Design & Technology
(Product Design)

DTBase©

OCR A-Level

Testing Product Feasibility for Market Launch (8.1c)

Materials required for questions

- Pencil
- Rubber
- Calculator

Instructions

- Use black ink or ball-point pen
- Try answer all questions
- Use the space provided to answer questions
- Calculators can be used if necessary
- For the multiple choice questions, circle your answer

Advice

- Marks for each question are in brackets
- Read each question fully
- Try to answer every question
- Don't spend too much time on one question

Good luck!

Q1. A feasibility study is conducted primarily to:

A Create the final advertising campaign for a product

B Determine whether a design solution is technically and economically possible to bring to market

C Write the user manual for the finished product

Q2. Which factor in a feasibility study assesses whether the product will be adopted into daily routines?

A The design solution's impact on user lifestyles

B The stock availability of materials

C The technical difficulty of manufacture

Q3. If a product is found to be technically difficult to manufacture during a feasibility study, the likely outcome is:

A Higher production costs and potential delays

B Guaranteed market success due to uniqueness

C Reduced need for advertising

Q4. A key purpose of market analysis of similar products is to:

A Copy the exact features of competing products

B Understand competitors' strengths, weaknesses, and market gaps

C Determine the colour scheme for the new product

Q5. Explain why testing the feasibility of getting a product to market must include considerations of cost, packaging, and appeal. **(4 marks)**

Q6. Designers and manufacturers need to determine whether design solutions are commercially viable. Discuss the value of a feasibility study to determine the commercial viability of a product. Refer to specific examples in your answer. **(8 marks)**

Answers

Q1. B
Q2. A
Q3. A
Q4. B

Q5.

- Cost: Must be tested to ensure the product can be manufactured and sold at a price the target market will pay, while still making a profit. High costs can make the product unviable.
  (1 mark)
- Packaging: Must be tested for functionality (protects the product), cost-effectiveness, and environmental impact. Poor packaging can lead to damaged goods, high returns, and negative brand perception.
  (1 mark)
- Appeal: Must be tested with the target audience to ensure the product's design, features, and marketing resonate. Low appeal means low sales, regardless of functionality.
  (1 mark)
- Interdependence: These factors are linked. For example, expensive packaging increases cost but may boost appeal; a low-cost product with poor appeal won't sell. Feasibility testing balances all three to ensure market success.
  (1 mark for explaining the link between factors or overall feasibility)

Q6.
Indicative content:

Possible discussions of the value of a feasibility study to determine the factors that influence the commercial viability of a product could include:

Positive values feasibility studies have positive effect on a product as ensuring the following will create better profits through:

- The design solution's impact on user lifestyle: checks that the product will be beneficial to society, both ethically and safety. Increased sales increase profitability and then feasibility of the product.

- How well a product performs. The effectiveness of a product, ensure that the consumers are getting a quality product. This can then help the designer and manufacturer make decisions about the design.
- Technical difficulty of manufacture: This can be modelled on the computer and would have a direct impact on the cost of the product. This can then be assessed.
- Stock availability: Ability to source material for production, as materials that are hard or from unreliable sources to obtain may well be unsuitable.
- Costs and profits: Costs of the product and manufacture, hidden costs such a factory and lighting costs, are collated and compared to the price that the customer is charged.

Negative aspects might include:

- Cost of the study may raise the cost of the manufacture.
- The feasibility study will slow the progress of the product down as it might highlight areas that could be improved.
- Any other suitable response.