



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

0648/13

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.

For
Examiner's
Use

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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..... [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]

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]

