Section A
Answer all questions in this section.

A1  Parts of a model aeroplane are shown below.
The parts are made from 2mm card.

In the space provided complete the full size isometric view of the assembled model aeroplane.

[12]

A2  Details of the window and logo are to be printed on to the fuselage of the plane.

Complete the details on the fuselage below by adding:

(a) the CIE AIRLINES lettering;  [2]
(b) the triangular cockpit window.  [1]
A3 The aeroplane parts are packaged and sold in a blister pack.

The blister pack is shown below.
The backing card is 1 mm thick.

(a) In the space to the right complete the sectional view A-A through the blister pack to a scale of 2:1. [6]

(b) State a suitable material for the plastic blister.
...............................................................................................................
...............................................................................................................
...............................................................................................................
[1]

(c) In the space below complete the flowchart of the vacuum forming process. [3]

START

Place mould/former on bed

Clamp plastic sheet in place

Heat plastic

Is plastic hot enough?

Raise bed

Turn on vacuum

Unclamp plastic

Remove mould from plastic

STOP

Section A-A
Section B
Answer either question B4 or B5.

B4 A bottle carrier is shown below.
The bottle carrier is made from card.

(a) Complete the half scale orthographic views of the bottle carrier in the space provided. Ignore the card thickness. [15]

(b) An image of a bottle is to be printed on the side of the bottle carrier.
Complete the image of the bottle below by adding a suitable ellipse on the base of the bottle. [7]

(c) The bottle image is created on computer using a CAD program.
(i) What do the letters CAD stand for?
   C .................. A .................. D .................. [1]
(ii) The image of the bottle is saved as a bitmap image.
   State one advantage and one disadvantage of using bitmap images compared to jpeg images.
   Advantage: ...........................................................................................
   ..............................................................................................................
   Disadvantage: ......................................................................................
   ......................................................................................................... [2]
B5 A child’s playhouse is shown below.
The playhouse is made from corrugated cardboard.

(a) Apply thick and thin line technique to the playhouse. [11]

(b) Dimensions of the chimney are shown opposite.
Complete the development (net) of the chimney below to a scale of 1:5. [6]

(c) Complete the single-point perspective of the playhouse below. [8]