

# 2006 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

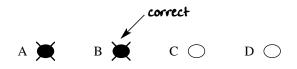
Use the multiple-choice answer sheet.

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 $A \bigcirc B \bigcirc C \bigcirc D \bigcirc$ 

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

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.



1	1 Which of the following is not a sector of the Australian food industry?							
	(A)	Food retail						
	(B)	Food marketing						
	(C)	Agriculture and fisheries						
	(D)	Food processing and manufacturing						
2	Whice syste	ch feature of a food product is monitored by critical control points in a HACCP m?						
	(A)	Size						
	(B)	Safety						
	(C)	Nutrition						
	(D)	Consistency						
3		does protection of the ecological environment impact on food product lopment?						
	(A)	Decrease in recycling						
	(B)	Increase in use of pesticides						
	(C)	Decrease in food production cost						
	(D)	Increase in use of biodegradable packaging						
4	Whic	ch product is preserved using modified atmosphere packaging?						
	(A)	Cornflakes						
	(B)	Canned tomatoes						
	(C)	Pre-packaged salads						
	(D)	Fresh flavoured milk						
5	Wha	t is the major impact of research and development on the Australian food industry?						
	(A)	Increased range of foods available						
	(B)	Reduced packaging costs for consumers						
	(C)	Reduced food imports in the marketplace						
	(D)	Increased nutrient content of processed food						

6 What is the most significant impact of the Trade Practices Act on the Australian food industry? (A) Introduction of tariffs on imports (B) Prevention of restrictive trade practices Providing export certification for agricultural produce (D) Environmental Protection Authority monitoring of factory emissions 7 What has led to soup being packaged and sold in a microwaveable cup? (A) Company image (B) Market concerns Specialised application (C) Technological development (D) 8 What is the purpose of the nutritional panel on a food label? To show the additives included (A) To inform consumers of nutritional content (B)

During which step is a break-even point decided when developing a food product?

To show quantity of ingredients in the product

To inform consumers of nutrient function in the body

What is the major cause of spoilage in fruits and vegetables?

(A) Idea screening

(A) Enzymatic changes

Purchasing out of season

Refrigerated storage

(B) Exposure to light

(C)

(D)

(C)

(D)

9

10

- (B) Primary research
- (C) Feasibility study
- (D) Product specification

Food Technology  Centre									
Section II 55 marks Allow about 1 hour and 35 minutes for this section  Student									
	t A – 45 marks empt Questions 11–13								
Ans	wer the questions in the spaces provided.								
Que	estion 11 — The Australian Food Industry (15 marks)	ľ	Marks						
Nan	ne a food organisation that you have studied.								
Nam	ne of food organisation								
(a)	Identify TWO quality assurance procedures used by this organ	nnisation.	2						
(b)	Describe how the identified quality assurance procedures for ensure a safe food product.	r this organisation	4						

**Question 11 continues on page 6** 

Que	stion 11 (continued)	Marks
(c)	Discuss the impact of consumer influences on the organisation identified, using relevant examples.	6
(d)	Explain how the identified organisation has responded to consumer influences, using relevant examples.	3

Food Technology				antra	Nu	mber
Sect	ion II – Part A (continued)					mber
Que	estion 12 — Food Manufacture (15 marks)				M	arks
(a)	Define food additives.					2
(b)	Explain why food additives are used by food manufacturer					3

Question 12 continues on page 8

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(c) Read the following ingredient list:

#### **INGREDIENTS:**

MIXED FRUIT (36%) [SULTANAS, GLACE CHERRIES], WHEAT FLOUR, SUGAR, SHORTENING [VEGETABLE FATS AND OILS], ANTIOXIDANT, EMULSIFIER (SOY LECITHIN), EGG, HUMECTANT, WATER, ALMONDS, COLOUR, WHEAT STARCH, VEGETABLE OIL, SALT, PRESERVATIVE, RAISING AGENTS, FLAVOURS, EMULSIFIERS

(i)	Predict the type of food product this ingredient list represents.	1
(ii)	Identify THREE food additives from the above ingredient list.	3
(iii)	Explain the role of each of the three additives that you identified in part (ii).	6

	s higher school certificate examination of Technology	ON									
Sect	ion II – Part A (continued)						C	entre	e Nui	mber	
Seci	ion 11 – 1 art A (continued)										
							Sti	uden	t Nui	mber	
Que	stion 13 — Food Product Development (15	5 marks	)						M	arks	
(a)	Define the term SWOT analysis.									1	
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		•••••		•••••	•••••		•••••	•••••			
(b)	GrainCo is a multinational company based in Australia. The company has had a large share of the breakfast cereal market for many years. Its workforce is highly skilled and uses a range of local and imported ingredients. GrainCo's company goal is to increase its product range.  The company is currently developing an ice-cream bar coated with chocolate and crunchy muesli. To manufacture this product it has purchased the latest										
	Apply the information provided above to a company.	SWOT	anal	ysis f	for th	nis pr	oduc	et and	d		
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Question 13 continues on page 10

Ques	stion 13 (continued)	Marks
(c)	Predict ways in which GrainCo could use the results of your SWOT analysis to develop the product.	8

Food Technology							ontro	Nu	mber	
Sect	tion II (continued)								INU	
Part B – 10 marks Attempt either Question 14 or Question 15							Stı	uden	t Nu	mber
Ansv	wer the question in the spaces provided.									
Que	stion 14 — Contemporary Food Issues – Nut	ritio	<b>n</b> (10	) mai	ks)				M	arks
(a)	Explain the effects of social and cultural practic Australian population, using relevant example		n the	nutı	rition	al sta	atus (	of the	e	4
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**Question 14 continues on page 12** 

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Question 14 (continued)									
(b)	Evaluate the effects of varying levels of physical activity on the nutritional status of individuals within the Australian population.	6							

Food Technology								entre	Nu	mber
Secti	ion II – Part B (continued)									
							Sti	ıden		arks
	NOT attempt Question 15 if you have already stion 15 — Contemporary Food Issues – Mar		_				14.			
(a)	Describe the key features of ecologically susta	iinab	le fo	od pı	roduc	tion	•			4

Question 15 continues on page 14

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# 2006 HIGHER SCHOOL CERTIFICATE EXAMINATION 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.

Question 16 — Food Manufacture (20 marks)					
(a)	Discuss the impact of food manufacturing technologies on employment opportunities in Australia.	8			
(b)	Analyse the impact of current food packaging and waste management practices on the environment.	12			
OR					
Question 17 — Food Product Development (20 marks)					
(a)	Explain the reasons for development of food products.	8			
(b)	Using examples of line extensions, analyse how food manufacturers have responded to the reasons for development of food products.	12			

# Please turn over

-15-

## **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)

Discuss ways in which food manufacturers have responded to consumer demands for nutritionally modified foods, and describe how these foods have impacted on the health of the Australian community.

#### OR

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

'Media and advertising have encouraged poor diets, leading to increased obesity levels in Australia.'

Critically discuss this statement in relation to the impact of advertising on food consumption patterns.

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

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

Discuss the trend towards value-added convenience foods, and describe the social impacts arising from these foods for both food manufacturers and consumers.

#### OR

# **Question 21** (15 marks)

'Ownership concentration in the food industry has maximised company profits at the expense of social, economic and ethical issues.'

Critically discuss this statement in relation to both developed and developing parts of the world.

#### End of paper