



BOARD OF STUDIES
NEW SOUTH WALES

2002

**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 ↙

- 1** Which of the following is the focus of quality assurance systems?
 - (A) A specific stage of the food manufacturing process
 - (B) All stages of food production
 - (C) The final food product
 - (D) Government legislation

- 2** Which of the following is responsible for certifying organic foods?
 - (A) The National Association for Sustainable Agriculture
 - (B) The Australian Quarantine Inspection Service (AQIS)
 - (C) The agriculture and fisheries sector
 - (D) Local food inspectors

- 3** Which of the following is an example of a line extension?
 - (A) A simulation of an existing food
 - (B) A new flavour for an existing food
 - (C) A food manufactured using new technology
 - (D) A genetically modified food

- 4** What is the major way in which multinationals affect the Australian food industry?
 - (A) Increased use of local raw materials
 - (B) Greater competition within Australia
 - (C) Formation of new Australian-owned companies
 - (D) Decreased research and development activity in Australia

- 5** How do company production facilities impact on product development activities?
 - (A) They determine the production level of the company.
 - (B) They reflect the current ecological environment.
 - (C) They enable all consumer demands to be met.
 - (D) They allow manufacture of completely new products.

- 6** Why is stainless steel often used for construction of food processing equipment?
- (A) It is magnetic.
 - (B) It is low in cost.
 - (C) It does not react with foods.
 - (D) It is produced in Australia.
- 7** Which of the following most influences the selection of raw materials for food processing?
- (A) Cost of end-product distribution
 - (B) Consistency of shape, size and colour
 - (C) Seasonal availability
 - (D) Level of physical damage
- 8** Which of the following is a major advantage of using Hazard Analysis and Critical Control Point?
- (A) Low cost of implementation
 - (B) Increased profits and reduced waste
 - (C) Not all staff need training
 - (D) More nutritious foods for consumers
- 9** In which of the following groups are all foods produced using fermentation?
- (A) Jam, honey, milk
 - (B) Cheese, jams, pickles
 - (C) Honey, salami, pickles
 - (D) Cheese, yogurt, salami
- 10** Which factor most influences the price structure of a new food product?
- (A) The environment
 - (B) Distribution system
 - (C) Nature of the target market
 - (D) Expertise of company staff

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) Define TWO sectors of the Australian food industry.

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(b) Choose ONE sector listed above, and answer the following.

Name of sector:

(i) Outline THREE ways in which this sector has impacted on Australian society.

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Question 11 continues on page 6

Question 11 (continued)

- (ii) Using TWO examples, explain how this sector contributes to the Australian economy. 4

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- (iii) Discuss how TWO recent developments impact on this sector. 6

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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)

Choose a manufactured food product. Answer the following questions for this product.

Chosen food product

- (a) List THREE key factors which need to be considered when choosing the type of packaging for the chosen food. 3

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- (b) (i) Describe an experiment to determine the suitability of the packaging for the chosen food product. 3

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Question 12 continues on page 8

Question 12 (continued)

- (ii) Critically evaluate the results obtained from the experiment. **5**

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- (iii) Describe the most suitable type of packaging for the chosen food product and provide an explanation for your decision. **4**

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End of Question 12

Food Technology

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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)

A biscuit company has been approached to develop a new range of savoury biscuits targeted at the adolescent market.

- (a) Outline FIVE steps in the development of a food product.

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Question 13 continues on page 10

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) Identify ONE diet-related disorder linked to overnutrition.

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(b) Explain the physical effects on the individual with this disorder.

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Question 14 continues on page 12

Question 14 (continued)

- (c) Discuss the economic costs associated with this disorder for the individual and society.

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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

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

- (a) Outline THREE reasons for the increased availability of value-added convenience foods. **3**

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Question 15 continues on page 14

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) Explain the causes of food spoilage and deterioration. Use examples to support your answer.	8
(b) Discuss TWO preservation techniques and explain which principles of food preservation are involved in each technique. Use an example for each technique to support your answer.	12

OR

Question 17 — Food Product Development (20 marks)	
(a) Explain the drivers behind the development of new food products. Use examples to support your answer.	8
(b) Select a food product and discuss FOUR reasons for its development.	12

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)

Explain how diet, media and social practices influence the nutritional status of the Australian community.

OR

Question 19 (15 marks)

Discuss the role of active non-nutrients and supplements in the diet.

Contemporary Food Issues – Marketplace

Question 20 (15 marks)

Explain ways in which the food industry can achieve more ecologically sustainable methods of production.

OR

Question 21 (15 marks)

Discuss the relationship between specific marketplace trends and developments in the food industry.

End of paper