

Surname						Other Names					
Centre Number						Candidate Number					
Candidate Signature											

For Examiner's Use
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General Certificate of Secondary Education  
June 2007

**DESIGN AND TECHNOLOGY  
(FOOD TECHNOLOGY)  
Written Paper  
Higher Tier**

**3542/H  
H**



Friday 22 June 2007 1.30 pm to 3.30 pm

<p><b>For this paper you must have:</b></p> <ul style="list-style-type: none"> <li>a pen, a pencil, a ruler, an eraser, a pencil sharpener and coloured pencils.</li> </ul>
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Time allowed: 2 hours

**Instructions**

- Use blue or black ink or ball-point pen. Use pencil and coloured pencils only for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- Answer the questions in the spaces provided.
- Do all rough work in this book. Cross through any work you do not want to be marked.

**Information**

- The maximum mark for this paper is 125.
- The marks for questions are shown in brackets.
- You are reminded of the need for good English and clear presentation in your answers.

For Examiner's Use			
Question	Mark	Question	Mark
1		9	
2			
3			
4			
5			
6			
7			
8			
Total (Column 1)		→	
Total (Column 2)		→	
<b>TOTAL</b>			
Examiner's Initials			



(c) Explain why Ciabatta bread has become more popular.

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*(2 marks)*

(d) Describe different ways of developing white bread to make it more appealing to consumers.

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*(6 marks)*

**Turn over for the next question**



(b) (i) Name the type of flour from the table that is most suitable for making a *well risen* loaf of bread.

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(1 mark)

(ii) Give reasons for your choice.

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(2 marks)

**Turn over for the next question**

8
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3 Question 3 is about designing new food products.

A takeaway food outlet is developing new ideas for *Wrap and Roll* bread products.

A successful product will

- contain a savoury, healthy option filling
- be suitable to eat without cutlery
- appeal to vegetarian consumers
- offer sensory appeal.

(a) Use notes and sketches to show **two** different design ideas for a Wrap or Roll product.

Do **not** draw any packaging.

**Design Idea 1**      **Product name** .....

(5 marks)

**Design Idea 2**      **Product name** .....

(5 marks)

(b) Which of your design ideas will you choose to develop?

Design Idea 1

Design Idea 2

Explain how this design idea will

(i) offer sensory appeal,

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*(4 marks)*

(ii) be suitable for vegetarians.

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*(4 marks)*

**Question 3 continues on the next page**

**Turn over ►**

(c) Complete the table to show the main ingredients used to make the chosen design idea.

Give a **different** reason why each ingredient is used.

Ingredients	Reasons for use

*(10 marks)*

(d) Describe how a quality finish could be added to your chosen design idea.

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*(2 marks)*



(e) Produce a plan for making your chosen design idea in a test kitchen.

You may use flow charts, diagrams, notes or sketches in your answer.

(10 marks)

Turn over ►

40

4 Question 4 is about control checks used during production.

(a) Describe **two** different control checks used when making bread rolls, at **each** of the preparation stages listed below.

Preparation stage	Control checks used
Choosing raw ingredients	1 ..... ..... 2 ..... .....
Shaping the dough	1 ..... ..... 2 ..... .....
Cooking the bread rolls	1 ..... ..... 2 ..... .....

(6 marks)

(b) What is the difference between a *quality control check* and a *critical control check*?

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(4 marks)

(c) Results of different control checks on chicken salad wraps show the following problems.

Problem	Causes	How to prevent this problem
A wrap falls to pieces when filled.	1 .....	1 .....
	.....	.....
	.....	.....
	2 .....	2 .....
An insect is found in the salad.	1 .....	1 .....
	.....	.....
	.....	.....
	2 .....	2 .....
	.....	.....
	.....	.....

Complete the table above to show

(i) the causes of each problem, (4 marks)

(ii) how each problem may be prevented. (4 marks)

Use the information given in the above table.

(iii) Name **one** problem in the table that is identified by a quality control check.

.....  
(1 mark)

(iv) Name **one** problem in the table that is identified by a critical control check.

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(1 mark)

5 Question 5 is about the use of standard components.

(a) (i) What is meant by the term *standard component*?

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(2 marks)

(ii) What are the advantages and disadvantages of using standard components?

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(6 marks)

(b) A test kitchen compares samples of the following types of white bread.

Product A	Product B	Product C
<p>A bread mix</p> 	<p>Part baked bread</p> 	<p>A ready made sliced loaf</p> 

Name **and** describe **one** method of sensory testing used to find out consumer preferences for these different types of white bread.

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(6 marks)

6 Question 6 is about the use of computers in food manufacture.

Food manufacturers often use CAD and CAM.

(a) (i) What is meant by the term CAD?

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(1 mark)

(ii) What is meant by the term CAM?

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(1 mark)

(b) Give examples of how CAD and CAM may be used in bread production.

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(4 marks)

**6**

7 Question 7 is about high risk foods.



Seafood sandwich fillings are popular with many consumers.

(a) Why is seafood a high risk food?

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(2 marks)

(b) At what temperature should high risk foods be stored in a refrigerator?

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(1 mark)

(c) How do retailers ensure that chilled foods do not fall **below** the correct temperature?

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(4 marks)

7

Turn over ►

8 Question 8 is about the packaging and labelling of products.

(a) Instructions like those below are often seen on packaged sandwich products.

Explain how these reduce any risks to the consumer.

(i) 'May contain wheat, gluten, eggs and milk'

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*(3 marks)*

(ii) 'Use by 25.10.07'

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*(3 marks)*



(b) How do manufacturers of takeaway products ensure that the packaging they use is environmentally friendly?

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*(4 marks)*

**Turn over for the next question**

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