

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) (SHORT COURSE)  
Written Paper  
Higher Tier**

**3552/H  
H**



Friday 23 June 2006 1.30 pm to 3.00 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: 1 hour 30 minutes

**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 100.
- 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 (a) World-class sporting events attract many people.

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

<p>(i) competitors;</p> 	<p>1 .....</p> <p>.....</p> <p>2 .....</p> <p>.....</p> <p style="text-align: right;"><i>(2 marks)</i></p>
<p>(ii) spectators.</p> 	<p>1 .....</p> <p>.....</p> <p>2 .....</p> <p>.....</p> <p style="text-align: right;"><i>(2 marks)</i></p>

(b) How can manufacturers use computers to gather information about the food preferences of visitors from other countries?

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*(4 marks)*

**Turn over** ►

2 A catering company is developing design ideas for **savoury** snack products for **competitors** at a sports stadium hosting world cup events.

The snack product must meet the following design criteria:

- include freshly made pastry, **not** ready prepared pastry
- have a savoury filling
- be high in energy
- be suitable to hold in the hand
- meet the cultural needs of competitors.

- (a) Use notes and sketches to produce **two** different design ideas which meet the design criteria.

Do **not** draw any packaging.

Design idea 1

Product name:

*(5 marks)*

Design idea 2

Product name:

*(5 marks)*

**Turn over ►**

(b) Choose **one** of your design ideas to develop.

Design Idea 1

Design Idea 2

Explain how your chosen idea meets the design criteria.

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*(4 marks)*

(c) Describe your chosen design idea in more detail in the table below.

- (i) List the main ingredients needed to make your product. *(2 marks)*
- (ii) Include the quantity of each ingredient needed. *(2 marks)*
- (iii) Give a **different** reason why each ingredient is used. *(5 marks)*

Ingredient	Quantity	Reason for use

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

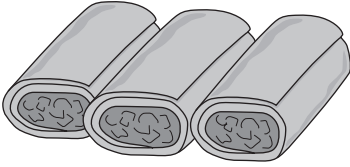
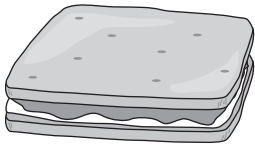
Include details of processes and control checks used.

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

(10 marks)

**Turn over ►**

3 A test kitchen uses the following pastry products to gather ideas for a new range of cheese based pastries.

<p><b>Cheese and bacon rolls</b></p>  <p>Puff pastry bites with a bacon and Red Leicester cheese filling</p>	<p><b>Tuna and cheese slice</b></p>  <p>Flaked tuna and cheese sauce between layers of crisp flaky pastry</p>
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(a) Name and describe a method of sensory testing used to find out which product consumers prefer.

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(4 marks)

(b) Explain how the testers will ensure that the test is fair.

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(2 marks)



4 The table below shows food facts for two similar pastry products.

Product A		Product B	
Wholemeal shortcrust pastry with reduced fat cheese, fresh sliced tomato, onions and herb topping		Flaky pastry topped with full fat cream cheese, onion flavouring and sundried tomatoes	
Energy	146 kcal	Energy	229 kcal
Protein	1.7 g	Protein	1.5 g
Carbohydrates	23.8 g	Carbohydrates	25 g
Fat	4.8 g	Fat	9 g
Fibre	5.7 g	Fibre	0.5 g

(a) Explain which product provides the healthier option.

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(6 marks)

**Question 4 continues on the next page**

**Turn over ►**

(b) What does the following information mean?

Information	Meaning
Use by 07/09/06	
Best before 07/09/06	

(4 marks)

(c) Why is datemarking information important

(i) for consumers,

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(2 marks)

(ii) for supermarkets?

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(2 marks)

5 Manufacturers of food products often use standard components.

(a) Name **two** different ways flaky pastry is sold as a standard component.

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(2 marks)

(b) What is the correct storage temperature for the following standard components?

Standard component	Correct storage temperature
A packet of frozen vol au vents	
A tin of pie filling	
A bag of grated cheese	

(3 marks)

(c) Explain how standard components help to give a consistent outcome.

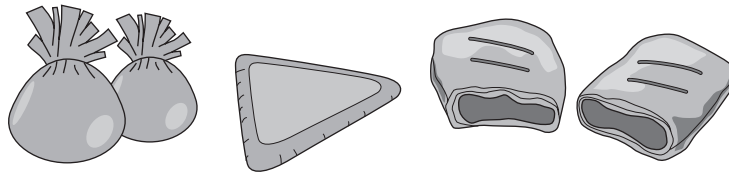
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(3 marks)

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Turn over ►

- 6 (a) Control checks are made on different batches of salmon and prawn filo parcels.



Problems found during the checks are listed below.

- (i) Give **one** cause of each problem. *(3 marks)*
- (ii) Explain how the problem may be prevented. *(3 marks)*

<b>Problem</b>	<b>(i) Cause</b>	<b>(ii) How to prevent this problem</b>
Filo pastry is dry and breaks up when handled.		
The filling leaks out of the parcel during cooking.		
The final product is pale and lacks colour.		

(b) Results from critical control checks are shown below.

(i) Identify the cause of contamination in each example. (3 marks)

(ii) Suggest **one** way of preventing the contamination. (6 marks)

Routine checks	Cause of contamination: Tick one	How to prevent the contamination
Mould is found on the surface of ingredients.	<input type="checkbox"/> Physical <input type="checkbox"/> Chemical <input type="checkbox"/> Biological	
A metal detector alarm sounds as the product is scanned.	<input type="checkbox"/> Physical <input type="checkbox"/> Chemical <input type="checkbox"/> Biological	
A pH test shows a high level of alkaline substance.	<input type="checkbox"/> Physical <input type="checkbox"/> Chemical <input type="checkbox"/> Biological	

(c) Explain why some control checks are made by computers.

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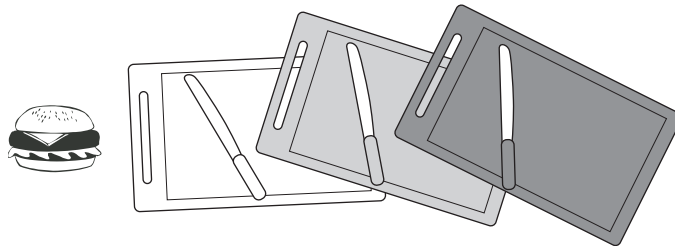
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(4 marks)

**Turn over ►**

(d) Describe how the use of colour coded equipment may help prevent the contamination of foods.



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(3 marks)



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