

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 (SHORT COURSE)
Higher Tier**

**3552/H
H**



Thursday 16 June 2005 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

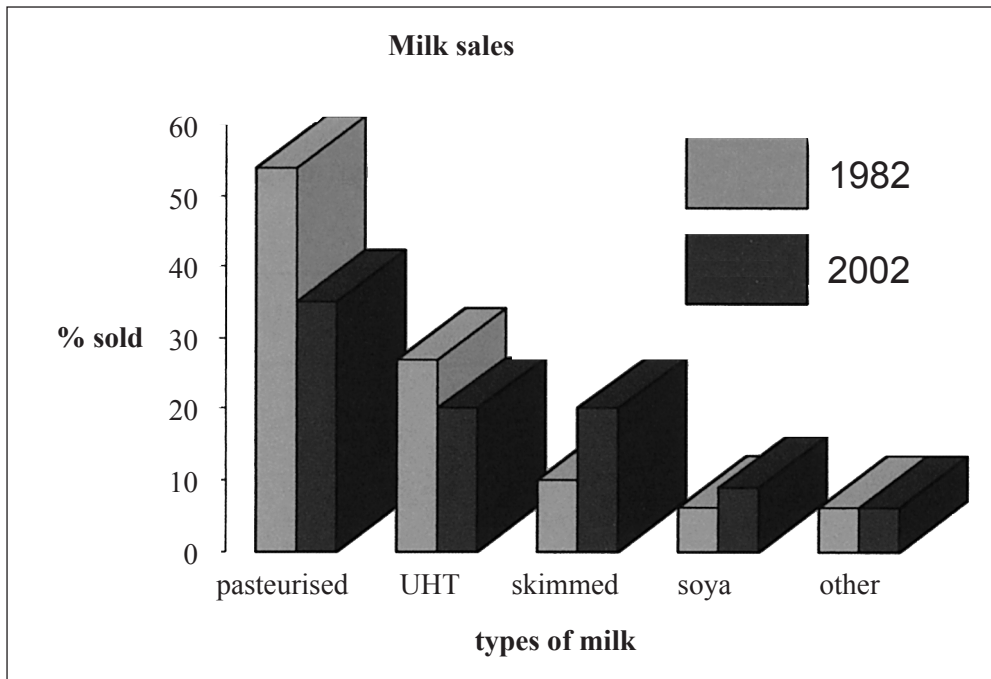
- Use blue or black ink or ball point pen. Use pencil and coloured pencils only for drawing.
- Fill in the boxes at the top of this page.
- Answer **all** the questions in the spaces provided.
- All working must be shown.
- Do all rough work in this book. Cross through any work you do not want marked.

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.

THERE ARE NO QUESTIONS PRINTED ON THIS PAGE

(b) The chart below shows the results of research into milk sales.



(i) Name **one** type of milk that has become more popular.

..... (1 mark)

(ii) Give reasons for this change.

.....

 (3 marks)

(iii) What does UHT stand for?

..... (1 mark)

(iv) What are the advantages of UHT milk?

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..... (3 marks)

13

TURN OVER FOR THE NEXT QUESTION

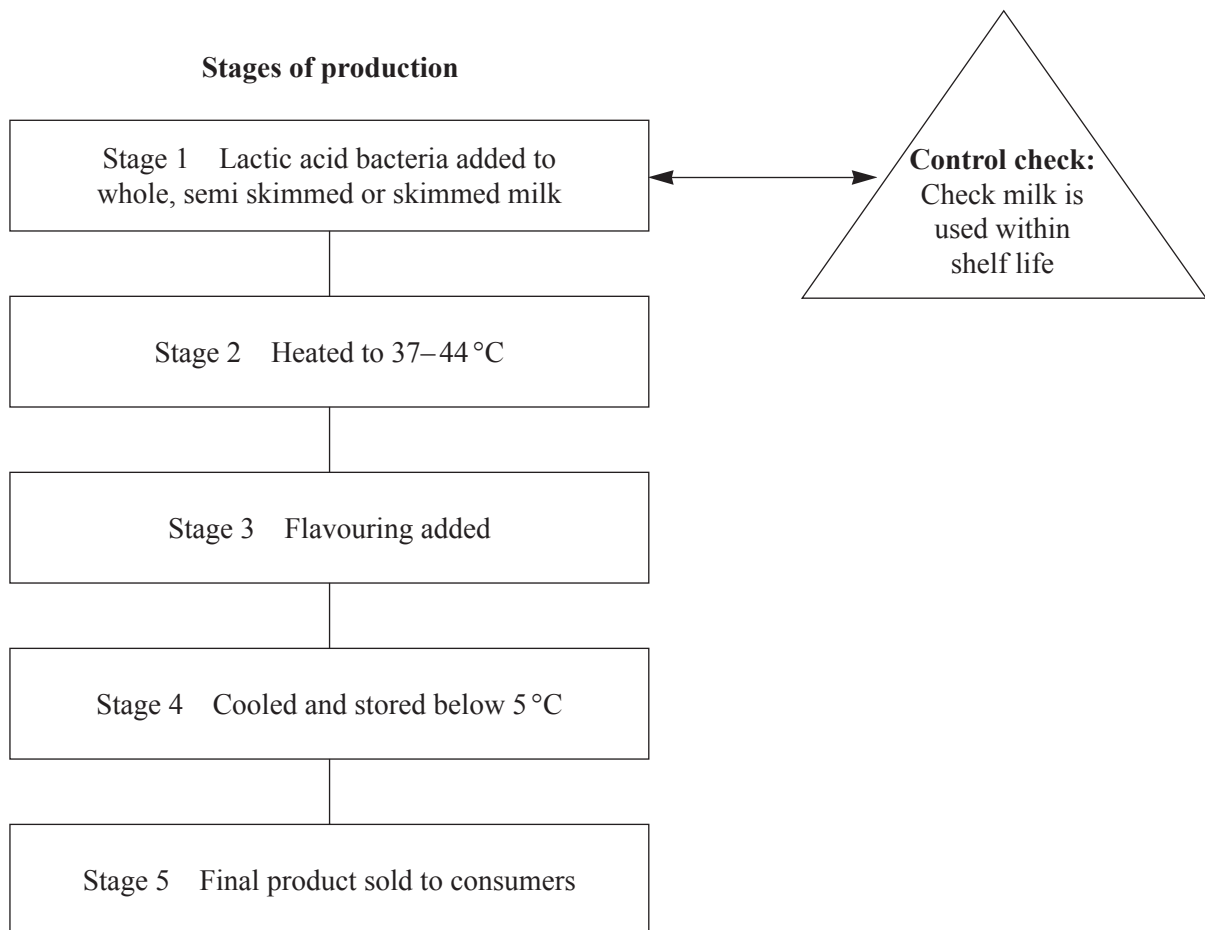
Turn over ►

Question 2 is about the secondary processing of milk.

2 Milk can be processed into yoghurt.

The diagram below shows the main stages in the production of yoghurt.

Use this information to answer the questions on the next page.



(a) An example of one control check is shown on the diagram.

Describe **one** other control check that takes place during yoghurt production.

Stage
(1 mark)

Control check:
.....
.....
.....
(2 marks)

(b) Why are control checks used?

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

5

TURN OVER FOR THE NEXT QUESTION

Turn over ►

Question 3 is about designing new food products.

- 3** A catering company makes lunches for secondary school children. The test kitchen is developing new ideas for **cold desserts**.

A successful **cold dessert** product will:

- include milk products
- be easy to serve as single portions
- appeal to different cultural tastes
- 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)

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

Design idea 1

Design idea 2

Explain in detail how your choice of ingredients helps to meet the needs of the schoolchildren

(i) by your choice of milk products;

.....
.....
.....
.....

(3 marks)

(ii) by using ingredients that will appeal to different cultural tastes.

.....
.....
.....
.....

(3 marks)

QUESTION 3 CONTINUES ON THE NEXT PAGE

Turn over ►

(c) 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)

(d) Explain how food workers will be prepared and trained for work in the test kitchen.

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(6 marks)

32

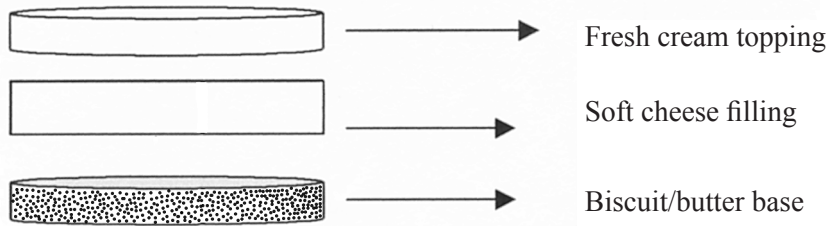
TURN OVER FOR THE NEXT QUESTION

Turn over ►

Question 4 is about development of food products.

4 A food manufacturer is developing a range of cheesecake products.

(a) Explain how a basic cheesecake can be developed to meet the needs of consumers.



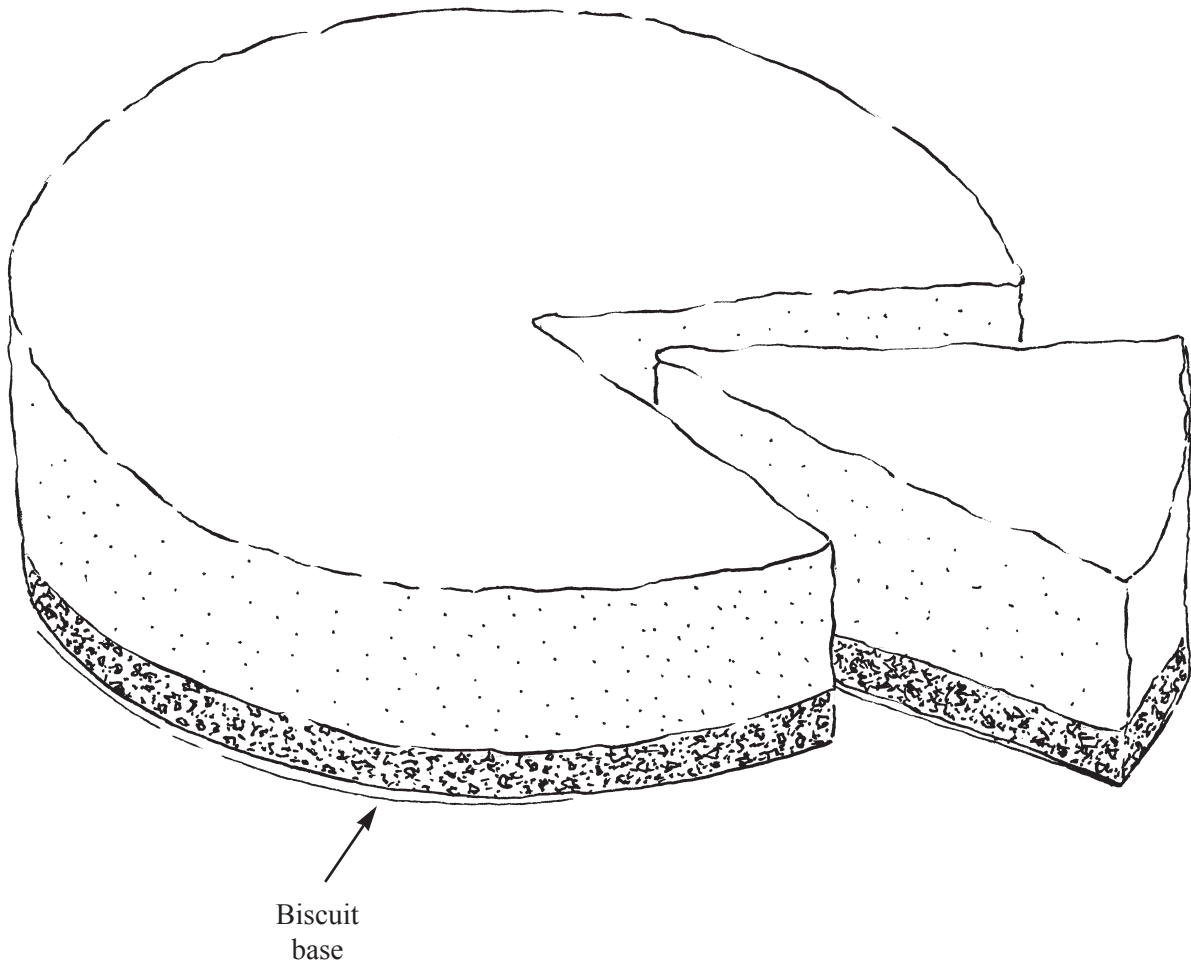
	Development idea	Reason for any changes
<p>Consumer 1</p>	1	
	2	
<p>Consumer 2</p>	1	
	2	

(8 marks)

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

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

Design idea:



Description:

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(5 marks)

Turn over ►

Question 5 is about ingredients and components used in food production.

5 (a) Explain why food manufacturers use the following.

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

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.....

(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) Soya milk in milkshakes

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.....
.....

(2 marks)

(b) Standard components are often used during the manufacture of food products.

(i) What is meant by a standard component?

.....
.....
.....
.....
.....

(2 marks)

(ii) Give **three** reasons why manufacturers may decide **not** to use standard components.

1
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2
.....
3
.....


(3 marks)

TURN OVER FOR THE NEXT QUESTION

Turn over ►

Question 6 is about ice cream production.

6 The ingredients and method listed below are used to make chocolate ice cream.

Chocolate ice cream	
<p style="text-align: center;">Ingredients</p> <p>4 egg yolks, 100 g castor sugar, 300 ml single cream, 300 ml double cream, 100 g melted chocolate, 25 g walnuts.</p>	
<p style="text-align: center;">Method</p> <ol style="list-style-type: none"> 1. Blend egg and sugar together. 2. Warm single cream – do not boil. 3. Gradually blend cream into egg mixture. 4. Heat mixture, stir until thickens. 5. Leave to cool, before folding in whipped cream, chocolate and nuts. 6. Stir well, freeze. 	

(a) Why is it important for the packaging to show a list of ingredients?

.....

.....

.....

.....

(2 marks)

- (b) (i) Name **two** items of small electrical equipment that can be used in the test kitchen during the making of chocolate ice cream.

Describe what each item will be used for.

Name of electrical equipment	What it will be used for
1	
2	

(4 marks)

- (ii) Explain the advantages of using electrical equipment when making chocolate ice cream in the test kitchen.

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(4 marks)

- (c) (i) How does freezing extend the shelf life of food products?

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(3 marks)

- (ii) Why is it important to keep a data log of freezer temperatures?

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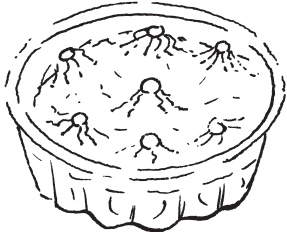

(2 marks)

Turn over ►

Question 7 is about packaging materials.

7 Many milk based products are packaged ready for sale.

Explain why the following packaging materials are suitable choices.

Material	Why is this material suitable?
<p>Paperboard For fresh cream cakes</p> 	
<p>Plastics For a ready made trifle</p> 	
<p>Glass For a chocolate sauce</p> 	

(9 marks)

END OF QUESTIONS

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