



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

CANDIDATE  
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**FOOD AND NUTRITION**

**0648/01**

Paper 1 Theory

**May/June 2015**

**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 7(a) **or** 7(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 Pulses are a good source of low biological value (LBV) protein.

(a) Explain the term *low biological value protein*.

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

(b) Name **four** foods that are pulses.

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

(c) Pulses are also a good source of non-starch polysaccharide (NSP).

(i) Explain why NSP is important in the diet.

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

(ii) Explain the effects of too much NSP in the diet.

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

[Total: 8]

2 Meat is a source of high biological value (HBV) protein.

(a) Name **four** other good food sources of HBV protein.

1 .....

2 .....

3 .....

4 .....

[2]

(b) Explain the term *complementary proteins*. Give an example.

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

(c) (i) Meat is also a good source of the mineral iron.

Name **three** other minerals needed by the body and give **one** different function of each.

source 1 .....

function .....

source 2 .....

function .....

source 3 .....

function .....[3]

(ii) Name the disease caused by a lack of iron in the diet. Give **two** symptoms of this disease.

disease .....

symptoms .....

.....

.....[3]

(d) Name the vitamin required for the absorption of iron.

.....[1]

(e) Meat is usually cooked before being eaten. Give **four** reasons for cooking meat.

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

(f) Name the method of heat transfer in frying meat in a pan. Describe how the heat is transferred.

- method .....
- description .....
- ..... [3]

(g) Suggest **four** ways of tenderising tough cuts of meat.

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

[Total: 23]

3 Butter and margarine are fats that can be used to make pastry.

(a) Name the **three** chemical elements which make up fats.

1 .....

2 .....

3 .....

[1]

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

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

(c) Complete the following table to show how much fat is needed to make different types of pastry.

type of pastry	amount of plain flour	amount of fat
flaky pastry	200 g	
shortcrust pastry	200 g	

[2]

(d) Describe what causes fats to spoil.

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

(e) State how butter should be stored in the home.

.....[1]

[Total: 9]

**Section B**

Answer **all** questions.

- 4 (a) Complete the following table to show the causes and types of browning in certain foods.

food	type of browning	cause of browning
biscuit		dry heat on starch
roast chicken	maillard	
apple pieces		
fried onions		

[6]

- (b) Complete the following table to show suitable methods of making different types of baked products.

type of baked product	method of making
scone	
gingerbread	
Victoria sponge	
Swiss roll	

[4]

- (c) Suggest suitable raising agents for use in the Victoria sponge and the gingerbread mixture.

Victoria sponge .....

gingerbread ..... [2]

- (d) Suggest how to store a Victoria sponge.

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

- (e) Describe what would happen to a Victoria sponge if it were not stored correctly.

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

[Total: 15]

5 (a) Describe the effect of heat on cheese.

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

(b) Discuss the advantages of including yoghurt in the diet.

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

(c) Describe and explain **one** method of preserving fish.

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

(d) State the information that must be included on a food label.

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

(e) Explain what is meant by the term *convenience foods*.

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

[Total: 14]  
[Turn over

6 (a) It is recommended that people should eat less fat.

(i) Explain the risks of a diet high in saturated fat.

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

(ii) Explain how the diet could be changed to reduce the risks linked to fat.

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

(b) Eggs are a versatile food.

(i) State the nutritive value of the yolk.

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

(ii) Give **four** different uses of eggs in cooking with examples.

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

(iii) Describe the effect of heat on eggs.

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



(iv) Describe and explain **one** method of testing the freshness of an egg.

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

[Total: 16]

**Section C**

Answer **either** Question 7(a) **or** 7(b).

- 7 (a) Discuss the importance of hygiene in the storing, preparation and cooking of foods. Explain the term *contamination* and suggest ways to avoid food contamination. [15]

**OR**

- (b) Discuss the factors affecting the choice of foods for convalescents and athletes. [15]

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