



**2004**

HIGHER SCHOOL CERTIFICATE  
EXAMINATION

# Food Technology

## General Instructions

- Reading time – 5 minutes
- Working time – 3 hours
- Write using black or blue pen
- Write your Centre Number and Student Number at the top of pages 5, 7, 9 and 11 or 13

**Total marks – 100**

**Section I** Pages 2–4

**10 marks**

- Attempt Questions 1–10
- Allow about 15 minutes for this section

**Section II** Pages 5–14

**55 marks**

This section has two parts, Part A and Part B

- Allow about 1 hour and 35 minutes for this section

Part A – 45 marks

- Attempt Questions 11–13

Part B – 10 marks

- Attempt either Question 14 or Question 15

**Section III** Page 15

**20 marks**

- Attempt either Question 16 or Question 17
- Allow about 40 minutes for this section

**Section IV** Page 16

**15 marks**

- Attempt ONE question from Questions 18–21
- Allow about 30 minutes for this section

## Section I

10 marks

Attempt Questions 1–10

Allow about 15 minutes for this section

Use the multiple-choice answer sheet.

Select the alternative A, B, C or D that best answers the question. Fill in the response oval completely.

**Sample:**      $2 + 4 =$      (A) 2     (B) 6     (C) 8     (D) 9  
   A ☐     B ☒     C ☐     D ☐

If you think you have made a mistake, put a cross through the incorrect answer and fill in the new answer.

A ☒     B ☒     C ☐     D ☐

If you change your mind and have crossed out what you consider to be the correct answer, then indicate the correct answer by writing the word **correct** and drawing an arrow as follows.

A ☒     B ☒     C ☐     D ☐  
   *correct*  
   ↙

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- 1** Which of the following has the greatest impact on the increasing popularity of microwaveable foods?

  - (A) Consumer convenience
  - (B) Government policy
  - (C) Quality assurance
  - (D) Research and development
- 2** What is ONE external factor in new food product development?

  - (A) Company image
  - (B) Production facilities
  - (C) Product specifications
  - (D) Technological environment
- 3** What is the main reason for packaging bread in plastic?

  - (A) To maintain air flow
  - (B) To prevent drying out
  - (C) To improve consumer safety
  - (D) To provide marketing opportunities
- 4** What is the main reason for blanching vegetables prior to freezing?

  - (A) To denature enzymes
  - (B) To improve appearance
  - (C) To reduce cooking time
  - (D) To prevent microbial activity
- 5** What is the purpose of a SWOT analysis in new food product development?

  - (A) To establish quality standards
  - (B) To develop new food product ideas
  - (C) To determine the likely success of a new food product
  - (D) To minimise the impact on the environment

- 6 At which step are consumer needs first considered during new food product development?
- (A) Feasibility study
  - (B) Prototype testing
  - (C) Idea generation and screening
  - (D) Production process development
- 7 What is *quality assurance* in relation to food manufacture?
- (A) Producing affordable foods
  - (B) Ensuring that the food is nutritious
  - (C) Using good quality raw materials
  - (D) Ensuring that food meets specification standards
- 8 Which of the following will minimise deterioration of fats and oils during storage?
- (A) Anticaking agents
  - (B) Antioxidants
  - (C) Emulsifiers
  - (D) Preservatives
- 9 Which of the following is the most significant social implication of increased mechanisation in the food industry?
- (A) Decreased environmental pollution
  - (B) Increased range of convenience foods
  - (C) Increased range of products for consumers
  - (D) Decreased employment opportunities for unskilled workers
- 10 Which of the following best describes food retailing in Australia?
- (A) Selling of food direct to consumers
  - (B) Display of food in refrigerated cabinets
  - (C) Selling food for immediate consumption
  - (D) Development of convenience foods for consumers

## Food Technology

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Centre Number

## Section II

55 marks

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Allow about 1 hour and 35 minutes for this section

Student Number

## Part A – 45 marks

## Attempt Questions 11–13

Answer the questions in the spaces provided.

Marks

## Question 11 — The Australian Food Industry (15 marks)

- (a) Identify ALL the sectors of the Australian food industry.

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Choose a food company operating in Australia. Answer parts (b)–(c) in relation to this company.

Chosen food company: .....

- (b) Identify the sector of the Australian food industry to which the chosen company belongs.

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Question 11 continues on page 6

Question 11 (continued)

(c) Describe the impact the chosen company has on:

(i) the environment ..... **4**

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(ii) the economy ..... **4**

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(iii) society ..... **4**

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**End of Question 11**

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Centre Number

## Section II – Part A (continued)

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Student Number

**Marks****Question 12 — Food Manufacture (15 marks)**

- (a) Identify EIGHT legislative requirements that should appear on a packaged food label. **5**

- 1 .....
- 2 .....
- 3 .....
- 4 .....
- 5 .....
- 6 .....
- 7 .....
- 8 .....

- (b) Identify FIVE types of information that may appear on packaged food labels but are NOT legislative requirements. **3**

- 1 .....
- 2 .....
- 3 .....
- 4 .....
- 5 .....

**Question 12 continues on page 8**

**Question 12 (continued)**

- (c) Discuss the importance of packaging and food labelling in relation to consumer health and safety. **7**

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**End of Question 12**



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Centre Number

## Section II – Part A (continued)

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Student Number

**Marks****Question 13 — Food Product Development (15 marks)**

Choose a food product. Answer parts (a)–(b) in relation to this food product.

Chosen food product: .....
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(a) Identify THREE drivers for the development of this food product.

Driver 1: ..... **1**

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Driver 2: ..... **1**

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Driver 3: ..... **1**

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**Question 13 continues on page 10**

**Question 13 (continued)**

- (b) Explain the relevance of each driver identified in part (a) to your chosen food product.

Driver 1: ..... **4**

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Driver 2: ..... **4**

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Driver 3: ..... **4**

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**End of Question 13**

## Food Technology

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Centre Number

## Section II (continued)

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Student Number

## Part B – 10 marks

Attempt either Question 14 or Question 15

Answer the question in the spaces provided.

Marks

## Question 14 — Contemporary Food Issues – Nutrition (10 marks)

- (a) Define the term *active non-nutrient*. 1

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- (b) Give TWO examples of active non-nutrients, and ONE food source for each. 2

Example 1: .....

Food source: .....

Example 2: .....

Food source: .....

- (c) Discuss the role of ONE active non-nutrient, identified in part (b), in the diet. 3

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Question 14 continues on page 12

**Question 14 (continued)**

- (d) Contrast nutritionally modified foods with those foods containing active non-nutrients. **4**

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**End of Question 14**

## Food Technology

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Centre Number

## Section II – Part B (continued)

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Student Number

**Marks****Do NOT attempt Question 15 if you have already attempted Question 14.****Question 15 — Contemporary Food Issues – Marketplace (10 marks)**

Choose a processed food product. Answer part (a) in relation to this product.

Chosen processed food product: .....
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- (a) (i) Identify **THREE** social impacts of the chosen processed food product. **3**

Social impact 1: .....

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Social impact 2: .....

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Social impact 3: .....

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- (ii) Explain how **ONE** of these social impacts has affected the community. **3**

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**Question 15 continues on page 14**

Question 15 (continued)

- (b) Evaluate the social impacts of food marketing on the Australian consumer. **4**

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**End of Question 15**

## Food Technology

### Section III

**20 marks**

**Attempt either Question 16 or Question 17**

**Allow about 40 minutes for this section**

Answer the question in a writing booklet. Extra writing booklets are available.

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	Marks
<b>Question 16 — Food Manufacture (20 marks)</b>	
(a) Outline TWO advantages of a fully automated production system used in the manufacture of food.	2
(b) Describe storage AND distribution systems used in large-scale food manufacturing. Use examples to support your answer.	8
(c) Compare the processing techniques AND equipment of small-scale and large-scale production systems. Use examples to support your answer.	10

**OR**

**Question 17 — Food Product Development (20 marks)**

Identify a food product that you have developed to meet a consumer need. Answer parts (a)–(c) in relation to this product.

(a) Outline the design brief used for the development of your food product.	2
(b) Describe the steps used in the development of your food product.	8
(c) Propose a suitable marketing strategy for your food product.	10

**Please turn over**

## **Section IV**

**15 marks**

**Attempt ONE question from Questions 18–21**

**Allow about 30 minutes for this section**

Answer the question in a SEPARATE writing booklet. Extra writing booklets are available.

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In your answer you will be assessed on how well you:

- present ideas clearly in a well-structured text
  - use appropriate terminology
  - support the argument with relevant examples
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### **Contemporary Food Issues – Nutrition**

#### **Question 18** (15 marks)

Describe the role of community groups, the food industry and government organisations in the promotion of health.

**OR**

#### **Question 19** (15 marks)

Discuss the role of heredity AND diet in the development of dietary disorders.

### **Contemporary Food Issues – Marketplace**

#### **Question 20** (15 marks)

Discuss emerging technologies in food production and their impact on trends in the marketplace.

**OR**

#### **Question 21** (15 marks)

Discuss ethical and social justice issues arising from ownership concentration and globalisation of the food industry.

**End of paper**