



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

CANDIDATE  
NAME

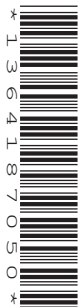
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CENTRE  
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**FOOD AND NUTRITION**

**0648/13**

Paper 1 Theory

**May/June 2017**

**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 **14** printed pages and **2** blank pages.

**Section A**

Answer **all** questions.

1 (a) Name the **three** chemical elements which form fats and oils.

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

(b) State **two** facts about monounsaturated fats.

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

(c) Name **two** different sources of polyunsaturated fats.

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

(d) (i) Name the type of enzyme which is involved in the breakdown of fat in the digestive system.

..... [1]

(ii) Name the end products of fat digestion.

..... [1]

(e) Dietary advice recommends reducing the intake of saturated fat.

Suggest **five** ways the intake of saturated fat could be reduced in meals.

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

(f) Name the deterioration process caused by the oxidation of fats and oils.

..... [1]

[Total: 13]

2 (a) Name the nutrient formed from amino acids.

.....[1]

(b) List **three** sources of this nutrient suitable for a lacto-vegetarian.

1 .....

2 .....

3 .....

[3]

[Total: 4]

3 (a) Vitamin A is involved in the production of visual purple.

Give another name for this vitamin.

.....[1]

(b) List **three** different plant sources of vitamin A.

1 .....

2 .....

3 .....

[3]

(c) Name **one** effect on the body of a deficiency of vitamin A.

.....[1]

[Total: 5]

4 (a) Vitamin D (cholecalciferol) is involved in the absorption of calcium.

List **three** different sources of vitamin D.

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

(b) Name **one** deficiency disease which affects children due to a lack of vitamin D.

..... [1]

(c) Name **one** deficiency disease which affects adults due to a lack of vitamin D.

..... [1]

[Total: 5]

5 (a) Vitamin C is involved in the prevention of scurvy.

State **one** symptom of this deficiency disease.

..... [1]

(b) List **three** other functions of vitamin C.

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

[Total: 4]

6 (a) Iron is involved in the prevention of anaemia.

Name **two** different plant sources of iron.

1 .....

2 .....

[2]

(b) Name **two** different animal sources of iron.

1 .....

2 .....

[2]

[Total: 4]

7 Suggest **five** reasons for the use of additives in convenience foods.

1 .....

.....

2 .....

.....

3 .....

.....

4 .....

.....

5 .....

.....

[5]

[Total: 5]

**Section B**

Answer **all** questions.

- 8 (a) (i) Name the gas produced when bicarbonate of soda is used to make gingerbread.  
.....[1]
- (ii) Give **two** reasons why spices are used when making gingerbread.  
1 .....  
2 ..... [2]
- (b) List **three** methods of introducing air into a mixture.  
1 .....  
2 .....  
3 ..... [3]
- (c) Name the raising agent used in each of the following products:
- (i) a bread roll;  
.....[1]
- (ii) a sausage roll made with flaky pastry;  
.....[1]
- (iii) a Yorkshire pudding;  
.....[1]
- (iv) scones.  
.....[1]
- [Total: 10]

**Question 9 starts on the next page.**

9 The following ingredients can be used to make sweet scones:

- 200 g self-raising flour
- ½ level tsp salt
- 50 g butter
- 25 g caster sugar
- 125 ml milk

(a) List the steps used to make the scone dough.

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[5]

(b) Give **three** functions of the butter in the recipe.

1 .....

2 .....

3 .....

[3]

(c) Name **two** ingredients which could replace the caster sugar in the sweet scones to produce savoury scones.

1 .....

2 .....

[2]



(d) Suggest **three** ingredients which could be changed or added to this recipe to make it suitable for a person who suffers from constipation.

1 .....

2 .....

3 .....

[3]

(e) Give **two** different reasons for the following faults:

(i) the scones are doughy in the middle;

1 .....

2 .....

[2]

(ii) the scones are too thin.

1 .....

2 .....

[2]

(f) Scones wrapped in plastic packaging can be bought from supermarkets.

List **four** advantages of plastic as a packaging material.

1 .....

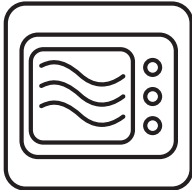

2 .....

3 .....

4 .....

[4]

(g) Give **one** advantage to the consumer of each of the following information points shown on a food label.

	information point	advantage
(i)		<p>.....</p> <p>.....</p> <p>..... [1]</p>
(ii)	freeze on day of purchase	<p>.....</p> <p>.....</p> <p>..... [1]</p>
(iii)	this product contains wheat	<p>.....</p> <p>.....</p> <p>..... [1]</p>
(iv)		<p>.....</p> <p>.....</p> <p>..... [1]</p>

[Total: 25]

10 (a) Suggest **six** reasons why preserved foods are useful in the home.

- 1 .....
- 2 .....
- 3 .....
- 4 .....
- 5 .....
- 6 ..... [6]

(b) Give **one** example of preserving food in the home by:

- (i) the use of high temperature;  
.....[1]
- (ii) the use of an acid.  
.....[1]

(c) Explain the importance of blanching vegetables before they are frozen.

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

[Total: 10]

Section C

Answer **either** Question 11(a) **or** 11(b).

- 11 (a) Discuss factors, other than nutrition, which need to be considered when preparing and serving meals for a toddler (1–2-year-old child). [15]

**OR**

- (b) Compare and contrast the advantages and disadvantages of frying and steaming as methods of cooking. [15]

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