Materials
For this paper you must have:
- a black pen
- a pencil.

Instructions
- Use black ink or black ball-point pen.
- Fill in the boxes at the bottom of this page.
- Answer all questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this answer book. Cross through any work you do not want to be marked.

Information
- The marks for questions are shown in brackets.
- The maximum mark for this paper is 100.
- You are reminded of the need for good English and clear presentation in your answers.

Please write clearly, in block capitals, to allow character computer recognition.

Centre number □□□□□□□ Candidate number □□□□□□□
Surname □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□
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**Section A** consists of multiple choice questions. There are 20 marks available.

Answer all questions.

For each question you should shade in one box. An example is shown below.

Which food is high in protein?

A Cabbage

B Cheese

C Oranges

D Cucumber

---

Question 1 is about food, nutrition and health and relates to the snacks shown below.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td><img src="image" alt="Snack A" /></td>
<td><img src="image" alt="Snack B" /></td>
<td><img src="image" alt="Snack C" /></td>
<td><img src="image" alt="Snack D" /></td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td><strong>A</strong></td>
<td><strong>B</strong></td>
<td><strong>C</strong></td>
<td><strong>D</strong></td>
</tr>
<tr>
<td>50g Cheddar cheese on 25g white toast</td>
<td>50g orange marmalade on 25g white toast</td>
<td>50g baked beans on 25g white toast</td>
<td>50g grilled tomatoes on 25g white toast</td>
</tr>
</tbody>
</table>
Question 1

1.1 Which one of the toppings is highest in dietary fibre?
A Cheddar cheese
B Orange marmalade
C Baked beans
D Grilled tomatoes

[1 mark]

1.2 Which one of the toppings is highest in saturated fat?
A Cheddar cheese
B Orange marmalade
C Baked beans
D Grilled tomatoes

[1 mark]

1.3 Which one of the toppings contains the most vitamin C?
A Cheddar cheese
B Orange marmalade
C Baked beans
D Grilled tomatoes

[1 mark]

1.4 Which one of the snacks best demonstrates protein complementation?
A Cheddar cheese on toast
B Orange marmalade on toast
C Baked beans on toast
D Grilled tomatoes on toast

[1 mark]
Question 2 is about food safety.

2.1 The correct temperature for a domestic freezer is:

A 0°C
B -5°C
C -10°C
D -18°C

[1 mark]

2.2 Which one of the following gives the correct storage conditions for uncooked meat in the refrigerator?

A Covered on the top shelf
B Uncovered on the top shelf
C Covered on the bottom shelf
D Uncovered on the bottom shelf

[1 mark]

2.3 Which one of the following is a true statement?

A Most bacteria become active when food is defrosted
B Most bacteria are inactive when food is defrosted
C Most bacteria multiply when food is frozen
D Most bacteria are killed when food is frozen

[1 mark]

2.4 Which one of the following is a true statement?

A Most high risk foods are low in protein and high in moisture
B Most high risk foods are low in protein and dry
C Most high risk foods are high in protein and high in moisture
D Most high risk foods are high in protein and dry

[1 mark]
Question 3 is about food science and bread making.

3.1 Which one of the following is a true statement?

A. Gluten is the starch in flour
B. Gluten is the protein in flour
C. Gluten is the fibre in flour
D. Gluten is the fat in flour

[1 mark]

3.2 Which type of flour has the highest gluten content?

A. Cornflour
B. Rice flour
C. Self-raising flour
D. Strong plain flour

[1 mark]

3.3 Complete this sentence:
The main function of salt in bread making is:

A. to improve flavour
B. to add colour
C. to weaken the gluten
D. to feed the yeast

[1 mark]

3.4 When making bread, which gas is released when the yeast is activated?

A. Oxygen
B. Carbon dioxide
C. Hydrogen
D. Sulphur dioxide

[1 mark]
Question 4 is about food provenance.

4.1 Which one of the following is a primary source of food?

A Vegetable oil
B Wheat
C Jam
D Butter

[1 mark]

4.2 Which one of the following is an example of the secondary processing of food?

A Strawberries
B Nuts
C Cheese
D Carrots

[1 mark]

4.3 Fruit and vegetables that are produced without the use of artificial fertilisers are called

A free range.
B fortified.
C genetically modified.
D organic.

[1 mark]

4.4 Identify one food below that would display a ‘Use by’ date?

A Carton of UHT milk
B Can of sliced peaches
C Tub of fresh prawn salad
D Bar of chocolate

[1 mark]
Question 5 is about food choices.

5.1 Which one of the following food groups is linked to lactose intolerance?

A Cereal foods
B Vegetables
C Dairy foods
D Sugary foods

[1 mark]

5.2 Which one of the following must be included on a food label by law?

A A picture of the food
B Weight
C Bar code
D Price

[1 mark]

5.3 Which one of the following foods is classed as a major food allergen?

A Onions
B Chicken
C Bananas
D Almonds

[1 mark]

5.4 When carrying out a tasting panel which one of these tests will find ‘the odd one out’?

A Ranking test
B Rating test
C Difference test
D Profiling test

[1 mark]
Section B

Answer all questions in this section. There are 80 marks available.

Question 6 is about diet, nutrition and health.

Joe is an active 7 year old. He takes a packed lunch to school each day.

Today Joe takes the following packed lunch:

Cheddar cheese slice on buttered white bread.
Salt and vinegar crisps
A chocolate biscuit
A high sugar, sweet orange drink

Explain how the macronutrient content of the packed lunch provides Joe with energy.

[6 marks]
Childhood obesity is increasing in Britain and has been linked to an unhealthy diet. Assess the various factors which contribute to childhood obesity and explain how an unhealthy diet in childhood may put future health at risk.

[12 marks]
Describe a breakfast that would supply the micronutrients needed for good dental health in young children. Give reasons for your choice.

[6 marks]
All life stages have different nutritional needs.

Describe the different nutritional needs to be considered when planning meals for:

[2 x 4 marks]

Teenagers

The Elderly
Question 7 is about cooking food.

The information below shows a recipe for a batch of vegetarian burgers.

**Vegetarian burgers**

**Ingredients:**
- Sunflower oil for shallow frying
- 1 small onion, finely chopped
- 1 garlic clove, crushed
- 400g can chickpeas
- 1 tsp ground cumin
- 1 tsp fresh coriander
- 1 tsp fresh parsley
- 1 egg, beaten

**Method:**
1. Shallow fry the onion and garlic.
2. Mix all ingredients together in a food processor.
3. Shape into 6 balls
4. Flatten into burgers
5. Brush with a little oil.
6. Grill burgers for 4 minutes on each side

**Other information:**
- Not suitable for vegans.

Using the information above, answer the following questions.

Which herbs and spices are used in this recipe? Give one example of each.

[2 marks]
7.2 Explain why this dish is not suitable for vegans. [2 marks]

7.3 Explain how heat is transferred in:

Step 1: Shallow fry the onion and garlic.

Step 6: Grill the burgers for 4 minutes on each side.
The table below shows dishes that use eggs as an ingredient. For each dish name and describe one function of the eggs.

Do not repeat the function or the example given.

<table>
<thead>
<tr>
<th>Dishes</th>
<th>Name and describe one function of the eggs.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetable pasty</td>
<td>Function: Glazing</td>
</tr>
<tr>
<td></td>
<td>Description: Brushing beaten egg over the surface of the dish.</td>
</tr>
<tr>
<td></td>
<td>This will seal the surface and give a brown colour during cooking. Will also give a shiny, golden finish.</td>
</tr>
<tr>
<td>Lemon meringue pie</td>
<td>Function........................................</td>
</tr>
<tr>
<td></td>
<td>Description......................................</td>
</tr>
<tr>
<td>Fishcakes</td>
<td>Function........................................</td>
</tr>
<tr>
<td></td>
<td>Description......................................</td>
</tr>
</tbody>
</table>
Question 8 is about food provenance.

The chart below shows avoidable household food waste in 2012.

Using examples of seasonal foods from the chart above, suggest ways in which families can reduce food wastage when buying, preparing and cooking food.

[10 marks]
What are the advantages of buying locally produced foods?

(4 marks)
Question 9 is about understanding recipes.

Information about two soups is given below.

You should use this information when answering the question that follows.

<table>
<thead>
<tr>
<th>Ingredients in quantity order</th>
<th>Nutrients per 200ml serving</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Energy kcal</td>
</tr>
<tr>
<td><strong>Soup A</strong></td>
<td></td>
</tr>
<tr>
<td>Leek, potato and bacon soup</td>
<td>541</td>
</tr>
<tr>
<td></td>
<td>leeks</td>
</tr>
<tr>
<td></td>
<td>potatoes</td>
</tr>
<tr>
<td></td>
<td>bacon</td>
</tr>
<tr>
<td></td>
<td>onion</td>
</tr>
<tr>
<td></td>
<td>stock cube</td>
</tr>
<tr>
<td></td>
<td>double cream</td>
</tr>
<tr>
<td></td>
<td>butter</td>
</tr>
<tr>
<td><strong>Soup B</strong></td>
<td>461</td>
</tr>
<tr>
<td>Minted pea and potato soup</td>
<td></td>
</tr>
<tr>
<td></td>
<td>peas</td>
</tr>
<tr>
<td></td>
<td>potatoes (skin left on)</td>
</tr>
<tr>
<td></td>
<td>fresh vegetable stock</td>
</tr>
<tr>
<td></td>
<td>mint</td>
</tr>
<tr>
<td></td>
<td>sunflower oil</td>
</tr>
</tbody>
</table>
With reference to the ingredients and nutrient content of each of the soups, evaluate the suitability of these soups for people with Coronary Heart Disease (CHD). Give justified reasons for your choice.

[8 marks]
Question 10 is about food preparation and food safety.

10.1 The table below shows some problems seen when food is prepared. Complete the table to show two different causes of each problem.

[2 x 2 marks]

<table>
<thead>
<tr>
<th>Problem</th>
<th>Causes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Choux pastry éclairs are flat after baking</td>
<td>Cause 1 ..................................................</td>
</tr>
<tr>
<td></td>
<td>..................................................</td>
</tr>
<tr>
<td></td>
<td>..................................................</td>
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<td>..................................................</td>
</tr>
<tr>
<td></td>
<td>..................................................</td>
</tr>
<tr>
<td>Cause 2 ..................................................................</td>
<td></td>
</tr>
<tr>
<td></td>
<td>..................................................</td>
</tr>
<tr>
<td></td>
<td>..................................................</td>
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<tr>
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<td>..................................................</td>
</tr>
<tr>
<td></td>
<td>..................................................</td>
</tr>
</tbody>
</table>

| The oil and vinegar separate when making mayonnaise.                     | Cause 1 .................................................. |
|                                                                          | .................................................. |
|                                                                          | .................................................. |
|                                                                          | .................................................. |
|                                                                          | .................................................. |
|                                                                          | .................................................. |
| Cause 2 .................................................................. |
|                                                                          | .................................................. |
|                                                                          | .................................................. |
|                                                                          | .................................................. |
|                                                                          | .................................................. |
Question 10 continued

10.2 Explain in detail how a temperature probe is used to check that cooked food is safe to eat.

[6 marks]