

Answer **all** questions in this section.

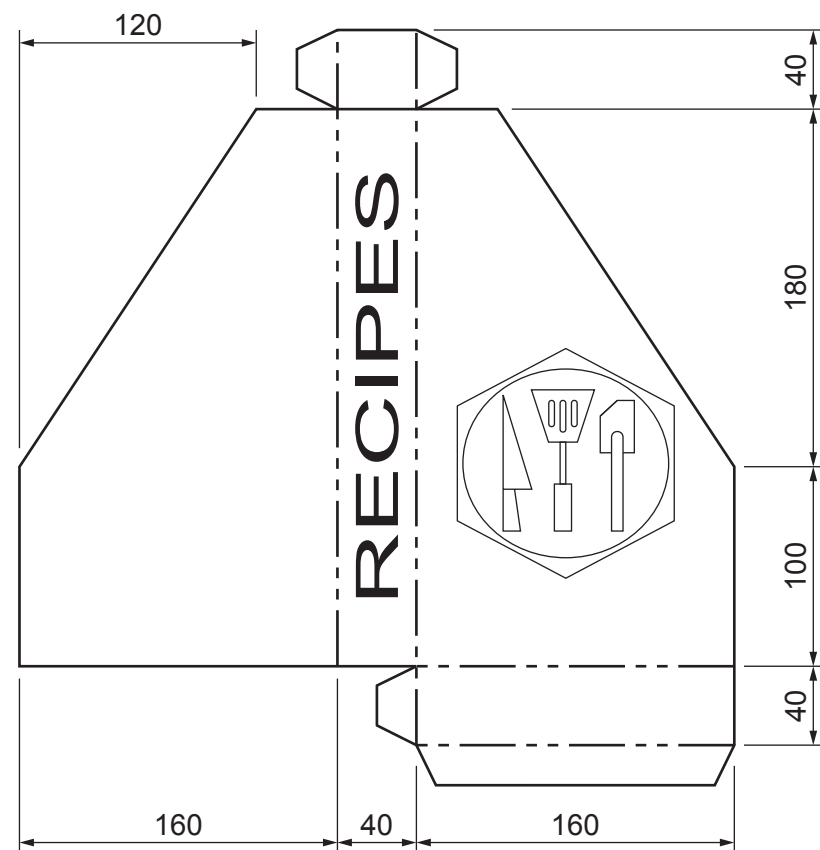
Technical drawing of a hexagonal logo for a kitchen set. The logo is a regular hexagon with a circumscribed circle of diameter 180 mm. Inside the circle are three kitchen items: a right-angled triangle (90x25 mm), a trapezoidal spatula, and a rectangular knife. Dimensions for the hexagon and internal elements are provided.

- right angled triangle 90 x 25
- regular hexagon 190 AF
- rectangle 45 x 16
- Ø180

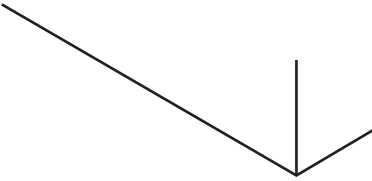
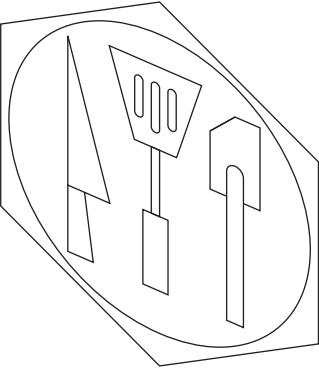
- (a) the kitchen knife [2]
- (b) the slotted spatula [5]
- (c) the baking spatula [4]
- (d) the outer circle [1]
- (e) the outer hexagon. [3]

A minimalist line drawing of a stylized figure. The figure is composed of several geometric shapes: a large triangle at the top, a rectangle in the middle, a circle at the bottom, and a square on the right side. A vertical dashed line runs through the center of the figure, and a horizontal dashed line runs across the middle, intersecting the vertical line. The figure is positioned in the center of the image, with its head pointing upwards and its body extending downwards. The overall style is clean and modern, with a focus on geometric forms and negative space.

A2 A development (net) of a box file for the recipe book is shown below.



Complete the isometric view of the assembled box file to a scale of 1 : 2. [7]



assembled box file

A3 The box file is made from thick card.

(a) Describe a suitable method of creasing and folding the thick card.

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.....
..... [2]

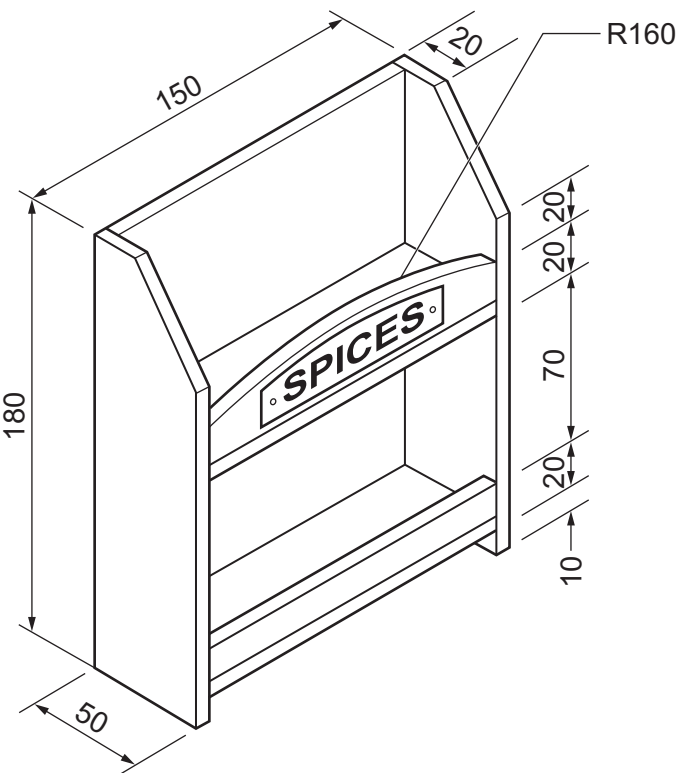
(b) Name a suitable adhesive to fix the development (net) of the box file together.

..... [1]

Section B
Answer **one** question, **either** Question **B4** or **B5**, from this section.

B4 A spice rack is shown below.

The spice rack is made from 6 mm hardwood.



(a) Complete the orthographic views of the spice rack to a scale of 1:2. [13]

side view

front view



plan



(c) The SPICES plaque on the front of the spice rack will be made from 3 mm plywood sheet using CAD/CAM.

The plaque is shown below.



(i) State **two** commands that would be used to draw the plaque design on CAD.

- 1
2

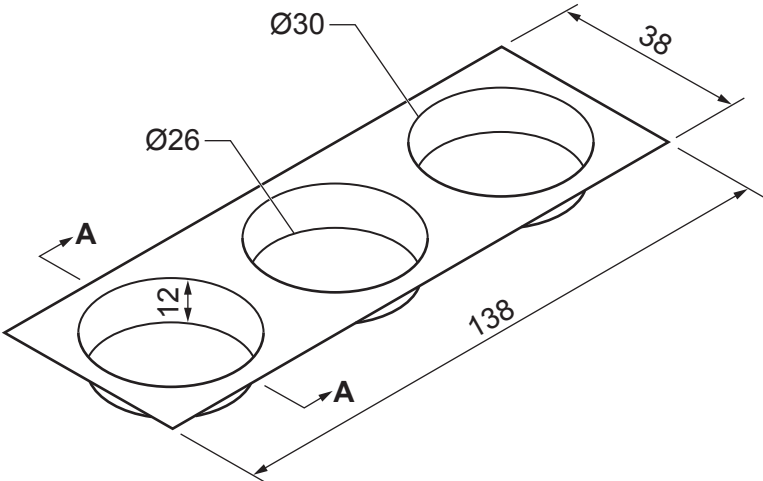
[2]

(ii) The SPICES text will be engraved onto the plywood and the outer shape will be cut out using a laser cutter.

Describe how the laser cutter could be set up to distinguish between cut lines and engrave lines so that the plaque design is produced correctly.

-
.....
.....
.....
..... [2]

(b) The spice rack will have a vacuum formed insert as shown below.



(i) Complete the sectional view **A-A** through the vacuum formed insert to a scale of 2:1. [5]

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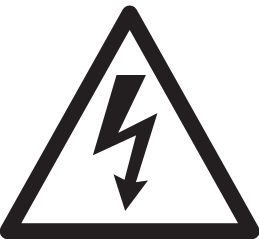
sectional view **A-A**

(ii) Name a suitable thin sheet plastic for the insert.

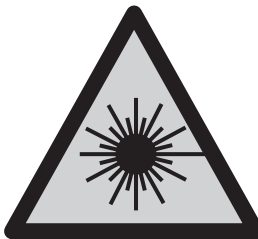
..... [1]

(d) Two safety symbols on the laser cutter are shown below.

State the meaning of each symbol.



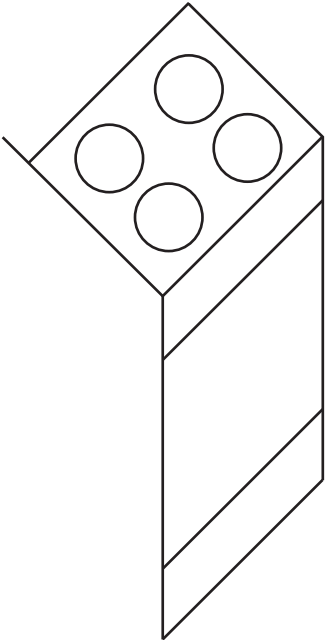
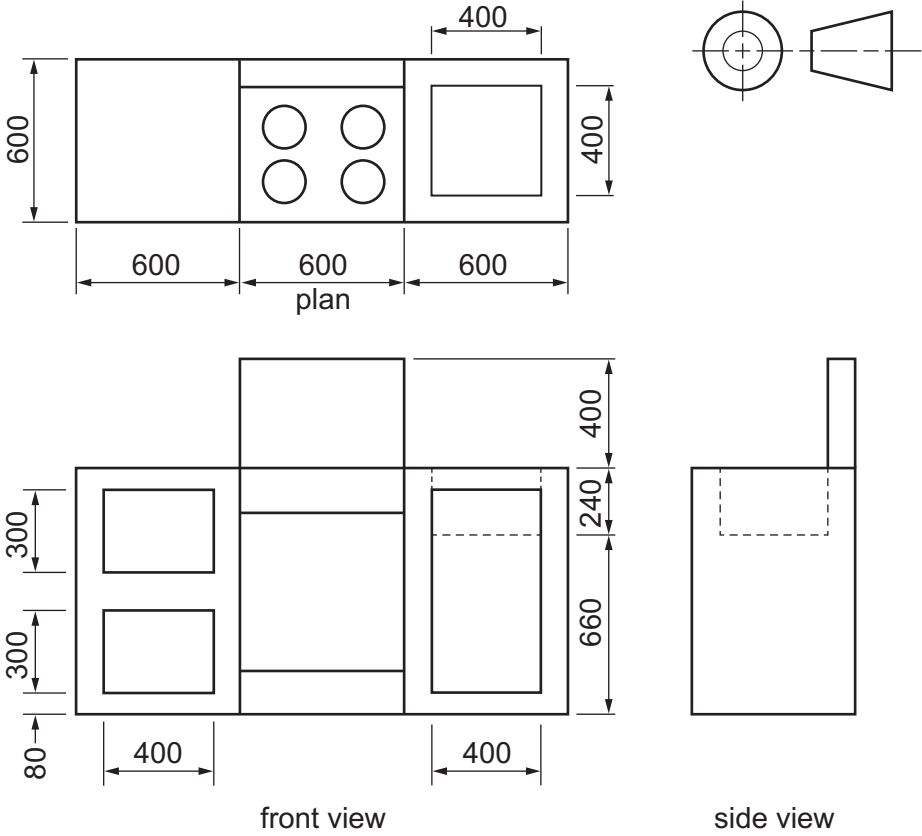
..... [1]



..... [1]



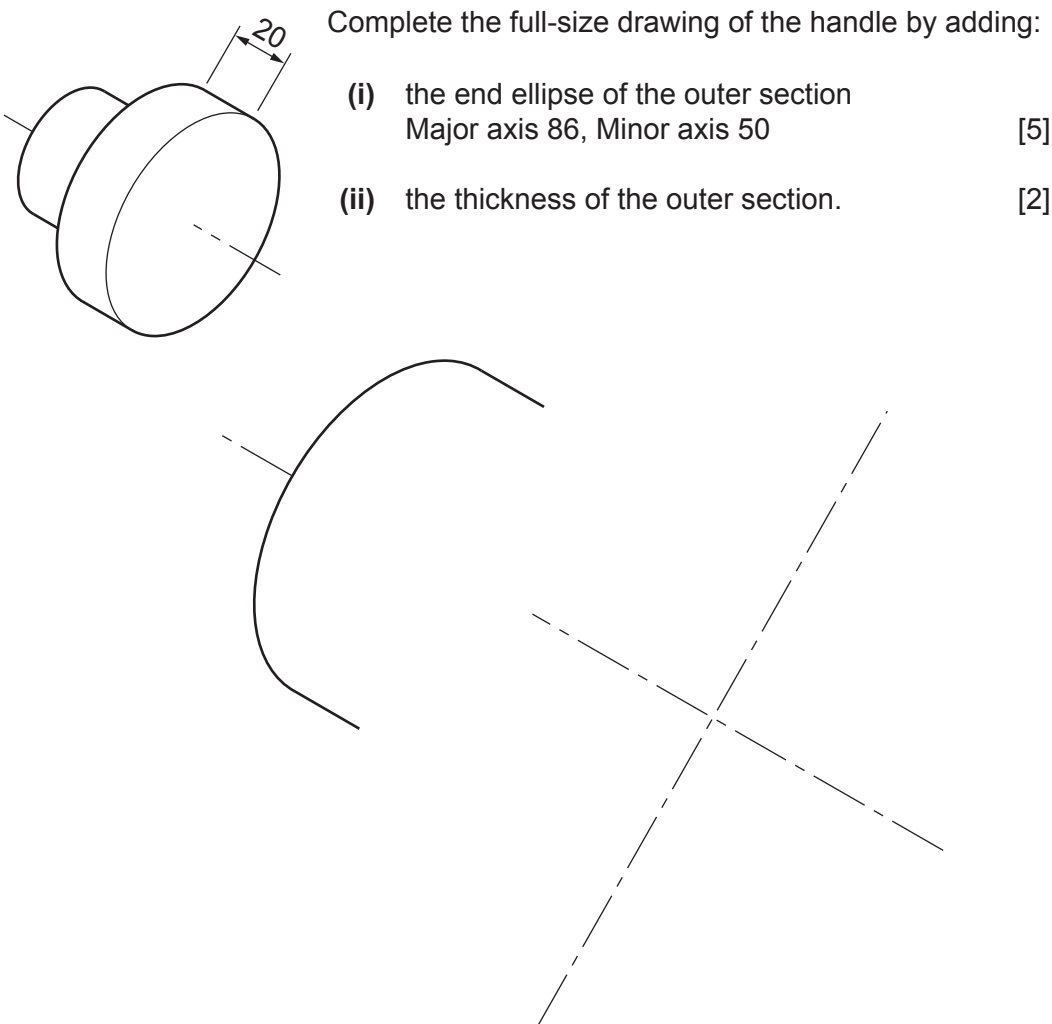
B5 Orthographic views of a kitchen workstation are shown below.



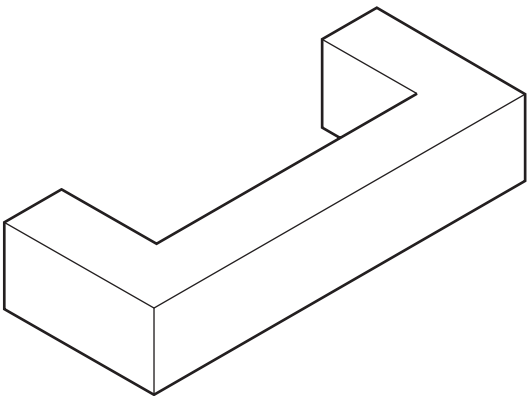
planometric view

(a) Complete the planometric view of the kitchen workstation to a scale of 1 : 20. [12]

(b) A handle for one of the cupboard doors is shown below.



(c) A handle for one of the drawers is shown below.



Complete the estimated two-point perspective view of the handle. [6]

