



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

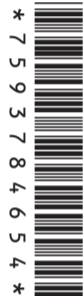
CANDIDATE  
NAME

CENTRE  
NUMBER

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CANDIDATE  
NUMBER

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**DESIGN AND TECHNOLOGY**

**0445/02**

Paper 2 Graphic Products

**May/June 2007**

**1 hour**

Candidates answer on the two inserted Answer Sheets.

Additional Materials: Standard drawing equipment

**To be taken together with Paper 1 in one session of 2 hours and 15 minutes.**

**READ THESE INSTRUCTIONS FIRST**

Write your Centre number, candidate number and name in the spaces at the top of this page and the two Answer Sheets.

Do not use staples, paper clips, highlighters, glue or correction fluid.  
DO **NOT** WRITE IN ANY BARCODES.

**Section A**

Answer all questions in this section (A1, A2 and A3).

**Section B**

Answer one question in this section (B4 or B5).

You may use a calculator.

Draw your answers in the spaces provided on the answer sheets.  
All construction and projection lines must be clearly shown.  
All dimensions are in millimetres.

At the end of the examination, insert both sheets into this booklet.  
The total of the marks for this paper is 50.  
The number of marks is given in brackets [ ] at the end of each question or part question.

This document consists of an A3 cover booklet and 2 inserted A3 sheets.



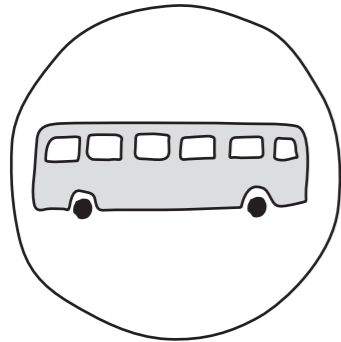
**Section A**

Answer **all** questions in this section.

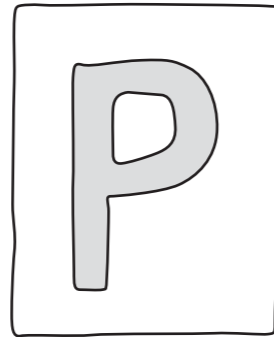
**A1** The five sketches below show road and information signs used in a theme park.

(i) Use instruments to draw the outline shapes in the boxes below. [5]

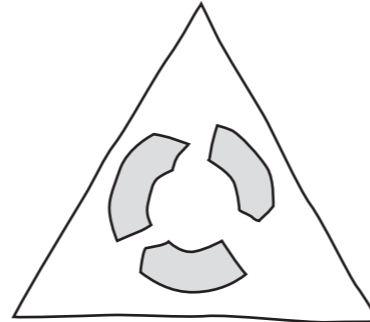
(ii) Add below each sign the name of the outline shape drawn. [4]  
One name has been written in.



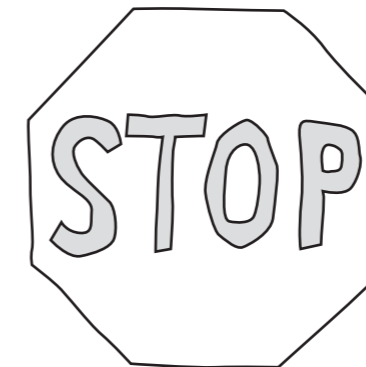
Ø46



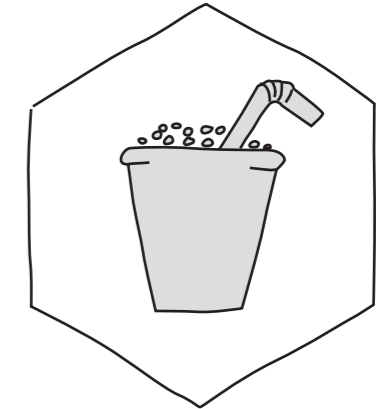
35 45



52 SIDE



22 SIDE



30 SIDE

octagon

**A2** An incomplete direction sign for 'TOILETS' is drawn to the right.

Complete the direction sign by adding the four remaining letters.

All the letters must be the same height, spacing and style as those given. [6]



For  
Examiner's  
use


**0445/02** May/June 2007 1 hour  
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Centre Number .....

Candidate's Number .....

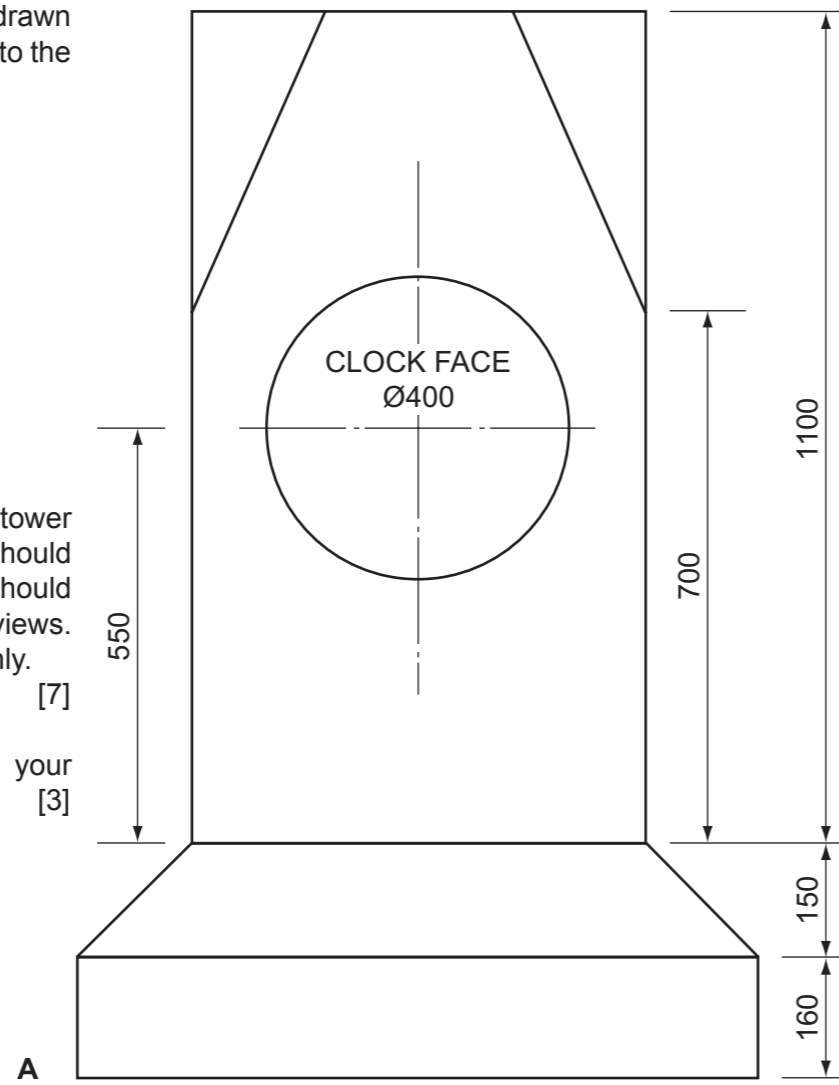
Candidate's Surname .....

Other Names ..... **[Turn over]**

**A3** A clock tower for a children's theme park is drawn to a scale of 1:10 in the orthographic views to the right.

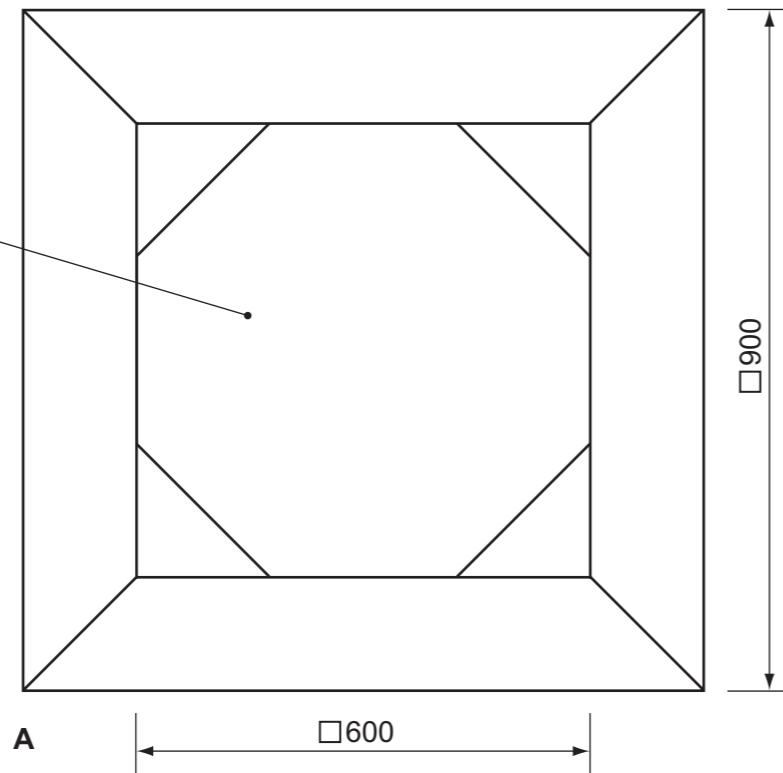
(a) Draw an isometric view of the clock tower in the space indicated. The drawing should be to the same scale and all sizes should be taken from the given orthographic views. The clock face appears on one side only. [7]

(b) Apply pencil shading to enhance your isometric drawing. [3]



Regular Octagon 600 A/F

Scale 1:10



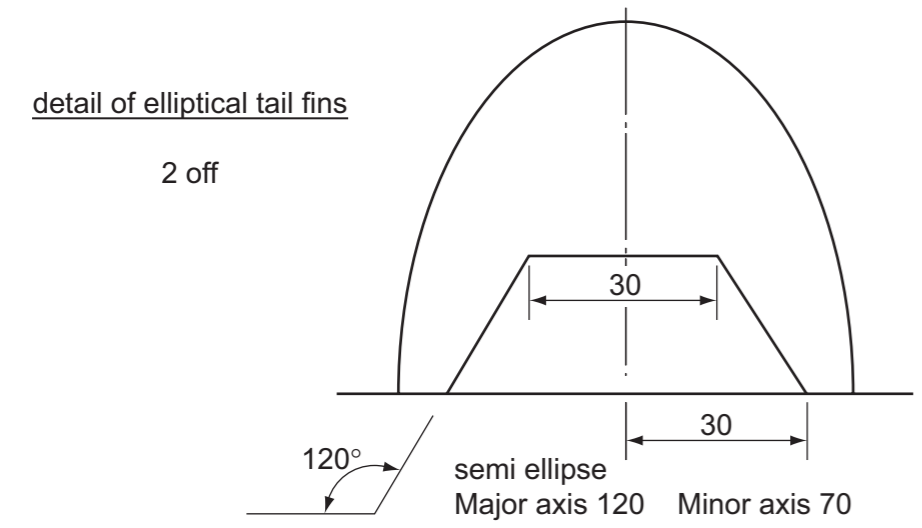
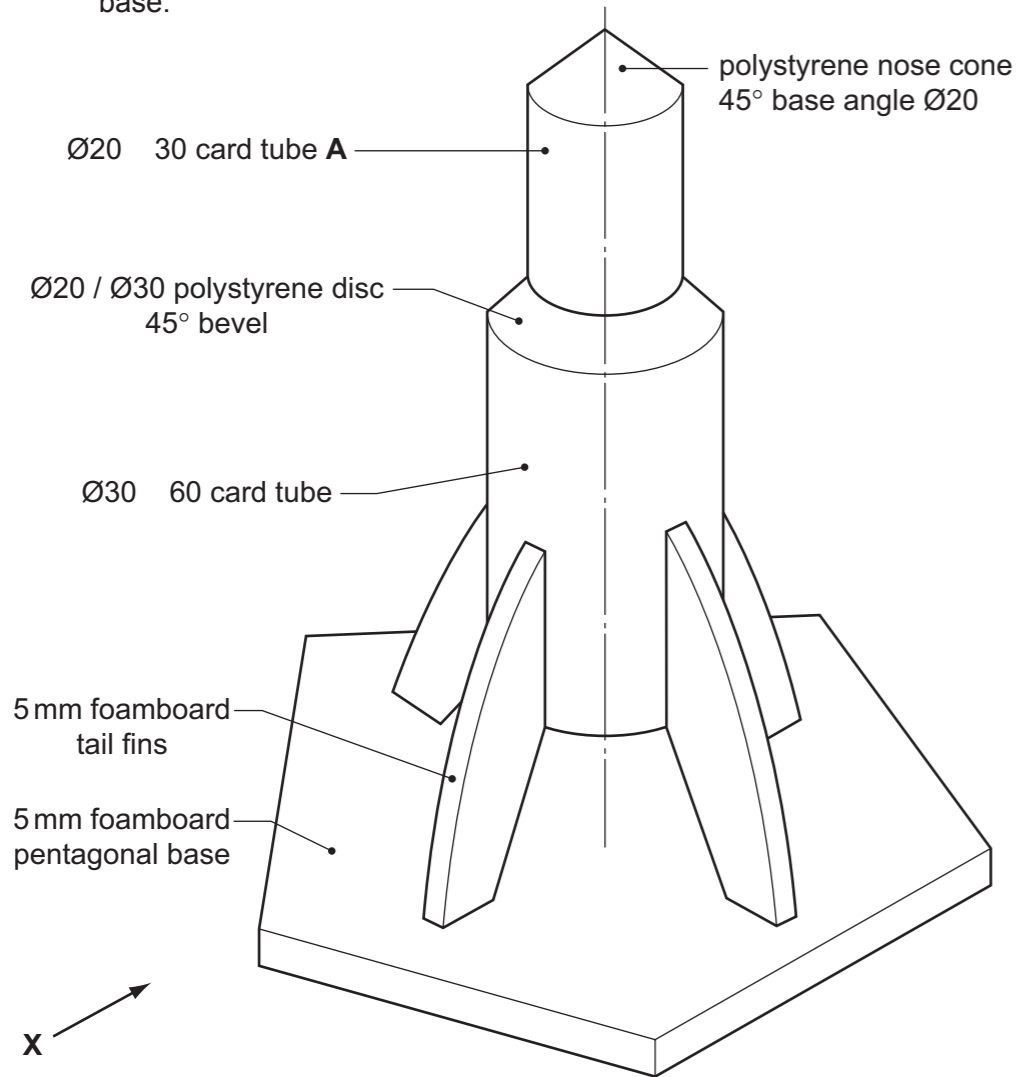
ISOMETRIC VIEW



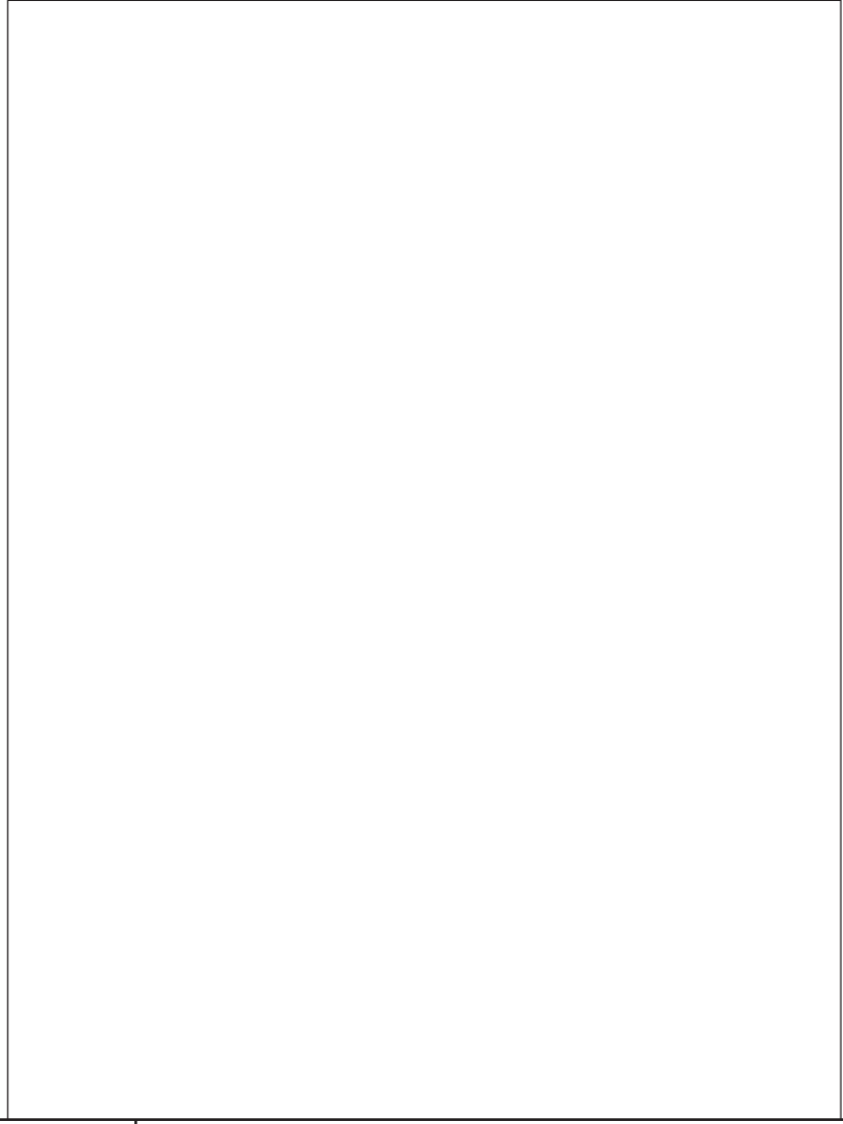
**Section B**

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

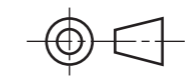
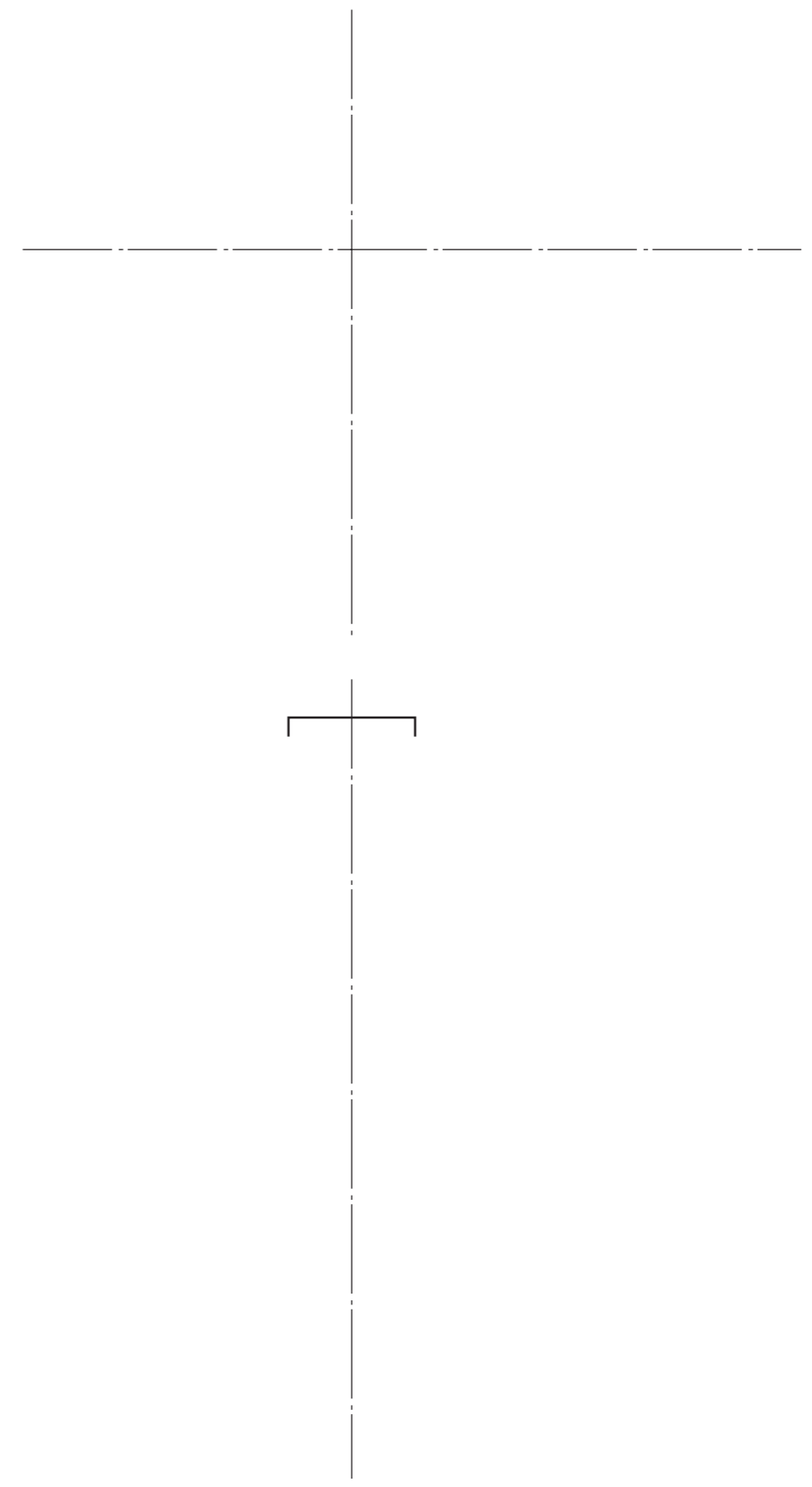
**B4** A self-assembly rocket from a theme park gift shop is shown below. The rocket is glued together from pre-cut pieces of polystyrene, card tube and foamboard. The rocket stands on a pentagonal foamboard base.



- (a) On the centre lines given to the right, construct, full size, in third angle projection:
- (i) the elevation of the rocket viewed from **X**; you must include the tail fins.  
The top of tube **A** has been drawn for you. [10]
  - (ii) a complete plan of the rocket on the centre lines given; [5]
  - (iii) the regular pentagonal base cut from a circular disk of Ø100 on the plan only. [5]
- (b) Use sketches and notes in the space below to show how the tail fin pieces are joined together and fixed to the Ø30 tube. [5]



Plan view



view in direction of arrow **X**

**0445/02** May/June 2007 **1 hour**  
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Centre Number ..... Candidate's Number ..... Candidate's Surname ..... Other Names ..... **[Turn over]**

**B5** The sketch below shows a promotional 'Desk Tidy' made from 2 mm thick card. The tidy has six equal sides and an inset top and base.

**Answer (b) here**

In the spaces indicated:

- (a) Draw to a scale of 1:2 in first angle orthographic projection, the Plan and an End View of the desk tidy. [10]
- (b) Construct, to the same scale a **one piece** development (net) of the promotional Desk Tidy. Include the top, base and all flaps. Ignore the thickness of the card. [15]

**Answer (a) here**

