

Design & Technology

Stages of a products life cycle

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. What happens to a product when it reaches the maturity stage of the product life cycle?

- A** Sales revenue grows over time
- B** Sales revenue declines over time
- C** Sales revenue is constant over time

Q2. Which of these statements about product life cycles is true?

- A** The length of every product's life cycle is the same
- B** The length of each phase in a product's life cycle can be different
- C** A product will be withdrawn once it enters maturity

Q3. In which phase of the product life cycle is a product launched?

- A** Growth
- B** Maturity
- C** Introduction

Q4. What is the purpose of a product extension strategy?

- A** To lengthen the life cycle of a product
- B** To prevent a product being successful
- C** To lengthen the introduction phase of a product's life cycle

Q5. Which of these extension strategies would be most likely to succeed in extending the life cycle of a breakfast cereal?

- A** Making the breakfast cereal available in a new flavour
- B** Increasing advertising of the breakfast cereal
- C** Increasing the price of the breakfast Cereal

Q6. Which of the following statements is true?

- A** Disposal is the final step in a product life cycle
- B** Using cheapest material will always Extend a product life
- C** Maturity is when the sales start to decline

Q7. Discuss cost, sales, profit and market implications to the manufacturer during the various stages of a products life cycle **(9 marks)**

Answers

Q1. C

Q2. B

Q3. B

Q4. A

Q5. A

Q6. A

Q7.

Introduction stage

- Set-up and marketing costs
- Low output high marginal costs
- Advertising / attracting early adopters
- Slow sales / uptake
- Small market share

Growth stage

- Increasing consumer awareness
- Increasing popularity and sales
- Product tweaking and updates in response to feedback
- Increasing market share
- Development costs covered
- Increasing economies of scale
- Can price goods to give increasing competitive edge
- Higher marginal profit
- Competitors take an interest in product success

Maturity stage

- Market saturation achieved
- Competitors release competing products
- Levelling/slowing of demand
- Price adjustments
- Redevelopment / updates to increase demand
- Facelifts
- Incorporation of updated technology
- Preparation for replacement models

Decline stage

- Reduction in sales
- Impacts on profits
- Development costs fully covered

- Eventual loss of profitability
- Withdrawal from market