



Cambridge International Examinations
Cambridge International General Certificate of Secondary Education

CANDIDATE
NAME

CENTRE
NUMBER

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FOOD AND NUTRITION

0648/11

Paper 1 Theory

October/November 2018

2 hours

Candidates answer on the Question Paper.

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

Write your Centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use an HB pencil for any diagrams or graphs.

Do not use staples, paper clips, glue or correction fluid.

DO **NOT** WRITE IN ANY BARCODES.

Section A

Answer **all** questions.

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

Section B

Answer **all** questions.

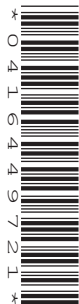
Section C

Answer **either** Question 9(a) **or** 9(b).

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [] at the end of each question or part question.

This document consists of **12** printed pages.



Section A

Answer **all** questions.

1 Sugars and starch are carbohydrates.

(a) Name **two** elements from which carbohydrates are formed.

1

2

[2]

(b) Disaccharides are carbohydrates.

Name **two** examples of disaccharides.

1

2

[2]

(c) Give **two** health benefits of reducing the consumption of sugar.

1

2

[2]

(d) Carbohydrates are used by the body to provide energy.

Name **one** other nutrient which provides the body with energy.

..... [1]

(e) Name a unit used to measure energy.

..... [1]

(f) Energy is needed in the body for many reasons.

Give **one** example of a process carried out by the body that uses the following types of energy:

(i) mechanical energy;

..... [1]

(ii) chemical energy;

..... [1]

(iii) electrical energy.

..... [1]

(g) Carbohydrates are broken down during metabolism.

Explain what is meant by the term *metabolism*.

.....
..... [1]

(h) Suggest **three** health issues which can occur as a result of a low energy input.

- 1
- 2
- 3 [3]

(i) The digestion of carbohydrates begins in the mouth.

Name the enzyme which acts on starch in the mouth.

..... [1]

(j) Describe the effect of dry heat on starch.

.....
.....
..... [2]

(k) Name the term used to describe the swelling and bursting of starch granules when moist heat is applied.

..... [1]

[Total: 19]

[Turn over

2 Minerals are essential for good health.

(a) Give **one** function of fluoride in the body.

..... [1]

(b) Give **two** functions of phosphorus in the body.

1

2 [2]

(c) Describe **two** examples of sodium and potassium working together in the body.

1

.....

2

.....

[2]

[Total: 5]

3 Some vitamins are fat-soluble and can be stored in the body.

(a) State where fat-soluble vitamins are stored in the body.

..... [1]

(b) Vitamin A is found in food as retinol or beta-carotene.

(i) Name **two** different sources of retinol.

1

2 [2]

(ii) Name **two** different sources of beta-carotene.

1

2 [2]

(c) Name the deficiency disease associated with a lack of vitamin A.

..... [1]

(d) Give **two** functions of vitamin E (tocopherol) in the body.

- 1
- 2 [2]

(e) Give **two** functions of vitamin K in the body.

- 1
- 2 [2]

[Total: 10]

4 Give **six** reasons why water is vital in the diet.

- 1
-
- 2
-
- 3
-
- 4
-
- 5
-
- 6
- [6]

[Total: 6]

6

Section B

Answer **all** questions.

5 A basic recipe for making flapjack uses the following ingredients:

300 g oats
 150 g sugar
 150 g syrup
 150 g butter

(a) Name the method used to make the flapjack.

..... [1]

(b) Butter makes this recipe high in saturated fat.

Name **two** ingredients that can be used to replace the butter which are lower in saturated fat.

1

2

[2]

(c) Name **one** ingredient in the recipe which is high in non-starch polysaccharide (NSP)/dietary fibre.

..... [1]

(d) Name **three** ingredients which could be added to vary the flavour of the flapjack.

1

2

3

[3]

(e) Suggest **two** methods of preparing the baking tin to prevent the flapjack sticking.

1

2

[2]

(f) The flapjack is cooked in an oven by conduction and convection.

Explain the term *conduction*.

.....
.....
.....
..... [2]

[Total: 11]

6 Many recipes use chemical raising agents such as baking powder.

(a) There are two main ingredients of baking powder. Bicarbonate of soda is one main ingredient.

State the other main ingredient.

..... [1]

(b) Give **one** effect of using only bicarbonate of soda as the raising agent in a mixture.

..... [1]

(c) Name the gas produced when bicarbonate of soda is used as a raising agent.

..... [1]

(d) Suggest **two** guidelines for storing baking powder in the home.

1
2 [2]

(e) Give **three** reasons for using raising agents in baked products.

1
2
3 [3]

[Total: 8]

7 A batter is a mixture of flour, milk and egg.

(a) Name **three** dishes which can be made from batters.

- 1
- 2
- 3 [3]

(b) Describe how to make a traditional batter mixture.

.....
.....
.....
.....
.....
.....
.....
..... [4]

(c) To save time and effort an electric mixer can be used to make a batter.

Name **three** other pieces of labour-saving kitchen equipment and give **one different** example of the use of each.

- equipment 1
- use
- equipment 2
- use
- equipment 3
- use [6]

(d) Identify **five** safety rules that should be followed when using electrical kitchen equipment.

- 1
- 2
- 3
- 4
- 5.....

[5]

[Total: 18]

8 If a kitchen is poorly ventilated it may cause the cook to faint.

(a) Describe the first-aid treatment for someone who has fainted.

.....
.....
.....
.....
.....
.....
..... [3]

(b) Suggest other reasons why it is important to have a well-ventilated kitchen.

.....
.....
.....
.....
.....
.....
.....
.....
.....
..... [5]

[Total: 8]

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