



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

CANDIDATE  
NAME

CENTRE  
NUMBER

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**FOOD AND NUTRITION**

**0648/01**

Paper 1 Theory

**October/November 2011**

**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 6(a) **or** 6(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 |  |
|--------------------|--|
| <b>Section A</b>   |  |
| <b>Section B</b>   |  |
| <b>Section C</b>   |  |
| <b>Total</b>       |  |

This document consists of **14** printed pages and **2** blank pages.



**Section A**

Answer **all** questions.

For  
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Use

1 (a) Name **four** examples of fats and **four** examples of oils used in meals.

Fats

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

Oils

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

(b) State **one** difference between fats and oils.

..... [1]

(c) Give **four** functions of fats and oils in the body.

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

(d) Explain the following terms:

(i) saturated fat;

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

(ii) polyunsaturated fat;

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

(iii) essential fatty acid(s).

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

(e) (i) In which part of the alimentary tract are fats digested?

.....

(ii) Name the substance that emulsifies fats.

.....

(iii) Explain why emulsification is necessary.

.....

(iv) Which enzyme brings about the breakdown of fats?

.....

(v) What are the end products of fat digestion?

.....

(vi) What is the energy value of 1 g of absorbed fat?

..... [6]

(f) Discuss the problems that may be associated with a diet high in fat.

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

(g) Name any **two** fat-soluble vitamins and explain their importance in a healthy diet.

Name **three** sources of each vitamin.

(i) Vitamin 1

Name .....

Importance in the diet

.....

.....

Source

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

3 ..... [4]

(ii) Vitamin 2

Name .....

Importance in the diet

.....

.....

Source

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

3 ..... [4]

2 It is important for everyone to have nutritionally balanced meals but individual requirements vary. State, with reasons, the special nutritional needs of:

(a) elderly women;

.....

.....

.....

.....

.....

..... [4]



**Section B**

Answer **all** questions.

*For  
Examiner's  
Use*

**3** Explain the following processes and give **one** example of each.

**(a)** Gelatinisation

.....  
.....  
.....  
.....  
.....

Example..... [3]

**(b)** Coagulation

.....  
.....  
.....  
.....  
.....

Example..... [3]

**(c)** Fermentation

.....  
.....  
.....  
.....  
.....

Example..... [3]

**(d) Pasteurisation**

*For  
Examiner's  
Use*

.....  
.....  
.....  
.....  
.....

Example.....[3]

**(e) Hydrogenation**

.....  
.....  
.....  
.....  
.....

Example.....[3]

4 (a) Discuss the purposes of the following ingredients in a Victoria sandwich cake:

(i) self-raising flour;

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

(ii) sugar;

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

(iii) margarine;

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

















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