



B O A R D O F S T U D I E S
NEW SOUTH WALES

2001

**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, 9, 11 and 13 or 15

Total marks – 100

Section I Pages 2–4

10 marks

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

Section II Pages 5–16

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 17

20 marks

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

Section IV Page 18

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 ↙

- 1** Which of the following is identified by a SWOT analysis?
- (A) Strengths, weaknesses, opinions and threats
 - (B) Strengths, weaknesses, opportunities and threats
 - (C) Strategies, weaknesses, opinions and threats
 - (D) Strategies, weaknesses, opportunities and threats
- 2** Which of the following is a current Australian legislative requirement on food labels?
- (A) Serving suggestions
 - (B) Storage requirements
 - (C) Statement of quantity
 - (D) Nutritional information
- 3** A manufacturer of instant noodle mix adds a new flavour to its existing range.
- Which of the following best describes this product development?
- (A) Line extension
 - (B) Me too
 - (C) New extension
 - (D) New to world
- 4** Which of the following best describes the role of food additives?
- (A) To enhance food quality
 - (B) To disguise inferior ingredients
 - (C) To reduce the risk of food allergies
 - (D) To reduce the wastage of raw materials
- 5** Which of the following is usually the first step in the process of developing a new food product?
- (A) Generating ideas
 - (B) Developing a prototype
 - (C) Listing product specifications
 - (D) Conducting a feasibility study

- 6 Food manufacturers have responded to concerns about environmental issues by increasing the use of which of the following?
- (A) Food additives
 - (B) Fresh ingredients
 - (C) Organic fertilisers
 - (D) Biodegradable packaging
- 7 Which of the following aspects of food processing would be SIMILAR in both domestic and industrial settings?
- (A) Equipment and distribution
 - (B) Equipment and storage conditions
 - (C) Processing techniques and distribution
 - (D) Storage conditions and processing techniques
- 8 How do Australian consumers benefit from research and development in the food industry?
- (A) More imported foods are sold.
 - (B) A wider range of foods becomes available.
 - (C) The nutritional status of all foods is improved.
 - (D) The packaging costs of packaged foods are decreased.
- 9 Which of the following is the main role of government legislation in the Australian food industry?
- (A) Increasing food exports
 - (B) Increasing government revenue
 - (C) Ensuring consumer health and safety
 - (D) Ensuring the use of local raw materials
- 10 The use of a marketing plan in food product development would include which one of the following?
- (A) The generation of new ideas
 - (B) The determination of use-by dates
 - (C) The identification of a price structure
 - (D) The establishment of storage conditions

Food Technology

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Centre Number

Section II

55 marks

Allow about 1 hour and 35 minutes for this section

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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)

Name an organisation you have studied within the Australian food industry.

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- (a) Describe TWO food-related career opportunities in this organisation. **2**

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- (b) (i) Define the term *quality assurance*. **1**

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Question 11 continues on page 6

Question 11 (continued)

- (ii) Outline the main features of **THREE** quality assurance procedures used in this organisation. **3**

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- (c) How has this organisation responded to **TWO** environmental issues? **4**

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Question 11 continues on page 7

Question 11 (continued)

- (d) Analyse how this organisation has responded to TWO consumer influences (other than environmental). **5**

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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) Name a food that you have preserved, and state the preservation process. **1**

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- (b) Identify THREE main causes of spoilage of this food before preservation. **3**

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- (c) (i) Describe the steps in the process used to preserve this food. **3**

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Question 12 continues on page 10

Question 12 (continued)

- (ii) Explain TWO preservation principles involved when preserving this food. 4

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- (d) Analyse TWO food safety issues involved in this preservation process. 4

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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)

Your company has decided to produce a fruit and cereal snack bar.

- (a) Identify TWO reasons for the development of this snack bar. **2**

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- (b) Outline THREE ways of testing the prototype of the snack bar. **3**

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Question 13 continues on page 12

Question 13 (continued)

(c) (i) Identify ONE consumer group who would buy this product. **1**

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(ii) Justify your choice of consumer group for this product. **3**

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(d) Propose and justify a promotional program for marketing the fruit and cereal snack bar. **6**

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End of Question 13

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Centre Number

Section II

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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) Describe, using examples, TWO different ways in which foods can be nutritionally modified. **4**

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Question 14 continues on page 14

Question 14 (continued)

(b) Discuss the relationship between nutritionally modified foods and health. **6**

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End of Question 14

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Centre Number

Section II – Part B (continued)

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Student Number

Marks

Question 15 — Contemporary Food Issues – Marketplace (10 marks)

(a) Identity FOUR trends in the marketplace.

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Question 15 continues on page 16

Question 15 (continued)

- (b) Using examples, evaluate the impact of a marketplace trend on the environment, the economy and society.

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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.

	Marks
Question 16 — Food Manufacture (20 marks)	
(a) Identify a manufactured food you have studied, and list its major ingredients.	2
(b) Identify the critical control points and describe quality control procedure(s) at each control point in the production of this food. In answering this question, refer to handling raw materials, the manufacturing process, the packaging, and the storage and distribution of this product.	8
(c) Evaluate the significance of the quality control procedures described in part (b) for producing quality foods that are safe for public consumption.	10

OR

Question 17 — Food Product Development (20 marks)	
(a) Briefly explain, using an example of each, the difference between internal and external factors that impact on food product development.	2
(b) Describe how external and internal factors impact on food product development.	8
(c) Explain how food companies respond to these external and internal factors in developing their products.	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.

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 nutritional considerations for a specific group you have investigated. Explain a strategy you could use to promote optimum health for this group through good nutrition.

OR

Question 19 (15 marks)

Discuss the role of the individual, the community, the food industry, government organisations and private agencies in promoting health through good nutrition.

Contemporary Food Issues – Marketplace

Question 20 (15 marks)

The world produces an oversupply of food.

Explain the factors contributing to the inequitable access, for some of the world's population, to the global food supply.

OR

Question 21 (15 marks)

Cradle-to-grave analysis includes consideration of marketplace trends.

Discuss this statement in relation to environmental, economic, social and ethical issues.

End of paper