



**GENERAL CERTIFICATE OF SECONDARY EDUCATION
DESIGN AND TECHNOLOGY**

A522

Food Technology
Sustainable Design

**Friday 29 January 2010
Afternoon**

Duration: 1 hour

Candidates answer on the Question Paper

OCR Supplied Materials:
None

Other Materials Required:
None



Candidate Forename		Candidate Surname	
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Centre Number						Candidate Number				
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INSTRUCTIONS TO CANDIDATES

- Write your name clearly in capital letters, your Centre Number and Candidate Number in the boxes above.
- Use 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 in Section A **and** Section B.
- Do **not** write in the bar codes.
- Write your answer to each question in the space provided.

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 15 minutes on this section.

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

- 1** Which colour chopping board should be used for preparing raw meat?
(a) Blue
(b) Green
(c) White
(d) Red [1]
- 2** Which of the following is the correct date stamp on fresh fish products?
(a) Display until
(b) Sell by
(c) Use by
(d) Best before [1]
- 3** Steaming vegetables means:
(a) More vitamin C is retained
(b) More vitamin C is lost
(c) The fat content is increased
(d) The fat content is reduced [1]
- 4** When are strawberries in season in the UK?
(a) July
(b) December
(c) March
(d) February [1]
- 5** Modified starches are used in low fat products to:
(a) Prevent syneresis
(b) Make them have a better colour
(c) Make the product last longer
(d) Increase the sugar content [1]

6 The symbol shown stands for:



..... [1]

7 State **one** way food manufacturers help consumers to make informed decisions about the products they buy.

..... [1]

8 State **one** function of iron in the body.

..... [1]

9 Manufacturers often use MAP to extend the shelf life of ready prepared vegetables.

State what the initials MAP stand for.

..... [1]

10 State how some food manufacturers encourage consumers to recycle packaging.

..... [1]

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

Tick (✓) the box to show your answer.

True **False**

11 We should refuse to buy foods which are over packaged. [1]

12 Organic foods are cheaper than economy varieties. [1]

13 UHT products have a longer shelf life than pasteurised ones. [1]

14 Hands should be washed in cold water before handling food. [1]

15 Food should be reheated only once. [1]

Total [15]

Section B

Answer all questions.

You are advised to spend 45 minutes on this section.

16 Fig. 1 shows a ready prepared sandwich and the ingredients list shows the country of origin (source).

- Ingredients**
 White Bread (UK)
 Tomatoes (Spain)
 Bacon (Holland)
 Lettuce (Spain)
 Mayonnaise (England)
 Butter (New Zealand)



Fig. 1

(a) Give two ways the carbon footprint of the filling ingredients could be reduced.

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

(b) We are encouraged to reduce the amount of fats we eat.

State three ways the manufacturer of the sandwich could ensure the fat content is as low as possible.

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

(c) Name one high risk food in the sandwich.

..... [1]

(d) When preparing fresh food products containing vegetables there is always going to be some waste.

State one environmentally friendly way of disposing of the vegetable food waste.

..... [1]

(e) When the sandwich is being produced the manufacturer is required to make sure it is safe to eat.

Describe **two** ways the manufacturer can do this.

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

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

(f) Fig. 2 shows two symbols found on sandwich packaging.

Name the **two** symbols.



..... [1]



..... [1]

Fig. 2

(g) The cardboard used in the packaging comes from a 'sustainable source'.

Explain what 'sustainable source' means.

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

Total [15]

Turn over

17 Many farmers are selling local produce from farm shops.

(a) Give **two** reasons why consumers may choose to purchase food from a farm shop.

Reason 1 [1]

Reason 2 [1]

(b) The poultry sold from the farm shop is 'free range'.

Explain what is meant by 'free range'.

..... [2]

(c) Sales of poultry continue to increase.

Give **two** nutritional reasons why chicken is a popular food.

Reason 1 [1]

Reason 2 [1]

(d) Some consumers choose to purchase 'free range' poultry products.

(i) Give **two** reasons why consumers may choose to purchase 'free range' products.

Reason 1 [1]

Reason 2 [1]

(ii) Give **one** reason why some consumers do not purchase 'free range' products.

..... [1]

(e) Explain how eggs should be stored in the home.

.....

.....

.....

..... [2]

(f) Fig. 3 shows the product code from a box of eggs.

Product Code
AF15 1947 6861 DO439 UK1 998N

Fig. 3

Food packaging often displays a product code.

Explain why this information is important.

.....

.....

.....

.....

.....

.....

.....

.....

.....

..... [4]

Total [15]

18 Households often have a lot of left over food which is thrown away.

(a) Some food waste is caused by not storing food at the correct temperature.

State the correct temperature for a refrigerator.

..... °C [1]

(b) The following are a list of ingredients which were about to be thrown away at the end of a week.

- cold chicken
- mashed potatoes
- sponge cake
- eating apples
- banana – slightly over ripe
- bread – slightly dry
- carrots
- cauliflower

Complete the chart below to show **two savoury** and **one sweet** product which reuses some of these ingredients.

The first one has been done for you.

Savoury	Savoury	Sweet
Name of dish: Cauliflower Cheese	Name of dish: [1]	Name of dish: [1]
Ingredient(s) used from the list: Cauliflower	Ingredient(s) used from the list: [1]	Ingredient(s) used from the list: [1]
Additional ingredients required to make the dish: Milk Flour Margarine Cheese	Additional ingredients required to make the dish: [1]	Additional ingredients required to make the dish: [1]

(c) Give **two** environmental reasons why we should reduce our food waste.

1 [1]

2 [1]

10
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11
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