

Centre Number	Candidate Number	Name
---------------	------------------	------

CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

FOOD SCIENCE

0635/01

Paper 1

October/November 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.

For Examiner's Use

Section A	
Section B	
Section B	
Section C	
Total	

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.

This document consists of **14** printed pages, **1** lined page and **1** blank page.



Section A

Answer **all** questions.

1 Give:

(a) **one** advantage of using local foods instead of imported foods;

.....

(b) **one** disadvantage of using imported foods.

..... [2]

2 Study the list of terms below.

coagulation
gelatinisation

hydrogenation
caramelisation

dextrinisation
emulsification

Use these terms to complete the following sentences.

(a) The effect of moist heat on starch is

(b) The removal of water from starch occurs during

(c) The effect of heat on protein is

(d) The process where oils are changed into solid fats is

(e) The removal of water from sugar results in

(f) A stable mixture of oil and water is produced by [3]

3 (a) State **two** characteristics of tough meat.

- 1.
- 2. [2]

(b) (i) Meat must be tenderised to make it easier to eat and easier to digest.

(a) Give **two** ways of tenderising meat before it is cooked.

- 1.
- 2.

(b) Suggest **two** methods of cooking which tenderise meat.

- 1.
- 2. [2]

(ii) Explain how meat becomes tender during cooking.

-
-
-
- [3]

4 (a) (i) Name:

- (a) **two** citrus fruits;
 - (b) **two** berry fruits;
 - (c) **two** fruits with stones;
 - (d) **four** nutrients found in fruit.
- [5]

(b) (i) Describe how to prevent the browning of prepared fresh fruit.

-
-

(ii) Explain why browning is prevented by this method.

-
- [2]

5 (a) State the type of milk produced by each of the following processes.

(i) The milk is heated to 72 °C for 15 seconds then cooled to not more than 10 °C.

.....

(ii) Milk is forced through a fine mesh to break down fat globules.

.....

(iii) Milk is sealed in bottles and heated above 100 °C for 20–30 minutes.

.....

(iv) Milk is heated to not less than 132 °C for 1 second, cooled rapidly, and packed into foil-lined cartons.

.....

[4]

(b) State **one** reason for processing milk with heat.

.....

..... [1]

(c) Give **four** rules for the storage of fresh milk in the home.

.....

.....

.....

..... [2]

6 Name **one** nutrient which is involved in the:

(a) formation of enzymes;

(b) production of thyroxin;

(c) prevention of rickets;

(d) production of visual purple. [4]

7 (a) The correct choice of ingredients is important for successful shortcrust pastry. Name the type of flour and the type of fat you would choose. Give reasons for your choice.

(i) Type of flour

Reason for choice

(ii) Type of fat

Reason for choice

[4]

(b) State **two** important rules to follow when:

(i) mixing shortcrust pastry;

.....

.....

(ii) rolling out shortcrust pastry.

.....

.....

[4]

(c) Give the temperature at which shortcrust pastry should be baked.

..... [1]

(d) Name **two** dishes which could be made with shortcrust pastry.

..... [1]

(c) Vitamin A and Vitamin D are classified as **'fat soluble'** vitamins.

(i) Explain why these vitamins are not easily lost when using moist methods of cooking.

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

(ii) Name **two** vitamins which are **not** fat soluble. State how they are classified.

Vitamin

Vitamin

Classification [2]

(d) Describe in detail:

(i) the functions in the body of Vitamins A and D;

Vitamin A

.....
.....

Vitamin D

..... [3]

(ii) the possible results of a deficiency of these vitamins.

Vitamin A

Vitamin D [2]

9 (a) State **two** reasons why it is important to store food correctly.

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

(b) Identify, with reasons, conditions suitable for storing flour.

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

(c) A refrigerator can only be used for the short-term storage of perishable foods.

(i) What is meant by the term 'perishable' foods?

..... [1]

(ii) Explain why a refrigerator will not preserve foods.

..... [1]

(d) Give reasons for the following instructions.

(i) Cover all foods before placing in the refrigerator.

.....
.....

(ii) Allow food to cool before putting it in the refrigerator.

.....
.....

(iii) Place raw meat at the bottom of the refrigerator.

.....
.....

[3]

(e) Explain the importance of:

- (i)** defrosting meat before cooking;
- (ii)** thoroughly cooking meat before serving.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

(f) State, with reasons, **five** points to consider when shopping to ensure that food is not contaminated.

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [5]

10 (a) List **six** methods of incorporating air into mixtures. Give an example of a dish to illustrate each method.

.....

.....

.....

.....

.....

.....

..... [6]

(b) Name a dish which uses steam (water vapour) to make it rise.

..... [1]

(c) (i) Bread rises due to the action of yeast. List the conditions required by yeast.

.....

..... [2]

(ii) Name the process which describes the production of carbon dioxide and alcohol by yeast.

.....[1]

(iii) What will be the effect on yeast of;

(a) adding too much salt to the dough.

.....

(b) adding boiling water to mix the dough;

.....

(c) putting the dough into the freezer?

..... [3]

(iv) Identify factors which would influence your choice of flour for breadmaking.

.....

.....

..... [3]

(v) Describe and explain the changes which take place when a loaf of bread is baked.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]

11 (a) List **three** points to consider when planning a kitchen.

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

(b) Identify **five** causes of accidents in the kitchen.

.....
.....
.....
.....
.....
.....
.....
.....
.....
.....
..... [5]

(c) Discuss the importance of good lighting and ventilation in a kitchen.

(i) Good lighting

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

(ii) Ventilation

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

(d) Give advice, with reasons, on choosing the following equipment.

(i) Saucepans

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

(ii) Kitchen knives

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

Section C

Answer **one** question.

12 Discuss, with examples, how money, time, energy and fuel can be saved when preparing family meals. [20]

13 There is evidence that more people are becoming vegetarians. Suggest reasons for the increasing popularity of vegetarian diets. Explain how a balanced diet can be provided for different types of vegetarian. [20]

14 Give an account of the structure, functions and digestion of fats. Explain why it is recommended that fats should only provide 30–35% of the daily energy intake. Suggest ways to reduce fat in the diet. [20]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

(This area contains horizontal dotted lines for writing.)

