



**Cambridge International Examinations**  
Cambridge International General Certificate of Secondary Education

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NAME

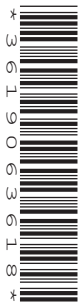
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**FOOD AND NUTRITION**

**0648/13**

Paper 1 Theory

**October/November 2016**

**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 13(a) **or** 13(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 **11** printed pages and **1** blank page.

**Section A**

Answer **all** questions.

1 Define the term *malnutrition*.

..... [1]  
[Total: 1]

2 Carbohydrates supply the body with a source of energy.

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

1 ..... 2 ..... [1]

(b) Name **two** other nutrients which can supply energy to the body.

1 .....  
2 ..... [2]

(c) Describe **three** different ways energy is used by the body.

1 .....  
2 .....  
3 ..... [3]  
[Total: 6]

3 (a) Disaccharides are sugars.  
Give **two** examples of disaccharides.

1 .....  
2 ..... [2]

(b) Name and describe **two** health problems which can be caused by eating too much sugar.

problem 1 .....  
.....  
.....  
problem 2 .....  
.....  
..... [4]

[Total: 6]

- 4 (a) Name the enzyme responsible for converting starch into maltose.  
..... [1]
- (b) State where in the digestive system this takes place.  
..... [1]
- (c) Name **one** end product of the digestion of carbohydrate.  
..... [1]
- [Total: 3]

- 5 (a) Describe the effect of dry heat on sugar.  
.....  
..... [2]
- (b) Describe the effect of dry heat on starch.  
.....  
..... [2]
- [Total: 4]

- 6 Vitamin A and vitamin D are fat-soluble vitamins.
- (a) State **four** functions of vitamin A.  
1 .....  
2 .....  
3 .....  
4 ..... [4]
- (b) Name **two** sources of retinol.  
1 ..... 2 ..... [1]
- (c) Name **two** sources of beta-carotene.  
1 ..... 2 ..... [1]
- (d) State **three** functions of vitamin D.  
1 .....  
2 .....  
3 ..... [3]

7 Water is vital to life.

(a) Describe **four** functions of water in the body.

- 1 .....
  - 2 .....
  - 3 .....
  - 4 .....
- [4]

(b) List **three** groups of people who may need to drink more water.

- 1 .....
  - 2 .....
  - 3 .....
- [3]

[Total: 7]

8 Current dietary advice is to reduce the intake of salt (sodium chloride).

Suggest **four** ways of reducing salt in the diet.

- 1 .....
  - 2 .....
  - 3 .....
  - 4 .....
- [4]

[Total: 4]

**Section B**

Answer **all** questions.

- 9 (a) Cooking ensures food is safe to eat because heat destroys harmful bacteria.

State **four** other reasons for cooking food.

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

[4]

- (b) State **two** advantages and **two** disadvantages of steaming as a method of cooking.

advantages

- 1 .....
- 2 .....

disadvantages

- 1 .....
- 2 .....

[4]

- (c) State **two** advantages and **two** disadvantages of grilling as a method of cooking.

advantages

- 1 .....
- 2 .....

disadvantages

- 1 .....
- 2 .....

[4]

[Total: 12]

10 Sauces can be served with meals to add nutritional value.

(a) Give **four** other reasons, with examples, for serving sauces with meals.

reason 1 .....

example .....

reason 2 .....

example .....

reason 3 .....

example .....

reason 4 .....

example .....

[8]

(b) The following ingredients can be used to make a cheese sauce:

- 25 g flour
- 25 g butter
- 250 ml milk
- 75 g grated cheese

Describe how to make the cheese sauce using the roux method.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

[4]

(c) Suggest **three** different ways to reduce the amount of fat in the cheese sauce.

1 .....

2 .....

3 .....

[3]

(d) Name **two** ingredients which could be added to vary the flavour of the sauce instead of using cheese.

1 .....

2 .....

[2]

(e) Suggest **three** possible reasons for a lumpy sauce.

1 .....

2 .....

3 .....

[3]

[Total: 20]

11 Explain, with reasons, how to conserve vitamin C when:

(a) preparing green leafy vegetables;

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

(b) boiling green leafy vegetables.

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

[Total: 6]

12 (a) State **five** safety rules to be followed when using small electrical kitchen equipment.

1 .....  
2 .....  
3 .....  
4 .....  
5 ..... [5]

(b) Describe how to treat a person who has suffered an electric shock.

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

[Total: 7]





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