

Surname		Other Names	
Centre Number		Candidate Number	
Candidate Signature			

Leave blank

General Certificate of Secondary Education
 Summer 2003
 Foundation Tier



**DESIGN AND TECHNOLOGY:
 FOOD TECHNOLOGY (SHORT COURSE)**

3552/F

F

Friday 6 June 2003 1.30 pm to 3.00 pm

In addition to this paper you will require:
 a pen, pencil, ruler, eraser, pencil sharpener and
 coloured pencils.

For Examiner's Use	
Number	Mark
1	
2	
3	
4	
5	
6	
7	
TOTAL	
Examiner's initials	

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** the questions in the spaces provided.
- All working must be shown.
- Do all rough work in this book. Cross through any work you do not want marked.

Information

- The maximum mark for this paper is 100.
- Mark allocations are shown in brackets.
- Wherever calculations are needed you should show your working.
- You are reminded of the need for good English and clear presentation.

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

Question 1 is about collecting information about products.

1 (a) Give **three** advantages, with reasons, of buying ready prepared burger products.

Advantage

Reason

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(2 marks)

Advantage

Reason

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(2 marks)

Advantage

Reason

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(2 marks)

(b) Describe **two** ways a computer can be used to find out information about burger products.

1

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(2 marks)

2

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(2 marks)

10

Turn over ►

Question 2 is about designing products.

- 2 (a) Using the survey results below, write a list of design criteria for a ready made barbecue product.

An example is given.

Results	General design criteria
<p style="text-align: center;">Product most liked</p> <p>A pie chart with two segments. The larger segment, representing 60%, is filled with a dotted pattern and is labeled 'burgers 60%'. The smaller segment, representing 40%, is filled with horizontal lines and is labeled 'kebabs 40%'.</p>	<p style="text-align: center;">The product should be a burger product.</p>
<p style="text-align: center;">Served with a bread product?</p> <p>A pie chart with two segments. The smaller segment, representing 25%, is filled with a dotted pattern and is labeled 'no 25%'. The larger segment, representing 75%, is filled with vertical lines and is labeled 'yes 75%'.</p>	
<p style="text-align: center;">Who is the new product for?</p> <p>A pie chart with three segments. The largest segment, representing 52%, is filled with vertical lines and is labeled 'children 52%'. The second largest segment, representing 33%, is filled with a grid pattern and is labeled 'adults 33%'. The smallest segment, representing 15%, is filled with a dotted pattern and is labeled 'families 15%'.</p>	
<p style="text-align: center;">Do you like a variety of flavours?</p> <p>A pie chart with two segments. The larger segment, representing 80%, is filled with vertical lines and is labeled 'yes 80%'. The smaller segment, representing 20%, is filled with a dotted pattern and is labeled 'no 20%'.</p>	

(3 marks)

(b) Use notes or labelled sketches to describe **two** design ideas that meet the criteria.

DO NOT INCLUDE PACKAGING DETAILS.

Design idea 1

(5 marks)

Design idea 2

(5 marks)

QUESTION 2 CONTINUES ON THE NEXT PAGE

Turn over ►

(c) Tick the box to show which design idea best fits the design criteria.

Design idea 1

Design idea 2

Explain how this design idea meets the design criteria.

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(4 marks)

(d) The **bread product** will be developed in the test kitchen.

- (i) Describe **three** main ingredients needed to make the **bread product** used in your chosen idea. Explain why each ingredient is used.

Ingredients	Why used

(6 marks)

- (ii) Describe, with reasons, **three** different ways of developing a basic bread recipe to give more interest and appeal to children.

Development 1	Reason
Development 2	Reason
Development 3	Reason

(6 marks)

Turn over ►

Question 3 is about developing new products in the test kitchen.

3 (a) Name a method of sensory testing.

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(1 mark)

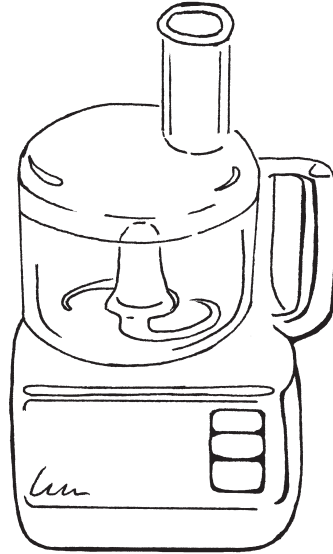
(b) Describe how this method of testing is carried out.

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(6 marks)

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7

Question 4 is about preparing prototypes in a test kitchen.

4 (a) What are the advantages of using a food processor to make coleslaw?



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(4 marks)

(b) What food safety rules would be used by food handlers?

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(6 marks)

Turn over ▶

Question 5 is about industrial production systems.

5 (a) The chart below shows the main stages in making barbecue chicken.

Give examples of **different** control checks used at each stage.

An example is given.

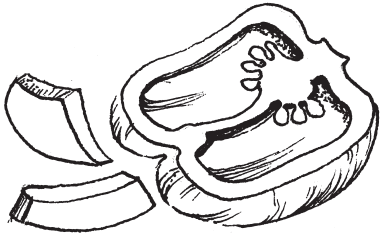
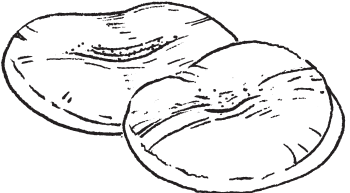
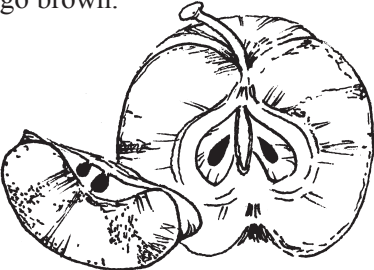
Production stages	Control checks
Delivery of ingredients.	Check that foods are fresh and within use by date.
Storage of frozen chicken before use.	
Preparing chicken ready for use.	
Cooking the chicken.	
Chilling the cooked chicken.	
Packaging the barbecue chicken ready for sale.	

(10 marks)

(b) Feedback from quality control identifies problems during production.

Complete the table below to show:

- (i) the causes of the problems shown;
- (ii) how the problem may be controlled.

Problem	Causes	How to control problem
<p>Uneven sizes of red pepper in a kebab.</p> 		
<p>Burger buns that do not rise when cooked.</p> 		
<p>Apples used in a salad go brown.</p> 		

(12 marks)

Question 6 is about the packaging of ready prepared barbecue products.

6 (a) Why is food packaged?

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(6 marks)

(b) Salads are popular barbecue accompaniments.

Describe, with reasons, **two** packaging materials used for ready prepared salads.

Packaging material	Reasons why this material is used

(6 marks)

(c) Explain, with reasons, the meaning of the following information.

(i) **"Use by 2nd June"** on a rice salad product.

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(2 marks)

(ii) **"Do not refreeze after thawing"** on a pack of frozen prawns.

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(2 marks)

16

TURN OVER FOR THE NEXT QUESTION

Turn over ►

Question 7 is about meeting the needs of consumers.

7 Many consumers prefer healthier option products.

How does the range of barbecue products on sale offer healthier options to consumers?

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(6 marks)

END OF QUESTIONS

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