

Centre Number						Candidate Number				
Surname										
Other Names										
Candidate Signature										

For Examiner's Use	
Examiner's Initials	
Question	Mark
1	
2	
3	
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9	
10	
11	
TOTAL	



General Certificate of Education  
Advanced Subsidiary Examination  
January 2011

# Design and Technology: FOOD1 Food Technology

Unit 1 Materials, Components and Application

Thursday 20 January 2011 9.00 am to 11.00 am

For this paper you must have:

- normal writing and drawing instruments.

### Time allowed

- 2 hours

### Instructions

- Use black ink or black ball-point pen. Use pencil only for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions in Section A.
- Answer **one** question from Section B, **either** Question 9 **or** Question 10.
- Answer the question in Section C.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- If you need extra space for your answer(s), use the lined pages at the end of this book. Write the question number against your answer(s) in the left-hand margin.
- Do all rough work in this book. Cross through any work you do not want to be marked.

### Information

- The marks for questions are shown in brackets.
- The maximum mark for this paper is 80.
- There are 20 marks for Section A, 20 marks for Section B and 40 marks for Section C.

### Advice

- Illustrate your answers with sketches and/or diagrams wherever you feel it is appropriate.
- You are advised to spend approximately 30 minutes on Section A, 30 minutes on Section B and one hour on Section C.



J A N 1 1 F 0 0 D 1 0 1

**Section A**

Answer **all** questions in this section.

**1** Name **two** functions of carbohydrates in the body.

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(2 marks)

<b>2</b>

**2** Name **two** food sources of retinol in the diet.

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(2 marks)

<b>2</b>

**3** What are the effects of too much sodium in the diet?

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(2 marks)

<b>2</b>

**4** Name **two** macro nutrients.

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(2 marks)

<b>2</b>



5 Describe **two** effects of Vitamin C deficiency in the body.

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(2 marks)

2

6 State **two** functions of water in the diet.

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(2 marks)

2

7 Describe the factors affecting BMR (Basal Metabolic Rate) in the body.

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(4 marks)

4

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**8** Explain, with examples of specific food products, the function of emulsifying agents.

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(4 marks)

<b>4</b>



**Turn over for the next question**

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ANSWER IN THE SPACES PROVIDED**

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**Section C**

Answer the question in this section.

- 11 (a)** Describe how a cheese and tomato pizza could be developed to
- increase iron and Vitamin C content (5 marks)
  - improve flavour (5 marks)
  - reduce saturated fat content (5 marks)
  - increase NSP. (5 marks)

You may use annotated sketches to illustrate your answer.



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**Question 11 continues on the next page**

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**11 (c)**

Explain, with examples, the role of Computer Aided Design (CAD) and Computer Aided Manufacture (CAM) in food product development.

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*(10 marks)*

**END OF QUESTIONS**

<b>40</b>

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