Section A

Answer all questions in this section.

A1  The drawings below show two designs for boxes made from card. In the spaces provided complete:

(a)  the isometric drawing of design A;  [6]
(b)  the orthographic views of design B.  [4]

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<td>orthographic views</td>
<td>isometric</td>
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<td><img src="" alt="Design A: plan" /></td>
<td><img src="" alt="Design A: isometric" /></td>
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<tr>
<td><img src="" alt="Design A: front" /></td>
<td><img src="" alt="Design A: lid" /></td>
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<td><img src="" alt="Design A: end" /></td>
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<td><img src="" alt="Design B: front" /></td>
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A2  (a) The word FRAGILE is printed on a self-adhesive vinyl label and attached to design A. State two reasons why self-adhesive vinyl is suitable for this application.

1. ........................................................................................................................... [1]
2. ........................................................................................................................... [1]

(b) The lid for design B lifts off the base. Use a sketch and notes to show a design that allows the lid to lift off the base.  [2]
A3 The box in design A is divided into four equal parts by slotting together two pieces of corrugated card.

(a) (i) Complete the planometric drawing below of the two pieces of corrugated card slotted together at right angles. [4]

(ii) The two pieces of corrugated card which make the divider are shown below. Draw the slots required to join the card at right angles. [3]

(b) The box in design B is available in three sizes. The 2015 sales of each size is shown below. Draw a bar chart to show the sales of the different size boxes. Use labels to enhance the appearance of the drawing. [4]
Section B

Answer either question B4 or B5.

B4 Orthographic views of a point of sale display stand are shown on the right.

(a) Complete the estimated two-point perspective drawing below of the point of sale display stand. [15]

(b) The point of sale display stand is made from foam board.
   (i) Draw and label a sectional view of foam board. [3]

(c) (i) Complete the list below of three pieces of equipment that would be used to cut the foam board.
   1. Cutting mat
   2. ..................................................................................................................... [1]
   3. ..................................................................................................................... [1]
   (ii) Use a sketch and notes to explain how to use a stencil to apply lettering to the point of sale display stand. [3]

(ii) State two properties of foam board that make it suitable for the point of sale display stand.
   1. ..................................................................................................................... [1]
   2. ..................................................................................................................... [1]
A sketch of a blister package for batteries is shown on the right.

(a) Complete the drawing below to show a reduced size drawing of the plastic blister. [14]

(b) The design on the card backing sheet is printed by lithography. Use sketches and notes to describe the process of lithography. [7]

(c) Explain why the flange is needed on the plastic blister.

(d) Use a sketch and notes to show a modification to the card backing sheet that will allow the blister package to hang on a rack. [2]