



Cambridge IGCSE™

CANDIDATE
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FOOD & NUTRITION

0648/12

Paper 1 Theory

October/November 2020

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. Blank pages are indicated.

Section A

Answer **all** questions.

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

- 1 (a) Name the type of molecules which combine to form protein.
..... [1]
- (b) State how many of this type of molecule are essential for children.
..... [1]
- (c) Name **three** different foods which are good sources of plant protein.
1
2
3 [3]
- (d) Protein can provide energy which is used to maintain body temperature.
State **three** other different reasons the body needs energy.
1
2
3 [3]
- (e) State **one** effect on the body when energy intake is continually greater than energy output.
..... [1]
- (f) Describe what happens to protein when it is heated.
.....
.....
.....
.....
.....
.....
..... [3]

[Total: 12]

2 Name **one** different nutrient which would be needed to help prevent each of the following health conditions:

- (a) night blindness [1]
- (b) osteoporosis [1]
- (c) spina bifida [1]
- (d) beri-beri [1]
- (e) goitre [1]
- (f) pellagra. [1]

[Total: 6]

3 (a) Name the organ in the body which produces bile.

..... [1]

(b) Name **two** enzymes found in the stomach.

1

2 [2]

(c) State **two** places in the digestive system where starch is digested.

1

2 [2]

(d) Name **one** enzyme involved in the digestion of starch.

..... [1]

[Total: 6]

4 (a) State why it is important to have a daily supply of vitamin C (ascorbic acid).

..... [1]

(b) One of the functions of vitamin C is to prevent scurvy.
Identify **five** other reasons why vitamin C is important in the diet.

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

(c) Vegetables are a source of vitamin C.
List **four** vegetables which are good sources of vitamin C.

- 1
- 2
- 3
- 4 [4]

[Total: 10]

5 A recipe for sweet kebabs uses peach, apple, strawberry, and kiwi.

(a) Suggest **two** other fruits which would be suitable for making the kebabs.

1

2

[2]

(b) The apples in the kebabs have turned brown.

(i) Name this type of browning.

..... [1]

(ii) State **one** reason why this may have happened.

..... [1]

(iii) Suggest **two** ways to prevent this type of browning happening.

1

2

[2]

[Total: 6]

Section B

Answer **all** questions.

6 The following ingredients can be used to make a cheese sauce:

- 25 g butter
- 25 g plain white flour
- 250 ml whole milk
- 75 g grated Cheddar cheese

(a) The cheese sauce contains ingredients which are high in energy.

(i) State **one** unit of measurement for energy.

..... [1]

(ii) Name **one** group of people who need food which is high in energy.

..... [1]

(b) The cheese sauce is high in cholesterol.

Identify **four** ways to reduce the amount of cholesterol in the cheese sauce.

1

2

3

4

[4]

(c) Flour is used to thicken the sauce.

Name this thickening process.

..... [1]

(d) Give **four** guidelines, with reasons, for how to store flour in the home.

1

 2

 3

 4

 [4]

(e) Give step-by-step instructions for making the cheese sauce by the roux method.

.....

 [7]

(f) Name **three** dishes which include a cheese sauce.

1
 2
 3 [3]

[Total: 21]

[Turn over

7 (a) Name **two** moist methods of cooking.

1

2 [2]

(b) Name **two** dry methods of cooking.

1

2 [2]

(c) Conduction and radiation are two methods of heat transference used in cooking. Explain the difference between conduction and radiation.

.....

.....

.....

.....

.....

..... [3]

(d) Name **one** material used in the kitchen which is a poor conductor of heat.

..... [1]

(e) Name **two** methods of cooking which use convection.

1

2 [2]

(f) State **three** advantages and **three** disadvantages of grilling as a method of cooking.

advantage 1

advantage 2

advantage 3

disadvantage 1

disadvantage 2

disadvantage 3 [6]

(g) Food can be marinated before grilling.
State **three** benefits of marinating foods before grilling.

1

2

3

[3]

[Total: 19]

8 Identify and explain **five** reasons why a laminate worktop is a suitable material for a kitchen work surface.

1

.....

2

.....

3

.....

4

.....

5

.....

[5]

Section C

Answer either Question 9 or 10.

9 Many food items are packaged.

- Identify and discuss reasons for packaging.
- Assess the suitability of glass as a packaging material.

[15]

OR

10 Discuss and explain the uses and benefits to a family of:

- a food processor when preparing food
- a microwave when cooking family meals.

[15]

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