



Units 3 and 4 Food and Technology

Practice Exam Question and Answer Booklet

Duration: 15 minutes reading time, 2 hours writing time

Structure of book:

Section	Number of questions	Number of questions to be answered	Number of marks
A	15	15	15
B	8	8	85
Total			100

- Students are permitted to bring into the examination room: pens, pencils, highlighters, erasers 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:

- This question and answer booklet of 17 pages.

Instructions:

- You must complete all questions of the examination.
- Write all your answers in the spaces provided in this booklet.

Section A – Multiple-choice questions

Instructions

Answer all questions by circling your choice.

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.

Questions

Question 1

Which of the following is **not** a method of quantitatively analysing food?

- A. Viscosity
- B. Colour
- C. Appearance
- D. Weight

Question 2

Which of the following is an example of a general health claim?

- A. This milk is high in calcium.
- B. This milk is high in calcium and can help prevent osteoporosis.
- C. This milk contains a reduced level of saturated fat.
- D. This milk is high in calcium and is good for strong bones and teeth when consumed as part of a healthy diet.

Question 3

Primary production is the:

- A. Process involving growing crops.
- B. Process used to make foods ready to eat or ready to be made into another food product.
- C. First batch of food manufactured at a factory.
- D. Production of food which is vital for an individual's well-being.

Question 4

Which of the following is **not** a functional property of fats and oils?

- A. Aeration
- B. Extended Shelf Life
- C. Tenderises
- D. Moist mouthfeel

Question 5

Which of the following is **not** an example of a crucial decision making stage within the complex process of jam making?

- A. Sterilisation of jars.
- B. Washing the dishes in hot soapy water.
- C. Knowing when the jam has reached setting point.
- D. Bringing jam to a rolling boil.

Question 6

Which method of preservation extends a foods shelf life through reducing moisture levels?

- A. Addition of sugar
- B. Refrigeration
- C. Canning
- D. Addition of acid

Question 7

The equipment is checked to ensure it is working properly in which stage of developing a new product?

- A. Research
- B. Criteria for Evaluation
- C. Prototype
- D. Production

Question 8

Coagulation is defined as:

- A. The permanent change in protein from a liquid into a thick mass as a result of heat or the addition of acids.
- B. The process eggs undergo to cook.
- C. The permanent structural changes of the protein molecules in food which can occur as a result of heat, mechanical action such as agitation and addition of acids.
- D. The process where foods with starch are browned under the presence of dry heat.

Question 9

Technological changes which have brought about product development do NOT include:

- A. Ultra-filtration
- B. Microencapsulation
- C. Aseptic
- D. Salinity

Question 10

An advantage of microwave cooking is that:

- A. Cakes turn a nice golden brown colour.
- B. Vegetables do not lose nutrients as they cook.
- C. It lets out radiation.
- D. Food is often warmed and cooked evenly.

Question 11

Which of the following is **not** a labelling requirement?

- A. Country of origin
- B. List of ingredients
- C. Barcode
- D. Weight of content

Question 12

High Pressure Processing is advantageous because:

- A. It is inexpensive.
- B. It maintains foods sensory properties while extending the shelf life.
- C. Uses heat to extend the shelf life without destroying the foods natural sensory properties.
- D. Sensory properties are changed to enhance the flavour of the food.

Question 13

Which of the following is **not** a step in HACCP?

- A. Establish critical limits.
- B. Establish monitoring procedures for each critical control point.
- C. Establish corrective action.
- D. Establish a food safety plan.

Question 14

Which of the following is a dry method of cooking?

- A. Roasting
- B. Steaming
- C. Stewing
- D. Boiling

Question 15

A type of food product development which involves changing the flavour of an existing commercially available food product or changing the size of the original packaging is:

- A. Line extension
- B. Innovation
- C. Me-too
- D. Line growth

Section B – Short-answer questions

Instructions

Answer all questions in the spaces provided.

Questions

Question 1

Government has many crucial roles regarding food safety. These responsibilities are covered and shared between the federal, state and local government.

- a. What does FSANZ stand for?

1 mark

- b. Outline two key aims of FSANZ.

2 marks

- c. FSANZ develops and maintains the Australian and New Zealand Food Standards Code. Explain the purpose of the Food Standards Code and identify two of the four major areas the code addresses.

2 marks

- d. Explain the roles of federal, state and local authorities in the development and implementation of Food Safety Plan for a food premise.

2 marks

Total: 7 marks

Question 2

Fill in this table regarding key environmental issues related to primary production:

Environmental issue	What is it?	How do we prevent it?
Salinity		
Land degradation		
Overuse of fertilisers		

6 marks

Question 3

a. Name two key foods which derive from a plant origin.

1 mark

b. Choose one of the foods you named in your answer to part a above, and then answer the questions that follow.

Selected food:

i. Name a product which will be the result from the secondary processing of this key food.

1 mark

ii. Describe this secondary process.

3 marks

iii. Explain why foods undergo secondary processing.

2 marks

- c. Key foods which derive from animal origin include meat, dairy foods and eggs.
 - i. Identify one wet method of cooking chicken.

1 mark

- ii. Chicken can grow harmful bacteria known as salmonella which can cause food poisoning. Explain the difference between food spoilage and food poisoning.

2 marks

Total: 10 marks

Question 4

A new product has been developed and is about to be launched into the market. The product is a single serve of mixed vegetable Moroccan rice. It is packaged appropriately in a plastic sachet, so that after heating the packet for 2 minutes in the microwave, it is ready to serve. The new product has added fibre.

- a. Identify two driving forces that could have influenced the development of this product. Explain why they have influenced the development of this Moroccan rice.

Driving force:

Explanation:

Driving force:

Explanation:

4 marks

- b. There are several stages during the development of a new product including research, writing a design brief, developing a prototype and performing product analysis.

- i. Pick one of the stages listed above and explain what the stage involves.

2 marks

- ii. Why is this stage important for the success of the product?

2 marks

- c. Microwave use is very common in households.
 - i. Explain how microwaves heat food. Use a diagram if necessary.

2 marks

- ii. Microwaves have both advantages and disadvantages. Identify two disadvantages of microwaves.

2 marks

- d. This new Mixed Vegetable Moroccan Rice contains added fibre and is therefore a functional food.
 - i. Define functional foods.

2 marks

- ii. Explain why this new product is a functional food. Identify two possible added health benefits.

2 marks

- iii. Identify an appropriate target market for this new product. Explain why this new product will be attractive for this market.

Target market:

Explanation:

2 marks

Total: 18 marks

Question 5

Through recent advancements in technology and growing social pressures, there have been many developments in food packaging.

- a. Identify and explain two functions of packaging.

Reason one:

Reason two:

4 marks

- b. A major development in packaging includes aseptic packaging.

- i. Explain the process of aseptic packaging.

2 marks

- ii. Complete the table below giving two advantages of aseptic packaging for the consumer, and two advantages of aseptic packaging for the manufacturer.

Advantages for the consumer	Advantages for the manufacturer

4 marks

- c. Another major packaging development, which lengthens a product's shelf life, is known as high pressure processing.
 - i. Identify two qualities that a food product must possess for it to be suitable for undergoing high pressure processing.

2 marks

- ii. Outline two benefits of this technology for the consumer.

2 marks

Total: 14 marks

Question 6

A new Italian restaurant is being opened.

- a. The owners of this food premise must implement a Hazard Analysis and Critical Control Points (HACCP) system to ensure the food is produced safely.
 - i. Define the HACCP system. Explain its purpose.

2 marks

- ii. Identify and explain two steps involved in the HACCP system.

4 marks

- b. One issue faced by the restaurant is preventing cross contamination during the various stages in the preparation of food.
 - i. Define the term cross contamination.

2 marks

- ii. Describe one way cross contamination can be avoided.

1 mark

- c. This new restaurant's signature dish is chicken ravioli with a creamy mushroom sauce.

- i. Identify the natural food component found within chicken.

1 mark

- ii. Identify and explain the functional property of this natural food component in this dish.

2 marks

Total: 12 marks

Question 7

There have been many new innovations and technologies developed in recent years. One of these is microencapsulation.

- a. Explain the process of microencapsulation. Give an example of a food which utilises this new technology.

2 marks

- b. Outline two advantages of this technology.

2 marks

Total: 4 marks

