

STUDENT NUMBER Letter

FOOD STUDIES

Written examination

Wednesday 7 November 2018

Reading time: 11.45 am to 12.00 noon (15 minutes)

Writing time: 12.00 noon to 1.30 pm (1 hour 30 minutes)

QUESTION AND ANSWER BOOK

Structure of book

Section	Number of questions	Number of questions to be answered	Number of marks
A	15	15	15
B	11	11	85
			Total 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 correction fluid/tape.
- No calculator is allowed in this examination.

Materials supplied

- Question and answer book of 21 pages
- Answer sheet for multiple-choice questions

Instructions

- Write your **student number** in the space provided above on this page.
- Check that your **name** and **student number** as printed on your answer sheet for multiple-choice questions are correct, **and** sign your name in the space provided to verify this.
- All written responses must be in English.

At the end of the examination

- Place the answer sheet for multiple-choice questions inside the front cover of this book.

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

SECTION A – Multiple-choice questions**Instructions for Section A**

Answer **all** questions in pencil on the answer sheet provided for multiple-choice questions.

Choose the response that is **correct** or that **best answers** the question.

A correct answer scores 1; an incorrect answer scores 0.

Marks will **not** be deducted for incorrect answers.

No marks will be given if more than one answer is completed for any question.

Question 1

Which one of the following peer group behaviours encourages healthy food consumption?

- A. celebrating a family birthday with an ice-cream cake
- B. having takeaway pizza with peers on a Friday night
- C. running a community sausage sizzle fundraiser
- D. sharing a fruit platter with friends

Question 2

‘The family that eats together stays together.’

How could food enable connectedness within a family?

- A. by supporting family members to sit together at a table
- B. by creating a family bond through sharing a meal together
- C. by encouraging the eating of regular nutritious meals in the family home
- D. by making people spend time together, therefore making them more likely to stay together

Question 3

The use of flour to thicken a sauce is an example of

- A. denaturation.
- B. dextrinisation.
- C. gelatinisation.
- D. emulsification.

Question 4

Which one of the following poses a risk to the biosecurity of Australia?

- A. introduction of non-native species to increase biodiversity
- B. quarantining and inspecting animal goods arriving in Australia
- C. establishing permits for the commercial importation of fresh fruit and vegetables
- D. prohibiting food products that do not comply with the Australia New Zealand Food Standards Code

Question 5

A food label has the following statement on it: 'Food with a low glycaemic index helps you stay fuller for longer.'

This is an example of a

- A. nutrition information panel.
- B. general-level health claim.
- C. high-level health claim.
- D. nutrient content claim.

Question 6

Which one of the following statements best describes the cooking process of microwaving?

- A. The activation of enzymes causes a chemical reaction in the food.
- B. Agitation causes the components in the food to become denatured.
- C. The movement of liquid or gas causes heat to be transferred to the food.
- D. The vibration of water molecules in the food causes friction, resulting in heat.

Question 7

Which of the following substitutions may best meet the recommendations of the *Australian Dietary Guidelines* and the 'Australian Guide to Healthy Eating' (part of the 'Eat for Health' program) to help prevent obesity and related lifestyle diseases?

- A. Eat wholegrains and cereals instead of refined grains and cereals.
- B. Replace sugar with artificial sweeteners.
- C. Drink sports drinks instead of water.
- D. Replace butter with coconut oil.

Question 8

The principles of research used to develop the *Australian Dietary Guidelines* include

- A. case studies.
- B. peer-reviewed articles.
- C. analysis of food purchasing trends.
- D. consultation with leading food retailers.

Question 9

Which of the following personal and social behaviours promotes increased sedentary behaviour?

- A. having lunch while working at your desk
- B. involving young children in food shopping
- C. walking to the supermarket to purchase milk
- D. practical activities undertaken as part of a Food Studies course

Question 10

Which one of the following is an example of low-impact farming?

- A. native pasture being cleared for the sowing of cereal crops
- B. hormones administered to animals to help promote growth
- C. removing the stubble from the previous year's crop to enrich and stabilise the soil
- D. introducing a legume crop through crop rotation to increase the level of nitrogen in the soil

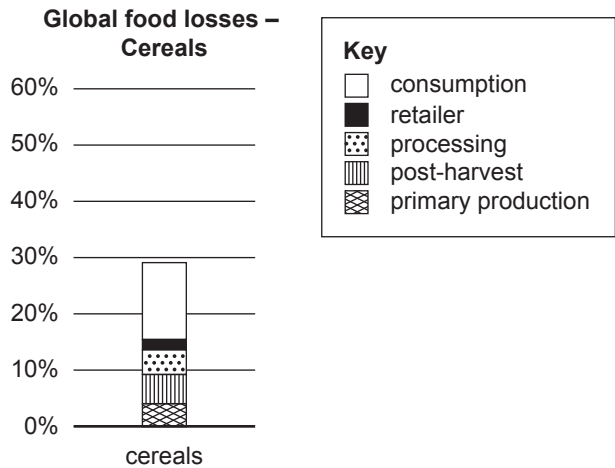
Question 11

The Australian Government’s Department of the Environment and Energy states that Australian consumers throw away approximately 3.1 million tonnes of food a year.

Which one of the following is most likely to contribute to household and consumer food wastage?

- A. extreme weather conditions contributing to loss of harvest
- B. discarding the skins and peels of fruit during food processing
- C. lack of suitable equipment to harvest, store and transport food
- D. not having the skills or knowledge to use foods that are beginning to perish

Question 12



Data: Food and Agriculture Organization of the United Nations (FAO), *Global food losses and food waste – Extent, causes and prevention*, Rome, 2011, p. 6

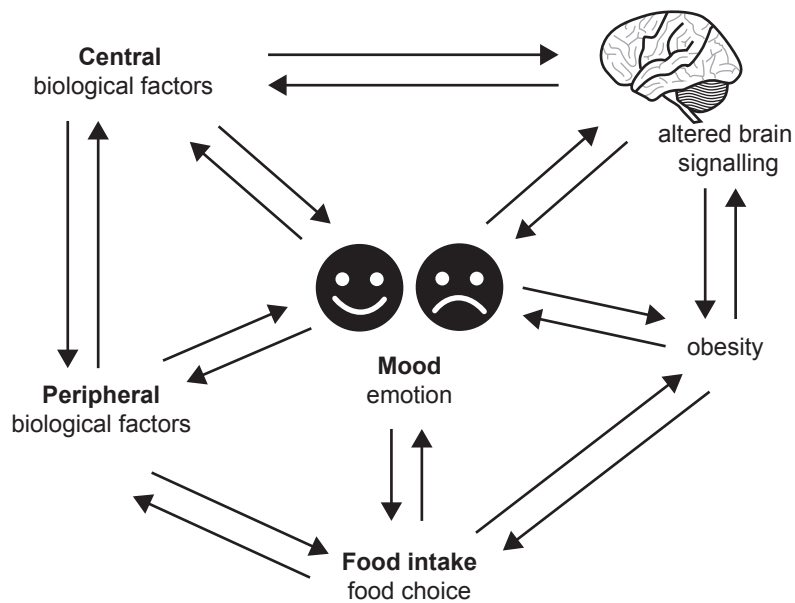
Based on the graph above, which activity in the food system for cereals contributes the least amount of food waste?

- A. retailer
- B. consumer
- C. manufacturer
- D. primary producer

Question 13

Wanting to eat an apple is a demonstration of

- A. sensory appreciation.
- B. eating patterns.
- C. appetite.
- D. satiety.

Question 14

Source: adapted from M Singh, 'Mood, food, and obesity', in *Frontiers in Psychology*, 1 September 2014, <www.frontiersin.org/>

Which one of the following statements is supported by the diagram above?

- A. The psychological response of food intake is not affected by restrictive dieting.
- B. There is a complex relationship linking food intake, mood and obesity.
- C. Altered brain signalling affects the biological factor of pregnancy.
- D. Food intake has an impact only on food choice.

Question 15

Which one of the following is most likely to contribute to loss of biodiversity?

- A. planting two or more crops closely together to decrease weeds
- B. use of technology to improve understanding of animals and their genetic diversity
- C. continuing population growth in urban areas, which has an impact on surrounding ecosystems
- D. protecting the environment from the negative effects of pests, diseases, weeds and contaminants

SECTION B**Instructions for Section B**

Answer **all** questions in the spaces provided.

Question 1 (7 marks)

The *Australian Dietary Guidelines* (part of the 'Eat for Health' program) provides recommendations for the number of serves of each food group that should be consumed daily. The following table shows the number of serves of the 'lean meat and poultry, fish, eggs, tofu and seeds, and legumes/beans' food group for men.

Age group	Serves
19–50 years old	3
70+ years old	2½

- a. Outline why a 73-year-old man requires fewer serves of this food group than a 19–50-year-old man.

2 marks

- b. Explain why the evidence-based principles of the *Australian Dietary Guidelines* are the best available information to assist with planning daily food intake.

3 marks

- c. Use the nutritional rationale of the 'Australian Guide to Healthy Eating' (part of the 'Eat for Health' program) to explain how a vegetarian can ensure they meet the required intake for this food group.

2 marks

Question 3 (6 marks)

Scientists show supersizing vegies could be key to kids’ consumption

In a first-of-its-kind randomised controlled trial, researchers from Deakin’s Centre for Advanced Sensory Science found that children ate more carrot when given them whole, as opposed to a serving of the diced vegetable.

...

‘On average this meant they ate about 8 to 10 per cent more of the whole vegetable, by weight, than when given diced carrots to try,’ Dr Liem said.

...

Dr Liem said research like this was important as less than 10 per cent of Australian children met the [recommended] guidelines of five servings of vegetables per day.

...

‘High vegetable consumption during childhood is important for children’s optimal health and development ... That means it’s important to provide vegetables not just on one occasion or [at] mealtime, but throughout the day, and snacks are perfect for that.’

Source: ‘Scientists show supersizing vegies could be key to kids’ consumption’, media release, Deakin University, 7 August 2017

- a. Identify and explain **one** key behavioural principle presented in the extract above. 3 marks

- b. Use **one** criterion to assess the validity of the information presented in the extract above. 3 marks

Question 4 (9 marks)

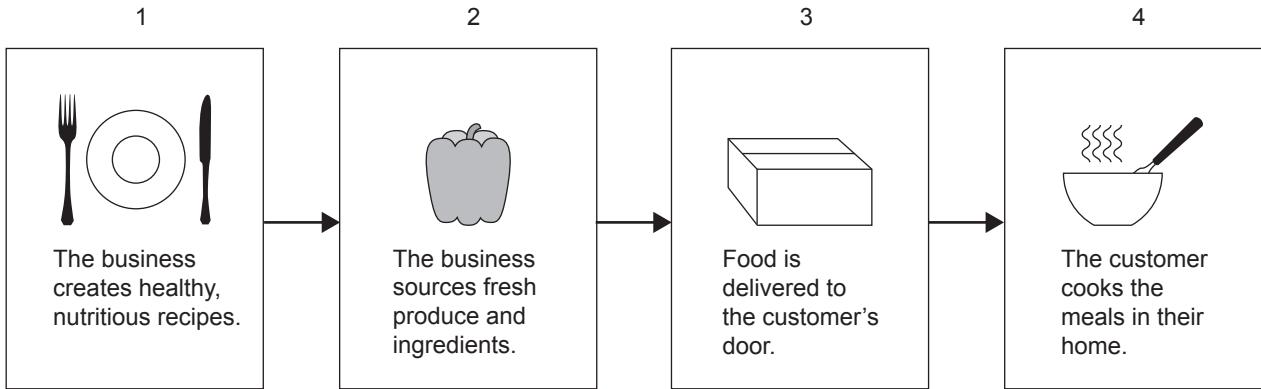
- a. Other than a nutrition information panel, identify two compulsory components required on food labels and state the purpose of each.

4 marks

Component	Purpose

Question 5 (12 marks)

Healthy meal subscription boxes have become a popular trend for customers interested in healthy meal planning and preparation. A box of fresh produce and ingredients is delivered to a customer, enabling the customer to create the recipes provided on cards included in the box. The average cost of a meal ranges from \$5.00 to \$10.00 per serve.



- a. Explain how the use of healthy meal subscription boxes could have an impact on the social factors of available time and income to influence healthy eating. 4 marks

Available time _____

Income _____

Question 6 (7 marks)

- a. Describe the chemical digestion of carbohydrates that occurs in the mouth and the small intestine.

4 marks

Mouth _____

Small intestine _____

- b. Complete the table below by stating where carbohydrate absorption occurs and by describing the absorption process.

3 marks

Where carbohydrate absorption occurs	Description of the absorption process

Question 7 (6 marks)

- a.** Outline **two** characteristics of organic farming. 2 marks

- b.** Explain one challenge and one advantage of organic farming. 4 marks

Challenge _____

Advantage _____

Question 8 (11 marks)

Woolworths is promoting its product range known as The Odd Bunch using social media. The Odd Bunch is a range of imperfect fruit and vegetables sold at discounted prices.



Source: image from Ebony Bowden, 'Supermarket giant Woolworths embraces "ugly" fruit', The New Daily, 4 December 2014, <<https://thenewdaily.com.au>>

- a.** Suggest **two** benefits of purchasing these fruit and vegetables, other than saving money. 2 marks

- b.** Describe two environmental effects of transporting the Odd Bunch product range of fruit and vegetables throughout the food system. 4 marks

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Question 10 (5 marks)

Consumption of legumes

	2011	2014	2017
Average daily serves per person	0.21	0.21	0.22
Average daily grams per person	16.6	16.0	18.2
Percentage of consumers	20%	24%	28%

Data: Grains & Legumes Nutrition Council (GLNC), 'Australian Consumption & Attitudes Study', 2017, unpublished

- a.** Identify **one** trend evident in the data above. 1 mark

- b.** Explain one role of each of the social factors given below to account for the trend identified in **part a.** across Australia. 4 marks

Cultural norms _____

Education _____
