Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER			

9658656802

FOOD & NUTRITION **0648/12**

Paper 1 Theory **May/June 2022**

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 Name the term used to describe chemical processes, such as growth and cell renewal, that take place in the body.

..... [1]

2 **(a)** Simple sugars are molecules from which all carbohydrates are made.

(i) State the chemical name for simple sugar.

..... [1]

(ii) Name **two** examples of simple sugars.

1 .....

2 .....
[2]

(b) State **two** ways the body uses carbohydrate foods.

1 .....

2 .....
[2]

[Total: 5]

3 Fish is a good source of high biological value (HBV) protein.

(a) Name **four** different types of oily fish.

1 .....

2 .....

3 .....

4 .....
[4]

(b) Name **three** different foods that are good sources of HBV protein for a lacto-vegetarian.

1 .....

2 .....

3 .....
[3]

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(c) **(i)** Name **two** enzymes that break down proteins during digestion.

1 .....

2 .....
[2]

(ii) Name the end-product of protein digestion.

..... [1]

(d) Name **one** deficiency disease caused by a lack of protein.

..... [1]

[Total: 11]

4 One function of vitamin E (tocopherol) is to help prevent heart disease.

(a) State **three** other functions of vitamin E in the body.

1 .....

2 .....

3 .....
[3]

(b) Name **three** different sources of vitamin E.

1 .....

2 .....

3 .....
[3]

[Total: 6]

5 State **four** functions of vitamin C.

1 .....

2 .....

3 .....

4 .....
[4]

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6 **(a)** Name the group of people who are most likely to suffer from rickets.

..... [1]

(b) Name **one** mineral and **one** vitamin that help to prevent rickets.

(i) mineral ..... [1]

(ii) vitamin ..... [1]

(c) Name **two** different foods that are good sources of the vitamin named in **(b)(ii)**.

1 .....

2 .....
[2]

[Total: 5]

7 **(a)** State **four** factors that may increase the risk of a person developing type 2 diabetes.

1 .....

2 .....

3 .....

4 .....
[4]

(b) Identify **four** nutritional guidelines a person should follow to help manage type 2 diabetes.

1 .....

2 .....

3 .....

4 .....
[4]

[Total: 8]

Section B

Answer **all** questions.

8 A recipe for a chocolate dessert uses the following ingredients.

double cream
condensed milk
dark chocolate

Pots of fresh double cream are on sale in different supermarkets on 28 June 2022.

supermarket A	supermarket B
	
Double cream kept in chill cabinet at temperature 5 °C	Double cream kept in chill cabinet at temperature 12 °C

(a) Explain why the cream from supermarket B should **not** be purchased.

.....

.....

..... [2]

(b) The recipe for the dessert uses condensed milk.
Describe the process of manufacturing condensed milk.

.....

.....

.....

.....

.....

..... [4]

(c) **(i)** The dark chocolate in the dessert is a good source of iron.
Name **three** different animal foods that are good sources of iron.

1 .....

2 .....

3 .....
[3]

(ii) State **one** function of iron in the body.

..... [1]

(d) State what is meant by *best-before* on a food label.

.....

.....

.....

..... [2]

[Total: 12]

9 **(a)** Bacteria can be responsible for food spoilage.
Name **two** other causes of food spoilage.

1 .....

2 .....
[2]

(b) Suggest **five** reasons why a person may make their own jam.

1 .....

2 .....

3 .....

4 .....

5 .....
[5]

(c) Explain how each of the following preservation methods prevent food spoilage:

(i) use of salt

.....

.....

..... [2]

(ii) use of vinegar.

.....

.....

..... [2]

[Total: 11]

10 **(a)** Give **three** different reasons for each of the following guidelines:

(i) use fresh fish within 24 hours of purchase

1 .....

2 .....

3 .....

[3]

(ii) wrap fish before storing.

1 .....

2 .....

3 .....

[3]

(b) Name **two** suitable moist-heat methods of cooking fish.

1 .....

2 .....

[2]

(c) State **four** effects of cooking on fish.

1 .....

2 .....

3 .....

4 .....

[4]

(d) Fish does not contain vitamin C.
Name **two** different sources of vitamin C that could be included as part of a fish dish.

1 .....

2 .....

[2]

[Total: 14]

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11 Sieving flour is one mechanical method of introducing air into a mixture.

(a) State **three** other mechanical methods of introducing air into a mixture.

1 .....

2 .....

3 .....
[3]

(b) Name **one** ingredient that is used as a raising agent.

..... [1]

[Total: 4]

12 List **four** personal safety precautions that should be followed before cooking.

1 .....

2 .....

3 .....

4 .....
[4]

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[Turn over

Section C

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

13 Eggs are used in a wide variety of dishes.
Explain, with examples, the following functions of eggs in the preparation and cooking of dishes:
- aeration
- coagulation.

[15]

OR

14 Vegetarian diets are becoming increasingly popular.
- Discuss reasons for the increasing popularity of vegetarian diets.
- Explain what is meant by a vegan diet.
- Explain why protein complementation is important to a vegan. Include examples.

[15]

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