



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

0648/13

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 ink.

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



Section A

Answer **all** questions.

1 (a) Name **three** nutrients which provide the body with energy.

Nutrient 1

Nutrient 2

Nutrient 3 [3]

(b) State the energy value of 1 g of each of the nutrients named in (a).

Nutrient 1

Nutrient 2

Nutrient 3 [3]

(c) Define the term *energy balance*.

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..... [1]

(d) Discuss reasons why individuals have different energy requirements.

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..... [6]

(e) Explain what happens if too much energy-giving food is eaten.

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..... [4]

2 Iron is involved in the production of energy.

(a) Name **two** animal sources of iron.

1
2 [1]

(b) Name **two** plant sources of iron.

1
2 [1]

(c) Name the pigment which gives blood its red colour.

..... [1]

(d) Explain the function of the pigment named in (c).

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

(e) Name the deficiency disease associated with iron.

..... [1]

(f) State **four** symptoms of the disease named in (e).

1
2
3
4 [2]

5

(b) absorption in the small intestine.

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..... [3]

[Section A Total: 40]

(c) the advantages and disadvantages of steaming.

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[5]

6 (a) State **four** reasons for serving sauces and give an example for each reason.

Reason 1

Example 1

Reason 2

Example 2

Reason 3

Example 3

Reason 4

Example 4 [4]

(b) The following ingredients can be used to make cheese sauce:

- 25g flour
- 25g margarine
- 250ml milk
- 50g cheese

(i) Describe, with reasons, how to make cheese sauce by the roux method.

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..... [4]

(ii) Name **two** dishes which include cheese sauce.

1
2 [1]

(c) Identify **three** different ways to reduce the amount of fat in the cheese sauce.

- 1
- 2
- 3 [3]

(d) Suggest **three** reasons for a lumpy sauce.

- 1
- 2
- 3 [3]

(c) the use of additives in processed food.

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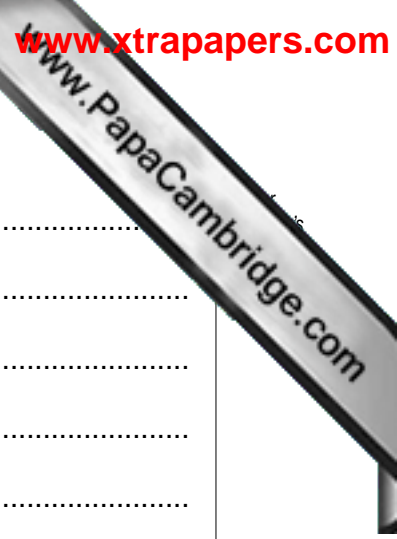
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..... [5]

[Section B Total: 45]



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Lined writing area with horizontal dotted lines.

[Section C Total: 15]

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