## 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 $\mathbf{A}$
(b) the orthographic views of design $\mathbf{B}$.

A2 (a) The word FRAGILE is printed on a self-adhesive vinyl label and attached to design $\mathbf{A}$ State two reasons why self-adhesive vinyl is suitable for this application.

2. $\qquad$
(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.

A


|  | orthographic views | isometric |
| :---: | :---: | :---: |
| A |  |  |
| B |  |  |

A3 The box in design $\mathbf{A}$ 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.

(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
(b) The box in design $\mathbf{B}$ is available in three sizes. The 2015 sales of each size is shown below.

|  | large | medium | small |
| :--- | :---: | :---: | :---: |
| sales | 1200 | 600 | 900 |

Draw a bar chart to show the sales of the different size boxes. Use labels to enhance the appearance of the drawing.



B5 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.

plastic blister-
reduced size drawing of plastic blister

[7]
(c) Explain why the flange is needed on the plastic blister.

...............................................................................................................
............................................................................................................
$\qquad$
(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.

