



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

CANDIDATE  
NAME

CENTRE  
NUMBER

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**FOOD AND NUTRITION**

**0648/12**

Paper 1 Theory

**October/November 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 10(a) **or** 10(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.

This document consists of **15** printed pages and **1** blank page.



**Section A**

Answer **all** questions.

**1** Define the following terms:

**(a)** *balanced diet*;

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

**(b)** *malnutrition*.

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

**2** Sugars and starches are examples of carbohydrates.

**(a)** Sugars are found in the form of monosaccharides or disaccharides.

**(i)** Name **one** example of a monosaccharide.

..... [1]

**(ii)** Name **one** example of a disaccharide.

..... [1]

**(b)** Starch is an example of a polysaccharide and is found in many foods.

Describe the digestion of starch in:

**(i)** the duodenum;

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

(ii) the ileum.

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..... [3]

(c) Explain how the end products of the digestion of starch are used to release energy.

.....

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.....

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.....

.....

..... [3]

3 Fat is a concentrated source of energy.

(a) State **four** other functions of fat.

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

(b) Discuss reasons for the advice to reduce the amount of fat in the diet.

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

(c) Suggest **two** ways to reduce the amount of fat in the diet.

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

4 (a) Discuss the importance of Non Starch Polysaccharides (NSP)/dietary fibre in the diet.  
.....  
.....  
.....  
.....  
.....  
.....  
..... [3]

(b) Name **two** good sources of NSP.  
1 .....  
2 ..... [2]

5 (a) List **three** functions of salt (sodium chloride/NaCl) in the body.  
1 .....  
2 .....  
3 ..... [3]

(b) Name **one** food which contains a high amount of salt.  
..... [1]

(c) Current nutritional advice is to limit salt intake to 6g per day.  
Explain the problems which could occur if the diet contains a high level of salt.  
.....  
.....  
.....  
..... [2]









8 (a) Name and explain **three** types of vegetarian diet.

type 1 .....

explanation .....

.....

type 2 .....

explanation .....

.....

type 3 .....

explanation .....

..... [3]

(b) Discuss reasons for following a vegetarian diet.

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..... [4]

(c) Explain ways of ensuring that a vegetarian diet has sufficient High Biological Value (HBV) protein.

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..... [4]

(d) Discuss problems, other than insufficient HBV protein, which may occur for following a vegetarian diet.

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..... [4]

9 (a) List **two** causes of food spoilage.

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

(b) State **two** conditions which favour food spoilage.

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

(c) Explain the principles of the following methods of preserving food:

(i) freezing;

- .....
- .....
- .....
- .....

(ii) drying.

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

(d) Food contamination must be prevented when preparing and cooking food. Discuss this statement under the following headings:

(i) personal hygiene;

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

(ii) kitchen hygiene.

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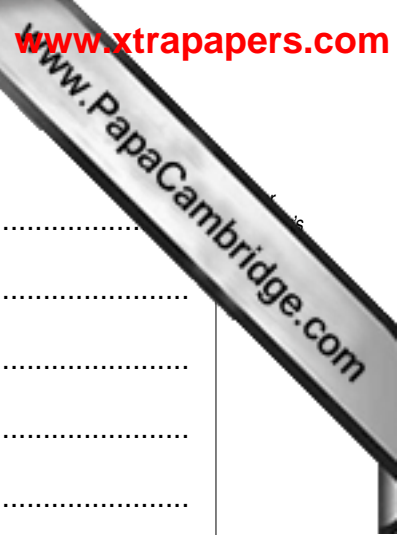
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..... [4]

**[Section B Total: 45]**





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