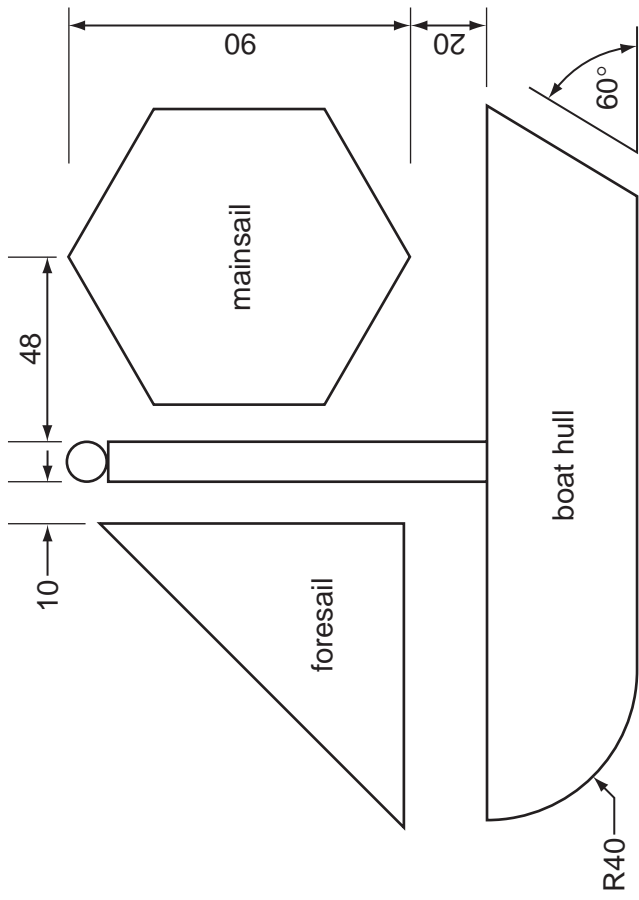


**Section A**

Answer **all** questions in this section.

The drawing below shows details of a logo used by a water sports centre.



**A1** Complete the full size view of the logo in the space provided to the right by drawing:

- (a)** the  $80 \times 80$  right-angled triangle representing the foresail; [2]
- (b)** the boat hull including the R40 quadrant representing the bow of the boat; [4]
- (c)** the 45 side hexagon representing the main sail. [3]

**A2** An incomplete signboard for the water sports centre is drawn to the right.

Complete the sign WATER SPORTS CENTRE by adding:

- (a)** the remaining part of the signboard; [1]
- (b)** the **two** missing letters. [5]

All the letters must be to the same height and style as those given.

WATER SPORTS  
CENTRE

For  
Examiner's  
use

**0445/23** May/June 2011 1 hour  
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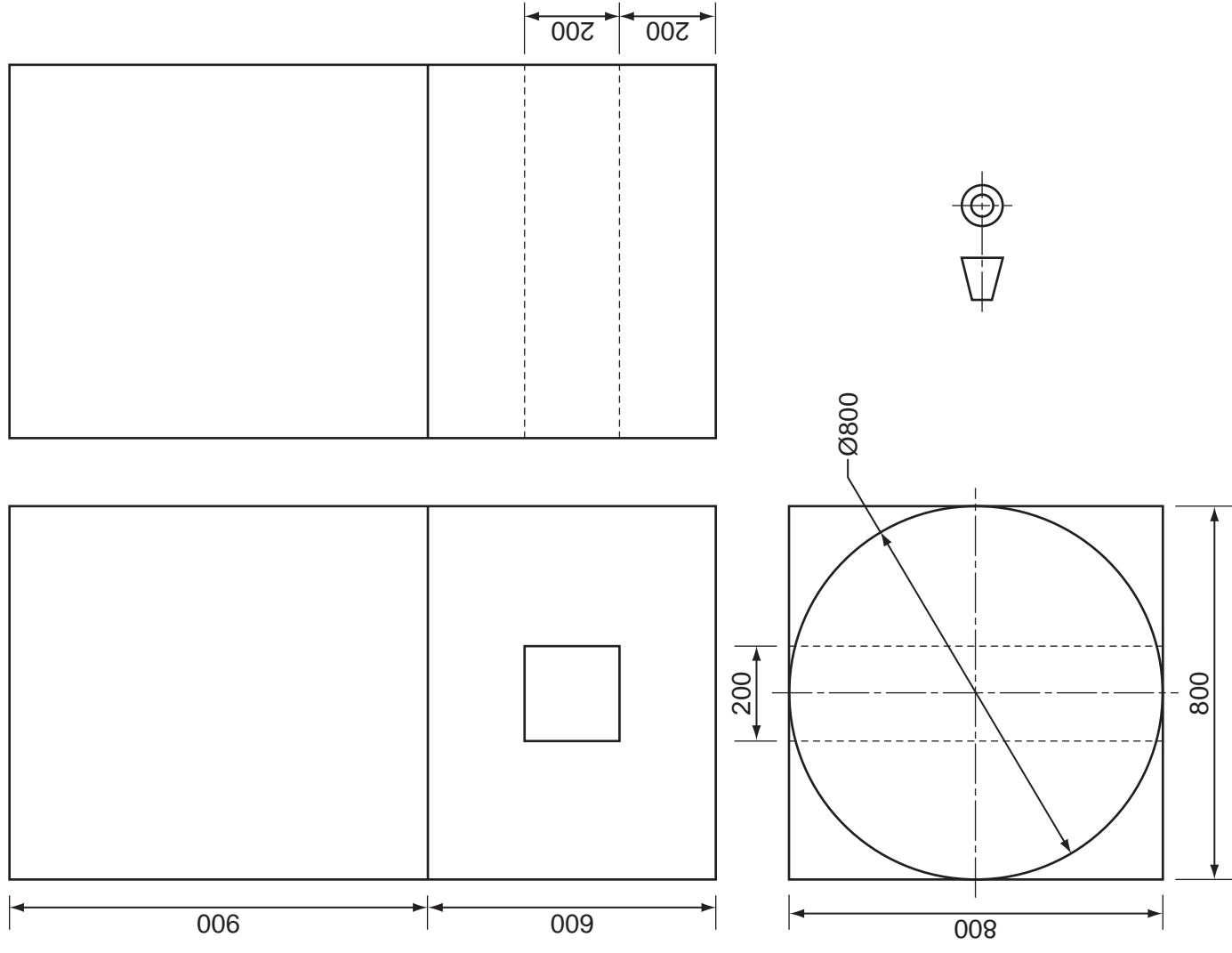
Centre Number .....

Candidate's Number .....

Other Names .....

[Turn over]

**A3** A mooring post used at the water sports centre is drawn in the orthographic views below.



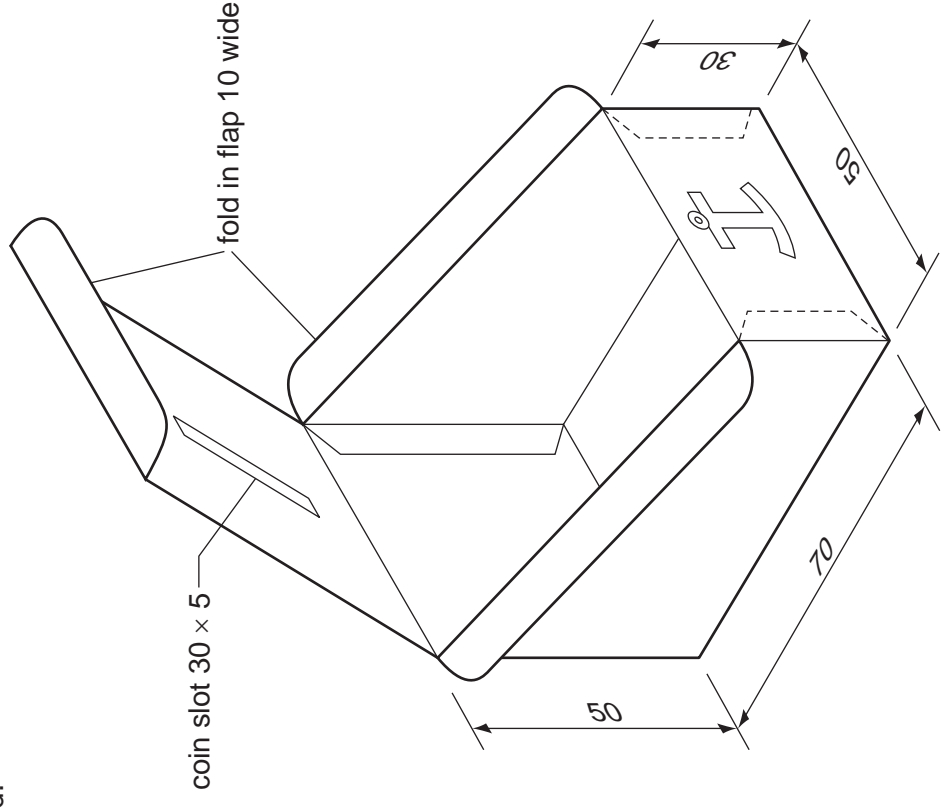
(a) In the space to the right, draw an isometric view of the mooring post to a scale of 1:10. [7]

(b) Apply tone to the isometric drawing to enhance its appearance. [3]

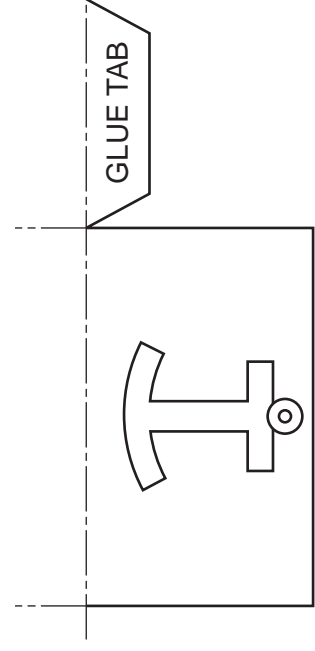
SCALE 1:10

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

**B4** The sketch below shows a collection box used at the water sports centre for the 'sailors' charity. The box is made from a one-piece development of thin card.



- (a) In the space on the right, complete the drawing of a full size, one-piece development (net) of the box. The front of the box and one glue tab have been started for you. Include the coin slot and all the glue tabs and flaps required to make the box. [21]
- (b) In the space below, use sketches and notes to show a method of joining the sides of the box without using glue. [4]



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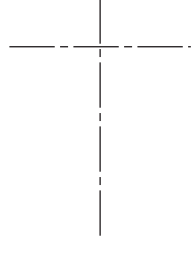
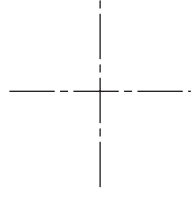
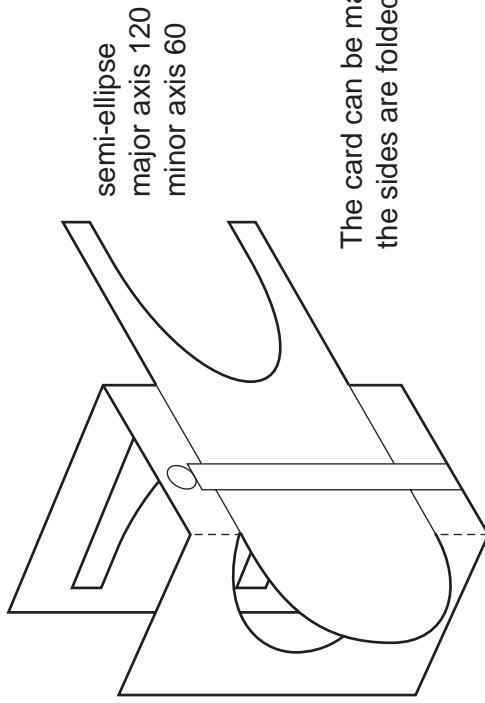
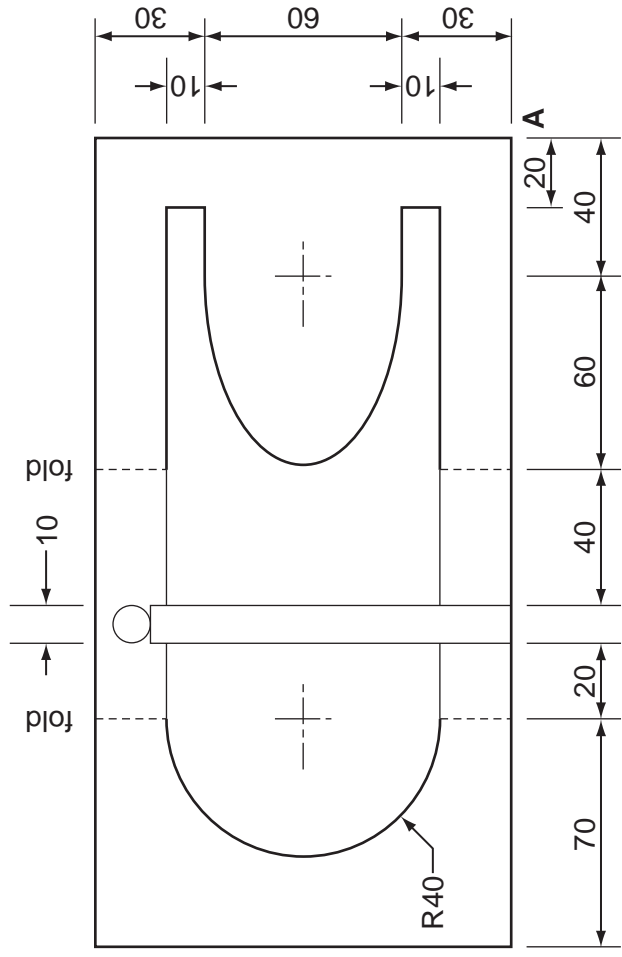
Candidate's Number .....

Candidate's Surname .....

Other Names .....

[Turn over

**B5** The drawings below show details of a greetings card that is to be sent to water sports centre members. The card is pre-punched so that the sides can be folded back.



**(a)** Draw on the centre lines given to the right, a full size view of the complete card before folding. Corner **A** has been given. [18]

**(b)** Project a plan from the full size view to show the sides folded back at 90°. [3]

**(c)** In the space below, use sketches and notes to show how an additional piece of card can hold the two sides at 90° without the use of glue. [4]