

<p style="text-align: center;">Answer <b>ONE</b> question only.</p> <p><b>1 Built environment and construction focus</b></p> <p>The management of a large shopping centre has identified a need to communicate more effectively with its customers.</p> <p><b>A customer information desk is required.</b></p> <p>The product must:</p> <ul style="list-style-type: none"> <li>• accommodate three members of staff</li> <li>• be permanently fixed.</li> </ul> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p><b>3 Food focus</b></p> <p>A food manufacturer wants to expand its range of food products to include more fish dishes.</p> <p><b>A new food product that includes fish is required.</b></p> <p>The product must:</p> <ul style="list-style-type: none"> <li>• appeal to teenagers</li> <li>• be nutritionally balanced.</li> </ul> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
<p><b>2 Engineering focus</b></p> <p>Portable sources of light are often needed at roadworks and construction sites.</p> <p><b>A product to hold a number of high-powered electric lamps is required.</b></p> <p>The product must:</p> <ul style="list-style-type: none"> <li>• allow the lamps to be adjusted into any required position</li> <li>• be easily moved from site to site.</li> </ul> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p><b>4 Graphic products focus</b></p> <p>The high quality of packaging of luxury electronic products enhances the whole user experience.</p> <p><b>An innovative package for a Tablet PC is required.</b></p> <p>The package must:</p> <ul style="list-style-type: none"> <li>• be able to be used as a carrier for the Tablet PC</li> <li>• become a useful accessory to use with the product.</li> </ul> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
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<p><b>5 Manufacturing focus</b></p> <p>The recycling of household waste has become increasingly important over recent years.</p> <p><b>A product that can be used by householders to separate waste for recycling is required.</b></p> <p>The product must:</p> <ul style="list-style-type: none"> <li>• store different types of waste separately for ease of recycling</li> <li>• be suitable for use inside the house.</li> </ul> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p><b>7 Systems and control focus</b></p> <p>Upstairs windows in houses or flats are difficult to keep clean on the outside.</p> <p><b>A product is required to clean the outside of windows, which are not accessible from ground level.</b></p> <p>The product must:</p> <ul style="list-style-type: none"> <li>• be easily used by householders</li> <li>• be usable on windows up to 10 metres above the ground.</li> </ul> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
<p><b>6 Resistant materials focus</b></p> <p>A school with limited space in the dining area wishes to encourage students to eat lunch outside in the school grounds during the summer term.</p> <p><b>A product that allows students to sit and eat lunch outside is required.</b></p> <p>The product must:</p> <ul style="list-style-type: none"> <li>• accommodate three students</li> <li>• be easily assembled and easily stored after use.</li> </ul> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p><b>8 Textiles focus</b></p> <p>A company wishes to extend its range of textile products for the home.</p> <p><b>A new textile product to store items for a child's bedroom is required.</b></p> <p>The product must:</p> <ul style="list-style-type: none"> <li>• be based on a theme of nature</li> <li>• be easy to clean.</li> </ul> <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
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**(b)** Ideas with development

- A range of ideas [15]
- Consider manufacturing/construction detail [12]
- Evaluate ideas with reference to specification and volume production [6]

**[Total: 33]**

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(b) Ideas with development (continued)

A3 SHEET 3 OF 4

FOR EXAMINER'S USE	
R	
D	
E	

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CANDIDATE NAME

CANDIDATE NUMBER

CENTRE NUMBER

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(c) Final developed outcome

Sketch a final developed outcome. Justify key design features. [9]

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<b>F</b>	
<b>C</b>	

END OF QUESTION PAPER

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