UNIVERSITY OF CAMBRIDGE INTERNATIONAL EX
International General Certificate of Secondary Educati

CANDIDATE NAME

CENTRE NUMBER | | | | | |

CAN NUMBER

2720786304

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.

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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]

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(e) Describe the digestion and absorption of the protein in milk.

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..... [6]

2 Milk contains a high proportion of water.

(a) State **and** explain **three** of the functions of water in the body.

1 .....

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2 .....

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3 .....

..... [6]

(b) Name the condition which results from a lack of water in the body.

..... [1]

(c) Thirst is a symptom of the condition named in **(b)**.
Identify **one** other symptom.

..... [1]

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3 Carbohydrates and fats are important nutrients for energy product

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

carbohydrate .....

fat .....

(b) Individuals have different energy requirements.

Explain **four** factors which affect an individual's energy requir

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]

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(b) Explain the possible effects on the body of a diet which conta

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..... [6]

[Section A Total: 40]

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Section B

Answer **all** questions.

5 The following ingredients can be used to make a Victoria sandwic

100 g self-raising flour
100 g sugar
100 g fat
2 eggs

(a) Name **one** method which could be used to make this cake.

..... [1]

(b) Name **one** ingredient which could be used to vary the flavour of the cake.

..... [1]

(c) Suggest **two** ways in which the non-starch polysaccharide (NSP)/dietary fibre content of the cake could be increased.

1 .....

2 ..... [2]

(d) Name **two** of the gases which will make the cake rise during baking.

1 .....

2 ..... [2]

(e) Describe **and** explain other changes which take place when the cake is being baked.

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..... [5]

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(f) Give advice on the choice of the following ingredients used fo

(i) type of sugar;

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(ii) type of fat.

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..... [2]

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6 Write an informative paragraph on each of the following:

(a) the use and care of a refrigerator;

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..... [5]

(b) air as a raising agent;

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(c) the advantages and disadvantages of using a microwave ove

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..... [5]

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

1 ..... 2 .....

3 ..... 4 .....

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

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

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..... [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.

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..... [4]

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

..... [1]

[Section B Total: 45]

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Section C

Answer **either** 8(a) **or** 8(b).

Either

8 (a) Discuss the importance of fruit in the diet and suggest ways i
the preparation of family meals.

Or

8 (b) Discuss the importance of eggs in the diet and suggest ways in which they could be used in the preparation of family meals. [15]

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[Section C Total: 15]

[Total for Paper: 100]

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