



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

CANDIDATE  
NAME

CENTRE  
NUMBER

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CANDIDATE  
NUMBER

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**FOOD AND NUTRITION**

**0648/13**

Paper 1 Theory

**May/June 2018**

**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 11(a) **or** 11(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.

## Section A

Answer **all** questions.

- 1 Give **one** reason why energy input and energy output should be the same for a person with a healthy body weight.

.....[1]

[Total: 1]

- 2 (a) List **three** functions of protein in the body.

1 .....

2 .....

3 .....

[3]

- (b) Name **one** disease caused by a protein deficiency.

.....[1]

[Total: 4]

- 3 Name a **different** mineral or vitamin which helps with each of the following functions:

(a) healing wounds; .....[1]

(b) formation of red blood cells; .....[1]

(c) blood clotting; .....[1]

(d) prevention of goitre; .....[1]

(e) maintenance of healthy bones; .....[1]

(f) prevention of megaloblastic anaemia; .....[1]

(g) protection of teeth against dental decay; .....[1]

(h) night vision. ....[1]

[Total: 8]

3

4 Describe the structure and function of the ileum.

.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....  
.....[4]

[Total: 4]

5 Nutritionists may advise eating a diet that is low in salt.

(a) Name a health risk that could result from having too much salt in the diet.

.....[1]

(b) Name **three** herbs which could be used to flavour food instead of salt.

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

[Total: 4]

6 Stir-frying is a popular method of cooking.

(a) Give **four** benefits of stir-frying.

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

(b) Give **four** rules to follow to avoid accidents when stir-frying.

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

[Total: 8]

7 Sugary foods are enjoyed by many people but may cause tooth decay.

(a) Explain how sugar causes tooth decay.

.....

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.....[4]

(b) Sugar has many different uses in food. Complete the table naming a food or drink as an example of each different use of sugar.

use of sugar	example
increasing the energy value	drinks for athletes
confectionery	
aerating	
sweetening	
preservation	
decoration	
glazing	
improving colour	

[7]

[Total: 11]

**Section B**

Answer **all** questions.

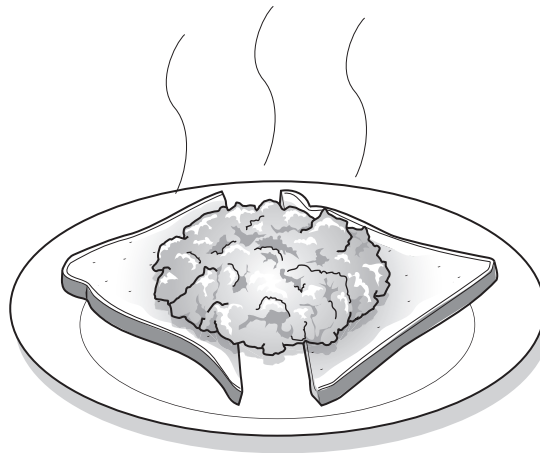
**8** “It is important that children eat a healthy breakfast.”

**(a)** Suggest **four** reasons for this statement.

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

[4]

**(b)** The picture of scrambled egg on toast, a popular breakfast meal, shows examples of coagulation and dextrinisation.



Explain these terms.

**(i)** *coagulation*

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

**(ii)** *dextrinisation*

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

(iii) Name **one** vitamin which is **not** present in the meal.

.....[1]

(iv) List **four** different foods which could be added to the meal to provide the vitamin in (iii).

1 ..... 2 .....

3 ..... 4 .....

[2]

(v) State why a person with coeliac disease should **not** eat the scrambled egg on toast.

.....

.....[1]

(c) Eggs have many functions in cooking.

Complete the table naming a **different** dish for each function of eggs.

function of eggs in cooking	name of dish
aeration	Swiss roll
emulsification	
glazing	
binding	
coating	
garnishing	

[5]

(d) Give **four** guidelines, with reasons, for storing eggs.

guideline 1 .....

reason .....

guideline 2 .....

reason .....

guideline 3 .....

reason .....

guideline 4 .....

reason .....

[8]

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

- 25 g cornflour
- 25 g sugar
- 500 ml milk

(a) Describe the stages used to make a blended sauce using these ingredients.

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..... [4]

(b) Describe the process that causes the sauce to thicken.

.....

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.....

.....

.....

..... [4]

[Total: 8]



10 (a) List **three** conditions necessary for the growth of microorganisms.

1 .....

2 .....

3 .....

[3]

(b) Suggest **five** rules for personal hygiene to help prevent the transfer of food-poisoning bacteria.

1 .....

2 .....

3 .....

4 .....

5 .....

[5]

(c) Give advice for disposing of kitchen waste.

.....

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.....

.....

.....

[4]

[Total: 12]



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