



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

2008

**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 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 for Questions 1–10.

- 1 What is the most suitable level of operation for a specialty cheese company?
 - (A) Household
 - (B) Multinational
 - (C) Small business
 - (D) Large company

- 2 A variety of eggs is available to meet different market concerns.
Which type of egg would best meet market concerns for healthier foods?
 - (A) Free-range
 - (B) Omega-3
 - (C) Organic
 - (D) Vegetarian

- 3 What is a major role of advisory groups to the Australian food industry?
 - (A) Developing human resources
 - (B) Organising the recall of products
 - (C) Setting minimum prices for similar products
 - (D) Lobbying the government about issues of concern

- 4 What is meant by *product specification* in relation to the development of a food product?
 - (A) A list of consumer expectations
 - (B) A plan of the manufacturing process
 - (C) A measure of the feasibility of the product
 - (D) A description of requirements for production

- 5** The development of lightweight plastic bottles is a response to which of the following?
- (A) Improved shelf-stacking
 - (B) Demand for lower prices
 - (C) Environmental awareness
 - (D) Needs of an ageing population
- 6** What is the best way to ensure the quality of raw materials?
- (A) Visual inspection
 - (B) Use of a regular supplier
 - (C) Correct storage conditions
 - (D) Compliance to specifications
- 7** What is the main advantage of using small-scale production equipment in food manufacturing?
- (A) Low set-up costs
 - (B) Increased flexibility
 - (C) Greater quality control
 - (D) High production volume
- 8** Which of the following is the most important consideration in the distribution of food products?
- (A) Location of retailer
 - (B) Product quality loss
 - (C) Choice of transport
 - (D) Cost of warehousing

- 9** Which of the following characteristics are essential when a food is to be used by soldiers on active duty?
- (A) Lightweight and shelf-stable
 - (B) High in energy and dietary fibre
 - (C) Low-cost and easily transportable
 - (D) Biodegradable packaging and energy-dense
- 10** What is the main function of ascorbic acid when it is added to orange juice?
- (A) To enhance flavour
 - (B) To extend shelf life
 - (C) To replace nutrient loss
 - (D) To act as an antioxidant

Food Technology

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Centre Number

Section II

55 marks

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Student Number

Allow about 1 hour and 35 minutes for this section

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) Outline recent developments in ONE sector of the Australian food industry.

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Name of sector:

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Question 11 continues on page 6

Question 11 (continued)

Name an organisation in the Australian food industry that you have studied:

Organisation:

Answer parts (b)–(c) in relation to this organisation.

- (b) Describe the methods used to provide quality assurance in this organisation. **5**

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- (c) Explain how research and development may improve the activities of this organisation. **6**

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End of Question 11

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Section II – Part A (continued)

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Student Number

Marks

Question 12 — Food Manufacture (15 marks)

Fantastic Fruits is a multinational fruit canning company intending to establish a food manufacturing plant in a small country town in Australia.

- (a) Describe the environmental issues the manufacturer would need to consider when setting up the plant. **6**

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Question 12 continues on page 8

Question 12 (continued)

- (b) Explain the social implications of the establishment of this manufacturing plant for the local community. 6

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- (c) Evaluate the suitability of locating this manufacturing plant in a small country town. 3

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End of Question 12

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Section II – Part A (continued)

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Student Number

Marks

Question 13 — Food Product Development (15 marks)

(a) Identify the missing activity of a marketing plan, by writing it in the space provided. **1**

- Product planning
-
- Placement and distribution
- Promotion

Question 13 continues on page 10

Question 13 (continued)

Answer parts (b)–(d) in relation to this product.



- (b) Outline a suitable distribution system for this product, from warehouse to retailer. **4**

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Question 13 continues on page 11

Question 13 (continued)

- (c) Discuss possible retail outlets for the placement of this product. **4**

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- (d) Propose and justify a promotional program for marketing this product. **6**

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End of Question 13

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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 *malnutrition*.

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(b) Describe the economic costs of malnutrition.

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Question 14 continues on page 14

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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)

(a) Describe how TWO health-enhancing foods improve the health of the consumer. **4**

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Question 15 continues on page 16

Question 15 (continued)

- (b) (i) Define, using examples, the term *value added convenience foods*. 2

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- (ii) Explain reasons for the increased consumer demand for value added convenience foods. 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.

	Marks
Question 16 — Food Manufacture (20 marks)	
(a) What are the hazards and risks associated with the manufacture of food products?	4
(b) Describe how quality management considerations may be used to achieve safe foods for public consumption.	6
(c) Name a food product and identify critical control points in the manufacture of this food. Explain why these control points are critical.	10

OR

Question 17 — Food Product Development (20 marks)

(a) What is the purpose of a SWOT analysis?	4
(b) Describe, using examples, the internal factors that impact on food product development.	6
(c) Identify the external factors that impact on food product development in Australia. Explain how food companies can maximise their opportunities in this macro-environment.	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
-

Contemporary Food Issues – Nutrition

Question 18 (15 marks)

Identify active non-nutrients and discuss their roles in the diet and health of Australians.

OR

Question 19 (15 marks)

Community groups, the food industry, government organisations and private agencies have a role in promoting diet and health.

Discuss the roles of these different groups in promoting diet and health in Australia.

Contemporary Food Issues – Marketplace

Question 20 (15 marks)

Identify the factors that contribute to inequitable access to the global food supply and describe the consequences.

OR

Question 21 (15 marks)

Analyse the trend in the Australian food industry towards ecologically sustainable production methods.

End of paper