

Surname					Other Names				
Centre Number					Candidate Number				
Candidate Signature									

For Examiner's Use
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General Certificate of Secondary Education  
June 2006

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

**3542/F  
F**



Friday 23 June 2006 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, pencil, ruler, eraser, 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		5	
2		6	
3		7	
4			
Total (Column 1) →			
Total (Column 2) →			
<b>TOTAL</b>			
Examiner's Initials			

**There are no questions printed on this page**

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

1 Savoury food products may be sold at sporting events.

(a) Name **three** savoury food products that may be held in the hand.

1 .....



2 .....

3 .....

(3 marks)

(b) World-class sporting events attract many people.

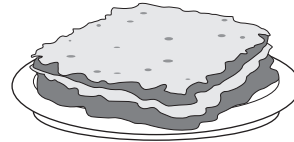
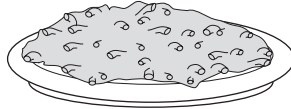
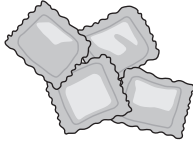
Name **two** different factors that affect the choice of foods made by

<p>(i) sports people taking part in the events;</p> 	<p>1 .....</p> <p>.....</p> <p>2 .....</p> <p>.....</p> <p>(2 marks)</p>
<p>(ii) people watching the event.</p> 	<p>1 .....</p> <p>.....</p> <p>2 .....</p> <p>.....</p> <p>(2 marks)</p>

2 A manufacturer is gathering information about existing products.

What information can they gather from

(a) existing pasta products,



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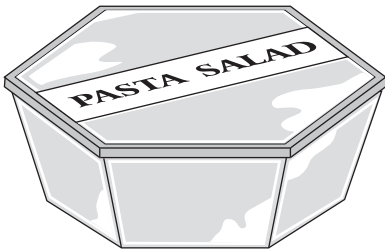
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(3 marks)

(b) information on the *packaging* of a pasta salad product?



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(3 marks)

3 A *test kitchen* is developing design ideas for savoury snacks.

The snacks will be sold to people **watching** large sporting events.

The snack product must meet the following design criteria:

- use ready prepared pastry
- have a savoury filling
- be suitable to hold in the hand
- offer a variety of flavours and textures
- appeal to a range of consumers.

**Question 3 continues on the next page**



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

Design Idea 1

Design Idea 2

Explain how this idea meets the following design criteria:

(i) 'suitable to hold in the hand'

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*(3 marks)*

(ii) 'appeal to a range of consumers'.

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*(3 marks)*

**Question 3 continues on the next page**

**Turn over ►**

(c) Give more details about the ingredients used in your chosen design idea.

(i) What type of ready-made pastry is used in your design idea?

.....  
(1 mark)

(ii) Give **one** reason why ready-made pastry is used.

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(1 mark)

(d) Complete the table to show **three** main ingredients used to make *the filling* for your product.

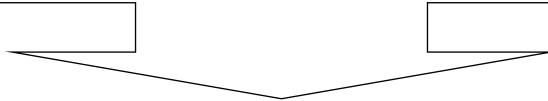
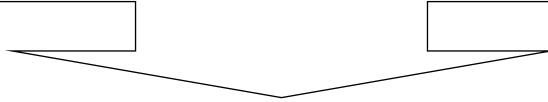
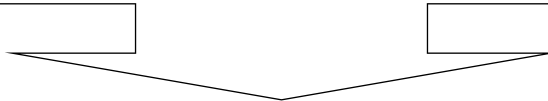
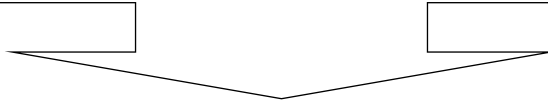
Give a **different** reason why each ingredient is used.

Ingredient	Reason for use
1 .....	
2 .....	
3 .....	

(6 marks)



- (e) Use the chart below to describe the processes and control checks needed to make your chosen design idea in the *test kitchen*.



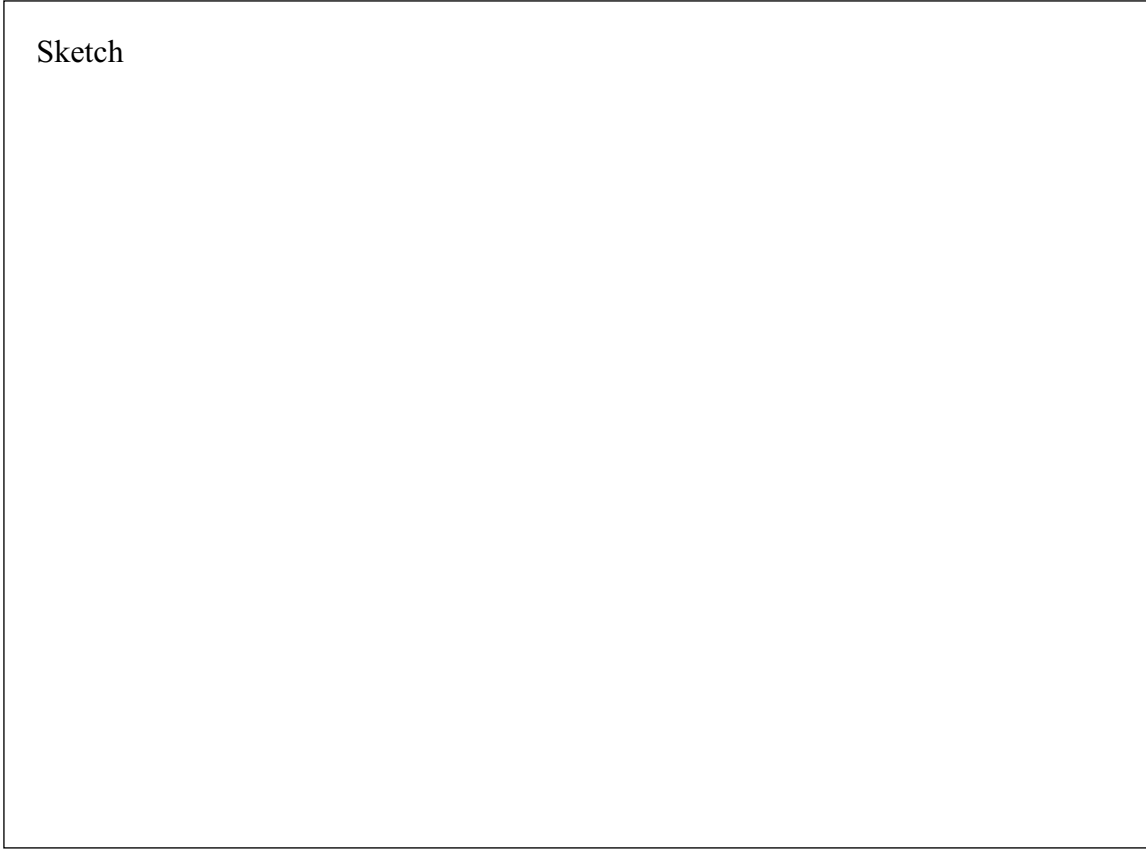
(10 marks)

**Question 3 continues on the next page**

**Turn over ►**

- (f) Use notes and sketches to describe **one** method of giving a *quality finish* to your chosen design idea.

Sketch



Description .....

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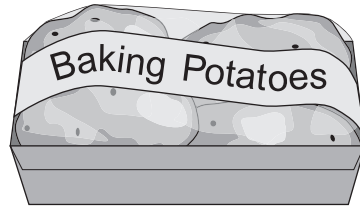
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(5 marks)

4 The instructions below are shown on the packaging of baking potatoes.



(a) Explain why it is important that the instructions are followed.

Instruction	Why is this instruction important?
1 'wash before use'	..... ..... .....
2 'pierce skin and place on a tray'	..... ..... .....
3 'brush surface with vegetable oil and salt before cooking'	..... ..... .....

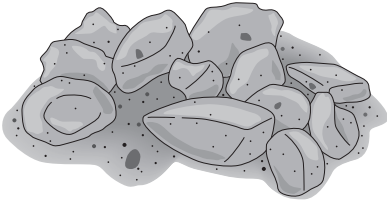
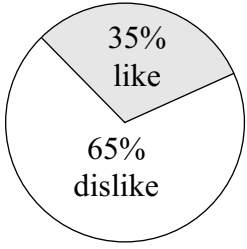
(6 marks)

**Question 4 continues on the next page**

**Turn over ►**

(b) A test kitchen is developing a new range of **fillings** for the baked potatoes.

The results of a rating test on a new filling are shown below.

Design idea	Curried Chicken filling	Rating test result
50 g chopped, fried chicken, 5 g hot curry powder, 5 g peanuts, 5 g sultanas, 50 g mayonnaise		

(i) Give reasons why consumers may dislike this design idea.

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(4 marks)

(ii) Suggest ways to improve this filling.

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(3 marks)

(c) Design other ideas for **savoury fillings** for baked potatoes for

(i) a vegetarian consumer;

Ingredients

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Reasons for choice

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*(5 marks)*

(ii) consumers who prefer a low fat option.

Ingredients

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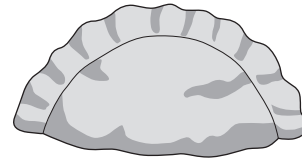
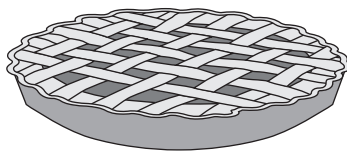
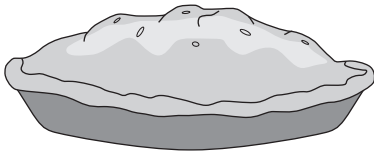
Reasons for choice

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*(5 marks)*

**Turn over for the next question**

5 (a) Control checks on batches of vegetable pies show the problems listed below.



Complete the table below to show

- (i) one cause of **each** problem (4 marks)
- (ii) how **each** problem may be prevented. (4 marks)

Problem	Cause	How to prevent this problem
Pastry crumbles and breaks up when handled.		
The pie filling leaks out of the pastry during cooking.		
Hairs are found in the filling.		
The final product is pale and lacks colour.		

(b) Why are computers used to carry out some control checks?

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*(4 marks)*

**Turn over for the next question**

<b>12</b>

**Turn over ►**

6 The table below gives information about two similar pastry products.

<b>Product A:</b>		<b>Product B:</b>	
Mixed vegetables in a light pastry case.		Meat, potato and onion with a rich, thick gravy in a chunky pastry case.	
Energy	146 kcal	Energy	229 kcal
Protein	2.7 g	Protein	3.5 g
Carbohydrates	53.8 g	Carbohydrates	65 g
Fat	4.8 g	Fat	11 g
Fibre	1.7 g	Fibre	0.8 g

(a) Why is **Product A** a healthier option than Product B?

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(4 marks)



- (b) (i) Explain why the following ingredients are used in shortcrust pastry.

Ingredient	Reason for use
Plain flour	
Vegetable fat	
Cold water	
Salt	

(4 marks)

- (ii) Explain how the names of ingredients are listed on the packaging of ready prepared pastry.

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(2 marks)

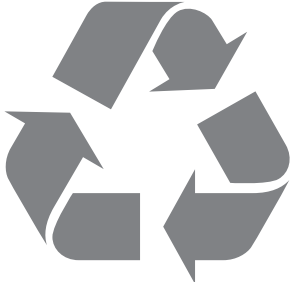
**Question 6 continues on the next page**

**Turn over ►**

(c) The information in the table below is often seen on the packaging of pastry products.

(i) What does the information mean? (3 marks)

(ii) Why is the information important for consumers? (6 marks)

Information	(i) Meaning	(ii) Why is this information important?
Use by 7/9/06		
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(d) (i) Why are food products packaged before they are sold?

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(4 marks)

(ii) Explain **why** the following materials are often used to package food products.

Paperboard

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*(2 marks)*

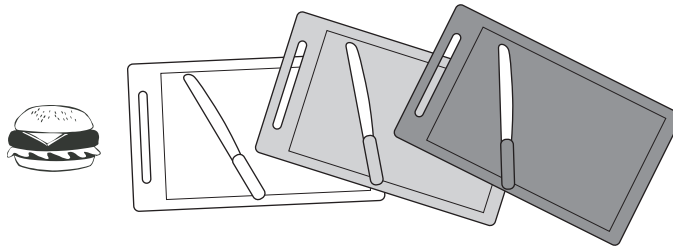
Aluminium foil

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*(2 marks)*

**Turn over for the next question**

7 (a) Explain **why** colour coded equipment is used when preparing beefburgers.



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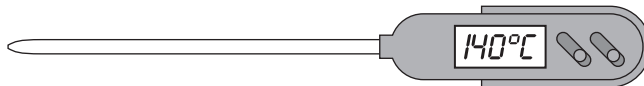
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(3 marks)

(b) Explain how **and** why food probes are used when cooking and serving savoury pies.



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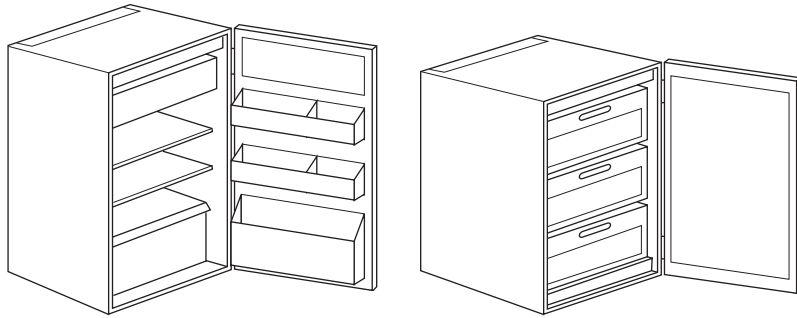
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(4 marks)

(c) Describe how the correct use of refrigerators and freezers ensures that foods are stored safely.



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(4 marks)

11

**END OF QUESTIONS**

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