

<p>Answer ONE question only.</p> <p>1 Built Environment and Construction focus</p> <p>A new secondary school has a coach park where students are dropped off and picked up.</p> <p>A shelter to protect students from the weather is required.</p> <p>The shelter must:</p> <ul style="list-style-type: none"> • be a permanent structure; • accommodate up to 20 students. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p>3 Food focus</p> <p>A leading supermarket wants to extend its range of children's party foods.</p> <p>A new range of products that will be suitable for children's parties is required.</p> <p>The range must:</p> <ul style="list-style-type: none"> • include sweet and savoury products; • meet the criteria of current healthy eating guidelines. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
<p>2 Engineering focus</p> <p>An engineering fabrication company is to introduce a range of security grids for use on windows in domestic properties.</p> <p>An adjustable security grid is required.</p> <p>The grid must:</p> <ul style="list-style-type: none"> • be adjusted to size and fitted using normal hand tools; • be fitted to windows on the inside of the building. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p>4 Graphic Products focus</p> <p>The Greenfields Community Centre needs to provide information of current and forthcoming events and contact details to visitors.</p> <p>A colourful external display, showing the relevant information is required.</p> <p>The product must:</p> <ul style="list-style-type: none"> • be produced as a one-off; • Include a logo for the Greenfields Community Centre. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>
<p>F524/02 PRODUCT DESIGN</p>	

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<p>5 Manufacturing focus</p> <p>A manufacturing company is to produce a range of camping equipment.</p> <p>A seat that can be folded for ease of carrying is required.</p> <p>The seat must:</p> <ul style="list-style-type: none"> • be suitable for use by adults. • be produced in a batch of 5,000. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p>7 Systems and Control focus</p> <p>Many athletes need to develop and improve their arm and upper body strength.</p> <p>An exercise machine that will develop and improve these areas is required.</p> <p>The product must:</p> <ul style="list-style-type: none"> • promote a positive benefit to exercise and encourage athletes to use it regularly; • enable the user to monitor progress. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>		
<p>6 Resistant materials focus</p> <p>A new Community Centre has very limited wall space to enable visitors to hang up outdoor clothing and accessories.</p> <p>A free-standing product that will accommodate outdoor clothing and accessories is required.</p> <p>The product must:</p> <ul style="list-style-type: none"> • accommodate the outdoor clothing and accessories of up to 10 adults; • be produced as a one-off. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>	<p>8 Textiles focus</p> <p>People are being encouraged to refuse plastics bags when shopping.</p> <p>A re-useable compact bag is required.</p> <p>The bag must:</p> <ul style="list-style-type: none"> • hold a range of shopping items up to a weight of 5 kg. • appeal to young adults. <p>Follow the instructions given on the four A3 answer sheets to complete the question.</p>		
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Circle the question number you are answering

1 2 3 4 5 6 7 8

(a) Give **three** justified specification points.

1 _____

2 _____

3 _____

_____ [6]

Instruction to candidates

ALLOCATION OF MARKS FOR PAPER F524/02

- (a) specification points [6]
 - (b) range of developed ideas [33]
 - (c) final developed outcome [9]
 - (d) communication [6]
- [Total: 54]

All dimensions are in millimetres

Where necessary, calculators may be used

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S	R	D	E	F	C	Total

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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

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R	
D	
E	

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(c) Final Developed Outcome

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

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F	
C	

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