Cambridge IGCSE

Cambridge Assessment International Education
Cambridge International General Certificate of Secondary Education

CANDIDATE NAME

CENTRE NUMBER

CANDIDATE NUMBER

5058323655

FOOD AND NUTRITION **0648/13**

Paper 1 Theory **October/November 2019**

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 10(a) **or** 10(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.

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[Turn over

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Section A

Answer **all** questions.

1 **(a)** Define the term *overnutrition*.

.....[1]

(b) Suggest **one** common result of overnutrition.

.....[1]

[Total: 2]

2 **(a)** Proteins can prevent extreme conditions such as kwashiorkor.

Give **four** other functions of proteins in the body.

1.....

2.....

3.....

4.....

[4]

(b) Proteins are made up of amino acid molecules.

Explain why some proteins have a lower biological value (LBV) than others.

.....

.....

.....

.....[2]

(c) Name **three** different foods which are a good source of low biological value protein.

1.....

2.....

3.....

[3]

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(d) Name **two** enzymes which break down protein in the digestive system.

1.....

2.....
[2]

[Total: 11]

3 Monosaccharides are used as a source of energy in the body.

(a) Define the term *monosaccharide*.

.....[1]

(b) Galactose is an example of a monosaccharide.

Name **two** other monosaccharides.

1.....

2.....
[2]

[Total: 3]

4 B group vitamins play an important part in the production of energy.

Complete the following sentences about B group vitamins:

(a) Vitamin B_1 is also known as ..... . [1]

(b) A deficiency of vitamin B_1 can lead to the disease ..... . [1]

(c) Vitamin B_2 is also known as riboflavin. **Three** good sources of riboflavin are yeast extract,

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

(d) Vitamin B_3 is also known as ..... . [1]

(e) **Two** effects on health of a prolonged deficiency of Vitamin B_3 are

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

[Total: 7]

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5 Body size is one factor which can affect the energy needs of a person.

Give **five** other factors which affect the energy needs of a person.

1 .....

2 .....

3 .....

4 .....

5 .....

[5]

6 Identify a different vitamin or mineral needed for each of the following functions:

(a) formation of blood cells;

.....[1]

(b) production of visual purple;

.....[1]

(c) helping wounds heal;

.....[1]

(d) aiding the absorption of calcium;

.....[1]

(e) production of the hormone thyroxine;

.....[1]

(f) preventing megaloblastic anaemia.

.....[1]

[Total: 6]

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7 Most absorption of digested food takes place in the ileum.

Describe the structure of the ileum.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....[6]

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Section B

Answer **all** questions.

8 Current dietary advice is to include fresh fruit in the diet each day.

(a) Identify and explain **five** nutritional reasons for this advice.

1.....

.....

2.....

.....

3.....

.....

4.....

.....

5.....

.....

[5]

(b) Fruit can be preserved by making jam.

Explain how each of the following steps helps to prevent fruit spoiling when making jam:

(i) boiling fruit;

.....[1]

(ii) adding sugar;

.....[1]

(iii) sealing jars.

.....[1]

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(c) Complete the table to show different ways fruit can be included in family meals.

use of fruit	example
hot dessert	apple pie

[5]

(d) Give **three** points to consider when choosing fresh apples in a market.

1 .....

2 .....

3 .....

[3]

(e) Fruit can be bought in various forms.

(i) Give **three** advantages of using dried fruit.

advantage 1 .....

.....

advantage 2 .....

.....

advantage 3 .....

.....

[3]

(ii) Give **three** disadvantages of using frozen fruit.

disadvantage 1 .....

.....

disadvantage 2 .....

.....

disadvantage 3 .....

.....

[3]

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(f) Describe **one** method of preparing and freezing strawberries.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

[Total: 27]

9 A basic recipe for a chicken pie uses the following ingredients:

shortcrust pastry
200 g plain flour
50 g butter
50 g white vegetable fat
pinch of salt
100 ml cold water

filling
200 g cooked chicken breast
100 ml white sauce

(a) Give **four** steps for making the shortcrust pastry.

1.....

2.....

3.....

4.....

[4]

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(b) Give **one** reason why the pastry should be left in the fridge after making.

.....[1]

(c) Name **two** herbs which could be added to vary the flavour of the pastry.

1.....

2.....

[2]

(d) State **four** rules to follow when rolling pastry.

1.....

2.....

3.....

4.....

[4]

(e) Different types of vegetables can be added to the pie filling.

(i) Name **one** suitable root vegetable to add to the pie filling.

.....[1]

(ii) Name **one** suitable bulb vegetable to add to the pie filling.

.....[1]

(f) Name the ingredient in the chicken pie which causes dextrinisation.

.....[1]

(g) Complete the table to show **two** other changes which would make the chicken pie suitable for a vegan.

change	replacement
butter	vegetable margarine

[4]

[Total: 18]

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Section C

Answer **either** Question 10(a) **or** 10(b).

10 (a) Discuss ways to be economical when shopping for food and cooking family meals. [15]

OR

(b) Many processed foods use additives. Explain the benefits of each of the following additives:

- emulsifiers;
- flavourings;
- preservatives.

[15]

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