2.7 The Design Mix: Function, Aesthetics and Cost: Test Pack

Total Marks

AQA 8132 · Calculators not allowed · about 15 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions in the spaces provided. Short answers may be a phrase or sentence; extended answers should use full sentences. Riverside Bags, a fictional UK manufacturer of school backpacks, is used in several questions.

1 Which one of the following best describes the 'design mix' for a product such as a school backpack made by Riverside Bags?

- ☐ A) The three elements: function, aesthetics and cost
- ☐ B) The three stages of the product life cycle
- ☐ C) The four P's of the marketing mix
- ☐ D) The steps of production planning

(Total for Question 1 is 1 mark)

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2 Riverside Bags is considering using computer-aided design (CAD) software to design its next school backpack, instead of testing paper patterns by hand. Which one of the following is the main benefit of using CAD in the design process?

- ☐ A) It removes the need to consider cost at all
- ☐ B) It automatically sets the retail price of the finished bag
- ☐ C) It guarantees the bag will be waterproof regardless of the materials used
- ☐ D) It allows the design to be created and changed on screen more quickly, before physical manufacture

(Total for Question 2 is 1 mark)

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3 Identify one example of a functional design decision Riverside Bags might take for a waterproof school backpack.

(Total for Question 3 is 1 mark)

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4 State two elements of the design mix that Riverside Bags must consider when making a lightweight school backpack for younger children.

(Total for Question 4 is 2 marks)

5 Identify two design mix trade-offs Riverside Bags might face when adding a padded, ergonomic back panel to a school backpack for younger children.

(Total for Question 5 is 2 marks)

6 Explain one direct cost implication of adding a high-quality waterproof lining to Riverside Bags' backpack design.

(Total for Question 6 is 1 mark)

7 Explain one way that choosing a recycled fabric for a new backpack could affect the balance of function, aesthetics and cost for Riverside Bags.

(Total for Question 7 is 3 marks)

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Mark scheme · 2.7 The Design Mix: Function, Aesthetics and Cost: Test Pack

Question 1

A cao **B1**

Answer: A

Question 2

D cao **B1**

Answer: D

Question 3

a functional example, e.g. adding sealed zips, waterproof lining, padded straps, or a laptop sleeve **B1**

Answer: Any one functional example, e.g. sealed zips to keep contents dry.

Question 4

function, e.g. lightweight materials and padded straps **B1**

cost or aesthetics, e.g. keeping price low or using child-friendly colours **B1**

Answer: Any two, e.g. function (lightweight materials) and aesthetics (child-friendly colours), or function and cost.

Question 5

function versus aesthetics/practicality, e.g. improves comfort but may add weight or bulk, which could reduce appeal for younger children **B1**

function versus cost, e.g. improves comfort but increases material and manufacturing cost, which could raise the retail price **B1**

Answer: Any two, for example: more comfort but added weight or bulk; more comfort but higher material and manufacturing cost.

Question 6

identifies implication, e.g. increases material and production cost so retail price may need to rise **B1**

Answer: A waterproof lining raises material and production costs, which may force the retail price to rise or reduce profit margin.

Question 7

identifies trade-off, e.g. recycled fabric may cost more per metre than standard fabric, or may need testing to check it performs the same functionally **B1**

develops, e.g. if the recycled fabric performs less well for waterproofing, Riverside Bags may need to add a separate protective coating **B1**

links to outcome, e.g. this raises production cost, so Riverside Bags must weigh the appeal of a more sustainable design against a higher price or a reduced profit margin **B1**

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