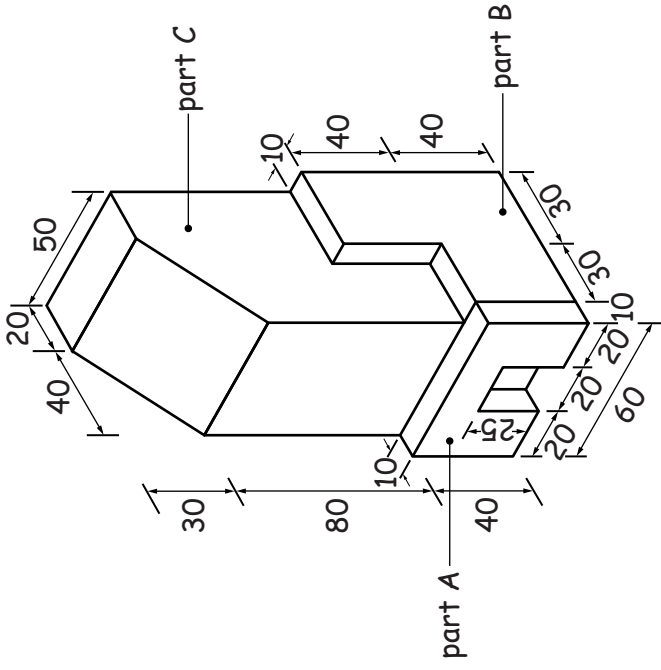


**Section A**  
Answer all questions in this section.

A sketch of a model of a hotel is shown to the right. The model is made from three pieces of styrofoam.



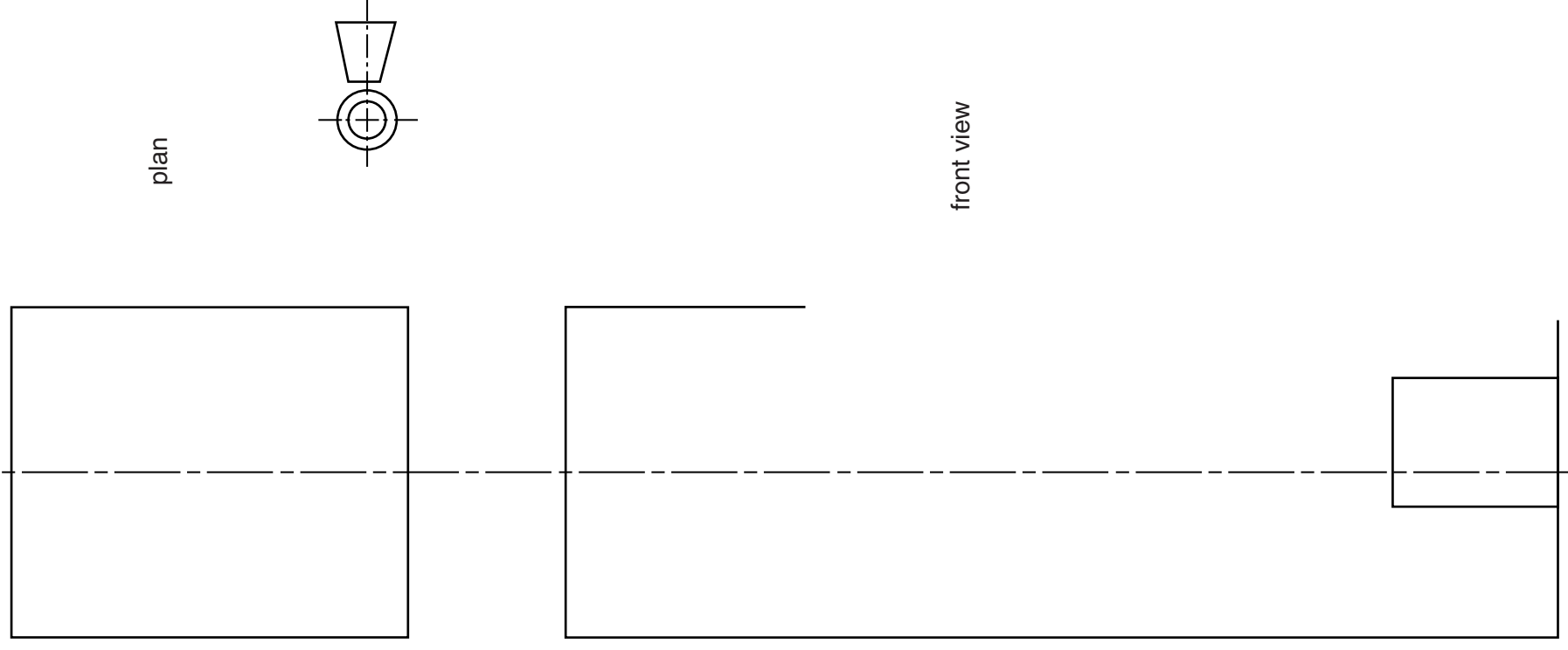
**A1** Complete the sketches below of the three pieces of styrofoam used to make the model of the hotel by:

(a) adding thick and thin line technique to part A; [2]

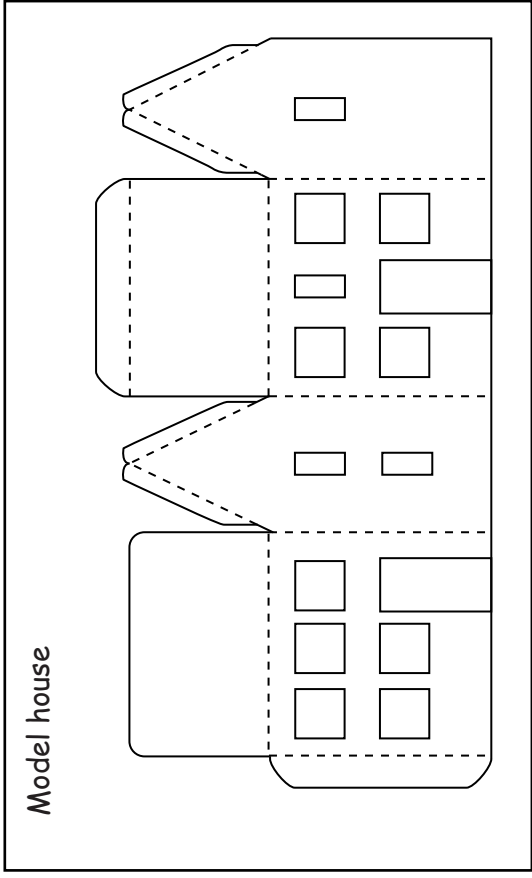
(b) sketching in the shapes of part B and part C. [4]

part A	part B	part C

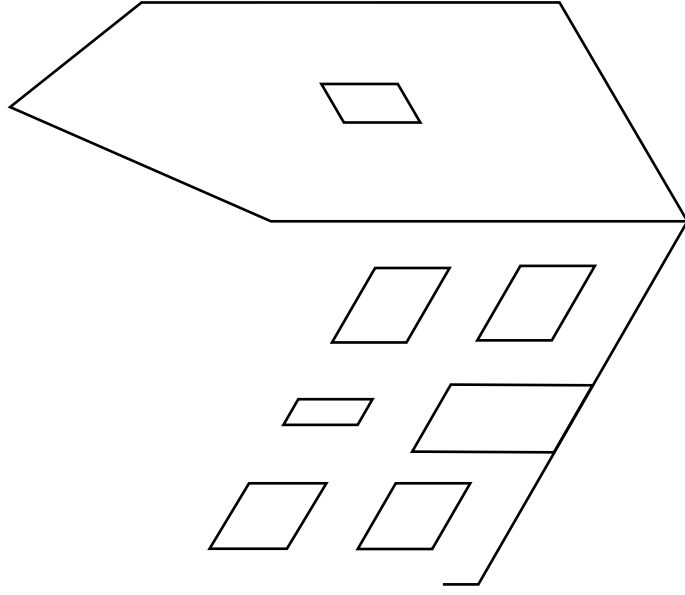
**A2** Complete the full size plan and front view of the model of the hotel below. [8]



**A3** The sketch below shows the development (net) for a model of a house that is printed on thin card.



**(a)** In the space below complete the isometric drawing of the fully assembled model of a house. [4]



The development (net) of the model is printed on card and coloured by hand.

- (b)** Name **two** ways of adding colour to the development (net) of the model.
1. .... [1]
  2. .... [1]
- (c)** The development (net) of the model is perforated so that it can easily be removed from the card sheet. In the space below use a sketch and notes to show what is meant by the term perforated. [2]

**(d)** State **one** reason why the development (net) of the model is considered to be an uneconomical use of materials and explain how this could be overcome.

Reason ..... [1]

This problem could be overcome by .....

.....

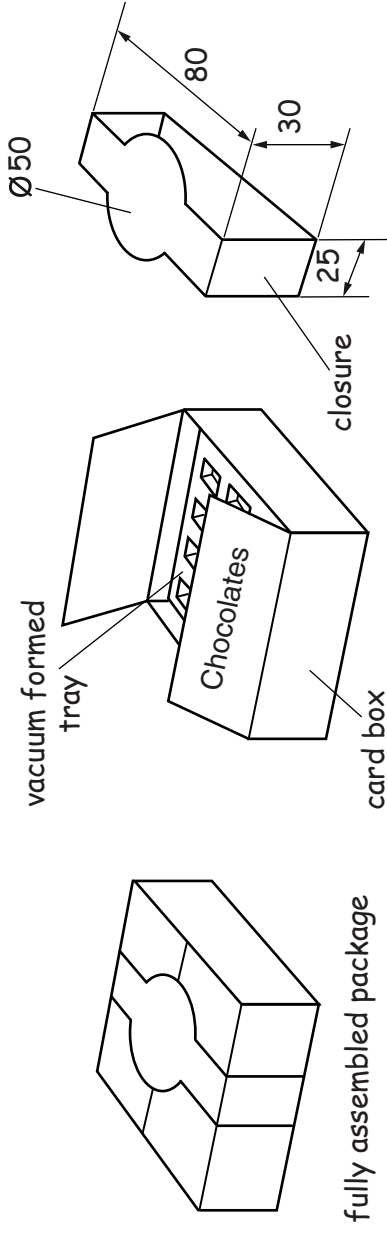
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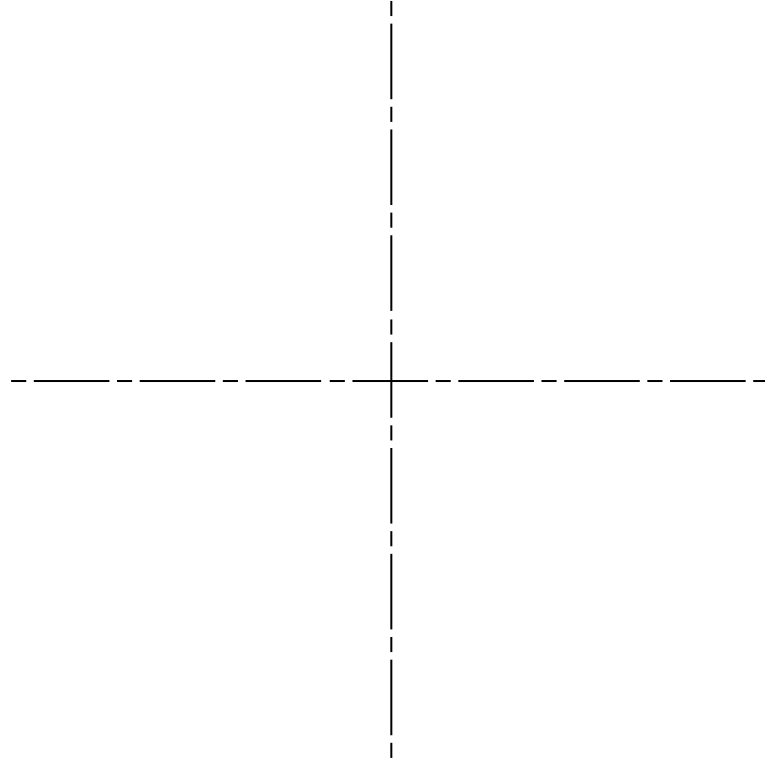
..... [2]

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

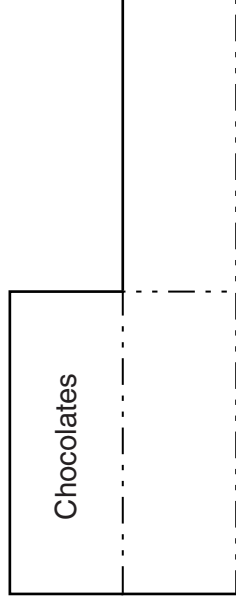
**B4** Sketches of a package for chocolates are shown below.



(a) On the centre lines below draw a full size planometric view of the closure. [10]



(b) Complete the sketch below of the development (net) for the card box. Include all fold lines, glue tabs and fold in flaps. [9]



(c) 10000 packages for the chocolates are to be made.

- (i) Name the printing method that would be used in the production of the card boxes. .... [1]
- (ii) Name a specific plastic that would be used to make the vacuum formed trays. .... [1]
- (iii) In the space below use sketches and notes to explain the vacuum forming process. [4]

**0445/21**  
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Centre Number .....

Candidate Number .....

Candidate Surname .....

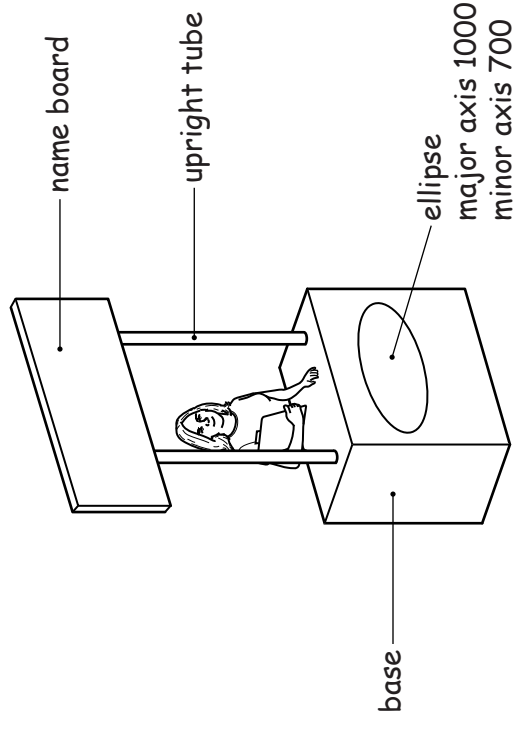
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Other Names .....

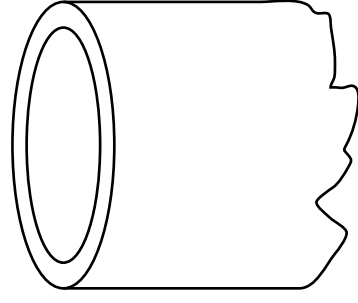
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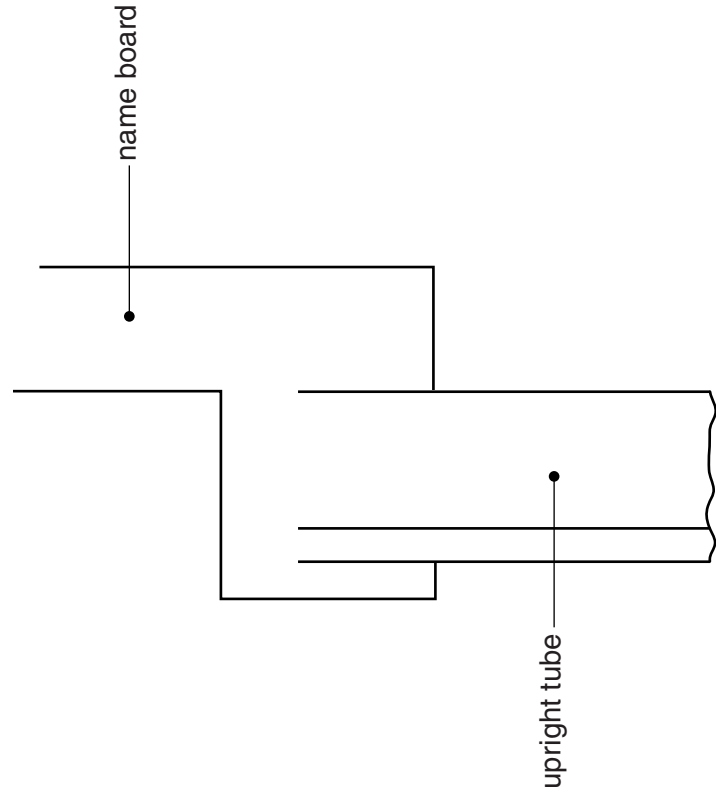
**B5** A sketch of a stand used to carry out customer research in shopping centres is shown below.



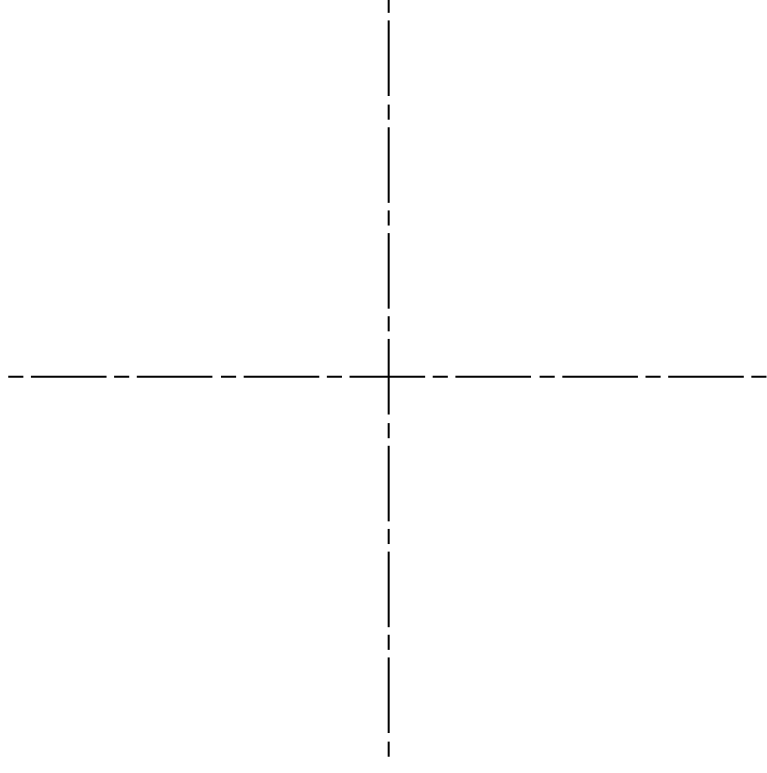
**(a)** Render the upright tube shown below to make it look like it is made from shiny plastic. [5]



**(b)** Complete the sectional view below to show the method of joining the upright tube to the name board. [7]



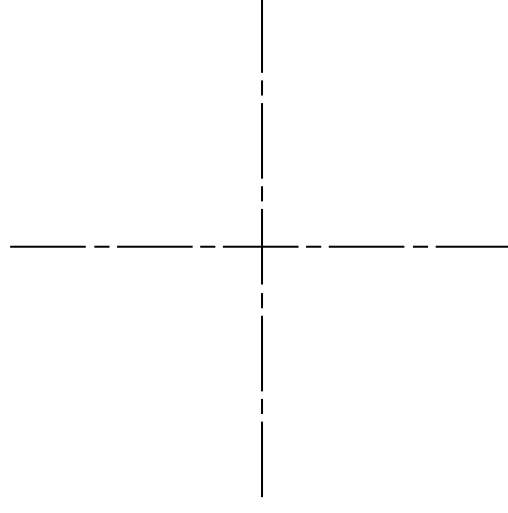
**(c)** On the centre lines below construct a 1 : 10 scale drawing of the ellipse used on the front of the base. [7]



**(d)** The results of research on customers' favourite washing powder are shown below.

favourite	Zupaclean 800	Spotgo 400	Glowrite 600
-----------	------------------	---------------	-----------------

**(i)** On the centre lines below draw a pie chart to show the results of the customer research on washing powder. Use labels and colour to enhance the appearance of the drawing. [5]



**(ii)** State **one** advantage of using ICT for customer research.

.....[1]