Exam Question:

The can above has been made from Aluminium.

Describe the properties of this material when used for drinks cans? (3)

<table>
<thead>
<tr>
<th>Aluminium</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantages</td>
</tr>
<tr>
<td>Typical Uses</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>ABS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Advantages</strong></td>
</tr>
<tr>
<td><strong>Typical Uses</strong></td>
</tr>
</tbody>
</table>

**Exam Question:**

The Xbox controller above has been made from ABS which is a Thermoplastic.

Discuss the working properties of ABS that make it suitable for the controller? (3)

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### Exam Question:

The Gym Leggings above have been made from Polyester and Elastane.

Discuss the working properties of these materials which make them suitable for the leggings? (3)

<table>
<thead>
<tr>
<th>Natural or synthetic fibres?</th>
<th>Polyester &amp; Elastane</th>
</tr>
</thead>
<tbody>
<tr>
<td>Typical Uses</td>
<td></td>
</tr>
</tbody>
</table>
**Exam Question:**

The road bike was made in a factory that uses a batch manufacturing system.

Evaluate the benefits of this method of production (6)
Exam Question:

The holes in the base for the pegs were laser cut. Discuss the benefits of using CAD/CAM for this part of the product (3)

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Evaluate how successful this product is in terms of Ergonomic design (4)

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Exam Questions:

Smart phones are made from a combination of Metals, Plastics and Glass. Why is this? (2)

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Hundreds of thousands of these phones are sold annually. Undertake a Life Cycle Analysis of the phone explaining the impact it has on the environment. (6)

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