



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	
Total	

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]

2 (a) Describe the digestion and absorption of protein.

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.....[6]

(b) What is meant by the term *deamination of protein*?

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.....[2]

3 White fish is deficient in calcium and vitamin D.

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

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.....[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).

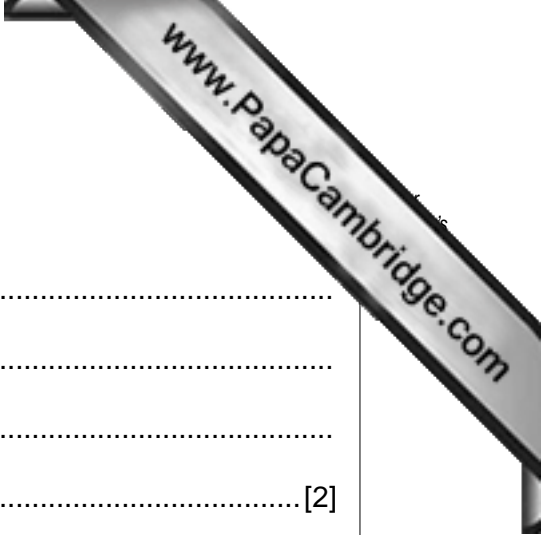
1.....
2..... [1]

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

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..... [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.

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..... [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

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Example [3]

(b) Fermentation

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Example [3]

(c) Gelatinisation

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Example [3]

(d) Hydrogenation

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Example [3]

(e) Pasteurisation

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.....
.....

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

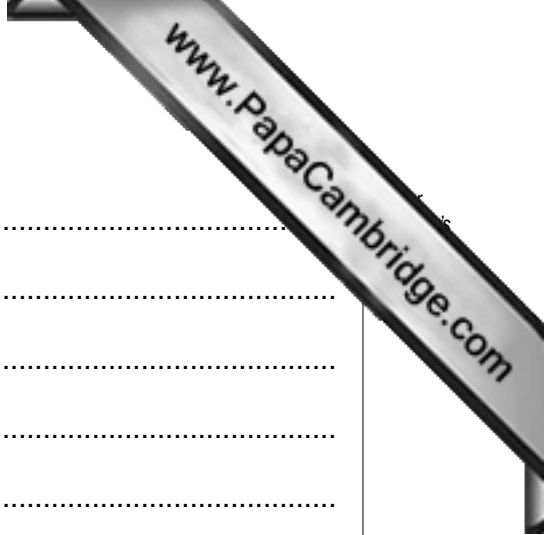
Method 4

Example 4

Method 5

Example 5 [5]

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[Section C Total: 15]

[Total for Paper: 100]

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