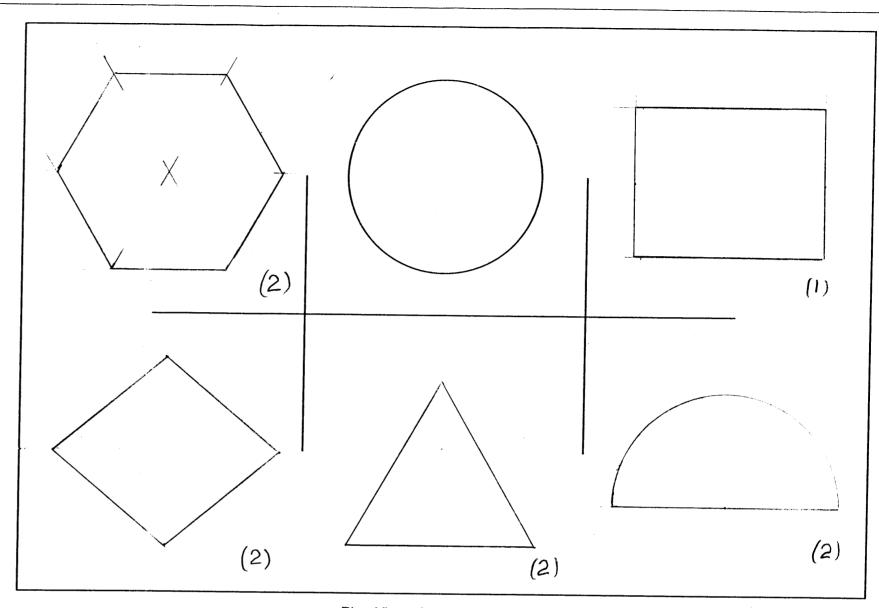
The full-size plan view of the shape sorter box, with one shape completed, is drawn to the right.



Complete the full-size plan view of the shape sorter box by drawing in the spaces provided:

- a regular hexagon side 30;
- a diamond 50 x 60 diagonals;
- a rectangle hole 50 x 40;
- a semi-circle Ø60;
- an equilateral triangle side 50.

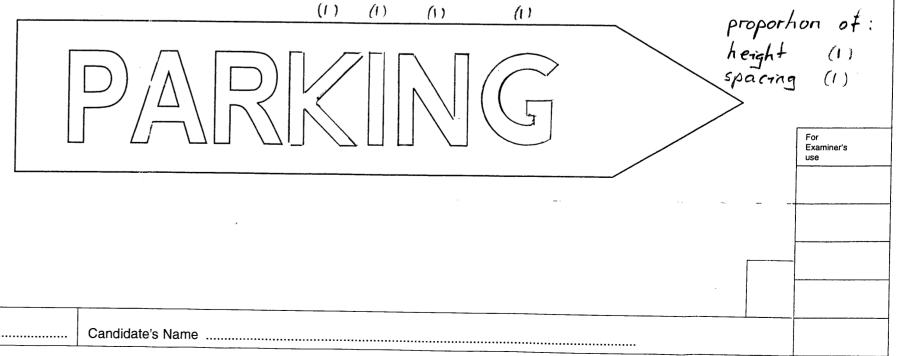
[9]



Plan View of shape sorter box

A2 An incomplete road sign for PARKING is drawn to the right.

Complete the road sign by adding the four remaining letters. All the letters must be the same height and style as those given.



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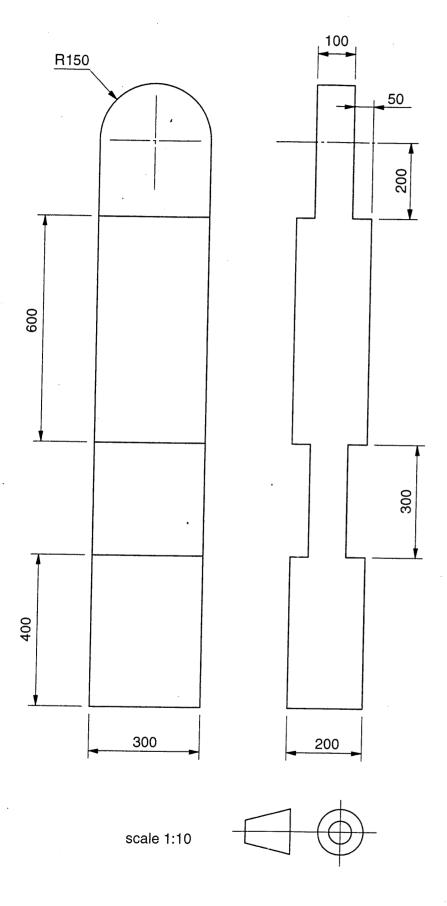
Worked Answers for **0446/02** Specimen Paper 2007 **1 hour**

SJF3907/CG T01801/2

Centre Number

Candidate's Number

Sheet 1 of 2 [Turn over

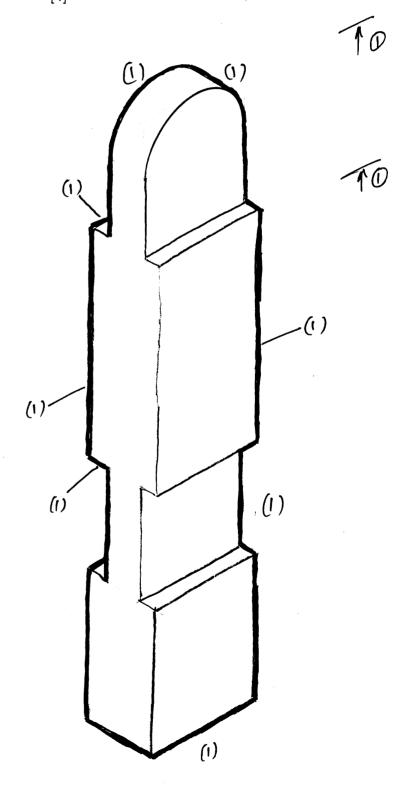


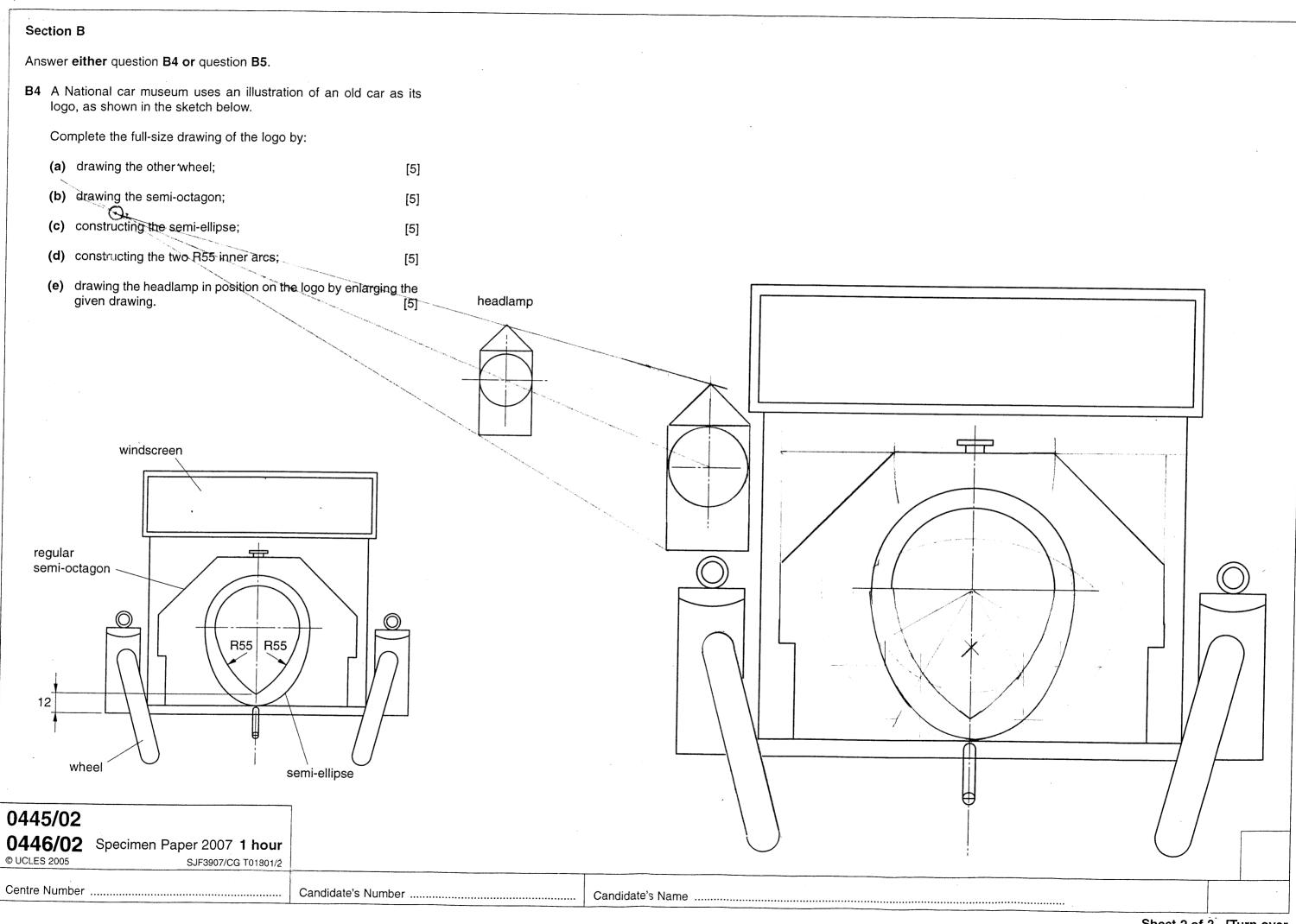
A3 A support post for a temporary barrier is drawn to a scale of 1:10 in the orthographic views given to the left.

In the space given to the right:

- (a) Sketch freehand, an isometric view of the support post. The sketch should be to the same scale and all sizes should be taken from the given orthographic views. [6]
- (b) Apply the thick and thin line technique to enhance your isometric sketch. [4]

Isometric sketch





Answer either question **B4** or question **B5**.

B5 The sketch below shows a thin card packaging for a cosmetic product. The packaging has a window so that customers can see the product.

In the spaces indicated:

- (a) draw to a scale of 1:2 in first angle orthographic projection, the view **EV** and the **PLAN** of the dispenser. [10]
- (b) construct, to the same scale, a one-piece development of the packaging. Do not draw the base or any gluing or other flaps.Ignore the thickness of the card. [11]
- (c) sketch a simple support, also made from thin card, which will be inserted in the packaging so that the base of the cosmetic product will be level with the edge T. [4]

