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**OXFORD CAMBRIDGE AND RSA EXAMINATIONS
GENERAL CERTIFICATE OF SECONDARY EDUCATION**

A522

DESIGN AND TECHNOLOGY

**FOOD TECHNOLOGY
Sustainable Design**

FRIDAY 28 JANUARY 2011: Afternoon

DURATION: 1 hour

SUITABLE FOR VISUALLY IMPAIRED CANDIDATES

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. 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.**

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 (*).**

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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.

	TRUE	FALSE	
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

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

[6]

Total [15]

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]**

(c) Explain why some people choose to purchase Fairtrade foods.

[3]

(d) Explain why some farmers choose to produce organic food.

[3]

(e) State TWO reasons why some consumers do not buy Fairtrade products.

1 _____

2 _____

_____ **[2]**

Total [15]



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