

Surname					Other Names				
Centre Number					Candidate Number				
Candidate Signature									

For Examiner's Use

General Certificate of Secondary Education
June 2007

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

**3542/F
F**



Friday 22 June 2007 1.30 pm to 3.30 pm

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

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

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.

There are no questions printed on this page

Answer **all** questions in the spaces provided.

1 Question 1 is about a range of bread products.



(a) What are the advantages of using the following types of bread?

(i) a sliced loaf

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.....

(2 marks)

(ii) a part baked loaf

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(2 marks)

Question 1 continues on the next page

Turn over ►

(b) Suggest **two** ways of developing white bread to make it more appealing to consumers.

Development 1

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(2 marks)

Development 2

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(2 marks)

(c) Sales of bread products have changed over recent years.

The table below shows sales information for different breads.

	1960	1980	2000
White bread	75%	50%	41%
Bagel	2%	6%	7%
Ciabatta	8%	20%	22%
Croissant	3%	9%	11%
Naan	9%	11%	14%
Others	3%	4%	5%

(i) Using the information shown in the table, name **two** bread products that have become more popular.

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(2 marks)

(ii) Explain why these have become more popular.

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(4 marks)

Turn over for the next question

Turn over ►

2 Question 2 is about choice of flour.

Many manufacturers are keen to choose ingredients that will make their products healthy options.

The table below compares different types of flours used in bread products.

Type of flour	Per 100 g			
	kcal	Fat	Fibre	Iron
Wholemeal	310 kcal	2.2 g	8.6 g	3.9 mg
Strong White	341 kcal	1.4 g	3.7 g	2.1 mg
Granary	323 kcal	1.8 g	7.0 g	3.2 mg

- (a) (i) Using information from the table, name the type of flour which is most suitable for a healthy option bread product.

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(1 mark)

- (ii) Give reasons for your choice.

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(4 marks)

- (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

Turn over ►

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 a range of consumers.

(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

(i) Explain how this design idea will ‘appeal to a range of customers’.

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(4 marks)

(ii) Explain how this design idea offers a ‘healthy option’.

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(4 marks)

Question 3 continues on the next page

Turn over ►

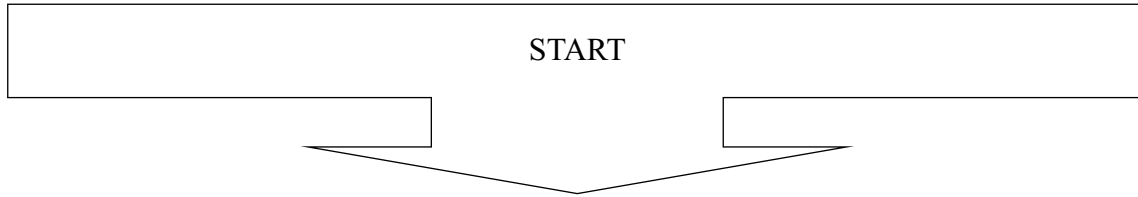
- (c) Complete the table to show **four** main ingredients used to make your chosen design idea.
Give a **different** reason why each ingredient is used.

Chosen Design Idea

Main ingredients	Reasons for use
1
2
3
4

(8 marks)

(d) Write a step-by-step plan for making your chosen design idea in a test kitchen.



(10 marks)

Question 3 continues on the next page

Turn over ►

(e) Name **two** other food items that could be included with your Wrap or Roll product in a healthy option lunch box. Give a reason for each choice.

Wrap or Roll product plus . . .	
Item 1	Item 2
Reason for choice	Reason for choice
.....
.....
.....
.....

(4 marks)

<hr/> 40

4 Question 4 is about control checks used during production.

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

Preparation stage	Control checks used
Choosing raw ingredients	1 2
Cooking the chicken	1 2
Storing the prepared filling	1 2

(6 marks)

(b) What is meant by a *critical control check*?

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(3 marks)

Question 4 continues on the next page

Turn over ►

(c) Results of control checks on the 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)

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 of using standard components?

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(4 marks)

(iii) What are the disadvantages of using standard components?




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(2 marks)

Question 5 continues on the next page

Turn over ►

- (b) A test kitchen carries out sensory testing on the following samples of cheese sandwich fillings.

Product A	Product B	Product C
Cheese slices	Grated cheese	Cheese spread
		

- (i) Name **one** method of sensory testing these samples of cheese sandwich fillings.

..... (1 mark)

- (ii) Using notes and / or sketches, describe how this sensory test is carried out.

(5 marks)

(iii) Name **two** ways the results can be recorded on a computer.

1

2 (2 marks)

(iv) Explain how the results can be used.

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..... (2 marks)

Turn over for the next question

Turn over ►

6 Question 6 is about the use of equipment.

A manufacturer makes fillings for pitta bread. Each batch of filling must be a consistent product. These three ingredients are used in the filling for each sandwich.



50 g of
tuna fish



3 × 10 mm
slices
cucumber



15 g of
finely
chopped
onions

(a) (i) What is meant by a *consistent product*?

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.....
.....

(2 marks)

(ii) Name **one** item of electrical equipment which could be used to give a consistent product when making the filling.

.....

(1 mark)

(b) What are the advantages of using CAM (Computer Aided Manufacture) to help achieve a consistent product when making bread rolls?

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(3 marks)

6

7 Question 7 is about high risk foods.



(a) Seafood sandwich fillings are popular with many consumers.

(i) Why is seafood a high risk food?

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(2 marks)

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

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(1 mark)

(iii) Why should seafood sandwiches be kept refrigerated until use?

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(3 marks)

Question 7 continues on the next page

Turn over ►

(b) Ready prepared sandwiches are stored in chiller cabinets. How do retailers (shopkeepers) make sure that the chiller cabinets do not fall below the correct temperature?

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(4 marks)

10

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



(a) Explain the meaning of the following information often seen on food packaging.

(i) 'May help as part of a calorie controlled diet'

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(3 marks)

(ii) 'Contains wheat, gluten, eggs and milk'

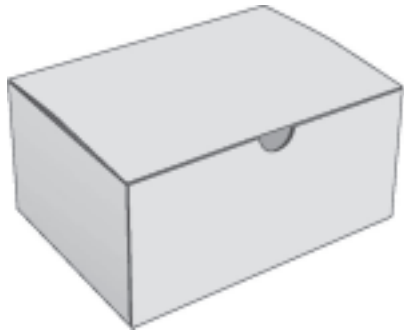
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(3 marks)

Question 8 continues on the next page

Turn over ►

(b) Give reasons why manufacturers of takeaway products may use the following packaging materials.



(i) paperboard

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(3 marks)



(ii) plastics

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(3 marks)

END OF QUESTIONS

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