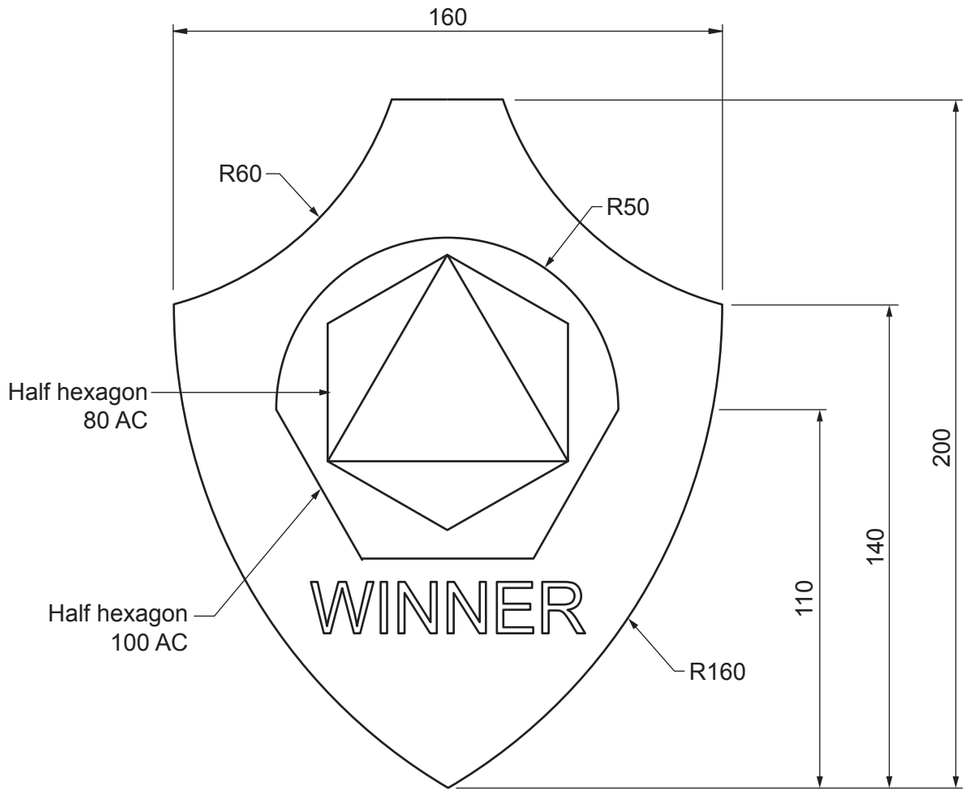
Section A
Answer **all** questions in this section.

A badge is shown below.

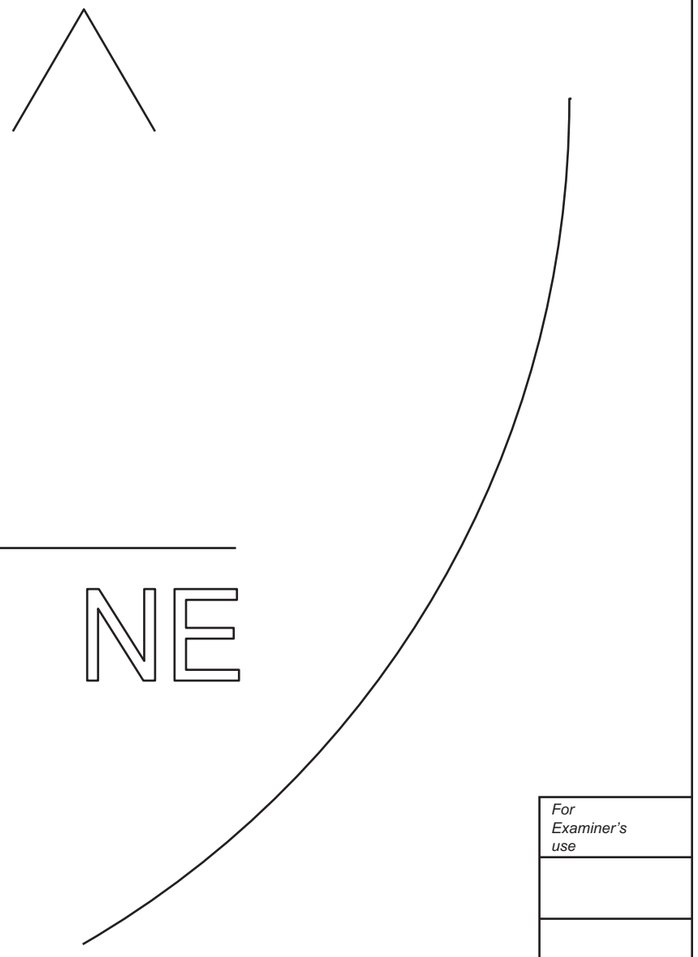


A1 Complete the full size view of the badge in the space provided to the right by drawing:

(a) the outer shape of the shield [2]

(b) the inner shapes [6]

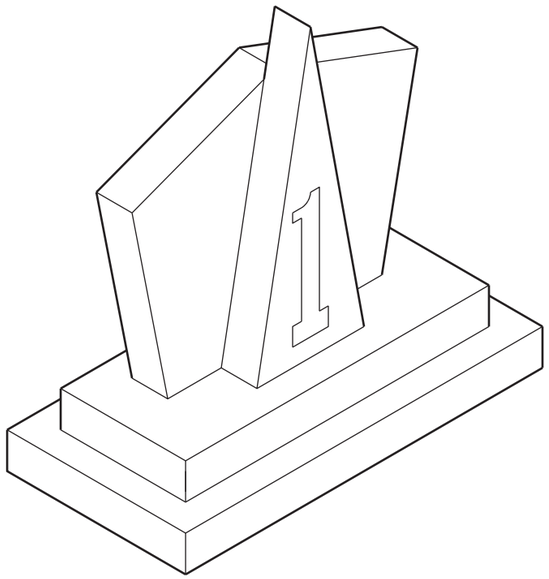
(c) the missing letters of WINNER. [2]



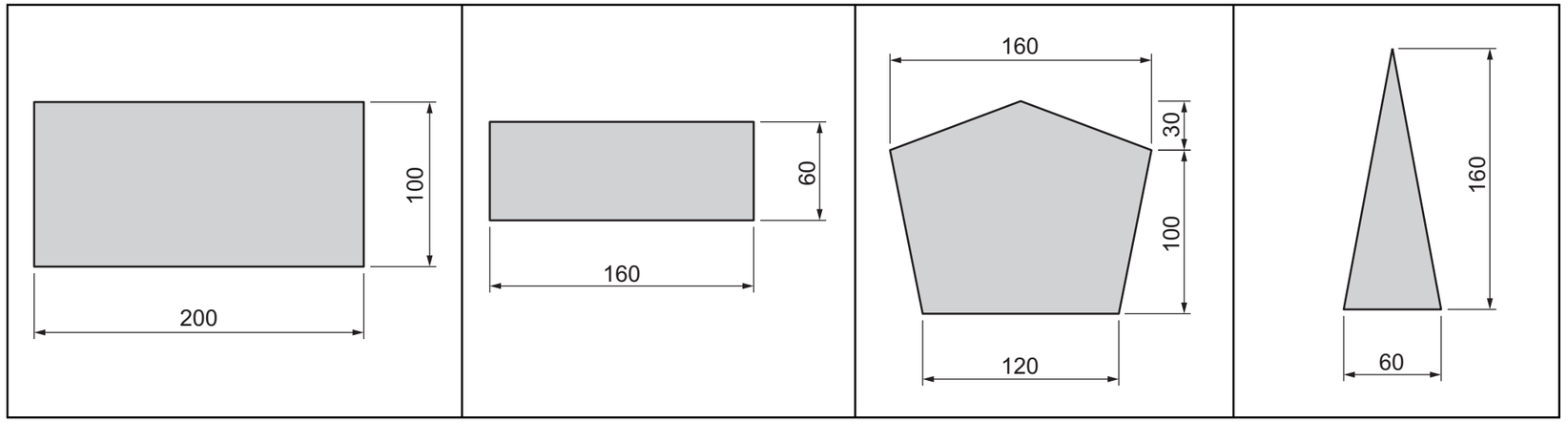
For Examiner's use

Centre Number ..... Candidate Number ..... Candidate Surname ..... Other Names ..... **[Turn over**

A2 A trophy is shown below.



The trophy is made from four pieces of 20 mm thick hardwood as shown below.



In the space below, complete the isometric view of the assembled trophy to a scale of 1:2. [12]

A3 The number '1' is to be sprayed onto the trophy in gold paint using a stencil.

Explain how Computer Aided Design (CAD) and Computer Aided Manufacturing (CAM) could be used to design and make the stencil.

.....

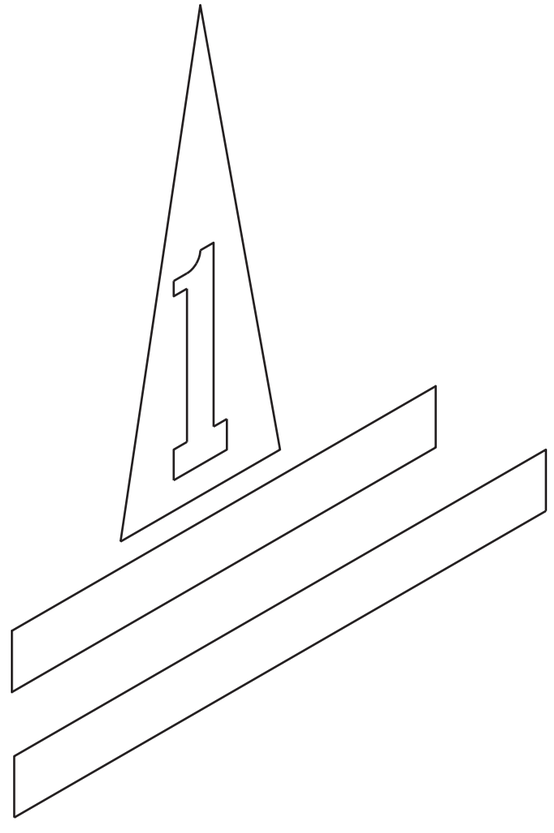
.....

.....

.....

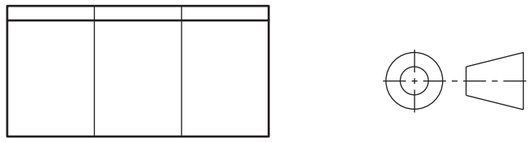
.....

..... [3]

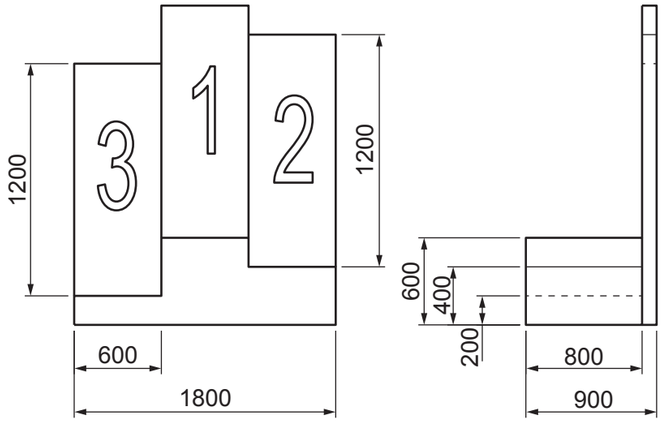


Section B
Answer **either** question **B4** or **B5**.

B4 Orthographic views of a winner's podium are shown below.



plan

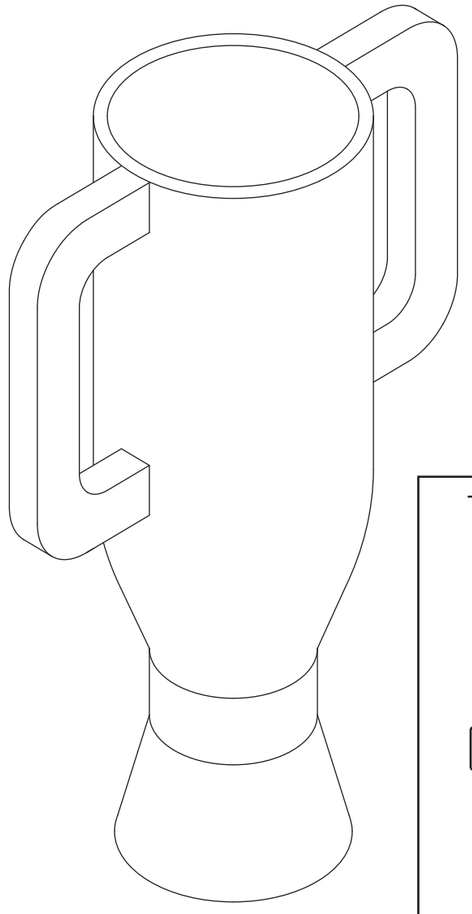


front view

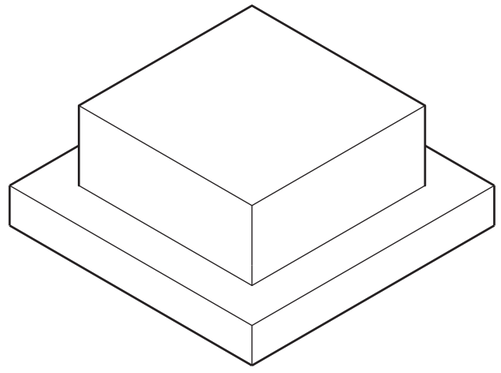
side view

(a) Complete the planometric view of the podium to a scale of 1:20. [8]

(b) A winner's cup is shown below.
Apply thick and thin line technique to the winner's cup. [9]



The base for the winner's cup is shown below.



(c) In the space below, complete the estimated two-point perspective view of the base. [8]

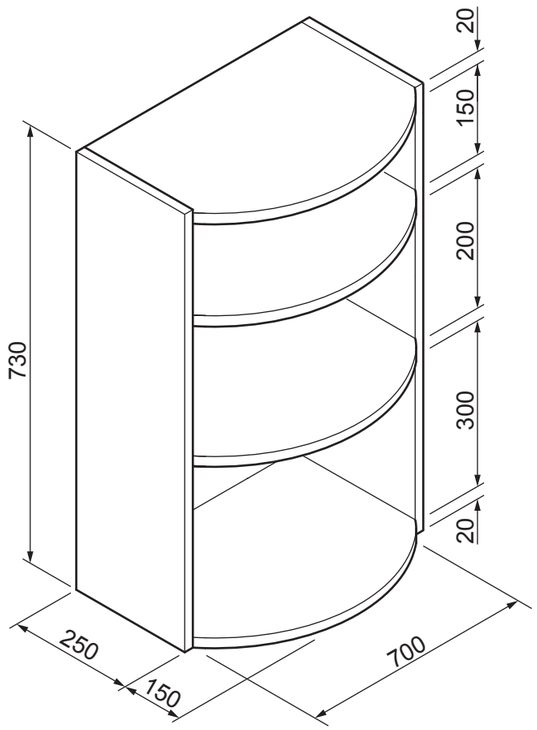
VP1 VP2

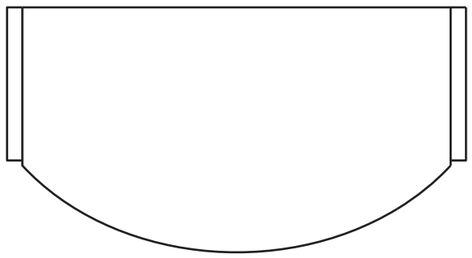
For Examiner's use

Centre Number ..... Candidate Number ..... Candidate Surname ..... Other Names ..... **[Turn over**

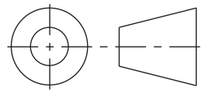
B5 A trophy cabinet is shown below.

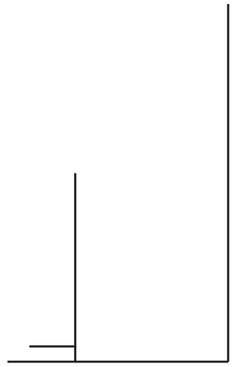
The cabinet is made from 20 mm hardwood.





plan





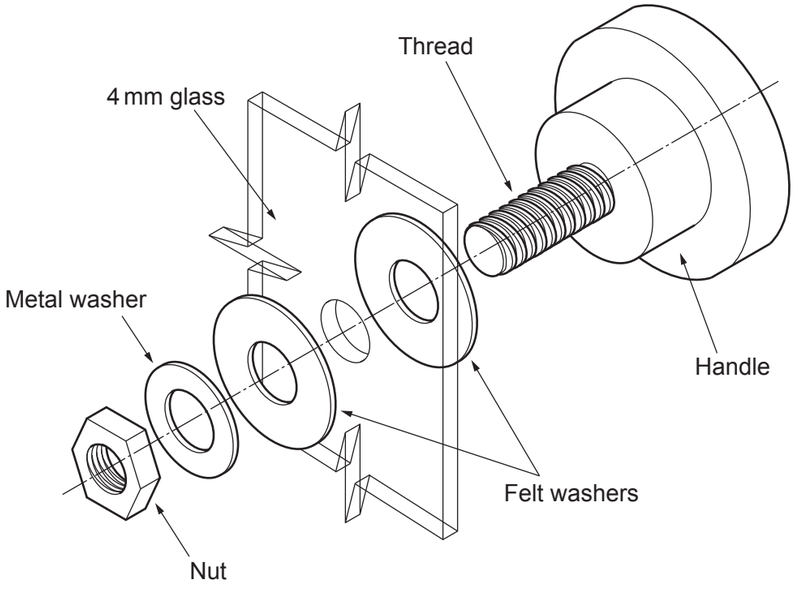
front view

side view

(a) Complete the orthographic view of the trophy cabinet to a scale of 1:10. [10]

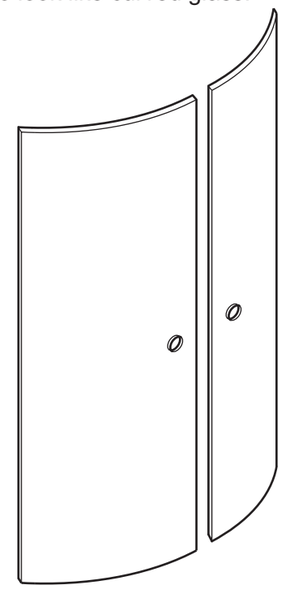
Parts for the handles on the doors of the trophy cabinet are shown below.

Part	Quantity	Sizes
Felt washers	2	18 mm OD 6 mm hole 1 mm thick
Metal washer	1	12 mm OD 6 mm hole 1 mm thick
Nut	1	10 mm AF 5 mm thick
Handle	1	Outer section: ø30 10 mm thick Inner section: ø18 12 mm thick



(b) The trophy cabinet has two curved glass doors on the front as shown below.

Render the doors to look like curved glass. [3]



(c) Complete the sectional view of the assembled handle to a scale of 3:1 by adding:

(i) the handle [3]
(ii) the other felt washer [4]
(iii) the metal washer and nut. [5]