



UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

CANDIDATE  
NAME

CENTRE  
NUMBER

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**FOOD AND NUTRITION**

**0648/13**

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 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 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.

This document consists of **12** printed pages.



Section A

Answer **all** questions.

1 (a) Name the elements which combine to form fat.

1 ..... 2 .....  
3 ..... [3]

(b) Fats can be classified as monounsaturated, polyunsaturated and saturated.

(i) Define the term *monounsaturated fat*.

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

(ii) Define the term *polyunsaturated fat*.

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

(iii) Define the term *saturated fat*.

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

(c) State **three** health problems associated with a diet that is high in saturated fat.

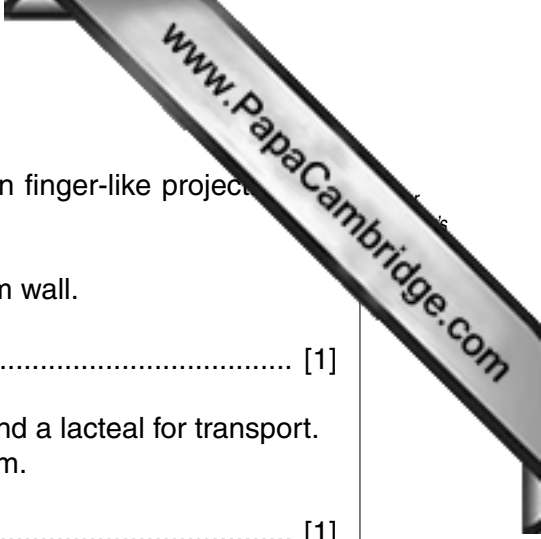
1 .....  
2 .....  
3 ..... [3]

(d) Before fat can be digested it must be emulsified.  
Give the name of the substance that emulsifies fat.

..... [1]

(e) Complete the equation below to show the end products of fat digested by lipase.

Fat + lipase  $\xrightarrow{\text{digestion}}$  ..... + ..... [2]



(f) Absorption of the end products of fat digestion takes place in finger-like projections in the ileum wall.

(i) Give the name of these finger-like projections in the ileum wall.

..... [1]

(ii) The finger-like projections have many blood capillaries and a lacteal for transport. A lacteal is part of a system. Give the name of this system.

..... [1]

2 (a) Give **two** functions of vitamin A.

1 .....

2 ..... [2]

(b) List **two** sources of vitamin A.

1 .....

2 ..... [2]

(c) Name a deficiency disease associated with a lack of vitamin A.

..... [1]

(d) Name **two other** deficiency diseases **and**, in each case, identify the nutrient which is in poor supply.

deficiency disease 1 .....

poor supply of .....

deficiency disease 2 .....

poor supply of .....

[4]



3 (a) Describe the problems which could result from excess sugar in the diet.

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

(b) Describe how the body deals with excess protein.

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..... [3]



- 4 (a) It is recommended that **five** portions of fruit and vegetables should be eaten daily. Suggest ways of encouraging children to eat fruit and vegetables.

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..... [4]

- (b) Discuss the importance of soya in a vegan / strict vegetarian diet.

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..... [4]

**[Section A Total: 40]**

**Section B**

Answer **all** questions.

5 Write an informative paragraph on each of the following:

**(a)** safety when frying;

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..... [5]

**(b)** personal hygiene in the kitchen;

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..... [5]

(c) advantages and disadvantages of small electrical kitchen equipment.

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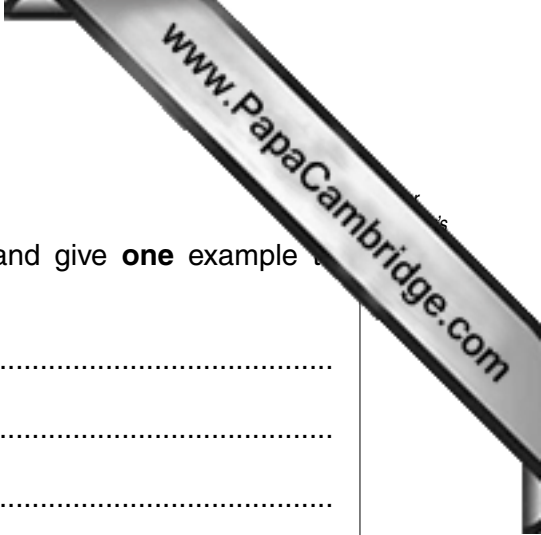
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..... [5]



6 (a) All meals should be well balanced.

List **three** other points to consider when planning meals and give **one** example to illustrate each point.

point 1 .....

example .....

point 2 .....

example .....

point 3 .....

example ..... [6]

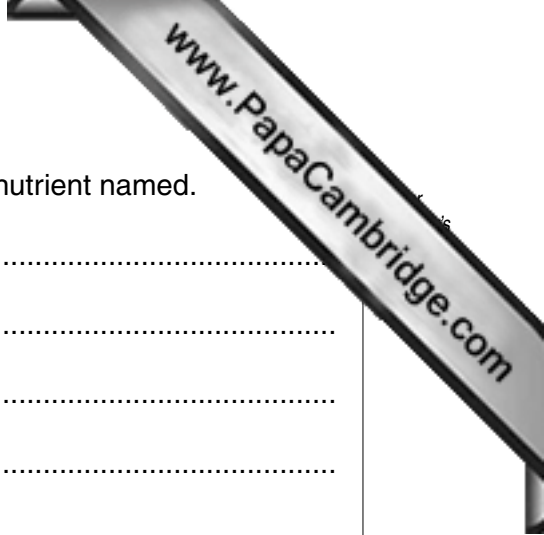
(b) Explain the nutritional points to consider when planning meals for teenage **girls**.

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..... [4]

(c) Discuss ways of saving fuel when cooking meals.

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..... [5]





7 (a) Name **three** nutrients in eggs and give **one** function of each nutrient named.

nutrient 1 .....

function .....

nutrient 2 .....

function .....

nutrient 3 .....

function ..... [6]

(b) Give advice on the storage of eggs.

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

(c) Identify **two** different uses of eggs and give **one** example to illustrate each use.

use 1 .....

example .....

use 2 .....

example ..... [4]

(d) State **two** changes which take place when an egg is boiled.

1 .....

.....

2 .....

..... [2]

[Section B Total: 45]

Section C

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



Either

8 (a) Most accidents in the home occur in the kitchen. Discuss reasons for this and ways of prevention. [15]

Or

8 (b) The kitchen should be a well-planned area in which to work.

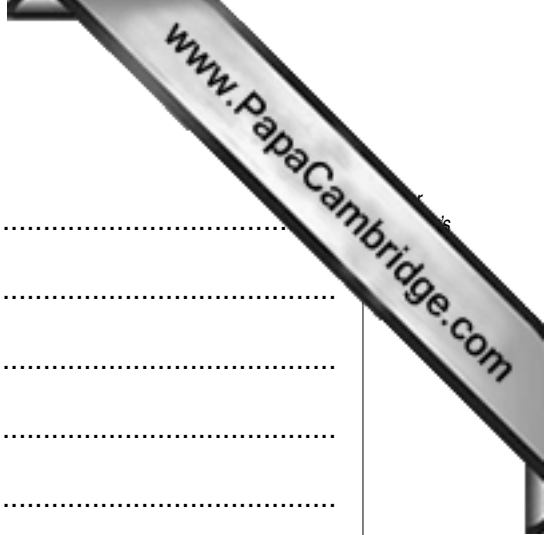
Discuss:

(i) different ways of arranging the cooking area;

(ii) the choice of kitchen surfaces. [15]

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**[Section C Total: 15]**

**[Total for Paper: 100]**

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