

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
Higher Tier**

**3552/H
H**



Thursday 22 May 2008 9.00am to 10.30am

<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
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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			



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

1 Question 1 is about researching a product range.

1 (a) Explain how manufacturers could use the Internet when designing and making a new range of hot drinks.

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(4 marks)

1 (b) What other types of electronic media may be used when researching existing products?

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(2 marks)

6



2 Question 2 is about packaging of food and drink products.

2 (a) Give reasons why manufacturers package food and drink products.

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(5 marks)

2 (b) Name **four** items of information that, by law, must be given on the packaging.

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(4 marks)

2 (c) Explain why *polystyrene* is a good material for packaging hot drinks.

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(3 marks)

Question 2 continues on the next page

Turn over ►



2 (d) The packaging on a milk drink gives storage instructions.

2 (d) (i) Why is it important that this instruction is followed by consumers?

Once opened store in a refrigerator.

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(2 marks)

2 (d) (ii) Why is it important that this instruction is followed by café owners?

Use by ...

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(2 marks)



3 Question 3 is about designing new food products.

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

The successful biscuit product will:

- be suitable for consumers with special dietary needs
- have a variety of flavours
- include a decorative coating
- suit batch production.

3 (a) Use notes and sketches to produce **two** different design ideas for a biscuit product which meet the above design criteria.

Do **not** draw any packaging.

Design Idea 1 **Product name**

(5 marks)

Design Idea 2 **Product name**

(5 marks)

Turn over ►



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

Design Idea 1

Design Idea 2

Explain how this design idea meets the following design criteria.

3 (b) (i) is suitable for consumers with special dietary needs

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(4 marks)

3 (b) (ii) has a variety of flavours

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(2 marks)



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

- 1
- 2
- 3

(3 marks)

3 (c) (ii) Why is it important to evaluate the development of a new design idea against the product specification?

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(2 marks)

3 (d) Describe **two** different control checks used to make sure your biscuits are of good quality.

- 1
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- 2
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(4 marks)

Question 3 continues on the next page

Turn over ►



- 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*.


(10 marks)

35



4 Question 4 is about the functions of ingredients.

Healthy option muffins are popular products with consumers.

Blueberry muffins	Ingredients
	<p>200 g plain wholemeal flour</p> <p>½ tsp bicarbonate of soda</p> <p>2 tsp baking powder</p> <p>50 g sweetener</p> <p>75 g polyunsaturated margarine (melted)</p> <p>100 ml low fat plain yoghurt</p> <p>100 ml skimmed milk</p> <p>1 egg (beaten)</p> <p>200 g fresh or dried blueberries</p>

4 (a) How are these ingredients suitable for consumers choosing a healthy option product?

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(6 marks)

Question 4 continues on the next page

Turn over ►



4 (b) (i) Why are bicarbonate of soda **and** baking powder used when making muffins?

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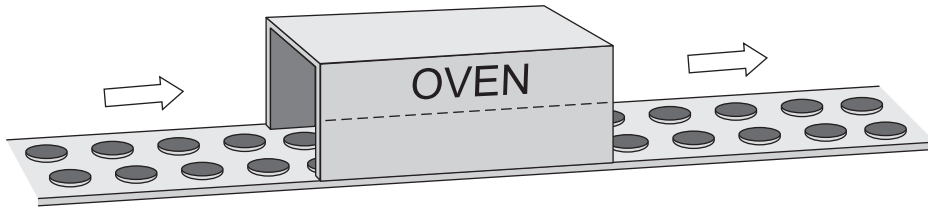
(2 marks)

4 (b) (ii) Explain why it is important to combine the muffin ingredients *quickly*.

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(2 marks)

4 (c) What are the advantages of using tunnel ovens when baking a batch of muffins?



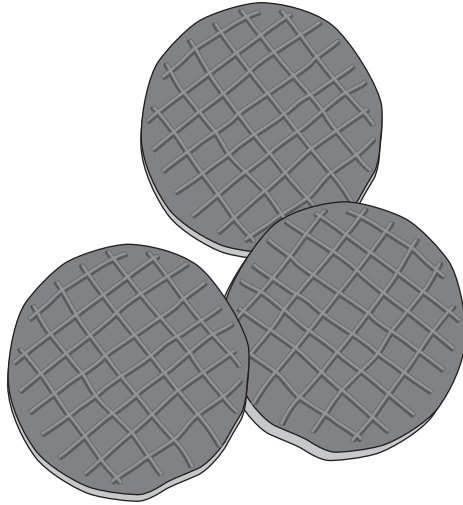
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(4 marks)



5 Question 5 is about the sensory appeal of new products.

Many coffee shops sell chocolate coated biscuits.



5 (a) (i) Explain **one** method of melting chocolate for coating biscuits in a test kitchen.

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(3 marks)

5 (a) (ii) Why have yoghurt based coatings increased in popularity?

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(2 marks)

Question 5 continues on the next page

Turn over ►



5 (b) Describe how manufacturers may develop the sensory appeal of biscuits by using each of the following.

5 (b) (i) a piping bag and nozzle

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(2 marks)

5 (b) (ii) citrus fruit

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(2 marks)

5 (b) (iii) a taste testing panel

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(2 marks)



6 Question 6 is about food safety.

6 (a) 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
Preparation of milkshake	Whisk blades are dirty.	1 2

(6 marks)

Question 6 continues on the next page

Turn over ►



6 (b) Describe how retailers make sure that chilled drink products are kept at a safe temperature.

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(5 marks)

6 (c) Explain the meaning of the following symbol that is seen on milk products.



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(3 marks)



6 (d) Describe the health and safety rules to be followed by food workers when using an electric blender for mixing milkshakes.

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(4 marks)

END OF QUESTIONS

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There are no questions printed on this page

**DO NOT WRITE ON THIS PAGE
ANSWER IN THE SPACES PROVIDED**

