



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

0648/01

Paper 1 Theory

May/June 2013

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 **13** printed pages and **3** blank pages.



Section A

Answer **all** questions.

- 1 (a) Proteins are made from amino acids.
All amino acids contain the elements carbon and hydrogen.

Give **two** other elements found in amino acids.

1

2 [2]

- (b) Milk is an important source of High Biological Value (HBV) protein.
Define the term *High Biological Value (HBV) protein*.

.....

..... [2]

- (c) (i) Name **one** other animal source of HBV protein.

..... [1]

- (ii) Name **one** non-animal source of HBV protein.

..... [1]

- (d) Identify **four** functions of protein.

1

2

3

4 [4]

3 Carbohydrates and fats are important nutrients for energy production.

(a) Give the energy value of 1g of each of the nutrients named above.

carbohydrate

fat [2]

(b) Individuals have different energy requirements.

Explain **four** factors which affect an individual's energy requirement.

factor 1

explanation 1

.....

factor 2

explanation 2

.....

factor 3

explanation 3

.....

factor 4

explanation 4

.....

..... [4]

(c) Define the term *energy balance*.

.....

..... [1]

4 Current nutritional advice is to reduce the amount of sugar in the diet.

(a) Suggest **three** ways in which sugar consumption can be reduced.

1

2

3 [3]

(f) Give advice on the choice of the following ingredients used for making the cake:

(i) type of sugar;

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

(ii) type of fat.

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

7 (a) List **four** of the nutrients in red meat.

- 1
- 2
- 3
- 4 [4]

(b) Incorrect cooking of meat can cause toughness. State **one** cause of toughness in meat other than incorrect cooking.

..... [1]

(c) Explain how tough meat can be tenderised by moist cooking methods.

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

(d) (i) Name **one** moist method of cooking.

..... [1]

(ii) Name **one** dry method of cooking.

..... [1]

(e) Conduction and convection are two methods of transferring heat when food is being cooked.

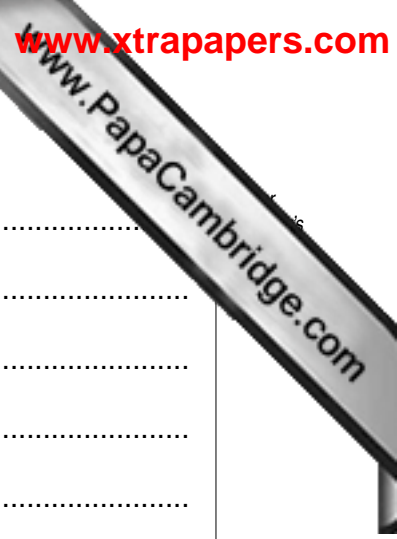
(i) Explain **conduction** as a method of transferring heat.

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

(ii) Give **one** example of **convection** in cooking.

..... [1]

[Section B Total: 45]



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