

Candidate forename						Candidate surname					
Centre number						Candidate number					

OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GCSE

A524/01

DESIGN AND TECHNOLOGY

Food Technology
Technical Aspects of Designing and Making

WEDNESDAY 16 MAY 2012: Afternoon

DURATION: 1 hour 15 minutes
plus your additional time allowance

MODIFIED ENLARGED

Candidates answer on the Question Paper.

OCR SUPPLIED MATERIALS:

None

OTHER MATERIALS REQUIRED:

None

READ INSTRUCTIONS OVERLEAF

INSTRUCTIONS TO CANDIDATES

- **Write your name, centre number and candidate number in the boxes on the first page. Please write clearly and in capital letters.**
- **Use black ink. HB pencil may be used for graphs and diagrams only.**
- **Answer ALL the questions in Section A AND Section B.**
- **Read each question carefully. Make sure you know what you have to do before starting your answer.**
- **Write your answer to each question in the space provided. If additional space is required, you should use the lined page at the end of this booklet. The question number(s) must be clearly shown.**

INFORMATION FOR CANDIDATES

- **The number of marks is given in brackets [] at the end of each question or part question.**
- **The total number of marks for this paper is 60.**
- **Your Quality of Written Communication is assessed in questions marked with an asterisk (*).**

BLANK PAGE

SECTION A

Answer ALL questions.

- 1 (a) Table 1 opposite shows a range of equipment that can be used for cooking food.**

State ONE different food that can be cooked in each piece of equipment.


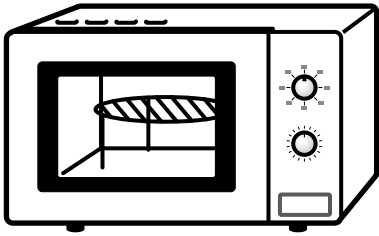
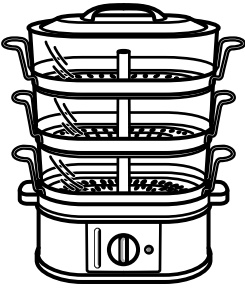
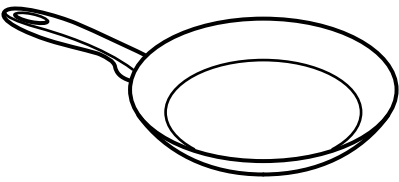
COOKING EQUIPMENT	FOOD THAT CAN BE COOKED IN THIS EQUIPMENT
<p data-bbox="150 315 268 360">Oven</p> 	
<p data-bbox="150 741 392 786">Microwave</p> 	
<p data-bbox="150 1160 339 1205">Steamer</p> 	
<p data-bbox="150 1585 395 1630">Frying Pan</p> 	

Table 1

[4]

(b) State TWO ways of preventing cross contamination when preparing and storing meat.

1 _____

2 _____
_____ **[2]**

(c) Some meat can be tough when cooked.

State TWO processes that could be used to make tough meat tender.

1 _____

2 _____
_____ **[2]**

(d) Explain TWO factors that influence the way people choose to cook food.

1 _____

2 _____

_____ **[4]**

[Total: 12]

2 Fig. 1 shows athletes.



Fig. 1

(a) Athletes need a good supply of energy in their diet.

Complex carbohydrates are a good source of energy.

(i) State TWO foods that provide complex carbohydrate in the diet.

1 _____

2 _____ **[2]**

(ii) Explain why a complex carbohydrate is a good source of energy.

_____ **[2]**

- (b) It is important for everyone to maintain the correct energy balance.**

Describe what is meant by the term ‘energy balance’.

[2]

- (c) Athletes need to drink plenty of water.**

(i) Give TWO functions of water in the diet.

1 _____

2 _____

[2]

(ii) State TWO ways that school children are encouraged to drink more water.

1 _____

2 _____

[2]

(d) State TWO ways that a person's health can affect their choice of food.

1 _____

2 _____

_____ **[2]**

[Total: 12]

BLANK PAGE

QUESTION 3 BEGINS ON PAGE 12

3 Fig. 2 shows a take away meal from a fast food outlet.

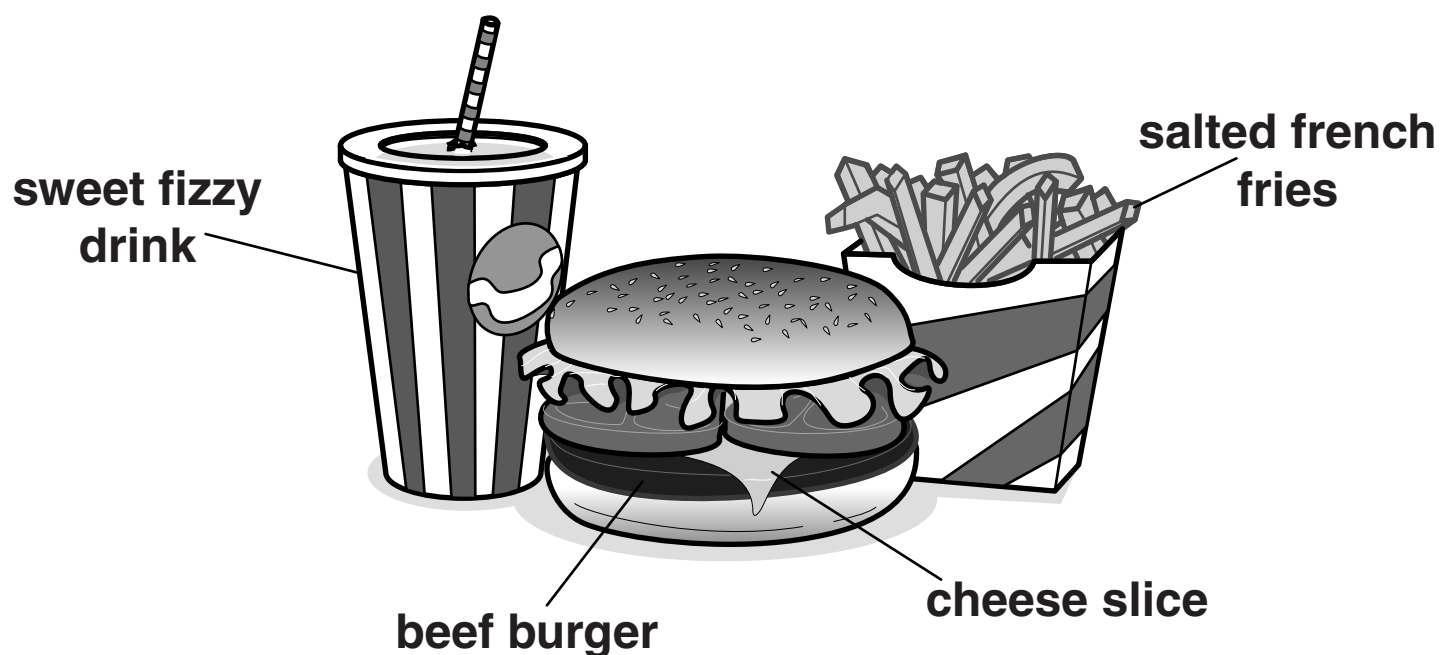


Fig. 2

(a) The take away meal shown in Fig. 2 does not meet current dietary guidelines.

Complete the table opposite to state changes that could be made to the fast food meal to meet current dietary guidelines.

FOOD THAT DOES NOT MEET CURRENT DIETARY GUIDELINES	CHANGES THAT COULD BE MADE
Sweet fizzy drink	<hr/> <hr/>
Beef burger	<hr/> <hr/>
Cheese slice	<hr/> <hr/>
Salted French fries	<hr/> <hr/>

Table 2

[4]

(b) Explain ONE moral issue that a food manufacturer might need to consider when designing and making food products.

[2]

(c)* Describe the role of an Environmental Health Officer in making sure that foods bought from fast food outlets are safe to eat.

[6]

[Total: 12]

SECTION B

Answer ALL questions.

4 Table 3 shows a range of orange drinks.

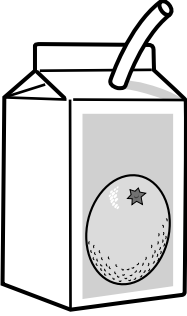

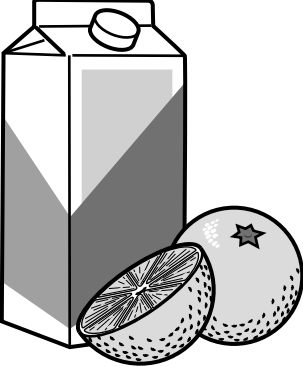
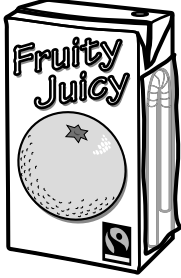
ORANGE DRINKS				
	Orange drink	Orange and Mango Fruit Smoothie	Freshly squeezed orange juice	Fairtrade orange juice from concentrate
Typical Values	Per 100 ml	Per 100 ml	Per 100 ml	Per 100 ml
Energy	10 Kcal 42 kj	57 Kcal 257 kj	43 Kcal 185 kj	42 Kcal 177 kj
Protein	0.1 g	0.6 g	0.7 g	0.5 g
Carbohydrate	1.4 g	13.0 g	9 g	9.1 g
Fat	0.2 g	0.1 g	0 g	0.1 g
Vitamin C	30 mg	40 mg	30 mg	23.0 mg

Table 3

(a) (i) State the juice with the highest vitamin C level.
_____ [1]

(ii) State the juice with the lowest energy level.
_____ [1]

(b) State TWO functions of vitamin C in the diet.

1 _____

2 _____
_____ [2]

(c) State ONE sensory analysis test that could be carried out on the orange drinks.

Name of test _____

Give ONE reason for using this test _____

_____ [2]

[illegible]

[6]

[Total: 12]

- 5 (a) A small bakery wants to produce a celebration cake.**

The design specification for the cake must:

- **appeal to a named target group**
- **be a creative new design**
- **be tasty**
- **be colourful**

Use labelled sketches and/or detailed notes to design a new cake which meets the specification.

DO NOT DRAW ANY PACKAGING.

[4]

(b) (i) State TWO advantages to the consumer of job/craft production.

1 _____

2 _____

_____ **[2]**

(ii) State TWO disadvantages to a manufacturer of job/craft production.

1 _____

2 _____

_____ **[2]**

(c) Give FOUR control checks that could be carried out during the production of a cake to ensure a high quality finished product.

1 _____

2 _____

3 _____

4 _____

_____ **[4]**

[Total: 12]

[illegible]

Copyright Information

OCR is committed to seeking permission to reproduce all third-party content that it uses in its assessment materials. OCR has attempted to identify and contact all copyright holders whose work is used in this paper. To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced in the OCR Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download from our public website (www.ocr.org.uk) after the live examination series.

If OCR has unwittingly failed to correctly acknowledge or clear any third-party content in this assessment material, OCR will be happy to correct its mistake at the earliest possible opportunity.

For queries or further information please contact the Copyright Team, First Floor, 9 Hills Road, Cambridge CB2 1GE.

OCR is part of the Cambridge Assessment Group; Cambridge Assessment is the brand name of University of Cambridge Local Examinations Syndicate (UCLES), which is itself a department of the University of Cambridge.