



Victorian Certificate of Education 2002

SUPERVISOR TO ATTACH PROCESSING LABEL HERE

STUDENT NUMBER

Letter

Figures

Words

FOOD AND TECHNOLOGY

Written examination

Monday 18 November 2002

Reading time: 9.00 am to 9.15 am (15 minutes)

Writing time: 9.15 am to 10.45 am (1 hour 30 minutes)

QUESTION AND ANSWER BOOK

Structure of book

<i>Number of questions</i>	<i>Number of questions to be answered</i>	<i>Number of marks</i>
9	9	100

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers, sharpeners and rulers.
- Students are NOT permitted to bring into the examination room: blank sheets of paper and/or white out liquid/tape.
- No calculator is allowed in this examination.

Materials supplied

- Question and answer book of 13 pages.

Instructions

- Write your **student number** in the space provided above on this page.
- All written responses must be in English.

Students are NOT permitted to bring mobile phones and/or any other electronic communication devices into the examination room.

Question 1

a. Name a key food commodity.

What is the origin of this key food commodity?

_____ 1 mark

b. Identify a food which results from the secondary processing of this key food commodity.

_____ 1 mark

c. Referring to the key food commodity identified in **a.**, describe the main steps for:

primary processing

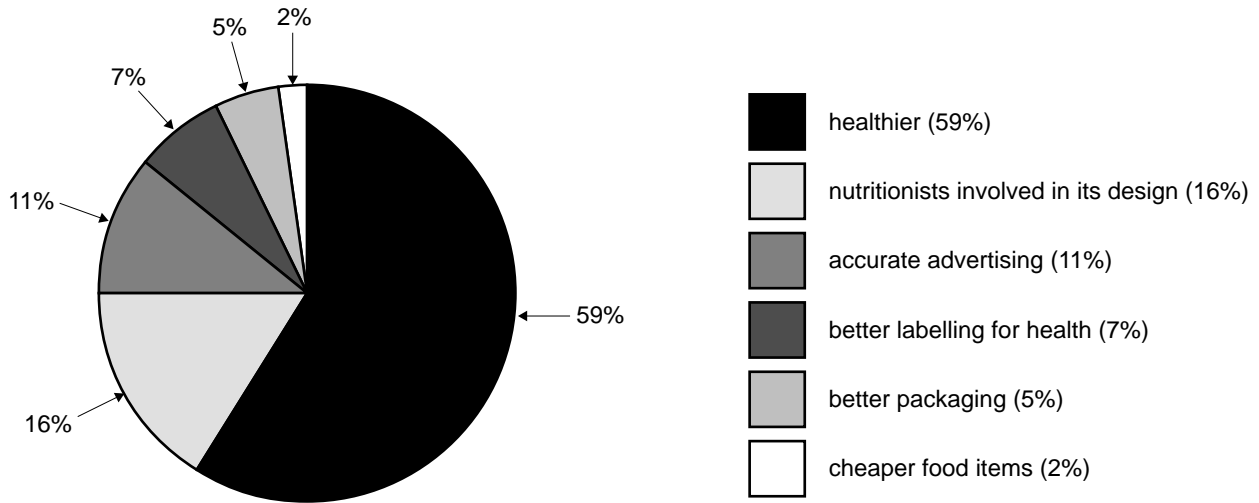
_____ 2 marks

secondary processing

_____ 2 marks

Question 2

**Consumer responses to the question:
What change would you most like to see to takeaway food?**



a. Explain how the information shown in the pie chart could lead to the development of new takeaway food products which claim to be healthier.

2 marks

b. Outline **one** strategy to successfully market healthier takeaway food products.

2 marks

c. Identify **one** social factor that has contributed to Australians eating more takeaway food. Explain how this social factor has influenced eating patterns.

Social factor _____

Explanation _____

1 + 2 = 3 marks

- d. Identify a modified food product that has been designed for a niche market which demands healthier food items.

Briefly explain how this product meets the needs of the niche market.

Food product _____

Explanation _____

1 + 2 = 3 marks

Question 3

- a. Give **one** example of a technology change that has led to the development of new or modified food products.

2 marks

- b. Explain why specific tools/equipment or methods of preparation may be necessary when using modified food products. Provide an example.

2 marks

- c. Cook-freeze is a technique used increasingly by food manufacturers to provide home meal replacements.

- i. Explain the cook-freeze process in a commercial or industrial setting.

2 marks

- ii. Explain **two** reasons a consumer would purchase a cook-freeze home meal replacement rather than preparing a meal using only fresh ingredients.

2 + 2 = 4 marks

Question 4

- a. List **two** new packaging techniques and use the table below to explain their features. Give reasons for their development.

Packaging technique	Example of a food packaged using this technique	Explanation of this packaging technique	Reason this technique was developed

(1 + 1 + 2 + 1) + (1 + 1 + 2 + 1) = 10 marks

- b. Food manufacturers rely on packaging to market food products. Explain how packaging can be used to increase sales.

2 marks

- c. The production and use of packaging is an important environmental issue. The packaging industry has decided to introduce a new award for food manufacturers who demonstrate excellence in environmentally friendly food packaging. Identify **four** criteria which could be used to select the most environmentally friendly food packaging.

i. _____

ii. _____

iii. _____

iv. _____

4 marks

Question 5

A new line of flavoured milk aimed at health-conscious young women (aged 18–30) has been launched.

Market research by the manufacturer showed that women wanted flavoured milk that contained real fruit, that was high in calcium, had added vitamins and minerals but was lower in fat. This modified milk product would have had both primary and secondary processing.

- a. i. State **one** reason for primary processing of the milk.

1 mark

- ii. State **one** reason for secondary processing of the milk.

1 mark

- b. Explain **one** role of each of the following natural food components in the flavoured milk.

- i. fat

1 mark

- ii. sugar

1 mark

- c. Describe how each of the factors below would be considered in marketing the new line of flavoured milk designed for women.

- product

1 mark

- place

1 mark

- price

1 mark

- promotion

1 mark

d. A competitor has decided to produce their own copy of this milk product.

- i.** What term is used to describe this type of product or copy?

1 mark

- ii.** Discuss the implications for the consumer, the original manufacturer and the competitor who is producing the copy.

3 marks

TURN OVER

Question 6

Authority paves way for irradiated foods adapted from *The Courier Mail* 18 July 2001

The nation's food watchdog ANZFA has supported Australia's first irradiated food proposal, enabling the potential use of the controversial treatment at a plant just north of Brisbane.

'Approval of this application will bring significant benefits to consumers, industry and government,' it [ANZFA] concluded.

'To allow those consumers who do not wish to consume foods treated with this technology to make an informed choice, irradiated foods will be labelled,' ANZFA said.

- a. Describe **three** benefits of irradiation for consumers and/or food producers.

3 marks

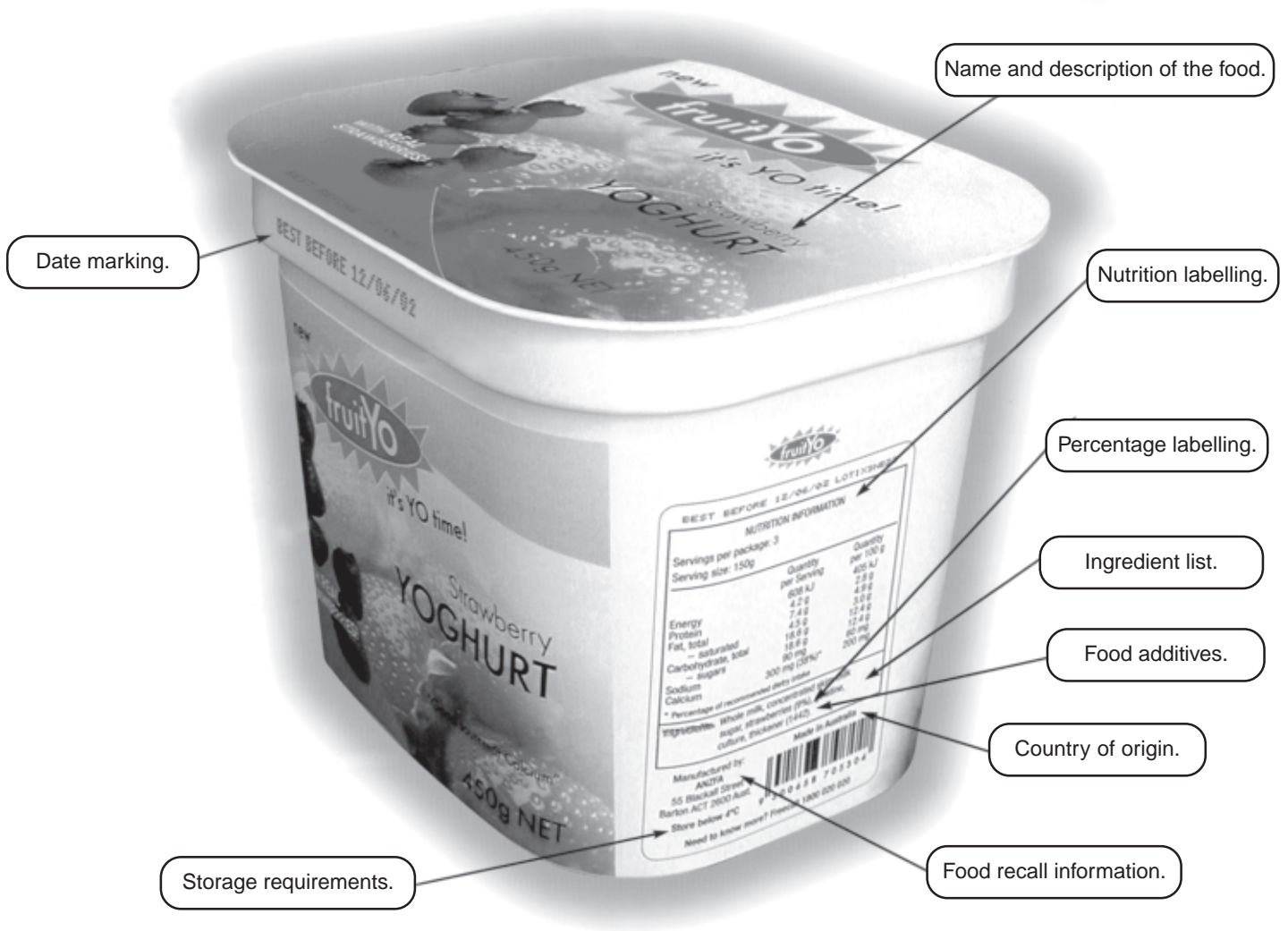
- b. Some consumers do not wish to consume foods treated by irradiation. Explain **two** possible reasons for their decision.

2 marks

- c. In the extract above, the Australia New Zealand Food Authority (ANZFA) has been described as the 'nation's food watchdog'. Describe the role of ANZFA in Australia.

4 marks

d. Select **three** label features from the diagram and explain how a consumer would use each piece of information.



Labelling requirement	How a consumer would use this information

3 marks

Question 7

Different food production systems produce different quantities and outcomes.

Identify two different food production systems. Provide an example of a food typically produced using each system.

a. i. System 1

Name of food production system _____

Example of food produced using this system _____

2 marks

ii. System 2

Name of food production system _____

Example of food produced using this system _____

2 marks

b. Compare the two systems named above.

4 marks

Question 8

In industrial or commercial settings the following processing techniques are used to prevent deterioration of food.

- heating
- freezing
- dehydration
- control of gaseous environment
- use of chemicals and additives

a. Select **one** of the processing techniques from the list above and answer the following questions.

Name of processing technique: _____

i. What food can be processed using this technique?

ii. Describe how this processing technique is carried out in a commercial or industrial setting.

iii. Explain how this processing technique prevents deterioration of food.

1 + 2 + 2 = 5 marks

b. You have a friend who is establishing a sandwich shop. Identify **one** health and safety practice that would apply to each of the following stages of food production in the sandwich shop. Justify why each practice is required.

- design of work areas

- storage of raw ingredients

- food handling

- packaging

8 marks

Question 9

To increase their market share, a food manufacturer has decided to modify their existing margarine product.

- a. Define the term 'modified food product'.

1 mark

- b. Identify a modification that could be made to the margarine and describe how it could increase the manufacturer's market share.

2 marks

- c. Identify and briefly explain **two** properties of the margarine that would change as a result of this modification.

2 marks

- d. The food manufacturer will use sensory evaluation to conduct research into consumer satisfaction with the modified margarine.

- i. Explain the purpose of sensory evaluation.

1 mark

- ii. Explain how sensory evaluation could be carried out.

2 marks

- e. Explain why consumers would use the modified margarine instead of butter. Provide an example in your answer.

2 marks

- f. If a consumer used this modified margarine in a recipe, what **three** criteria could they use to determine if the food product they created was acceptable?

3 marks