Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

6561244644

FOOD & NUTRITION **0648/13**

Paper 1 Theory **May/June 2021**

2 hours

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

- Section A: answer **all** questions.
- Section B: answer **all** questions.
- Section C: answer **one** question.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.

INFORMATION

- The total mark for this paper is 100.
- The number of marks for each question or part question is shown in brackets [ ].

This document has **12** pages.

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Section A

Answer **all** questions.

You are advised to spend no longer than 45 minutes on Section A.

1 **(a)** Name the term used to describe the chemical process by which the body converts food into energy.

..... [1]

(b) Explain **two** different ways in which occupation may affect an individual's need for energy.

1 .....

.....

2 .....

.....

[2]

(c) Energy balance is taking in the correct amount of energy to meet the needs of the body.

State **three** health effects of having an energy intake that is too low.

1 .....

2 .....

3 .....

[3]

[Total: 6]

2 **(a)** Name **one** vitamin that can help blood to clot.

..... [1]

(b) Name **one** vitamin that acts as an antioxidant.

..... [1]

(c) Name **one** mineral that can help prevent anaemia.

..... [1]

(d) Name **one** mineral that can help prevent goitre.

..... [1]

(e) Name **one** mineral that can help prevent tooth decay.

..... [1]

[Total: 5]

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3 **(a)** Hydrogen is a chemical element in carbohydrates.

Name **two** other chemical elements in carbohydrates.

1 .....

2 .....
[2]

(b) Cereals are starchy foods.

Name **three** other different foods that contain starch.

1 .....

2 .....

3 .....
[3]

(c) Name **two** types of cereal that should be avoided by people with coeliac disease.

1 .....

2 .....
[2]

(d) Name the substance in these cereals that cannot be digested by people with coeliac disease.

..... [1]

[Total: 8]

4 **(a)** Describe **three** physical effects of heat on butter.

1 .....

2 .....

3 .....

[3]

(b) State **three** characteristics of a saturated fat.

1 .....

2 .....

3 .....

[3]

(c) Name **three** food sources that are high in monounsaturated fat.

1 .....

2 .....

3 .....

[3]

(d) Give **two** reasons why fat becomes rancid.

1 .....

2 .....

[2]

[Total: 11]

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5 Adding legumes and pulses to recipes can help a person suffering with constipation.

(a) Suggest **three** other different ways that the diet could be altered to help a person suffering with constipation.

1 .....

2 .....

3 .....

[3]

(b) State **three** possible health effects if a person suffering with constipation does not alter their diet.

1 .....

2 .....

3 .....

[3]

[Total: 6]

6 Water is essential for the body to function effectively.

Identify **four** different ways in which water helps the body function effectively.

1 .....

.....

2 .....

.....

3 .....

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4 .....

.....

[4]

Section B

Answer **all** questions.

7 The following ingredients can be used to make shortcrust pastry.

200 g plain flour
50 g white fat
50 g butter
pinch of salt
cold water

(a) Give **one** reason for each of the following rules when making shortcrust pastry:

(i) sieve flour .....

..... [1]

(ii) use fingertips for rubbing in .....

..... [1]

(iii) use plain flour .....

..... [1]

(iv) use butter .....

..... [1]

(v) do not add too much water .....

..... [1]

(vi) allow pastry to relax in a cool place before baking. .....

..... [1]

(b) The shortcrust pastry can be used to make a fruit pie. The pie can be glazed with egg or milk before baking to give it an attractive appearance.

Suggest **four** other methods that can be used before baking to give the pie an attractive appearance.

1 .....

2 .....

3 .....

4 .....

[4]

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(c) Describe what happens to the pastry when the fruit pie is baked.

.....

.....

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..... [4]

[Total: 14]

8 Steaming is a method of cooking which uses water vapour.

Give **six** disadvantages of steaming as a method of cooking.

1 .....

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2 .....

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3 .....

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4 .....

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5 .....

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6 .....

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[6]

9 An important feature of kitchen design is the work triangle.

State what is meant by the work triangle and explain why it is an important feature of kitchen design.

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..... [4]

10 Convenience foods have been partly or totally prepared by a food manufacturer.

Suggest **seven** reasons why some people may not wish to use convenience foods.

1 .....

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2 .....

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3 .....

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4 .....

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5 .....

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6 .....

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7 .....

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[7]

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11 Paperboard is a popular packaging material used for convenience food products.

Explain why paperboard is a suitable material for packaging convenience food.

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..... [7]

12 Some saucepans are made from stainless steel.

(a) Give **four** reasons why stainless steel is a suitable material for a saucepan.

1 .....

2 .....

3 .....

4 .....

[4]

(b) Suggest **three** other materials which can be used to make saucepans.

1 .....

2 .....

3 .....

[3]

[Total: 7]

Section C

Answer **either** Question 13 **or** 14.

13 Identify problems that may occur for people who follow a vegan diet. Discuss how careful meal planning can overcome these problems. [15]

OR

14 Discuss nutritional reasons why milk and milk products are considered important foods for a three-year-old child.
Suggest different ways of including milk and milk products in meals as part of a balanced diet for a three-year-old child. [15]

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[Total: 15]

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