

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

FOOD AND NUTRITION

0648/01

Paper 1 Theory

October/November 2004

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 rough working.
Do not use staples, paper clips, highlighters, glue or correction fluid.

Answer **all** questions in the spaces provided on the Question Paper.
You are advised to spend no longer than 45 minutes on Section A.
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

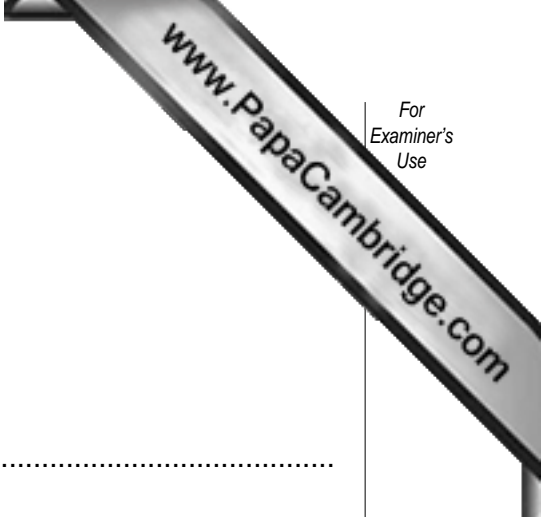
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Total	

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.

Section A

Answer all questions



1 (a) State **three** functions of protein.

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.....[3]

(b) Name the elements which combine to form protein.

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.....[2]

(c) (i) Define the term 'High Biological Value (HBV) protein'.

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.....[1]

(ii) Name **four** foods which are good sources of HBV protein.

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.....[2]

(d) (i) Define the term 'Low Biological Value (LBV) protein'.

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(ii) Name **four** foods which are good sources of LBV protein.

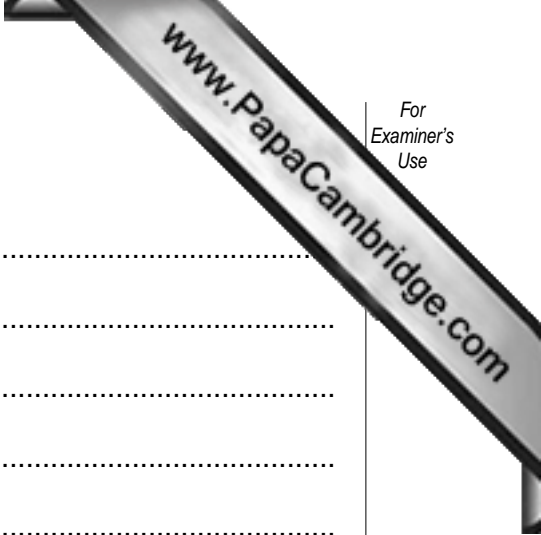
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.....[2]

(e) (i) What are complementary proteins?

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.....[2]

(ii) Give **two** examples of protein complementation.

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.....[1]



(f) Describe the digestion and absorption of protein.

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.....[6]

(g) What is meant by 'deamination of protein'?

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.....[2]

2 An adequate supply of Non-Starch Polysaccharide (NSP) is an essential in a healthy diet.

(a) Explain how NSP is used by the body.

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.....[4]

(b) Name **four** good sources of NSP.

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.....[2]

3 (a) State **three** reasons for including sodium chloride (salt) in the diet.

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.....[3]

(b) Name **two** situations in which individuals will require additional salt. Give a reason for each of your answers.

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.....[2]

(c) What would be the result if a diet is lacking in salt?

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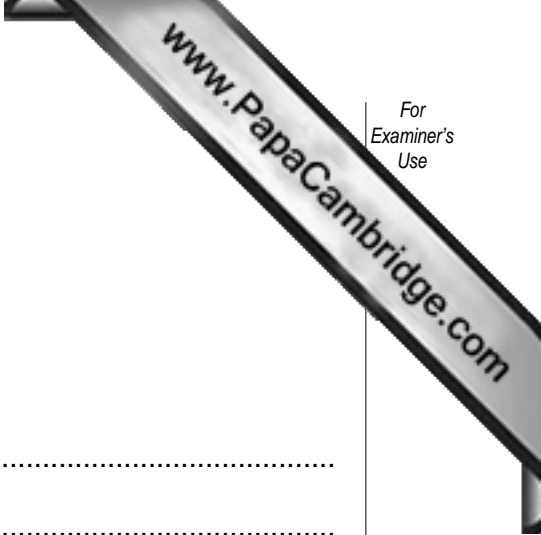
(d) Give advice, with explanations, on the choice or preparation of foods for those who wish to reduce their intake of salt.

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.....[6]

[TOTAL for Section A: 40]

Section B

Answer all questions



4 (a) Name **six** of the nutrients in red meat.

- 1. 2.
- 3. 4.
- 5. 6.[3]

(b) Suggest **four** methods of tenderising tough meat before cooking

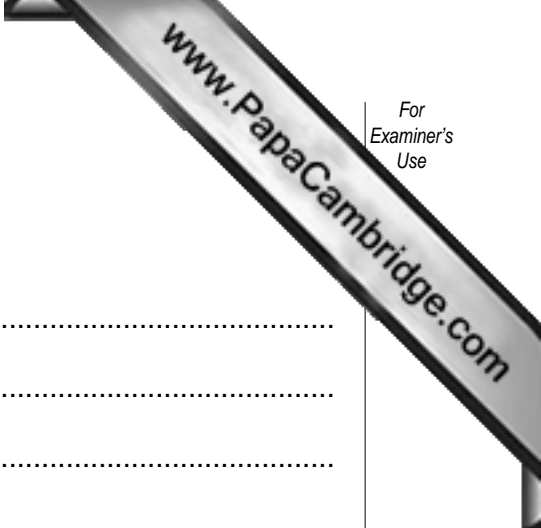
- 1.
- 2.
- 3.
- 4.[2]

(c) (i) Give **two** moist methods of cooking meat.

- 1. 2.[1]

(ii) Describe the changes which take place when meat is cooked by one of these methods.

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-[4]



(d) Current nutritional advice is to reduce the intake of red meat.

(i) Give reasons for this statement.

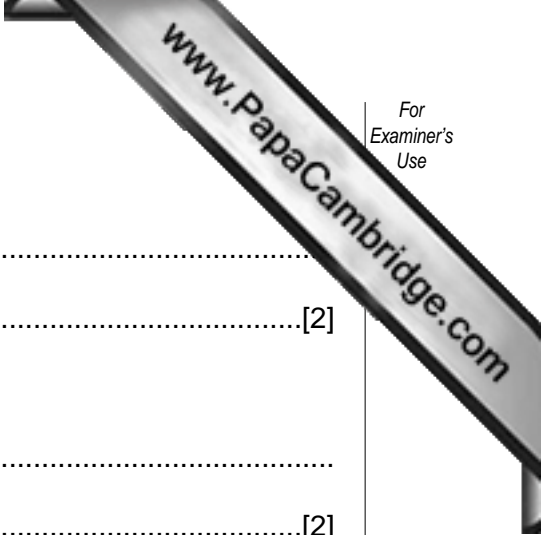
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(ii) Suggest **four** alternatives to red meat.

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.....[2]

5 (a) List five methods of introducing air into mixtures. Give a named example of where each method is used.

Method 1
Example
Method 2
Example
Method 3
Example
Method 4
Example
Method 5
Example[5]



6 (a) (i) List **four** causes of food spoilage.

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

(ii) Identify **four** conditions which promote food spoilage.

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

(b) Freezing is often used to preserve food. Explain:

(i) how freezing prevents food spoilage;

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- [2]

(ii) the reason for 'fast freezing' food.

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- [2]

(c) (i) Give the temperature at which a domestic refrigerator should operate.

- [1]

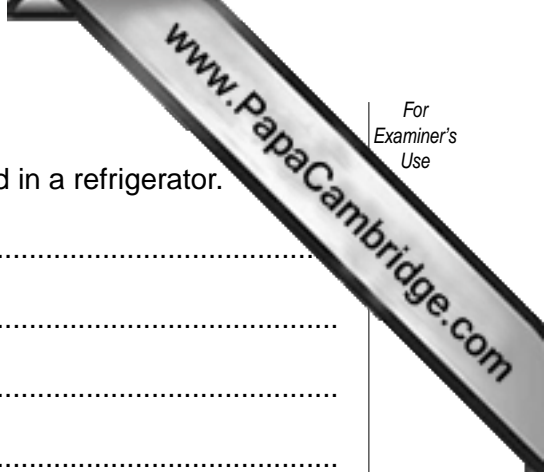
(ii) What would happen if the temperature in the refrigerator was:

(a) too high;

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(b) too low?

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- [1]



(iii) State and explain **five** rules to observe when storing food in a refrigerator.

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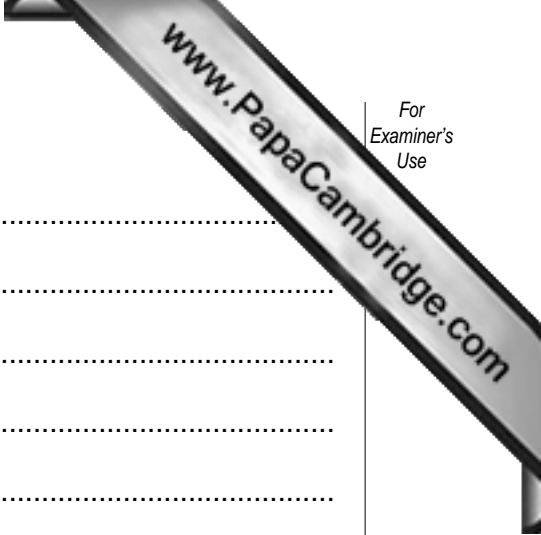
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[TOTAL for Section B: 45]

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[TOTAL for Section C: 15]

[Total for Paper: 100]