

Candidate Name	Centre Number	Candidate Number



OXFORD CAMBRIDGE AND RSA EXAMINATIONS
General Certificate of Secondary Education

D&T: FOOD TECHNOLOGY
PAPER 4 (HIGHER TIER)

1954/4

Friday **24 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**.

Question 2, Product Analysis, is based on the theme **cook-chill/microwave meals**.

FOR EXAMINER'S USE	
Q1	
Q2	
Q3	
Q4	
Q5	
TOTAL	

This question paper consists of 10 printed pages and 2 blank pages.

1 HACCP is a standard procedure used in the food industry.

(a) (i) State what the letters HACCP stand for.

_____ [1]

(ii) Give **two** ways HACCP is used in the food industry.

1. _____

_____ [1]

2. _____

_____ [1]

(b) Computers and automated manufacture (CAM) are used to control processes during the production of food products, for example chocolate biscuits.

Complete the table below to show **one** different reason for using CAM in each process.

Manufacture of chocolate covered biscuits	
Process	Reason for using CAM
Weighing	
Baking	
Coating	

[3]

(c) Manufacturers need to ensure that biscuits are a consistent size and shape.

Give **two** methods that a manufacturer could use to ensure consistency when shaping biscuits.

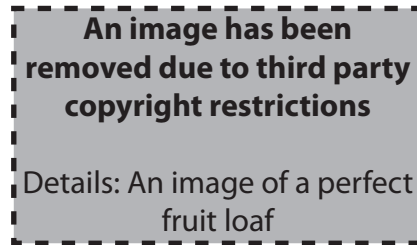
1. _____ [1]

2. _____ [1]

(d) Fig. 1 shows two sliced fruit loaves.

Fig. 1 (a) shows a perfect loaf.

Fig. 1 (b) shows a loaf with several faults.



(a)



(b)

Fig. 1

Identify two faults in the loaf shown in Fig. 1 (b) that makes it unsuitable for sale.

Fault 1 _____ [1]

Fault 2 _____ [1]

[Total: 10]

- 2 A test kitchen is trialling a new cook-chill microwave product.

The ingredients for the new product are shown below.

Spicy Potato Curry
450 g potatoes, peeled and diced
1 onion, peeled and chopped
2–3 tablespoons vegetable oil
2 teaspoons curry powder
400 g tinned tomatoes
100 g green peas
1 green pepper, sliced
200 ml water

Fig. 2 shows the results of a sensory test.

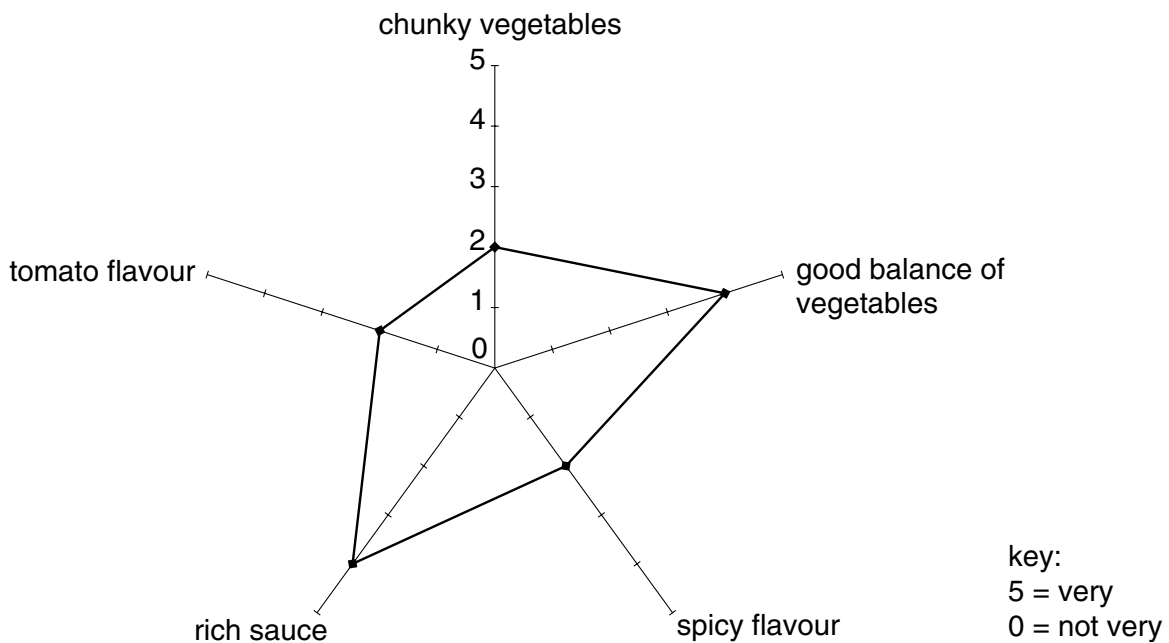


Fig. 2

- (a) Using the ingredients list and star profile complete the table below:

Area for improvement	How to improve
Chunky vegetables	
Spicy flavour	
Tomato flavour	

[3]

(b) Sensory analysis tests are used to obtain information about a product.

State **two** ways a food manufacturer could use this information when developing a product.

1. _____ [1]

2. _____ [1]

(c) The manufacturer needs to give serving suggestions for the new curry product.

Name **one** suitable serving suggestion.

_____ [1]

(d) Give **three** benefits to the consumer of cook-chill products.

1. _____ [1]

2. _____ [1]

3. _____ [1]

(e) State the method of heat transfer when microwaving a ready-meal.

_____ [1]

[Total: 10]

3 Manufacturers need to identify a gap in the market before developing a new food product.

(a) State **two** methods of identifying a gap in the market before developing a new food product.

1. _____ [1]

2. _____ [1]

A supermarket has identified a gap in the market for ready-made desserts.
A manufacturer has been given the following design specification.

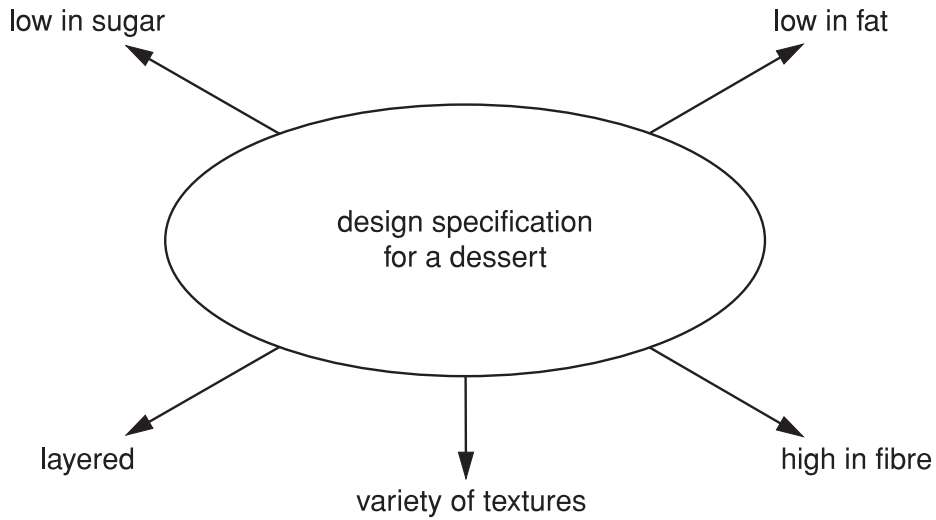
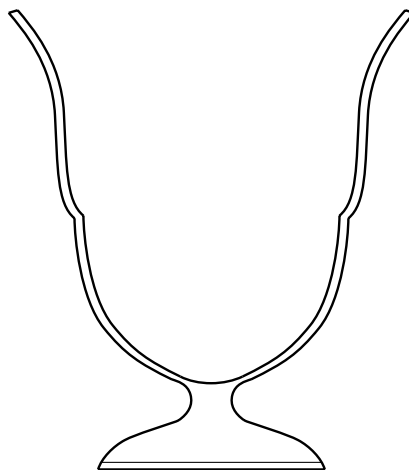


Fig. 3

(b) In the outline below draw and label **one** idea that could meet the design specification.



[2]

(c) Explain how your dessert idea meets the **two** design specification points below.

(i) Low in sugar

[2]

(ii) Low in fat

[2]

Drawing and sketching are ways of communicating ideas.

(d) State **two** other ways of communicating a design idea.

1. _____ [1]

2. _____ [1]

[Total: 10]

4 Food poisoning has increased over the last ten years.

(a) Give **one** example of how a food manufacturer can help reduce the risk of food poisoning in the following situations.

(i) Storage of high risk foods

[1]

(ii) Cross-contamination between raw and cooked foods

[1]

(iii) Personal hygiene of food handlers

[1]

(b) Discuss how legislation can ensure health and safety in the food industry.

[5]

(c) Health and safety legislation in the food industry also protects the consumer.
Describe the role of the Environmental Health Officer.

[2]

[Total: 10]

5 Sensory analysis is an important process in the food industry.
Sensory analysis helps a manufacturer to improve product characteristics.

(a) To obtain reliable results it is important that sensory analysis is carried out under controlled conditions.

Describe **two** conditions and give reasons why they are needed.

1. _____

_____ [2]

2. _____

_____ [2]

(b) Explain why sensory analysis is used in the development and manufacture of a food product.

_____ [6]

[Total: 10]

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