Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

For Examiner's Use

General Certificate of Secondary Education
June 2008

DESIGN AND TECHNOLOGY
(FOOD TECHNOLOGY) (SHORT COURSE)
Written Paper
Foundation Tier

3552/F

F

Thursday 22 May 2008 9.00 am to 10.30 am

For this paper you must have:
- a pen, a pencil, a ruler, an eraser, a pencil sharpener and coloured pencils.

Time allowed: 1 hour 30 minutes

Instructions
- Use black ink or black ball-point pen. Use pencil and coloured pencils only for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** questions.
- You must answer the questions in the spaces provided. Answers written in margins or on blank pages will not be marked.
- 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			
4			
Total (Column 1) →			
Total (Column 2) →			
TOTAL			
Examiner's Initials			

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ANSWER IN THE SPACES PROVIDED

Areas outside the box will not be scanned for marking

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

1 Question 1 is about a product range.

1 (a) Name **three** different hot drink products that can be sold in cafés.

1 .....

2 .....

3 .....

(3 marks)

1 (b) Hot drinks can be packaged in polystyrene cups with a plastic lid.

What are the advantages of using the following materials?

1 (b) (i) polystyrene

.....

.....

.....

.....

(2 marks)

1 (b) (ii) plastic

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(2 marks)

7

Turn over for the next question

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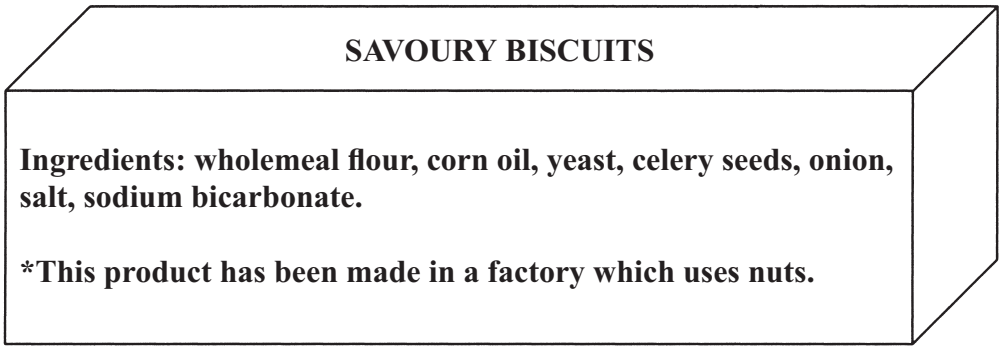
2 Question 2 is about packaging and labelling of a biscuit product.

This is the packaging for savoury biscuits.



2 (a) Use the information on the label above.

2 (a) (i) Name the ingredient used in the largest quantity.

.....

(1 mark)

2 (a) (ii) Complete the table to show which ingredients provide the following.

	Ingredient
Fibre	
Flavour	
Raising agent	

(3 marks)

2 (a) (iii) Why is the following information on the label important?

This product has been made in a factory which uses nuts.

.....

.....

.....

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(2 marks)

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2 (b) Give **three** reasons why computers are used when designing food packaging.

1 .....

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2 .....

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3 .....

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(3 marks)

9

Turn over for the next question

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3 Question 3 is about designing new food products.

A test kitchen is developing design ideas for a muffin to be sold in a café or coffee shop.

The successful muffin product will:

- be suitable for consumers who want a healthy option product
- have a variety of flavours and textures
- have a topping
- be suitable for batch production.

3 (a) Use notes and sketches to produce **two** different design ideas for a muffin.

Your design ideas must meet the above design criteria.

Do **not** draw any packaging.

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

(5 marks)

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

(5 marks)

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

☐ Design Idea 1 ☐ Design Idea 2

Explain how this design idea is suitable for consumers who want a healthy option muffin.

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.....

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.....

(4 marks)

3 (c) Write a **three**-point *product specification* for your chosen design idea.

1 .....

2 .....

3 .....

(3 marks)

3 (d) Complete the table below to show **three** main ingredients used to make your chosen muffin product.

Give a *different* reason for using each ingredient.

Ingredient	Reason for use
1	
2	
3	

(6 marks)

Question 3 continues on the next page

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3 (e) Use notes, sketches or flowcharts to describe the processes and control checks needed to make your chosen design idea in a *test kitchen*.

START

END

(10 marks)

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4 Question 4 is about control checks during production.

4 (a) Identify different control checks that are used at each stage when making chocolate coated biscuits.

Production stage	**Control checks used**
Storing the ingredients	1 .... 2 ....
Cooking the biscuits	1 .... 2 ....
Coating the biscuits	1 .... 2 ....

(6 marks)

4 (b) Describe **one** method of melting the chocolate to be used for coating biscuits in a *test kitchen*.

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(3 marks)

Question 4 continues on the next page

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4 (c) What are the causes of the following problems when making biscuits?

Problem	**Cause**
A piece of metal is found in a cooked biscuit.	....
Cooked biscuits crumble when removed from the baking tray.	....

(4 marks)

4 (d) Biscuits are often made by *batch production*.

Explain what is meant by batch production.

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(3 marks)

16

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5 Question 5 is about testing new products.

This is from a recipe for fruit slices.

Ingredients: 150 g wholemeal flour
100 g white flour
50 g soft brown sugar
125 g polyunsaturated margarine
200 g apricots

5 (a) (i) Explain how this fruit slice product is suitable for consumers with *different* special dietary needs.

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(6 marks)

5 (a) (ii) Which ingredients help to give a golden colour to the fruit slice?

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(2 marks)

Question 5 continues on the next page

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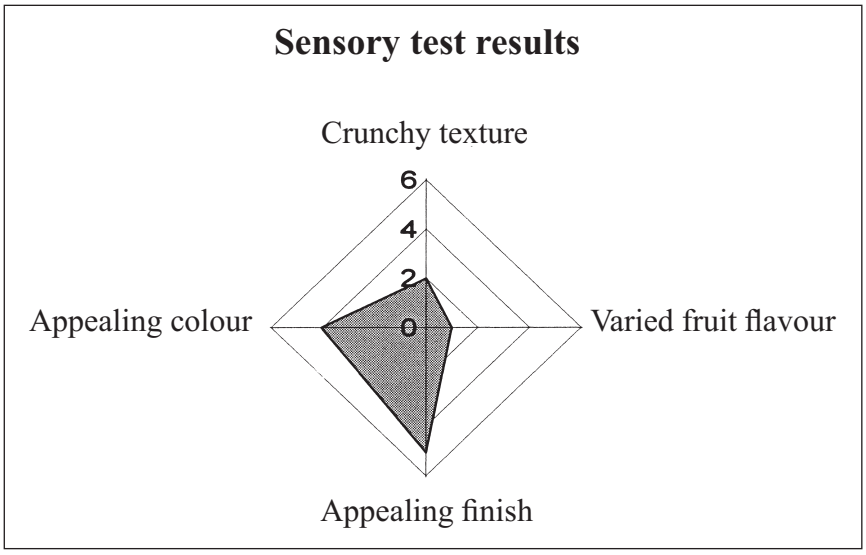
5 (b) The profile below shows the results of sensory testing on fruit slices.



5 (b) (i) Describe **one** way of developing the fruit slice product to improve the flavour.

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.....

.....

(2 marks)

5 (b) (ii) Describe **two** ways of developing the fruit slice product to improve the texture.

.....

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.....

.....

(4 marks)

Areas outside the box will not be scanned for marking

5 (c) Use the chart below to describe a method of research used to find out consumer preferences for new fruit slices.

	Description of method
Research method	....
How the findings are recorded	....
How the results may be used	....

(5 marks)

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Turn over for the next question

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6 Question 6 is about health and safety in a test kitchen.

6 (a) Explain how food workers should be dressed when they are working in a food production area.

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.....

(6 marks)

6 (b) List **three** health and safety rules that must be followed by food workers when using an electric blender.

1 .....

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2 .....

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3 .....

.....

(3 marks)

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6 (c) Hazards may be present when making strawberry milkshakes.

Describe **two** actions taken to prevent each of the hazards.

Step	**Hazard**	**Actions**
Buying the fruit	Mould found on strawberries.	1 .... 2 ....
Storage of milk	The milk tastes sour.	1 .... 2 ....

(4 marks)

6 (d) Why do manufacturers show the red tractor symbol on some food products?

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(3 marks)

END OF QUESTIONS

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