

GENERAL CERTIFICATE OF SECONDARY EDUCATION
DESIGN AND TECHNOLOGY
FOOD TECHNOLOGY
FOOD TECHNOLOGY (Short Course)
 Paper 2 (Higher Tier)
THURSDAY 22 MAY 2008

1954/02
1054/02

Morning
 Time: 1 hour 15 minutes

Candidates answer on the question paper
Additional materials: No additional materials are required



Candidate Forename

Candidate Surname

Centre Number

Candidate Number

INSTRUCTIONS TO CANDIDATES

- Write your name in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use blue or black ink. Pencil may be used for graphs and diagrams only.
- Read each question carefully and make sure that you know what you have to do before starting your answer.
- Answer **all** the questions.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided.

INFORMATION FOR CANDIDATES

- The number of marks for each question 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	
1	
2	
3	
4	
5	
TOTAL	

This document consists of **12** printed pages.

- 1 Control checks are important in the manufacture of food products. Fig. 1 below shows the recipe for making bread in a test kitchen.

Ingredients		Method
200g	strong plain flour	1. Put flour, salt and easy blend yeast in the mixing bowl. 2. Mix water and oil together. 3. Add the liquid to the dry ingredients and mix. 4. Knead the dough on a floured surface for 10 minutes. 5. Divide the dough into 6 pieces and shape. 6. Place on a prepared baking tray. 7. Leave to rise in a warm place for 15 minutes. 8. Bake Gas mark 7, 220°C for 10 minutes.
	pinch of salt	
6g	easy blend yeast	
125ml	warm water	
2 tbsp	olive oil	

Fig. 1

- (a) State **four** control checks needed when preparing and cooking the bread.

1.....
[1]

2.....
[1]

3.....
[1]

4.....
[1]

- (b) Computer aided design (CAD) is often used when designing packaging. Complete the chart to show **two** examples of how CAD could be used. One example has been done for you.

CAD	How used
digital camera	To photograph the food

[4]

- (c) Give **two** ways manufacturers consider environmental issues when designing and making packaging.

1.....

.....[1]

2.....

.....[1]

[Total: 10]

2 Fig. 2 shows information about four food products originating from different countries.

	Chicken Korma with Rice		Spaghetti Bolognese		Chicken Chow Mein		Chilli Con Carne	
Cost per pack	£3.79		£2.59		£2.39		£1.49	
Weight per pack	500g		400g		450g		400g	
Product description	Marinated chicken breast pieces in a mild coconut and cream sauce served with pilau rice.		Soft pasta complemented by a deliciously rich sauce of Aberdeen Angus minced beef, smoked bacon, red wine and topped with cheese shavings.		Egg noodles with marinated chicken breast pieces, bean sprouts, pak choi, carrots and bamboo shoots in oyster sauce.		Minced beef in a spicy sauce with red kidney beans, peppers and coriander, served with long grain rice	
Nutrition	Per pack	Per 100g	Per pack	Per 100g	Per pack	Per 100g	Per pack	Per 100g
Energy	3292kJ	658kJ	1868kJ	467kJ	1701kJ	377kJ	1896kJ	474kJ
Protein	34.0g	6.8g	35.6g	8.9g	32.4g	7.2g	24.0g	6.0g
Carbohydrate	71.5g	14.3g	50.0g	12.5g	45.9g	10.2g	75.2g	18.8g
of which starch	67.5g	13.5g	46.4g	11.6g	38.7g	8.6g	69.6g	17.4g
Fat	40.5g	8.1g	11.2g	2.8g	10.0g	2.2g	6.0g	1.5g
of which saturates	12.0g	2.4g	4.8g	1.2g	1.4g	0.3g	2.8g	0.7g
Fibre	15.5g	3.1g	6.8g	1.7g	8.1g	1.8g	7.2g	1.8g
Salt	2.5g	0.5g	4.0g	1.0g	2.3g	0.5g	1.0g	0.3g

Fig. 2

- (a) Complete the chart below by choosing **two** food products from Fig. 2 and naming the countries from which they originate.

Name of product	Name of country

[2]

(b) Give **two** reasons why there has been an increase in products with a cultural influence.

Reason 1
.....[1]

Reason 2
.....[1]

(c) The Chicken Korma with Rice is the most expensive product.
Give **two** ways the manufacturer could reduce the cost of the product.

1.....
.....[1]

2.....
.....[1]

(d) Meat is the main provider of protein in all the dishes in Fig. 2.
State **two** functions of protein in the diet.

1.....[1]

2.....[1]

(e) The manufacturer wants to develop the products so they are suitable for ovo-lacto vegetarians.
Give **two** examples of foods which could be used to replace the meat.

Example 1.....[1]

Example 2.....[1]

[Total: 10]

3 The message at the centre of the ‘five a day’ campaign is to eat at least five portions of fruit and vegetables a day.

(a) Explain **two** nutritional benefits of eating a variety of fruits and vegetables each day.

1.....
.....
.....
.....[2]

2.....
.....
.....
.....[2]

(b) A manufacturer wants to extend their range of vegetable products.

(i) Complete the design specification below with **three** further specification points.

Design specification for a vegetable snack product

- **Use a variety of fresh vegetables.**
-
-
-[3]

7

- (ii) Using notes and diagrams show a design that meets the specification.

DO NOT DRAW THE PACKAGING

[3]

[Total: 10]

4 Sensory analysis is used in the development of food products.

(a) Give **two** reasons why sensory analysis takes place.

Reason 1
[1]

Reason 2
[1]

(b) The chart below shows the taste testing results of a new biscuit product.
 The specification for the biscuit is:

- crisp
- chocolate in flavour
- have a soft filling
- have a smooth coating
- round in shape

Key to chart
 5 – strongly agree
 1 – disagree

SPECIFICATION POINT	TASTER				
	A	B	C	D	E
Crisp	2	3	1	2	3
Chocolate in flavour	5	5	5	5	5
Have a soft filling	2	3	2	3	3
Have a smooth coating	5	5	5	5	5
Round in shape	2	3	2	1	3

Using the results in the chart explain how **two** of the specification points could be improved.

Specification point 1.....

[2]

Specification point 2.....

[2]

(c) Manufacturers often add preservatives and emulsifiers to products.
Explain **one** function of preservatives and **one** function of emulsifiers in food products.

Preservatives
.....
.....
.....[2]

Emulsifiers
.....
.....
.....[2]

[Total: 10]

(b) The sale of Fairtrade food products has increased.
Explain **two** reasons why consumers are choosing these products.

1.....
.....
.....
.....[2]

2.....
.....
.....
.....[2]

[Total: 10]

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