



HIGHER SCHOOL CERTIFICATE EXAMINATION

1997

# FOOD TECHNOLOGY

2/3 UNIT (COMMON)

*Time allowed—Three hours  
(Plus 5 minutes reading time)*

## DIRECTIONS TO CANDIDATES

### Section I (12 marks)

- Attempt ALL questions.
- Mark your answers in pencil on the Answer Sheet provided.

### Section II (48 marks)

- Attempt THREE questions.
- Questions 13 and 14 are COMPULSORY.
- Attempt *EITHER* Question 15 *OR* Question 16.
- Answer the questions in the spaces provided in this paper.
- Write your Student Number and Centre Number in the spaces provided on the first page of each question.
- You may ask for extra Writing Booklets if you need them.

### Section III (40 marks)

- Attempt TWO questions, ONE from each Part.
- Answer each question in a *separate* Writing Booklet.
- You may ask for extra Writing Booklets if you need them.

**SECTION I**

(12 Marks)

Attempt ALL questions.

All questions are worth 1 mark each.

Select the alternative A, B, C, or D that best answers the question.

Mark your answers in pencil on the Answer Sheet provided.

1. A food retailer does NOT
  - (A) purchase food from a wholesaler.
  - (B) sell food directly to the consumer.
  - (C) sell food to a wholesaler.
  - (D) purchase food directly from the manufacturer.
  
2. The food preservation technique that heats foods for a very short time at 95–100°C to inactivate enzymes is
  - (A) canning.
  - (B) pasteurisation.
  - (C) UHT.
  - (D) blanching.
  
3. Which of the following additives would be used to prevent moisture loss from a sponge cake?
  - (A) Emulsifiers
  - (B) Sweeteners
  - (C) Humectants
  - (D) Free-flowing agents
  
4. Active packaging involves
  - (A) destroying micro-organisms by heat.
  - (B) using oxygen to preserve foods.
  - (C) providing an inert barrier to outside conditions.
  - (D) modifying the conditions within the package.

5. Which of the following is an example of a functional food?
- (A) Sports drink
  - (B) Brown bread
  - (C) Muesli bar
  - (D) Cola drink
6. The following ingredients appear on a food label: flour, yeast, salt, gluten, vegetable oil, soy flour, emulsifiers (481, 471), preservative (281), thiamine, water added. From this ingredients list it is apparent that the food is a
- (A) baked product.
  - (B) sauce.
  - (C) frozen cheesecake.
  - (D) cake mix.
7. The piece of equipment used for heat sterilisation of foods is a
- (A) blancher.
  - (B) retort.
  - (C) conveyor belt.
  - (D) vacuum evaporator.
8. Quality assurance is a system in a food manufacturing plant that ensures that
- (A) food regulations and consumer demands are met.
  - (B) the food product contains no additives.
  - (C) product hygiene standards are maintained.
  - (D) food is inspected by a government inspector.
9. Value adding in food manufacturing involves
- (A) decreasing consumer choice.
  - (B) improving the nutritive value of food.
  - (C) further processing of the raw materials.
  - (D) using sophisticated advertising campaigns.

**10.** The process of sublimation is used in

- (A) chilling.
- (B) canning.
- (C) drying.
- (D) freeze-drying.

**11.** Fortification of a food product involves

- (A) adding nutrients.
- (B) altering flavour.
- (C) changing colour.
- (D) improving texture.

**12.** Stainless steel is most commonly used for food processing equipment because it

- (A) is an inert material.
- (B) is easy to clean, being a hygienic surface.
- (C) can be easily polished to a mirror finish.
- (D) inhibits the growth of micro-organisms.

**1997  
HIGHER SCHOOL CERTIFICATE EXAMINATION  
FOOD TECHNOLOGY  
2/3 UNIT (COMMON)**

**STUDENT NUMBER**

**CENTRE NUMBER**

---

**SECTION II**

(48 Marks)

Attempt **THREE** questions.

Questions 13 and 14 are **COMPULSORY**.

Attempt ***EITHER*** Question 15 ***OR*** Question 16.

Answer the questions in the spaces provided.

**Please turn over**

**QUESTION 13. Food Manufacture** (16 marks)

Select TWO foods from the following list:

- fresh meat
- potato crisps
- bread
- fresh fruit.

Foods selected .....

(a) List the major causes of quality loss for the TWO products selected.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

(b) For the TWO products selected, describe how the following factors can prevent quality loss.

(i) The packaging materials used

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

QUESTION 13. (Continued)

(ii) Transportation and storage conditions prior to retailing

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

(c) Outline TWO social implications of modern food manufacturing technologies.

.....  
.....  
.....  
.....  
.....  
.....  
.....

BLANK PAGE



**1997  
HIGHER SCHOOL CERTIFICATE EXAMINATION  
FOOD TECHNOLOGY  
2/3 UNIT (COMMON)—SECTION II**

**STUDENT NUMBER**

**CENTRE NUMBER**

---

**QUESTION 14. The Australian Food Industry (16 marks)**

(a) Name FOUR technologies used by Australian Aborigines, before white settlement, to obtain and/or prepare food, and briefly explain the function of each.

(i) Technology .....

.....  
.....  
.....  
.....

(ii) Technology .....

.....  
.....  
.....  
.....

(iii) Technology .....

.....  
.....  
.....  
.....

(iv) Technology .....

.....  
.....  
.....  
.....

QUESTION 14. (Continued)

(b) Choose THREE of the following factors and outline how each has influenced the historical development of the Australian food industry:

- Technology
- Immigration
- Government
- Environment
- Economy
- Lifestyle.

(i) Factor .....

.....

.....

.....

.....

.....

.....

(ii) Factor .....

.....

.....

.....

.....

.....

.....

(iii) Factor .....

.....

.....

.....

.....

.....

.....

**1997  
HIGHER SCHOOL CERTIFICATE EXAMINATION  
FOOD TECHNOLOGY  
2/3 UNIT (COMMON)—SECTION II**

**STUDENT NUMBER**

**CENTRE NUMBER**

---

Attempt *EITHER* Question 15 *OR* Question 16.

**QUESTION 15. Food Marketing** (16 marks)

The positive and negative consequences of food marketing are evident worldwide.

In relation to the above statement:

(a) Identify **TWO** advantages and **TWO** disadvantages of food marketing for consumers.

(i) Advantages

.....  
.....  
.....  
.....

(ii) Disadvantages

.....  
.....  
.....  
.....

QUESTION 15. (Continued)

(b) Outline how the marketing of food contributes to waste and pollution problems.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....

(c) Identify the FOUR aspects of the marketing mix, and, for each one, explain the ethical issues facing marketing managers.

(i) Aspect .....

Issues .....

.....

(ii) Aspect .....

Issues .....

.....

(iii) Aspect .....

Issues .....

.....

(iv) Aspect .....

Issues .....

.....

**1997  
HIGHER SCHOOL CERTIFICATE EXAMINATION  
FOOD TECHNOLOGY  
2/3 UNIT (COMMON)—SECTION II**

**STUDENT NUMBER**

**CENTRE NUMBER**

Attempt *EITHER* Question 15 *OR* Question 16.

**QUESTION 16. Food Product Development (16 marks)**

Successful food product development requires careful planning and undertaking of various steps.

Describe the following in relation to the development of a food product you have studied.

- (a) Product name and type of development

.....

- (b) Function of significant ingredients

.....  
.....  
.....  
.....  
.....  
.....

- (c) TWO techniques and TWO pieces of equipment utilised in production

- (i) Techniques .....

.....  
.....  
.....  
.....  
.....

QUESTION 16. (Continued)

(ii) Equipment .....

.....

.....

.....

.....

.....

(d) Methods used to determine consumer demand

.....

.....

.....

.....

.....

.....

(e) Impact of the new product on consumer health and/or lifestyle

.....

.....

.....

.....

.....

.....

**1997  
HIGHER SCHOOL CERTIFICATE EXAMINATION  
FOOD TECHNOLOGY  
2/3 UNIT (COMMON)**

---

**SECTION III**

(40 Marks)

Attempt TWO questions, ONE from each Part.

Each question is worth 20 marks.

Answer each question in a *separate* Writing Booklet.

**Please turn over**

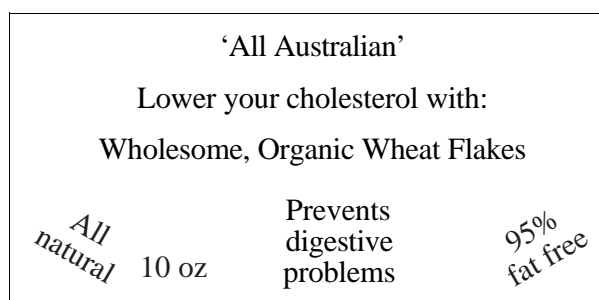
**PART A—CORE STRANDS**

Attempt ONE question.

**QUESTION 17. Food Manufacture**

Select ONE food product that could be sold at a school canteen.

- Briefly describe the food product you have chosen.
- Outline the production stages and systems used in its manufacture.
- Describe the correct handling procedures to maintain quality and prevent spoilage.
- Identify suitable marketing techniques for the product.

**QUESTION 18. Food Manufacture**

The above label is the ONLY label that appears on the package of a new breakfast cereal.

Explain the changes that need to be made to this label to ensure that it conforms to current legislation.

**QUESTION 19. The Australian Food Industry**

Discuss how ONE sector of the Australian food industry affects any TWO of the following:

- social conditions;
- national economy;
- environment.

**QUESTION 20. The Australian Food Industry**

‘Food innovations are only successful if they benefit the consumer, the industry, and the environment.’

Discuss this statement, with reference to THREE innovations in the food industry.



**PART B—OPTION STRANDS**

Attempt ONE question.

**QUESTION 21. Food Marketing**

For a food product you have studied, discuss the marketing of this product in relation to THREE of the following aspects:

- (a) market research;
- (b) product planning;
- (c) price structures;
- (d) distribution systems;
- (e) promotional programs.

**QUESTION 22. Food Marketing**

In recent times, product tampering and contamination have led to product recall and hence a significant drop in sales for some food manufacturers.

Discuss the strategies you would recommend for such companies in order to regain their market share.

**QUESTION 23. Food Product Development**

Over 50% of all new food products released to the market do not succeed.

- (a) Discuss reasons why new products may fail.
- (b) Outline ways to increase the chance of success of a new food product.

**QUESTION 24. Food Product Development**

Hundreds of new food products are found on Australian supermarket shelves each year.

Discuss reasons why companies develop new food products.

BLANK PAGE