

**Wednesday 16 May 2012 – Afternoon**

**GCSE DESIGN AND TECHNOLOGY Food Technology**

**A522/01 Sustainable Design**

Candidates answer on the Question Paper.

**OCR supplied materials:**

None

**Other materials required:**

None

**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. 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 pages at the end of this booklet. The question number(s) must be clearly shown.
- 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 the question 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** Which food should consumers be reducing in their diet?
- (a) Sugar
  - (b) Apples
  - (c) Carrots
  - (d) Chicken
- [1]
- 2** Which date mark is used on a can of baked beans?
- (a) Use by date
  - (b) Display until
  - (c) Best before
  - (d) Sell by
- [1]
- 3** Which statement best describes free range chicken production?
- (a) Chickens that are always kept in small cages
  - (b) Chickens that are kept indoors in big cages
  - (c) Chickens that can roam outside and have spacious indoor areas
  - (d) Chickens that always live in small cages outdoors
- [1]
- 4** Which statement describes organic farming?
- (a) Keeping animals in cramped conditions
  - (b) Using some artificial fertilisers
  - (c) Using some artificial pesticides
  - (d) Artificial fertilisers or pesticides are not used
- [1]
- 5** Which group of consumers need to increase their intake of folic acid?
- (a) Babies
  - (b) Pregnant women
  - (c) Teenagers
  - (d) Elderly
- [1]

6 The symbol shown stands for:



..... [1]

7 Give **one** function of calcium in the diet.

..... [1]

8 State the colour chopping board which should be used to prepare salad vegetables.

..... [1]

9 What does ETI stand for?

..... [1]

10 State the safe working temperature for a refrigerator.

..... °C [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 We should be increasing the amount of fat we eat               | <input type="checkbox"/> | <input type="checkbox"/> | [1] |
| 12 The correct temperature for a freezer is $-18^{\circ}\text{C}$ | <input type="checkbox"/> | <input type="checkbox"/> | [1] |
| 13 Drying foods extends their shelf life                          | <input type="checkbox"/> | <input type="checkbox"/> | [1] |
| 14 Farmers are paid a fair price for Fairtrade products           | <input type="checkbox"/> | <input type="checkbox"/> | [1] |
| 15 All packaging can be composted                                 | <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** Food manufacturers use different packaging materials.

**(a)** Complete the chart to show **two** advantages and **one** disadvantage of each packaging material.

Product	Advantage	Disadvantage
 <p>Aluminium cans</p>	<p>1.....</p> <p>.....</p> <p>.....</p> <p>2.....</p> <p>.....</p> <p>.....</p>	<p>1.....</p> <p>.....</p> <p>.....</p>
 <p>Plastic bottle</p>	<p>1.....</p> <p>.....</p> <p>.....</p> <p>2.....</p> <p>.....</p> <p>.....</p>	<p>1.....</p> <p>.....</p> <p>.....</p>

[6]

**(b)** State **one** way manufacturers encourage consumers to recycle packaging materials.

..... [1]

(c) Fig. 1 shows a cake to be packaged.

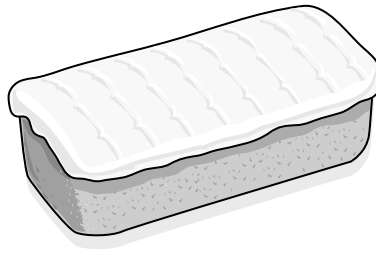


Fig. 1

Give **two** ways a manufacturer could package the cake to reduce its impact on the environment.

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

(d) The cake is preservative free.  
State the effect of this on the cake.  
..... [1]

(e) State how you should store this cake once the package has been opened.  
..... [1]

- (f) Give **four** pieces of information, other than storage instructions, which are required by law on the cake packaging.
- 1 .....
  - 2 .....
  - 3 .....
  - 4 ..... [4]

**Total [15]**

17 Fig. 2 shows a carton of long life pineapple juice.

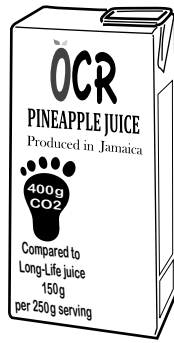


Fig. 2

(a) Explain what is meant by the carbon footprint of a product.

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..... [4]

(b) The long life pineapple juice comes in a tetra-pack.  
Give **two** reasons why these are more difficult to recycle than plastic cartons.

1 .....

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2 .....

..... [2]

(c) The sale of fruit juices continues to rise.  
Give **three** reasons for the increase in sales.

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

(d) A farm shop wants a new food product to promote the use of:

- UK grown produce
- seasonal summer fruits **or** vegetables
- creative dishes
- nutritious products

Using notes and / or sketches outline the details for **one** new food product that could be promoted.

[4]

(e) Give **two** reasons why consumers purchase frozen fruits and vegetables.

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

**Total [15]**

**Turn over**

18 Manufacturers include valuable information on food packaging.

(a) Give **two** reasons why nutritional information is included on packaging.

1 .....

.....

2 .....

..... [2]

(b)\* Fig. 3 shows a variety of food products.

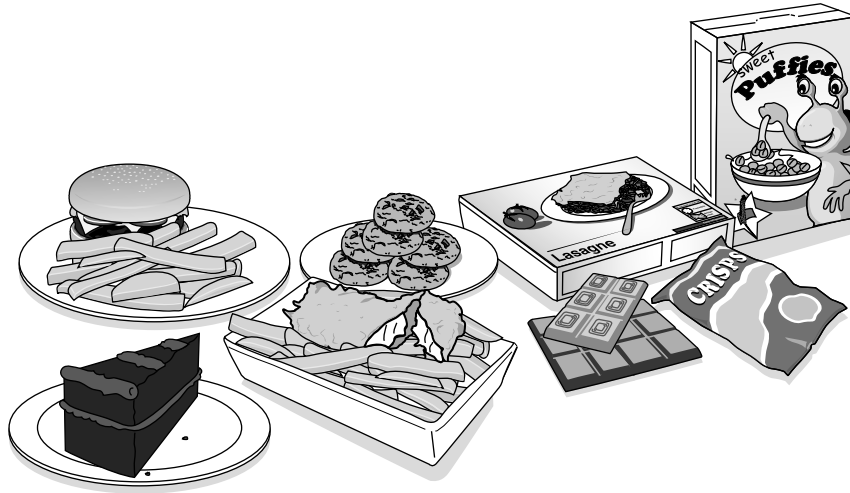


Fig. 3

Discuss the impact on our health of eating a large amount of these products.

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..... [6]

(c) The UK is a multicultural society.

(i) Give **three** ways a person's culture can influence what they eat.

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

(ii) Describe how the food industry is meeting the cultural needs of the consumer.

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

**Total [15]**

**Additional Page**

Lined writing area with horizontal dashed lines for text entry.



