Section A

Answer all questions in this section.

A1 Sketches of the two parts of a model of a torch are shown below. Part B slots into the hole in part A.

(a) From the given start point X draw a full size isometric view of part A of the model of a torch. [9]

(b) Complete the sketch below to show a slide switch joined to part B of the model of a torch. [2]

A2 State a suitable material for the model of a torch and give two reasons why the material has been chosen.

Material .................................................................................................................... [1]

Reasons why the material has been chosen:
1. ...........................................................................................................................[1]

2. ...........................................................................................................................[1]
A sketch of the fully assembled model of the torch and its card package are shown below.

The package is made from recycled card.

(b) In the space below sketch the development (net) for the package. [5]

(a) Complete the two orthographic views below of the package. Do not include the model of the torch. Ignore the thickness of the card. [4]

(c) Explain why the package is considered to be environmentally friendly.

..............................................................................................................................
..............................................................................................................................
..............................................................................................................................
..............................................................................................................................
..............................................................................................................................
.............................................................................................................................. [2]
Section B
Answer either question B4 or B5.

B4 A sketch of a desk calendar is shown below. The desk calendar has a plastic base and a number of wooden blocks that can be inserted to show the month and date.

(a) In the space below complete the estimated two point perspective drawing of the base of the desk calendar. [10]

(b) The wooden block below is used to show the month on the desk calendar. Render the wooden block to look like wood. [4]

(c) Self-adhesive vinyl letters are added to the wooden block to show the month. Complete the table below to explain how to use ICT to design, manufacture and apply the letters to the wooden block.

<table>
<thead>
<tr>
<th>Design</th>
<th>Manufacture</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>[5]</td>
<td>[3]</td>
<td>[3]</td>
</tr>
</tbody>
</table>
A sketch of a shampoo bottle is shown below.

(a) Complete the full size orthographic views of the shampoo bottle below by:

(i) adding the elliptical shape in plan view; [8]

(ii) completing the word SHINE. [3]

(b) Complete the table below to show three pieces of information that would be included on the shampoo bottle.

<table>
<thead>
<tr>
<th>Information</th>
<th>Explanation</th>
</tr>
</thead>
</table>
| HDPE        | This identifies that the bottle is made from  
|             | h……….. d……….. polyethylene and can be  
|             | recycled. |
|             |                                                       |
|             |                                                       |
|             |                                                       |
|             |                                                       |
|             |                                                       |
|             |                                                       |

(c) The results of a questionnaire on customers' favourite shampoo are shown below.

<table>
<thead>
<tr>
<th></th>
<th>Shine</th>
<th>Goglow</th>
<th>Healthy</th>
</tr>
</thead>
<tbody>
<tr>
<td>favourite</td>
<td>700</td>
<td>400</td>
<td>550</td>
</tr>
</tbody>
</table>

In the space below draw a bar chart to show the results of the questionnaire. Use labels and colour to enhance the appearance of the drawing. [6]