

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
General Certificate of Education  
Advanced Subsidiary Level and Advanced Level

**FOOD STUDIES**

**9336/01**

Paper 1

October/November 2004

**3 hours**

Additional Materials: Answer Booklet/Paper

**READ THESE INSTRUCTIONS FIRST**

If you have been given an Answer Booklet, follow the instructions on the front cover of the Booklet.  
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 **four** questions.

**Section A**

Answer **two** questions.

Write your answers on the separate Answer Booklet/Paper provided.

**Section B**

Answer **two** questions.

Write your answers on the separate Answer Booklet/Paper provided.

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.

You are reminded of the need for good English and clear presentation in your answers.

This document consists of **4** printed pages.



**Section A**

Answer **two** questions from this section.

- 1** (a) Classify carbohydrates and describe the structure of each type identified. [12]
- (b) Discuss:
- (i) the importance of carbohydrates in a healthy diet [3]
  - (ii) the effects on the body of an excess of different types of carbohydrate [5]
- (c) Describe the gelatinisation process. [5]
- [Total: 25]**
- 2** Many people choose to become vegetarians.
- (a) Discuss reasons why people might follow a vegetarian diet. [5]
- (b) Name and describe different types of vegetarian diet. [5]
- (c) Discuss reasons for a shortage in some vegetarian diets of the nutrients identified below. Explain how the shortages could be overcome.
- (i) HBV protein
  - (ii) vitamin B<sub>12</sub>
  - (iii) vitamin A
  - (iv) iron
- [15]
- [Total: 25]**
- 3** (a) List the chemical elements which make up protein. [3]
- (b) (i) Describe the primary and secondary structure of protein molecules. [6]
- (ii) Compare globular and fibrous proteins, giving named examples of each. [7]
- (c) Explain, with examples, how the structure of protein is affected by heat, agitation and changes in pH. [9]
- [Total: 25]**

- 4 (a) Discuss ways of making food more digestible. [5]
- (b) Describe:
- (i) the digestion of the nutrients found in eggs [10]
  - (ii) the absorption and utilisation of the end products of this digestion [10]
- [Total: 25]**

### Section B

Answer **two** questions from this section.

- 5 (a) Discuss the uses of fats and oils in food preparation. [10]
- (b) What problems can be associated with the consumption of fat? [6]
- (c) Describe and explain the effect of heat on fats and oils. [4]
- (d) Explain the following terms:
- (i) oxidative rancidity
  - (ii) antioxidant
- [5]
- [Total: 25]**
- 6 (a) Discuss the choice of flour, sugar, fat and eggs for achieving a successful rich cake. [13]
- (b) Describe and explain the following:
- (i) the reaction of the chemical raising agent during baking [5]
  - (ii) other changes which take place when a rich cake is baked [7]
- [Total: 25]**

- 7 Cases of food poisoning have increased in recent years.
- (a) Identify and explain possible reasons for this increase. [6]
  - (b) Food poisoning is often caused by bacteria. Explain the effect of the following on bacteria:
    - (i) changes in temperature [8]
    - (ii) salt [2]
  - (c) Comment on the use of radiation as a method of inhibiting bacterial growth. [3]
  - (d) Discuss causes of food poisoning, other than contamination by bacteria. [6]

**[Total: 25]**

- 8 Discuss the influence of the following factors on food choice:

- (a) economic circumstances
- (b) availability of food
- (c) nutritional knowledge
- (d) marketing methods
- (e) cultural and social habits
- (f) environment

[25]

**[Total: 25]**