

Surname						Other Names					
Centre Number						Candidate Number					
Candidate Signature											

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General Certificate of Secondary Education
June 2005

**DESIGN AND TECHNOLOGY:
FOOD TECHNOLOGY
Foundation Tier**

**3542/F
F**



Thursday 16 June 2005 1.30 pm to 3.30 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	
8	
TOTAL	
Examiner's initials	

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** 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 125.
- 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.

THERE ARE NO QUESTIONS PRINTED ON THIS PAGE

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

Question 1 is about the product range.

- 1 A supermarket wishes to extend the range of milk products.



- (a) Name different types of milk that are sold in the following areas of the supermarket:

Area of supermarket	Type of milk sold
In the chill cabinet	1.
	2.
In non chilled areas	1.
	2.

(4 marks)

- (b) Name **two** other products made from milk.

1

2

(2 marks)

(c) (i) Name **one** method of research used by supermarkets to find out about customer's views on milk chocolate.

.....
(1 mark)

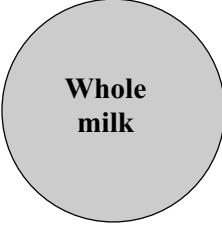


(ii) Describe how this research is carried out.

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(4 marks)

Question 2 is about choice of ingredients.

2 Manufacturers must choose the correct ingredients for a product.

The table below compares different types of milk.

Nutrients per 500 ml			
Energy (kcal)	1550	1135	800
Protein (g)	18	19	19
Fat (g)	22	9	0.5
Carbohydrate (g)	26	28	28
Calcium (mg)	670	690	700

Use the information in the table.

(a) (i) Which type of milk is most suitable for use in a healthy option product?

.....
(1 mark)

(ii) Give reasons for your choice.

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.....
(4 marks)

QUESTION 2 CONTINUES ON THE NEXT PAGE

Turn over ►

(b) (i) Which type of milk is most suitable for use in a high energy milk drink for children?

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(1 mark)

(ii) Give reasons for your choice.

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(4 marks)

10

Question 3 is about designing new food products.

- 3 A catering company makes lunches for delivery to primary school kitchens. The test kitchen is developing new ideas for **cold desserts**.

A successful **cold dessert** will:

- use milk or milk products
- be easy to serve as single portions
- appeal to children
- be served chilled.

- (a) With the aid of notes and sketches, produce **two** different design ideas, which meet the design criteria. **DO NOT** draw any packaging.

Design idea 1

(5 marks)

Design idea 2

(5 marks)

QUESTION 3 CONTINUES ON THE NEXT PAGE

Turn over ►

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

Design idea 1

Design idea 2

(i) Explain how the chosen idea is suitable for children.

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(5 marks)

(ii) Explain why your chosen idea has to be packaged for transport to the school's kitchen.

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(4 marks)

(c) Why are new food products made in a test kitchen before larger scale production takes place?

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(3 marks)

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

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

(10 marks)

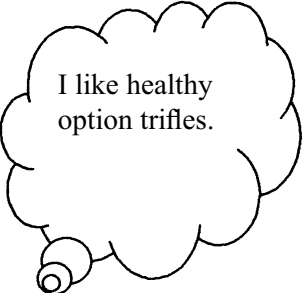





Turn over ►

32

Question 4 is about the development of food products.

4 A food manufacturer is developing a range of trifles.

(a) Explain how using different ingredients can help meet the needs of consumers.

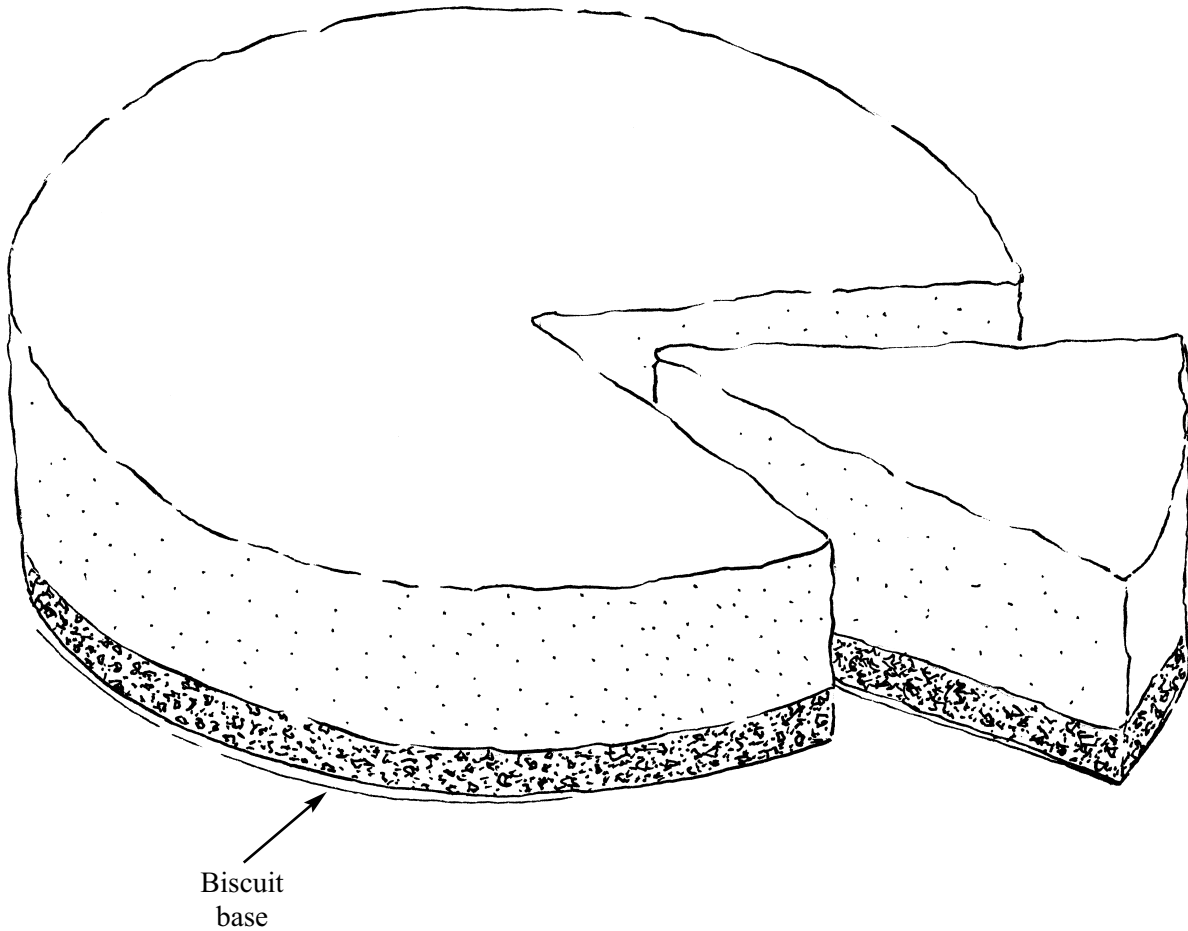
Consumers Comments	Ingredient chosen	How does it meet needs of consumers?
<p>Consumer 1</p>  	1.	
	2.	
<p>Consumer 2</p>  	1.	
	2.	
<p>Consumer 3</p>  	1.	
	2.	

(12 marks)

- (b) Using notes and sketches describe how a quality finish can be achieved by decorating the top of the cheesecake below.

Your design idea should use a mixture of fruit, chocolate and cream.

Design idea:



Description

.....

.....

.....

.....

.....

(5 marks)

Turn over ►

Question 5 is about the materials and ingredients used in making products.

5 (a) Standard components may be used to save time in food production.

(i) Describe **two** other advantages of using standard components.

Advantage 1.

.....

.....

.....

Advantage 2.


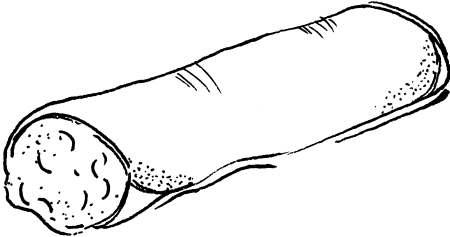
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(4 marks)

(ii) Name a standard component used in the following cold desserts:

Cold dessert	Standard component
 <p>Egg custard tart</p>	<p>.....</p>
 <p>Filled pancakes</p>	<p>.....</p>

(2 marks)

(b) Explain why food manufacturers use the following.

(i) 1 egg to 125 ml of milk in an egg custard

.....
.....
.....
(2 marks)

(ii) Butter in shortcrust pastry

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.....
.....
(2 marks)

(iii) Modified starch in a chocolate mousse

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(2 marks)

(iv) Double cream as a filling for éclairs

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.....
(2 marks)




(v) Soya milk in milkshakes

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.....
.....
(2 marks)

QUESTION 5 CONTINUES ON THE NEXT PAGE

Turn over ►


- (c) (i) Explain why the following materials are used in the packaging of ready made pouring custards.

Material:	Why is this material suitable?
 <p>Plastic lid</p>	
 <p>Foil cover</p>	
 <p>Paperboard carton</p>	

(6 marks)

- (ii) The following symbol is often seen on packaging.

Explain what the symbol means.

Symbol	Meaning
	

(2 marks)

Question 6 is about the use of domestic and industrial equipment.

6 Name **two** items of equipment that can be used at the following stages of making an ice cream dessert.



Task:	Equipment used
Preparing sliced fruit for the base	1 2
Freezing the ice cream mixture	1 2
Blending a smooth fruit sauce	1 2

(6 marks)

6

TURN OVER FOR THE NEXT QUESTION

Turn over ▶

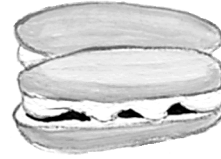
Question 7 is about controlling hazards.

7 Risk assessment of food safety hazards must be made at all stages of food production.

(a) For each stage in making fresh cream cakes

(i) describe a **different** hazard for each stage;

(ii) explain how the hazard may be controlled.



Stage	Food safety hazard	How to control
The work area and equipment		
The cooking of the sponge cake		
Preparing the fresh cream filling		
Storage of the finished product		

(8 marks)

(b) Describe, with reasons, safe storage conditions for the following:

(i) tub of ice cream;



Where to store: (1 mark)

Reason why:
.....
..... (2 marks)

(ii) Greek yoghurt.



Where to store: (1 mark)

Reason why:
.....
..... (2 marks)

(c) Explain how CAM is used to ensure the safety of milk based desserts.

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..... (2 marks)

TURN OVER FOR THE NEXT QUESTION

Turn over ►

Question 8 is about hygienic and safe working practices on a food production line.

8 Explain how a food worker will show good working practices in

(a) personal hygiene;

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(3 marks)

(b) kitchen hygiene;

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(3 marks)

(c) personal safety.

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(3 marks)

END OF QUESTIONS

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