Thursday 14 June 2018             Afternoon
Time allowed: 1 hour 45 minutes

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

At the top of the page, write your surname and other names, your centre number, your candidate number and add your signature.

[Turn over]
INSTRUCTIONS

• Use black ink or black ball-point pen.
• Answer ALL questions.
• You must answer the questions in the spaces provided. Do not write 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.

DO NOT TURN OVER UNTIL TOLD TO DO SO
Only ONE answer per question is allowed.
For each answer completely fill in the circle alongside the appropriate answer.

**CORRECT METHOD**

**WRONG METHODS**

If you want to change your answer you must cross out your original answer as shown.

If you wish to return to an answer previously crossed out, ring the answer you now wish to select as shown.

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
SECTION A consists of multiple choice questions.

Answer ALL questions in this section.

There are 20 marks available.

0 1 0 1 Which one of the following is a micronutrient? [1 mark]

A carbohydrate
B fat
C protein
D vitamin

[Turn over]
Coeliac disease is an intolerance to [1 mark]

A eggs
B meat
C milk
D wheat
Anaemia is caused by a diet deficient in which mineral? [1 mark]

A. calcium  
B. iodine  
C. iron  
D. sodium

[Turn over]
The percentage of recommended energy from carbohydrates per day is [1 mark]

A 15%
B 35%
C 50%
D 75%
Which one of the following shows the danger zone temperatures? [1 mark]

A  0 °C to 35 °C
B  3 °C to 63 °C
C  4 °C to 75 °C
D  5 °C to 63 °C
Which one of the following is the correct storage condition for bananas? [1 mark]

A  at room temperature
B  in the chill cabinet
C  in the freezer
D  in the refrigerator
Which of the following methods of cooking are all water based? [1 mark]

A steaming, grilling, poaching
B boiling, frying, simmering
C baking, roasting, grilling
D simmering, boiling, poaching

[Turn over]
Which one of the following is an example of bacterial contamination? [1 mark]

A a food worker sneezing when preparing food
B a fish bone in a fishcake
C cleaning agents left on a work surface
D a piece of plastic in a cake mixture
Convection is the transfer of heat energy through [1 mark]

A. direct heat rays
B. liquids
C. metals
D. solids

[Turn over]
Which one of the following are water soluble vitamins? [1 mark]

A  vitamins A and C
B  vitamins B and C
C  vitamins B and D
D  vitamins C and D
When heated, the colour of sugar changes from white to brown. This process is called [1 mark]

A caramelisation

B enzymic browning

C gelatinisation

D oxidation

[Turn over]
Which vitamin helps the body absorb calcium? [1 mark]

A  vitamin A
B  vitamin B
C  vitamin C
D  vitamin D
Which one of the following is an example of a primary processed food? [1 mark]

A  bananas
B  eggs
C  flour
D  tomatoes

[Turn over]
Which one of the following CAN be an example of a free range food? [1 mark]

A  bananas
B  eggs
C  flour
D  tomatoes
Identify one food that has an extraction rate during production [1 mark]

A bananas
B eggs
C flour
D tomatoes
Which fruit is affected by enzymic browning? [1 mark]

A  apples
B  grapes
C  oranges
D  raspberries
Which one of the following describes the distance food is transported from producer to consumer? [1 mark]

A air miles
B carbon footprint
C fair trade
D food miles

[Turn over]
Which of the vitamins listed below is an antioxidant? [1 mark]

A  vitamin A
B  vitamin B
C  vitamin D
D  vitamin K
Which one of the following is not a legal requirement for food labelling? [1 mark]

A cooking instructions
B list of ingredients
C serving suggestions
D weight

[Turn over]
What is added to foods when fortification takes place? [1 mark]

A additives
B emulsifiers
C nutrients
D preservatives
SECTION B

Answer ALL questions in this section.

There are 80 marks available.

QUESTION 2 is about food safety.

02. Give FOUR personal hygiene rules that must be followed by people serving food. [4 marks]

1

2
State TWO food safety rules that must be used for each of the following. 
Explain why each rule is needed. [8 marks]

Storing fresh, cooked prawns.

<table>
<thead>
<tr>
<th>Food safety rule</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
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<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
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<tr>
<td></td>
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<td></td>
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<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Reheating cooked chicken.

<table>
<thead>
<tr>
<th>Food safety rule</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

[Turn over]
QUESTION 3 is about nutrition, health and food science.

Information about two meals is given on page 32. You should use this information when answering the question that follows.
### Choice A: Fish pie with broccoli and carrots
- Ingredients: potatoes, milk, carrot, salmon, cod, broccoli, peas, tomato, flour, cheese, vegetable fat.

### Choice B: Meat pie with roast potatoes
- Ingredients: beef steak, flour, onion, potatoes, butter, oil, gravy, salt.

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Choice A: Fish pie with broccoli and carrots</th>
<th>Choice B: Meat pie with roast potatoes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ingredients</strong></td>
<td>per portion</td>
<td>per portion</td>
</tr>
<tr>
<td><strong>Nutrient</strong></td>
<td>RI (Reference Intake)</td>
<td>RI (Reference Intake)</td>
</tr>
<tr>
<td>Energy</td>
<td>408.0 kcal</td>
<td>668.0 kcal</td>
</tr>
<tr>
<td>Protein</td>
<td>31.0 g</td>
<td>26.0 g</td>
</tr>
<tr>
<td>Carbohydrate</td>
<td>48.0 g</td>
<td>54.0 g</td>
</tr>
<tr>
<td>Total Sugars</td>
<td>11.0 g</td>
<td>4.1 g</td>
</tr>
<tr>
<td>Fat</td>
<td>11.0 g</td>
<td>3.9 g</td>
</tr>
<tr>
<td>Saturated fat</td>
<td>4.0 g</td>
<td>22.0 g</td>
</tr>
<tr>
<td>Salt</td>
<td>0.5 g</td>
<td>2.0 g</td>
</tr>
<tr>
<td>Vitamin A</td>
<td>1148.0 µg</td>
<td>398.0 µg</td>
</tr>
<tr>
<td>Vitamin B12</td>
<td>2.5 µg</td>
<td>1.6 µg</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>64 mg</td>
<td>5.9 mg</td>
</tr>
<tr>
<td>Vitamin D</td>
<td>2.6 µg</td>
<td>0.9 µg</td>
</tr>
<tr>
<td>Calcium</td>
<td>266.0 mg</td>
<td>27.0 mg</td>
</tr>
<tr>
<td>Iron</td>
<td>2.7 mg</td>
<td>2.0 mg</td>
</tr>
</tbody>
</table>
With reference to the ingredients, nutrient content and reference intake for each of the dishes, assess the suitability of each meal for an elderly person. Evaluate which meal is the healthier choice. Include justified reasons in your answer. [12 marks]
Explain why dietary fibre is important in the body. Suggest ways the meat pie and roast potatoes can be modified to include more dietary fibre. [6 marks]
3. Explain the function of the following ingredients when making shortcrust pastry. [4 marks]

Plain flour


Fats
Complete TABLE 2 below to match the sauce with the correct sauce making method.

[3 marks]

Sauce making methods:
Starch based
Emulsion
Reduction

<table>
<thead>
<tr>
<th>TYPE OF SAUCE</th>
<th>SAUCE MAKING METHOD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hollandaise sauce</td>
<td></td>
</tr>
<tr>
<td>Roux/all in one sauce</td>
<td></td>
</tr>
<tr>
<td>Tomato pasta sauce</td>
<td></td>
</tr>
</tbody>
</table>
Give THREE reasons why it is important to stir a flour based sauce. [3 marks]

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[Turn over]
Explain how gelatinisation takes place when making a starch based sauce. [6 marks]
Describe how the following raising agents work. Give an example of a recipe that uses each method.

Name a chemical raising agent

Describe how it works

Example of a recipe using this chemical raising agent

[4 marks]
Name a biological raising agent

______________________________________________________________

Describe how it works

______________________________________________________________

______________________________________________________________

______________________________________________________________

______________________________________________________________

Example of a recipe using this biological raising agent

______________________________________________________________

______________________________________________________________

[4 marks]

[Turn over]
QUESTION 5 is about food choices.

Sales of organic food and drinks in the UK are growing.

Analyse and evaluate why an increasing number of consumers are choosing organic food and drinks. [8 marks]

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Explain the advantages and disadvantages of Genetically Modified (GM) foods. [6 marks]

Advantages

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________________________________________________________________________
Disadvantages
**TABLE 3**

<table>
<thead>
<tr>
<th>Heat treatment of milk</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Pasteurisation</td>
<td>heated at 72 °C for 15 seconds</td>
</tr>
<tr>
<td>Sterilisation</td>
<td>heated at 110–130 °C for 30 minutes</td>
</tr>
<tr>
<td>Ultra heat treated (UHT)</td>
<td>heated at 135 °C for 1 second</td>
</tr>
</tbody>
</table>

[6 marks]

Using TABLE 3 above, explain how the different heat treatment methods:

allow milk to last longer

________________________________________________________________________
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affect the nutrition, taste and appearance of milk
QUESTION 6.2 is about food additives.

Food additives are used in many processed foods. [6 marks]

Explain why additives are used in food processing.

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________________________________________________________________________
Explain some of the concerns people have about their use.
There are no questions printed on this page

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