

Centre Number	Candidate Number	Name
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CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

FOOD SCIENCE **0635/01**

Paper 1 May/June 2003

2 hours

Candidates answer on the Question Paper.
Additional Materials:
Answer Paper

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 in the spaces provided on the Question Paper.
You may use a soft pencil for any diagrams, graphs or rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.

Section A
Answer **all** questions.
Write your answers in the spaces provided on the Question Paper.

Section B
Answer any **two** questions.
Write your answers in the spaces provided on the Question Paper.

Section C
Answer **one** question.
Where lined pages are provided at the end of the Question Paper, write your answer on these and continue on separate Answer Paper if necessary.

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.

If you have been given a label, look at the details. If any details are incorrect or missing, please fill in your correct details in the space given at the top of this page.

Stick your personal label here, if provided.

For Examiner's Use	
Section A	
Section B	
Section B	
Section C	
Total	

Section A

Answer **all** questions in the spaces provided.

1 State **two** cultural or religious factors which influence an individual's choice of food.

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

2 (a) Identify the names of the following:

(i) **two** High Biological Value (HBV) protein foods;

.....

(ii) **two** Low Biological Value (LBV) protein foods;

.....

(iii) the end product of protein digestion;

.....

(iv) the energy value of 1g of protein.

(b) List **two** other functions of protein.

.....
.....

(c) What is the name of the disease associated with a deficiency of protein?

.....[5]

3 Explain the following terms and give an example of each of them:

(a) baste;

.....
.....

(b) bake blind;

.....
.....

(c) rub in.

.....
.....[6]

- 4 (a) State the conditions required for the growth of bacteria.

.....

- (b) What is the effect on bacteria of:

- (i) a temperature of 70 °C and above?

.....

- (ii) a temperature of –18 °C?

.....

- (c) Bacteria can cause food poisoning. State **four** symptoms.

1. 2.

3. 4.

[5]

- 5 Complete the chart below.

Nutrient	Functions	Sources
Vitamin C	1. 2.	1. 2.
Calcium	1. 2.	1. 2.
Starch	1. 2.	1. 2.

[6]

- 6 Name **three** methods of transferring heat and give an example of the use of each of them.

1. example

2. example

3. example

[3]

7 (a) State:

(i) **two** advantages of using a microwave oven;

.....
.....

(ii) **two** disadvantages of using a microwave oven.

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

8 List **six** important points to remember when preparing packed meals.

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

9 Complete the following sentences which describe the digestion and absorption of fat.

There is no breakdown of fat in the mouth or the _____. In the duodenum, _____ from the gall bladder _____ fats, breaking them down into smaller droplets. The enzyme _____ from the _____ converts fat into _____ and _____.

In the ileum, the breakdown of fat is continued by the enzyme _____ in the intestinal juice.

The final products are absorbed in the _____ intestine. Finger-like projections called _____ have a _____ in the centre which absorbs the breakdown products. They then pass into the _____ system. [6]

Section B

Answer **two** questions.

10 (a) (i) Identify **two** factors which must be considered before purchasing a cooking stove.

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

(ii) What is the function of the automatic timer found on some cooking stoves?

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

(iii) State **one** advantage and **one** disadvantage of a ceramic hob.

Advantage

.....

Disadvantage

.....[2]

(b) Explain how a cooking stove can be used efficiently and safely.

.....

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.....

.....

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.....

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.....

.....

.....[4]

(c) (i) Describe the distribution of heat in:

(a) an electric fan oven;

.....
.....

(b) a gas oven.

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

(ii) State how these differences affect the way these ovens are used.

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

(d) Complete the chart below which shows oven temperatures. Give an example of a dish which can be cooked at each setting.

Setting	Gas	°C or °F	Dish
Cool	1–2		
Moderate	3–4		
Hot	7		
Very hot	8–9		

[6]

11 (a) Give **two** examples of each of the following:

(i) white fish;

.....

(ii) oily fish;

.....

(iii) shell fish.

.....[3]

(b) Identify **five** nutrients in oily fish and give a function of each nutrient.

.....

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.....

.....

.....[5]

(c) (i) List **four** points you would look for when buying fresh fish.

.....

.....

.....

.....[4]

(ii) Explain why fresh fish must be either cooked or preserved on the day it is bought.

.....

.....[1]

(iii) State, with examples, **three** methods of preserving fish.

.....

.....

.....[3]

12 Cereals play an important part in family meals.

(a) Name **four** cereals and **one** product manufactured from each of these cereals.

.....

.....

.....

.....[4]

(b) (i) Draw and label a section through a cereal grain.

[3]

(ii) Explain the nutritional differences between whole and refined cereals.

.....

.....

.....

.....

.....

.....[3]

(iii) Name and describe **two** deficiency diseases which could occur amongst people who eat mainly refined cereals.

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

(c) Give advice, with reasons, on the storage of dry cereal products in the home.

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

(d) Explain the following processes and give an example of each:

(i) dextrinisation;

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

(ii) gelatinisation.

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

13 Iron is a very important micro-nutrient.

(a) Explain the term 'micro-nutrient'.

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

(b) Describe:

(i) how iron is used in the body;

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

(ii) the results of a deficiency of iron.

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

(c) Vitamin C is required for the absorption of non-haem iron.

(i) (a) Explain why vitamin C is required.

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

(b) Give **two** sources of non-haem iron.

1.
2.[2]

(ii) Name **two** other substances which affect the absorption of iron.

1.
2.[2]

(d) Vitamin C is associated with the absorption of iron.

(i) Identify **two** other functions of vitamin C. Name and describe the result of vitamin C deficiency.

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

(ii) Explain how an adequate supply of iron and vitamin C can be provided in family meals.

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.....
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.....
.....[6]

Section C

Answer **one** question from this section.

- 14** Discuss general factors which should be considered when planning and preparing meals. Explain, with examples, the specific dietary needs of elderly people. [20]
- 15** Explain the structure and functions of fat. Discuss problems associated with a diet high in fat and suggest ways in which fat intake can be lowered. [20]
- 16** "Cooking can reduce the nutritional value of food."
Describe, with examples, how food should be cooked to maintain its nutritional content. [20]

