

Candidate Name	Centre Number	Candidate Number



OXFORD CAMBRIDGE AND RSA EXAMINATIONS
General Certificate of Secondary Education

D&T: FOOD TECHNOLOGY
D&T: FOOD TECHNOLOGY (SHORT COURSE)
PAPER 2 (HIGHER TIER)

1954/2
1054/2

Wednesday **8 JUNE 2005** Afternoon 1 hour 15 minutes

Candidates answer on the question paper.
 No additional materials are required.

TIME 1 hour 15 minutes

INSTRUCTIONS TO CANDIDATES

Write your name, Centre number and candidate number in the spaces at the top of this page.

Answer **all** questions.

Write your answers in the spaces provided on the question paper.

INFORMATION FOR CANDIDATES

The number of marks is given in brackets [] at the end of each question or part question.

The marks allocated and the spaces provided for your answers are a good indication of the length of answers required.

The total number of marks for this paper is **50**.

FOR EXAMINER'S USE	
Q1	
Q2	
Q3	
Q4	
Q5	
TOTAL	

This question paper consists of 11 printed pages and 1 blank page.

1 Computer aided design (CAD) is used in the development of food products.

(a) Complete the table below to show:

- **three** different examples of CAD; and
- **two** different examples of how they are used in industry.

Example	How it will be used in industry
Digital camera	Provides images for packaging.
	To create a mood board.

[5]

(b) A food manufacturer wants to produce a batch of 50 fruit pies.
State **three** ways the manufacturer can ensure that all of the pies are identical.

1 _____ [1]

2 _____ [1]

3 _____ [1]

(c) Environmental issues are a concern for many consumers.

Suggest **two** ways in which consumers can reduce the amount of waste from packaging.

1 _____ [1]

2 _____ [1]

[Total: 10]

2 Fig. 1 shows the label for a ready prepared chicken product.



INGREDIENTS: Chicken Breast (48%), Tomato (33%), Onion, Tomato Purée, Vegetable Oil, Sugar, Modified Maize Starch, Basil Oil, Salt, Basil (0.2%), Garlic Purée, Paprika, Black Pepper, ginger Purée, Balsamic Vinegar.

WARNING: This product may contain traces of nuts, as it has been made in a factory that uses nut ingredients. Although every care has been taken to remove bones, some may remain.

PREPARATION GUIDELINES:

All appliances vary, the following are guidelines only. Remove outer packaging. Pierce film lid several times.

To Oven Heat	Place on a baking tray and heat in the centre of a pre-heated oven 190°C/375°F/Gas Mark 5 for 20–25 minutes. Stir before serving.		
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To Microwave: Pierce film lid several times.

Wattage	650W or Category B	750W or Category D	850W or Category E
Heat on Full Power	4½ minutes. Stir before serving.	4 minutes. Stir before serving.	4 minutes. Stir before serving.

Suitable for Home Freezing: Freeze on day of purchase.

For freezing guidelines refer to freezer manufacturer's handbook.

To Oven Heat from Frozen	Place on a baking tray and heat in the centre of a pre-heated oven 190°C/375°F/Gas Mark 5 for 30–35 minutes. Stir before serving.		
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To Microwave from Frozen: Pierce film lid several times.

Wattage	650W or Category B	750W or Category D	850W or Category E
Heat on Full Power	10 minutes. Stir before serving.	9 minutes. Stir before serving.	8½ minutes. Stir before serving.

Adjust times according to your particular oven. (For fan assisted ovens heating times should be reduced. For best results refer to manufacturer's handbook). Check food is piping hot throughout before serving.



Guideline daily amounts		
Each day	Men	Women
Calories	2500	2000
Fat	95g	70g
Salt	7g	5g

These figures are for average adults of normal weight. Your own requirements will vary with age, size and activity level.

NUTRITION INFORMATION

A serving (225g) contains 221 Calories and 5.6 grams of Fat.

Typical Composition	a 225g (8oz) serving provides	a 225g (8oz) serving provides
Energy	934kJ/221kcal	415kJ/98kcal
Protein	32.9g	14.6g
Energy of which sugars	9.8g	4.4g
Fat	8.7g	3.9g
of which saturates	5.6g	2.5g
Fibre	0.8g	0.4g
Sodium	2.0g	0.9g
	0.4g	0.2g

This pack contains 2 servings.

A serving (225g) contains the equivalent of approx. 0.9g of Salt

Fig. 1

(a) Give **two** nutritional reasons why consumers may choose to purchase this product.

1 _____
[1]

2 _____
[1]

(b) Nutritional information is included on the packaging shown in Fig. 1.
Give **two** benefits to the consumer of having this information.

1 _____
[1]

2 _____
[1]

(c) Explain **one** function of modified starch in the sauce.

[2]

(d) Give **two** reasons why evaluation takes place throughout the development of a food product.

1 _____
[2]

2 _____
[2]

[Total: 10]

3 Fig. 2 shows a decorated Victoria sandwich cake.



Fig. 2

(a) Describe one different function for each of the ingredients listed below when used in the cake mixture.

Self-raising flour _____
_____ [1]

Sugar _____
_____ [1]

Margarine _____
_____ [1]

Egg _____
_____ [1]

(b) The cake is to be batch produced and decorated.

Give two reasons why the manufacturer would buy the icing and decorations as pre-manufactured components.

1 _____
_____ [1]

2 _____
_____ [1]

(c) The manufacturer wants to increase the range of cakes made from this type of mixture. Use sketches and notes to design a cake suitable for children under eight years old. The cake must:

- be novel;
- be decorated;
- use a combination of flavours;
- use a combination of textures.

[4]

[Total: 10]

4 Food manufacturers use specifications when developing new products.

(a) Explain what is meant by a design specification.

[2]

(b) Explain what is meant by a product specification.

[2]

(c) Complete the chart to explain **six** criteria that should be included in a product specification.

The first one has been done for you.

Product specification criterion	Explanation of product specification point
1 Specific dimensions	To give the exact dimensions such as the weight, size and shape of the finished product e.g. the width of a flan case. The manufacturer may also include a tolerance in the weight, size and shape dimensions.
2 Specific quantities of ingredients	
3 Types of cooking methods	
4 Specific size of ingredients	
5 Cooling methods	
6 Assembling the product	
7 Finishing techniques	

[6]

[Total: 10]

[Turn over

5 When food manufacturers develop products 'shelf life' is important.

(a) Give **two** reasons why manufacturers need to consider the 'shelf life' of a product.

1 _____

_____ [1]

2 _____

_____ [1]

- (b) Food manufacturers often add preservatives, antioxidants, emulsifiers and stabilisers to food products.
Complete the chart below to show your understanding of their functions.

	Function
Preservatives	1
	2
Antioxidants	1
Emulsifiers & Stabilisers	1

[4]

