

**OXFORD CAMBRIDGE AND RSA EXAMINATIONS**  
**GCSE**

**A525/01**

**DESIGN AND TECHNOLOGY**

**Food Technology**

**Sustainability and Technical Aspects of  
Designing and Making**

**MONDAY 1 JUNE 2015: Afternoon**

**DURATION: 1 hour 30 minutes  
plus your additional time allowance**

**MODIFIED ENLARGED**

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|-------------------------------|--|------------------------------|--|
| <b>Candidate<br/>forename</b> |  | <b>Candidate<br/>surname</b> |  |
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| <b>Centre<br/>number</b> |  |  |  |  |  | <b>Candidate<br/>number</b> |  |  |  |  |
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**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 pages 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 80.**

**Your quality of written communication is assessed in the questions marked with an asterisk (\*).**

**Any blank pages are indicated.**

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## **SECTION A**

**Answer ALL questions.**

**You are advised to spend about 40 minutes on this section.**

**ON QUESTIONS 1 – 5 CIRCLE YOUR ANSWER.**

**1 Which material is biodegradable?**

**(a) Metal**

**(b) Glass**

**(c) Paper**

**(d) Polystyrene**

**[1]**

**2 The function of iron in the diet is to:**

**(a) Repair bones**

**(b) Prevent anaemia**

**(c) Prevent constipation**

**(d) Prevent high blood pressure**

**[1]**

- 3 Using a plastic carrier bag as a bin liner is an example of:**
- (a) Primary recycling**
  - (b) Secondary recycling**
  - (c) Tertiary recycling**
  - (d) Chemical recycling** [1]
- 4 Many people need to rethink their diet to eat:**
- (a) More fibre**
  - (b) Less fruit and vegetables**
  - (c) More processed foods**
  - (d) More salt** [1]
- 5 ETI stands for:**
- (a) Ethical trading initiative**
  - (b) Ethical trading institute**
  - (c) Environmental trading institute**
  - (d) Ethical transport initiative** [1]

**6 The symbol shown stands for:**



\_\_\_\_\_ [1]

**7 State ONE way manufacturers encourage consumers to recycle packaging.**

\_\_\_\_\_ [1]

**8 Give ONE reason why consumers are concerned about genetically modified foods.**

\_\_\_\_\_ [1]

**9 Name ONE autumn seasonal vegetable.**

\_\_\_\_\_ [1]

**10 State why some consumers do not buy foods containing artificial additives.**

\_\_\_\_\_ [1]

**Decide whether the statements below are TRUE or FALSE.**

**Tick (✓) the box to show your answer.**

|   | <b>TRUE</b>              | <b>FALSE</b>             |            |
|---|--------------------------|--------------------------|------------|
| <b>11 Paper can be recycled</b>   | <input type="checkbox"/> | <input type="checkbox"/> | <b>[1]</b> |
| <b>12 Raw vegetables cannot be composted</b>                              | <input type="checkbox"/> | <input type="checkbox"/> | <b>[1]</b> |
| <b>13 Animal fats contain cholesterol</b>                                 | <input type="checkbox"/> | <input type="checkbox"/> | <b>[1]</b> |
| <b>14 Organic foods are usually more expensive than economy varieties</b> | <input type="checkbox"/> | <input type="checkbox"/> | <b>[1]</b> |
| <b>15 We should buy foods with a lot of packaging</b>                     | <input type="checkbox"/> | <input type="checkbox"/> | <b>[1]</b> |

**16 Consumers are trying to reduce the amount of leftover food they throw away.**

**(a) Complete the chart below to show how the leftover food should be stored.**

| <b>LEFTOVER FOOD</b> | <b>HOW IT SHOULD BE STORED</b> |
|----------------------|--------------------------------|
| <b>Cooked meat</b>   |                                |
| <b>Scones</b>        |                                |

**[2]**

**(b) Fig. 1 shows a list of leftover ingredients.**

**FIG. 1**

|                             |
|-----------------------------|
| <b>grated carrots</b>       |
| <b>cooked potato</b>        |
| <b>half a tub of cream</b>  |
| <b>cheese</b>               |
| <b>filo pastry</b>          |
| <b>grated cheese</b>        |
| <b>lemon</b>                |
| <b>half an onion</b>        |
| <b>stale sponge cake</b>    |
| <b>chopped strawberries</b> |
| <b>cooked chicken</b>       |
| <b>stale bread</b>          |
| <b>cooked pasta</b>         |



**Complete the table below to show how some of the ingredients could be used in ONE sweet and ONE savoury dish.**

**State any additional ingredients needed.**

|   | <b>SWEET DISH</b> | <b>SAVOURY DISH</b> |
|---|-------------------|---------------------|
| <b>NAME OF PRODUCT</b>                                  |                   |                     |
| <b>INGREDIENT(S) USED FROM THE LIST</b>                 |                   |                     |
| <b>ADDITIONAL INGREDIENT(S) NEEDED TO MAKE THE DISH</b> |                   |                     |

**[6]**

**[6]**

[illegible]

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---

**(d) Give TWO reasons why consumers purchase locally produced food.**

**1** \_\_\_\_\_

\_\_\_\_\_

**2** \_\_\_\_\_

\_\_\_\_\_

**[2]**

**(e) Give TWO ways a person's culture can affect their choice of food.**

**1** \_\_\_\_\_

\_\_\_\_\_

**2** \_\_\_\_\_

\_\_\_\_\_

**[2]**

**(f) Give TWO reasons why consumers choose to purchase Fairtrade products.**

**1** \_\_\_\_\_

\_\_\_\_\_

**2** \_\_\_\_\_

\_\_\_\_\_

**[2]**

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## SECTION B

Answer ALL the questions.

You are advised to spend 50 minutes on this section.

17 (a) Fig. 2 shows the nutritional value per 100 g of three types of milk.

FIG. 2

| Nutrient                          | Whole milk        | Semi-skimmed milk | Skimmed milk      |
|-----------------------------------|-------------------|-------------------|-------------------|
| Energy KJ/<br>KCAL                | 275 KJ<br>66 KCAL | 195 KJ<br>46 KCAL | 140 KJ<br>33 KCAL |
| Carbohydrate                      | 4.8 g             | 5.0 g             | 5.0 g             |
| Fat<br>of which:<br>Saturated fat | 3.9 g<br>2.5 g    | 2.7 g<br>1.0 g    | 0.1 g<br>0.1 g    |
| Protein                           | 3.2 g             | 3.3 g             | 3.3 g             |
| Calcium                           | 115 mg            | 120 mg            | 120 mg            |
| Vitamin D                         | 0.3 µg            | 0.1 µg            | Trace             |

**(i) State the milk which contains the most fat.**

\_\_\_\_\_ [1]

**(ii) State ONE function of fat in the diet.**

\_\_\_\_\_ [1]

**(iii) Give ONE reason why the vitamin D content is reduced in the semi-skimmed and skimmed milk.**

\_\_\_\_\_ [1]

**(iv) State the amount of calcium found in skimmed milk.**

\_\_\_\_\_ [1]

**(v) Milk is a good source of calcium.**

**State ONE function of calcium in the diet.**

\_\_\_\_\_ [1]

**(b) Some people are allergic to cows' milk.**

**State TWO foods containing calcium that a person with an allergy to cows' milk could eat.**

**1** \_\_\_\_\_

**2** \_\_\_\_\_ **[2]**

**(c) State TWO ways the shelf life of milk can be extended.**

**1** \_\_\_\_\_

**2** \_\_\_\_\_ **[2]**

**(d) A local dairy wants to develop a new food product.**

**The design specification points for the product are:**

**include a dairy ingredient**

**suitable for a dessert**

**attractive to children**

**contain a variety of textures**



**Use labelled sketches and/or notes to design a new product that meets the specification.**

**State clearly how your design meets the specification points.**

**Do NOT draw any packaging.** [6]

**Name of product** \_\_\_\_\_

18 Fig. 3 shows the Eatwell Plate.

FIG. 3



(a) State which TWO food groups from the Eatwell Plate should be eaten in the largest quantity.

1 \_\_\_\_\_

2 \_\_\_\_\_

[2]

(b) Give TWO reasons why we should eat less fat.

1 \_\_\_\_\_

2 \_\_\_\_\_

[2]

[illegible]

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**(d) Pregnant women are at greater risk of food poisoning.**

**State TWO other groups of people who are at greater risk of food poisoning.**

**1** \_\_\_\_\_

**2** \_\_\_\_\_

**[2]**

**(e) Give THREE hygiene rules which should be followed when preparing food.**

**1** \_\_\_\_\_

\_\_\_\_\_

**2** \_\_\_\_\_

\_\_\_\_\_

**3** \_\_\_\_\_

\_\_\_\_\_

**[3]**

19 Fig. 4 shows the ingredients used in a pasta bake.

**FIG. 4**

|           |
|-----------|
| sauce     |
| flour     |
| margarine |
| milk      |
| salt      |
| pepper    |
| pasta     |
| cheese    |
| tuna      |
| onion     |
| sweetcorn |

**(a) State TWO methods of sauce making.**

1 \_\_\_\_\_

2 \_\_\_\_\_

**[2]**

**(b) Explain the process of gelatinisation which occurs when making a sauce.**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ **[2]**

- (c) State why a sauce should be stirred while it is being made.**

\_\_\_\_\_ **[1]**

- (d) During the development of a pasta bake, sensory analysis testing takes place.  
Give FOUR procedures that should be followed when completing a sensory analysis test.**

**One example has been given.**

|          |   |
|----------|---|
| <b>1</b> | <b>Have a quiet area so people are not disturbed.</b> |
| <b>2</b> | _____<br>_____  |
| <b>3</b> | _____<br>_____  |
| <b>4</b> | _____<br>_____  |
| <b>5</b> | _____<br>_____  |

**[4]**

- (e) A product specification will be produced before the pasta bake is manufactured.  
Explain what is meant by the term product specification.**

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**[2]**

- (f) A pasta bake can be reheated in a microwave oven.  
Describe how a microwave oven works.**

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**[3]**

- (g) State where a cook-chill pasta bake should be stored.**

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**[1]**

**END OF QUESTION PAPER**

**ADDITIONAL ANSWER SPACE**

**If additional answer space is required, you should use the following lined page(s). The question number(s) must be clearly shown in the margins.**

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