5.9 The Importance of Quality and Identifying Quality Problems: 30-minute Pack

Total Marks

AQA 8132 · Calculators not allowed · about 30 minutes

Name: _____ Date: ____ / ____ / _____

Answer ALL questions in the spaces provided. Show any working for calculations. Riverside Bikes, used in this pack, is a fictional business.

1 Which one of the following best describes a measure Riverside Bikes could use to monitor product quality after sale?

- ☐ A) Number of bicycles inspected before painting
- ☐ B) Percentage of bicycles returned by customers
- ☐ C) Number of marketing campaigns run
- ☐ D) Size of the factory workforce

(Total for Question 1 is 1 mark)

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2 Riverside Bikes inspects each frame before painting. Which one of the following is an example of a method Riverside Bikes uses to spot quality problems at an early stage?

- ☐ A) Final customer surveys after purchase
- ☐ B) Inspection of frames before painting
- ☐ C) Paying higher dividends to owners
- ☐ D) Issuing a press release

(Total for Question 2 is 1 mark)

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3 Riverside Bikes samples 50 finished bicycles from the 2,000 produced each month for final quality checks. Identify one limitation of using sampling rather than inspecting every bicycle.

(Total for Question 3 is 1 mark)

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4 Which one of the following is a non-financial benefit to Riverside Bikes of reducing product failures such as faulty brakes?

- ☐ A) Increased repair costs
- ☐ B) Improved customer trust and brand image
- ☐ C) Higher inventory holding costs
- ☐ D) Larger waste disposal bills

(Total for Question 4 is 1 mark)

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5 Identify two specific costs of poor quality that Riverside Bikes might incur because of the faulty brake assemblies discovered this month.

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(Total for Question 5 is 2 marks)

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6 Identify two methods Riverside Bikes could use to identify and measure quality problems across production and after sales.

(Total for Question 6 is 2 marks)

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7 State two non-financial consequences Riverside Bikes might face if its reputation for quality falls after customers experience faulty brakes.

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(Total for Question 7 is 2 marks)

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8 Riverside Bikes estimates that repairing each faulty bicycle costs £25 in parts and labour. Calculate the total direct cost to fix the 60 faulty bicycles this month. Show your working.

(Total for Question 8 is 2 marks)

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9 Explain the impact on Riverside Bikes of the direct financial cost of remaking or repairing the 60 faulty bicycles. Refer to the figures given in the scenario where 60 of 2,000 bicycles need rework.

(Total for Question 9 is 4 marks)

10 Riverside Bikes uses inspection of frames before painting, final sampling of finished bicycles, and records return rates from retailers. Analyse the importance of maintaining high quality for Riverside Bikes. In your answer consider both the costs of poor quality and the benefits of a strong quality reputation for this business.

(Total for Question 10 is 9 marks)

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Mark scheme · 5.9 The Importance of Quality and Identifying Quality Problems: 30-minute Pack

Question 1

B cao **B1**

Answer: B

Question 2

B cao **B1**

Answer: B

Question 3

sampling may miss some defective bicycles, so some faults reach customers **B1**

Answer: Sampling can miss defective bicycles, meaning some faulty products may still be sold to customers.

Question 4

B cao **B1**

Answer: B

Question 5

costs of remaking or repairing faulty bicycles (replacement parts and labour) **B1**

compensation, refunds or returns handling costs and lost sales from dissatisfied customers **B1**

Answer: Any two, e.g. cost of remaking/repairing faulty bicycles; compensation or refunds and handling returns which may also cause lost sales.

Question 6

tracking reject or failure rates from production records **B1**

analysing customer complaints and feedback data or returns statistics **B1**

Answer: Any two, e.g. track reject/failure rates from production; analyse customer complaints, returns and feedback.

Question 7

loss of customer trust and damage to brand reputation **B1**

negative word-of-mouth and poorer online reviews reducing future demand **B1**

Answer: Any two, e.g. loss of customer trust and damage to the brand; negative word-of-mouth and worse online reviews reducing future demand.

Question 8

60 x 25 seen **M1**

£1,500 cao **A1**

Answer: £1,500.

Question 9

identifies a financial impact, e.g. additional repair and parts costs to fix 60 bicycles **B1**

develops the point, e.g. increased production costs reduce the business's gross margin or profit **B1**

adds further development, e.g. spending on rework may use cash that could have paid other costs or investment **B1**

links to an outcome, e.g. smaller profit or less ability to fund growth, harming competitiveness **B1**

Answer: Repairing 60 bikes increases costs through parts and labour, which reduces profit margins and may use cash needed for other activities, leaving less to invest or making the business less competitive.

Question 10

Level 1 Makes simple, general points about quality without clear application to Riverside Bikes, for example stating that poor quality costs money but with little development. **1-3**

Level 2 Gives a developed analysis that applies to Riverside Bikes, discussing some costs of poor quality and some benefits of good quality, but the evaluation is limited or one-sided. **4-6**

Level 3 Provides a detailed analysis applied to Riverside Bikes, considering both financial and non-financial costs of poor quality and the competitive benefits of high quality, and reaches a well-supported judgement about the importance of quality for the business. **7-9**

Indicative content:

- Costs of poor quality: direct costs such as remaking or repairing 60 faulty bicycles, replacement parts and extra labour, and indirect costs such as handling returns, administration and compensation.
- Costs of poor quality: loss of sales and lower revenue from damaged reputation, negative online reviews and loss of customer trust leading to reduced market share over time.
- Benefits of good quality: higher customer satisfaction and loyalty, repeat purchases and positive word-of-mouth that can increase sales and market share for a small manufacturer like Riverside Bikes.
- Benefits of good quality: lower costs in the long run by reducing rework, returns and warranty claims, improving profit margins and freeing cash for investment.
- Measurement and prevention: routine inspections before painting and sampling finished bikes help catch defects early, reducing failure rates and the cost of rectification.
- Judgement: weigh immediate costs of fixing defects against long-term damage to reputation; for Riverside Bikes, maintaining high quality is essential because safety defects such as faulty brakes risk customer harm and severe reputational loss, so investment in early detection and prevention is likely justified.

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