



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

CANDIDATE  
NAME

CENTRE  
NUMBER

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CANDIDATE  
NUMBER

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**FOOD AND NUTRITION**

**0648/11**

Paper 1 Theory

**October/November 2012**

**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 a soft pencil for any diagrams or graphs.

Do not use staples, paper clips, highlighters, 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 8(a) **or** 8(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.

For Examiner's Use	
Section A	
Section B	
Section C	
<b>Total</b>	

This document consists of **12** printed pages.



**Section A**

Answer **all** questions.

1 Milk is an important source of protein for young children.

(a) State **three** functions of protein.

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

(b) Name **four** elements which combine to form protein.

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

(c) Define the term *High Biological Value (HBV) protein*.

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

(d) Name **four** foods which are good sources of HBV protein.

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

(e) Define the term *Low Biological Value (LBV) protein*.

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

(f) Name **four** foods which are good sources of LBV protein.

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

(g) What are complementary proteins?

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

(h) Give **two** examples of complementary proteins.

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



3 White fish is deficient in calcium and vitamin D.

(a) Explain the importance of calcium in the diet.

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

(b) Name **four** good sources of calcium.

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

(c) Name a deficiency disease associated with calcium.

..... [1]

(d) Give **two** symptoms of the deficiency disease identified in (c).

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

(e) Explain the importance of vitamin D in the diet.

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

(f) Name **four** good sources of vitamin D.

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

(g) Salt-water fish is a good source of iodine.  
Explain the importance of iodine in a balanced diet.

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

(h) Name the deficiency disease associated with a lack of iodine and give one symptom of the disease.

Deficiency disease.....

Symptom..... [1]

4 Discuss ways of encouraging good eating habits in children.

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.....  
.....  
..... [5]

[Section A Total: 40]

**Section B**

Answer **all** questions.

5 Explain the following terms and give **one** example of each.

(a) Coagulation

.....  
.....  
.....

Example ..... [3]

(b) Fermentation

.....  
.....  
.....

Example ..... [3]

(c) Gelatinisation

.....  
.....  
.....

Example ..... [3]

(d) Hydrogenation

.....  
.....  
.....

Example ..... [3]

(e) Pasteurisation

.....  
.....  
.....

Example ..... [3]

6 It is recommended that fruit should be eaten each day.

(a) Name **five** nutrients that can be found in fruit.

Illustrate your answer with named examples of fruits.

Nutrient 1 .....

Example 1 .....

Nutrient 2 .....

Example 2 .....

Nutrient 3 .....

Example 3 .....

Nutrient 4 .....

Example 4 .....

Nutrient 5 .....

Example 5 ..... [5]

(b) State **five** different ways of using fruit in family meals.

Give examples to support your answers.

Method 1 .....

Example 1 .....

Method 2 .....

Example 2 .....

Method 3 .....

Example 3 .....

Method 4 .....

Example 4 .....

Method 5 .....

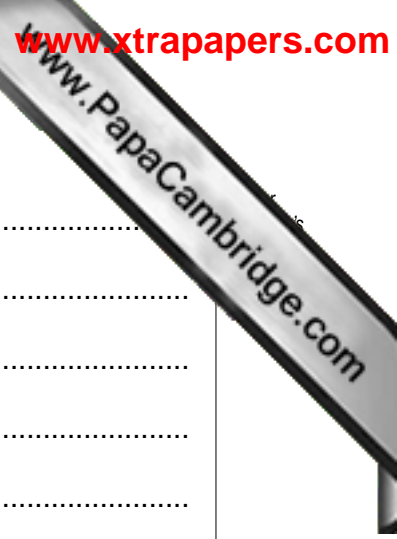
Example 5 ..... [5]











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