



BUS.OP9 The Importance of Quality and Identifying Quality Problems

AQA 8132 · Calculators not allowed · about 40 minutes

Total Marks

--

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** Riverside Bikes, a small UK bicycle maker, has found that 60 of the 2,000 bicycles produced this month need rework because of faulty brake assemblies. Which one of the following best describes a direct financial cost Riverside Bikes faces because of these faulty brakes?

- ☐ A) Increased marketing spend
- ☐ B) Cost of remaking or repairing the faulty bicycles
- ☐ C) Longer product development cycle next year
- ☐ D) Higher employee morale

(Total for Question 1 is 1 mark)

- 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)

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

(Total for Question 3 is 2 marks)

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

(Total for Question 4 is 2 marks)

- 5** Define, in a business context for Riverside Bikes, what is meant by 'quality' when describing their bicycles.

(Total for Question 5 is 1 mark)

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

(Total for Question 6 is 2 marks)

- 7** 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 7 is 4 marks)

- 8** Explain the impact on Riverside Bikes' reputation and future sales if customers experience faulty brakes, using the scenario information where faulty brakes affected 60 of the 2,000 bicycles this month.

(Total for Question 8 is 4 marks)

- 9** 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 9 is 9 marks)

- 10** 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 10 is 1 mark)

- 11** 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 11 is 1 mark)

- 12** Riverside Bikes finds 60 faulty bicycles this month out of 2,000 produced. Calculate the failure rate as a percentage. Show your working.

(Total for Question 12 is 2 marks)

- 13** State two pieces of information Riverside Bikes should record when analysing customer complaints about faulty brakes.

(Total for Question 13 is 2 marks)

- 14** Riverside Bikes decides to increase final sampling from 50 to 100 bicycles per month. Identify one likely immediate effect of this change on the business.

(Total for Question 14 is 1 mark)

- 15** State two preventive actions Riverside Bikes could take to reduce the number of faulty brake assemblies entering final production.

(Total for Question 15 is 2 marks)

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

(Total for Question 16 is 2 marks)

- 17** 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 17 is 1 mark)

Mark scheme · BUS.OP9 The Importance of Quality and Identifying Quality Problems

Question 1

- **B1** B cao
- **Answer: B**

Question 2

- **B1** B cao
- **Answer: B**

Question 3

- **B1** costs of remaking or repairing faulty bicycles (replacement parts and labour)
- **B1** compensation, refunds or returns handling costs and lost sales from dissatisfied customers
- **Answer: Any two, e.g. cost of remaking/repairing faulty bicycles; compensation or refunds and handling returns which may also cause lost sales.**

Question 4

- **B1** tracking reject or failure rates from production records
- **B1** analysing customer complaints and feedback data or returns statistics
- **Answer: Any two, e.g. track reject/failure rates from production; analyse customer complaints, returns and feedback.**

Question 5

- **B1** a clear definition, e.g. the degree to which a bicycle meets customer expectations and specifications for performance and safety
- **Answer: The degree to which a bicycle meets customer expectations and required specifications for performance, reliability and safety.**

Question 6

- **B1** loss of customer trust and damage to brand reputation
- **B1** negative word-of-mouth and poorer online reviews reducing future demand
- **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 7

- **B1** 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
- **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 8

- **B1** identifies a reputation impact, e.g. customers lose trust in product safety and reliability
- **B1** develops the point, e.g. negative word-of-mouth and online reviews may spread information about faulty brakes
- **B1** adds further development, e.g. future demand could fall, reducing sales and market share
- **B1** links to a longer-term outcome, e.g. costs to rebuild brand image or increased marketing spend to restore trust
- **Answer: Faulty brakes harm customer trust and lead to negative reviews and word-of-mouth, which can reduce future sales and market share and force Riverside Bikes to spend on reputation repair or increased marketing.**

Question 9

- **Level 1** (1-3): Makes simple, general points about quality without clear application to Riverside Bikes, for example stating that poor quality costs money but with little development.
- **Level 2** (4-6): 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.
- **Level 3** (7-9): 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.
- **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.

Question 10

- **B1** B cao
- **Answer: B**

Question 11

- **B1** sampling may miss some defective bicycles, so some faults reach customers
- **Answer: Sampling can miss defective bicycles, meaning some faulty products may still be sold to customers.**

Question 12

- **M1** 60 / 2,000 seen
- **A1** 3.0% cao
- **Answer: 3.0%.**

Question 13

- **B1** details of the fault or defect reported
- **B1** date of sale or batch/serial number to trace production records
- **Answer: Any two, e.g. the exact fault details; the sale date or batch/serial number to trace production.**

Question 14

- **B1** higher inspection costs or more labour/time spent on quality checks
- **Answer: Immediate effect: increased inspection costs or more time and labour spent checking bicycles.**

Question 15

- **B1** introduce inspection of brake components on delivery from suppliers
- **B1** implement a quality checklist or training for assembly staff to ensure correct fitting
- **Answer: Any two, e.g. inspect brake parts on delivery; provide assembly staff with checklists and training to ensure correct fitting.**

Question 16

- **M1** 60 x 25 seen
- **A1** 1,500 pounds cao
- **Answer: 1,500 pounds.**

Question 17

- **B1** B cao
- **Answer: B**