



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

CANDIDATE  
NAME

--

CENTRE  
NUMBER

--	--	--	--	--

CANDIDATE  
NUMBER

--	--	--	--



**FOOD AND NUTRITION**

**0648/13**

Paper 1 Theory

**October/November 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 10(a) **or** 10(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 State the difference between *malnutrition* and *undernutrition*.

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

[Total: 2]

2 (a) Explain why the following groups of people require higher levels of protein in their diet:

- (i) children; .....  
..... [1]
- (ii) athletes; .....  
..... [1]
- (iii) women who are breast-feeding. ....  
..... [1]

(b) Name **two** different sources of high biological value (HBV) protein.

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

(c) Describe the action of trypsin during the digestion of protein.

..... [1]

(d) Name **one** deficiency disease caused by a lack of protein.

..... [1]

(e) Define the following terms:

- (i) *denaturation*; .....  
..... [1]
- (ii) *coagulation*. ....  
..... [1]

[Total: 9]

3 (a) State **one** difference between fats and oils.

..... [1]

(b) Give **four** functions of fat in the body.

1 .....

2 .....

3 .....

4 .....

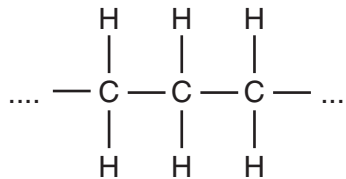
[4]

(c) Describe the action of lipase during the digestion of fat.

.....

..... [1]

(d) The diagram shows part of the structure of a fatty acid.



Name the type of fat produced by this kind of fatty acid.

..... [1]

(e) Explain why eating too much fat could cause heart disease.

.....

.....

.....

..... [2]

[Total: 9]

4 Complete the following table.

mineral	function	problem caused by a deficiency	source
calcium	formation of bones and teeth		
iron			liver
iodide		goitre	
sodium			salt

[8]

[Total: 8]

5 Explain the effects of the following temperatures on bacteria:

(a)  $-18^{\circ}\text{C}$ ; .....

..... [1]

(b) above  $75^{\circ}\text{C}$ . .....

..... [1]

[Total: 2]



Section B

Answer all questions.

7 (a) Biscuits can be made by the creaming method.

Name two other methods which could be used to make biscuits.

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

(b) A basic recipe for making plain biscuits uses:

- 100g flour
- 50g fat
- 50g sugar
- 1 egg yolk

Suggest, with a reason, a suitable type of each of the following ingredients for making the biscuits.

(i) type of flour .....  
 reason ..... [2]

(ii) type of fat .....  
 reason ..... [2]

(iii) type of sugar .....  
 reason ..... [2]

(c) Suggest three ways to decorate the biscuits after baking.

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

(d) Biscuits are often packaged in paperboard or card.

Give four advantages of using this type of packaging material.

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

(e) Nutritional information is often given on a food label.

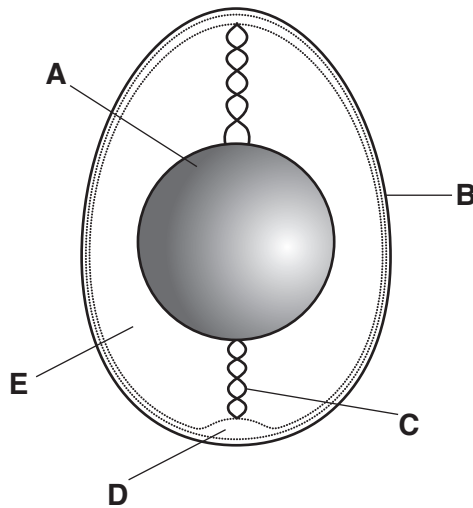
List **five** other pieces of information which may be found on a food label.

- 1 .....
- 2 .....
- 3 .....
- 4 .....
- 5 .....

[5]

[Total: 20]

8 (a) Name the parts of an egg labelled **A–E**.



- A .....
- B .....
- C .....
- D .....
- E .....

[5]

(b) Give **four** guidelines to follow when storing eggs.

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

[4]

(c) Eggs can be used to add nutritive value to dishes.

Name **three** other functions of eggs in cooking. Give an example in each case.

function 1 .....

example .....

function 2 .....

example .....

function 3 .....

example .....

[6]

(d) Identify **two** groups of people who may be put at risk by eating eggs. Give reasons for your answers.

group 1 .....

group 2 .....

reasons .....

.....

.....

[4]

[Total: 19]

9 (a) Name a type of vegetarian that does **not** eat eggs.

..... [1]

(b) Give **five** reasons why some people choose to follow a vegetarian diet.

1 .....

2 .....

3 .....

4 .....

5 .....

[5]

[Total: 6]









**BLANK PAGE**

---

Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge International Examinations Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at [www.cie.org.uk](http://www.cie.org.uk) after the live examination series.

Cambridge International Examinations is part of the Cambridge Assessment Group. Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.