



Cambridge IGCSE™

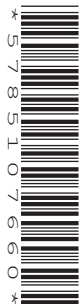
CANDIDATE
NAME

CENTRE
NUMBER

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CANDIDATE
NUMBER

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FOOD & NUTRITION

0648/12

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. Any blank pages are indicated.

Section A

Answer **all** questions.

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

1 (a) Energy balance is taking in the right amount of energy to meet the needs of the body.

State **three** effects in the body of taking in too much energy.

- 1
- 2
- 3 [3]

(b) Explain **two** ways in which each of the following factors affect an individual's need for energy:

(i) age

- 1
- 2 [2]

(ii) gender.

- 1
- 2 [2]

[Total: 7]

2 (a) State **three** characteristics of an unsaturated fat.

- 1
- 2
- 3 [3]

(b) Name **three** different foods that are a good source of polyunsaturated fat.

- 1
- 2
- 3 [3]

[Total: 6]

3 (a) Name **three** vitamins that have antioxidant functions.

1

2

3

[3]

(b) (i) Name **three** different animal food sources of vitamin B₁ (thiamin).

1

2

3

[3]

(ii) Name the disease that may occur when there is an insufficient intake of vitamin B₁.

..... [1]

[Total: 7]

4 (a) State **two** functions of iodide in the body.

1

2

[2]

(b) Give **one** symptom of the deficiency disease associated with a lack of iodide.

..... [1]

(c) Name **three** different sources of iodide.

1

2

3

[3]

[Total: 6]

5 State the location and role of the villi in the digestive system.

location
role [2]

6 It is important that a convalescent has a good supply of nutrients.

- (a) Suggest **one** reason why each of the following may be needed in the diet of a convalescent:
- (i) iron [1]
 - (ii) vitamin C [1]
 - (iii) protein [1]
 - (iv) water [1]
 - (v) calcium [1]
 - (vi) vitamin D. [1]

(b) Explain why the following meal would not be suitable for a convalescent.

creamy chicken curry and rice
jam doughnut

.....
.....
.....
.....
.....
..... [6]

[Total: 12]

Section B

Answer **all** questions.

7 A vegetarian lasagne contains the following vegetables:

- 1 carrot
- 1 courgette
- 1 onion
- 1 small tin of tomatoes
- 100 g spinach
- 2 cloves of garlic
- 2 sticks of celery

(a) Name **two** other root-type vegetables that could be used in the lasagne.

1

2 [2]

(b) Name **two** other fruit-type vegetables that could be used in the lasagne.

1

2 [2]

(c) Identify and explain **six** different nutritional reasons for increasing the amount of vegetables in the diet.

reason 1

explanation

reason 2

explanation

reason 3

explanation

reason 4

explanation

reason 5

explanation

reason 6

explanation [12]

[Total: 16]

8 The following ingredients can be used to make a white sauce:

25 g butter
25 g plain white flour
250 ml full fat milk

(a) Name **one** method that can be used to make the sauce.

..... [1]

(b) Identify **one** ingredient that thickens the sauce.

..... [1]

(c) Name the thickening process that happens as the sauce cooks.

..... [1]

(d) Identify **one** ingredient that makes the sauce glossy.

..... [1]

(e) (i) Identify **one** ingredient in the sauce that is unsuitable for a vegan.

..... [1]

(ii) Suggest an alternative ingredient that could be used to replace the ingredient in (e)(i).

..... [1]

(f) Give **two** reasons why there may be lumps in the finished sauce.

1

2

[2]

(g) Give **three** reasons why the sauce may be thin and runny.

1

2

3

[3]

[Total: 11]

9 Fire safety is very important in the kitchen.

(a) List **two** items of fire safety equipment that would be useful in the kitchen.

1

2

[2]

(b) Describe how to safely manage a fire in a pan of oil.

.....

..... [2]

(c) Describe the first aid treatment for a minor burn caused by hot oil.

.....

..... [2]

[Total: 6]

10 (a) Identify **six** factors to consider when choosing a new electric cooker.

1

2

3

4

5

6

[6]

(b) Suggest **six** ways of reducing energy costs when cooking on the hob.

1

2

3

4

5

6

[6]

[Total: 12]

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