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## **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?

Α	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- **C** A product will be withdrawn once it enters maturity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

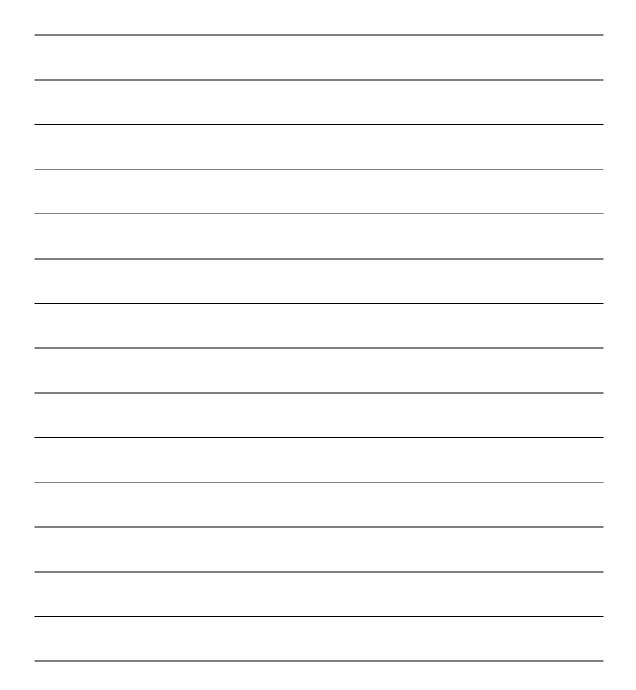
**Q5.** Which of these extension strategies would be most likely to succeed in extending the life cycle of a breakfast cereal?

- 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