

**GENERAL CERTIFICATE OF SECONDARY EDUCATION**

**DESIGN AND TECHNOLOGY**

**A522**

**Food Technology**  
Sustainable Design

Candidates answer on the question paper.

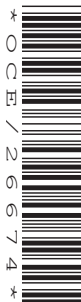
**OCR supplied materials:**  
None

**Other materials required:**  
None

**Friday 28 January 2011**

**Afternoon**

**Duration: 1 hour**



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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**INSTRUCTIONS TO CANDIDATES**

- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.
- Use black ink. Pencil may be used for graphs and diagrams only.
- 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. Additional paper may be used if necessary but you must clearly show your candidate number, centre number and question number(s).
- Answer **all** the questions in Section A **and** Section B.
- Do **not** write in the bar codes.

**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 (\*).
- This document consists of **12** pages. Any blank pages are indicated.

**Section A**

Answer **all** questions.

You are advised to spend about 15 minutes on this section.

On questions 1 – 5 **circle** your answer.

- 1** One function of fat in the diet is to:
- (a) Provide energy
  - (b) Make bones and teeth strong
  - (c) Prevent anaemia
  - (d) Prevent scurvy
- [1]**
- 2** The correct temperature for safe frozen food is:
- (a) 18°C
  - (b) 0°C
  - (c) –5°C
  - (d) –18°C
- [1]**
- 3** When a preservative is added to food it will:
- (a) Improve its taste
  - (b) Increase its nutritional value
  - (c) Increase its shelf life
  - (d) Prevent the food from separating
- [1]**
- 4** How many times should you reheat left over food?
- (a) Only once
  - (b) Twice
  - (c) Four times
  - (d) Three times
- [1]**
- 5** Too much saturated fat in the diet may lead to:
- (a) Heart disease
  - (b) Reduction in weight
  - (c) Tooth decay
  - (d) Diverticulitis
- [1]**

6 The symbol shown stands for



..... [1]

7 State **one** condition bacteria need for growth.

..... [1]

8 State what is meant by composting.

..... [1]

9 State what is meant by biodegradable packaging.

..... [1]

10 Give **one** disadvantage of boiling vegetables.

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

Decide whether each of the following statements is **true** or **false**.

Tick (✓) the box to show your answer.

	<b>True</b>	<b>False</b>	
11 Drying is a method of preservation	<input type="checkbox"/>	<input type="checkbox"/>	[1]
12 We should be increasing our consumption of hydrogenated fats	<input type="checkbox"/>	<input type="checkbox"/>	[1]
13 We should be eating more processed foods	<input type="checkbox"/>	<input type="checkbox"/>	[1]
14 Glass can be recycled	<input type="checkbox"/>	<input type="checkbox"/>	[1]
15 Microwave ovens cook a baked potato quicker than a conventional oven	<input type="checkbox"/>	<input type="checkbox"/>	[1]

**Total [15]**

**Section B**

Answer **all** questions.

You are advised to spend about 45 minutes on this section.

**16** Fig. 1 shows the ingredients that were used in a test kitchen to produce a pasta bake product.

**Ingredients for Pasta Bake**

- 100g white pasta
- 250ml whole milk
- 50g butter
- 50g flour
- 100g mild cheese (Canadian Cheddar)
- 50g onion
- salt
- pepper

**Fig. 1**

**(a)** State **two** ways the ingredients could be modified to reflect the use of British (home grown) ingredients.

1 .....

.....

2 .....

..... [2]

**(b)** The manufacturer has decided to use an ovenable paperboard container for the pasta bake. State **two** advantages of using this material.

Advantage 1 .....

.....

Advantage 2 .....

..... [2]

**(c)** Fig. 2 shows a symbol found on the packaging used for the pasta bake.

**Fig. 2**

**(i)** Name the symbol shown in Fig. 2.

..... [1]

(ii) State what this symbol means.

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

(d) State **one** ingredient high in protein in the pasta bake.

..... [1]

(e) State **two** functions of protein in the diet.

1 .....

2 ..... [2]

(f) The food manufacturer wants to rethink the pasta bake ingredients to bring it in line with current nutritional advice.

Complete the table to show **three** ways the ingredients in Fig. 1 could be changed.

Change to the Ingredients	Current Nutritional Advice
1 ..... ..... .....	..... ..... .....
2 ..... ..... .....	..... ..... .....
3 ..... ..... .....	..... ..... .....

[6]

**Total [15]**

17 Food manufacturers include information on their packaging.

(a) State **three** pieces of information required by law.

1 .....

.....

2 .....

.....

3 .....

..... [3]

(b) Describe what is meant by built in obsolescence in a food product.

.....

.....

.....

..... [2]

Fig. 3 shows two different labels which appear on vegetable packaging.



Fig. 3

(c) Explain how these labels may influence a consumer's decision to purchase the product.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]



18 Consumers consider many factors when choosing food products.

Fig. 4 shows the Fairtrade symbol seen on some foods.

**Fig. 4**

(a) List **three** different types of foods which are often sold as Fairtrade products.

- 1 .....
- 2 .....
- 3 ..... [3]

(b) Explain what is meant by Fairtrade food products.

.....  
.....  
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..... [4]





**10**  
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