



Cambridge IGCSE™

CANDIDATE
NAME

CENTRE
NUMBER

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CANDIDATE
NUMBER

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FOOD & NUTRITION

0648/13

Paper 1 Theory

October/November 2020

2 hours

You must answer on the question paper.

No additional materials are needed.

INSTRUCTIONS

- Section A: answer **all** questions.
- Section B: answer **all** questions.
- Section C: answer **one** question.
- Use a black or dark blue pen. You may use an HB pencil for any diagrams or graphs.
- Write your name, centre number and candidate number in the boxes at the top of the page.
- Write your answer to each question in the space provided.
- Do **not** use an erasable pen or correction fluid.
- Do **not** write on any bar codes.

INFORMATION

- The total mark for this paper is 100.
- The number of marks for each question or part question is shown in brackets [].

This document has **12** pages. Blank pages are indicated.

Section A

Answer **all** questions.

You are advised to spend no longer than 45 minutes on Section A.

1 A deficiency disease occurs if a nutrient is lacking in the body.
Name **one** nutrient which is lacking if the body has the following diseases:

- (a) goitre [1]
- (b) pellagra [1]
- (c) marasmus [1]
- (d) anaemia [1]
- (e) night blindness. [1]

[Total: 5]

2 Strawberries can be used in smoothies to provide a source of vitamin C.

(a) Name **four** other different sources of vitamin C which could be used in a fruit smoothie.

- 1
- 2
- 3
- 4

[4]

(b) State **four** reasons why the body requires vitamin C.

- 1
- 2
- 3
- 4

[4]

[Total: 8]

- 3 Study the label below from a pre-packed chicken sandwich.

<p>Use by: 20 November 2020</p>	Keep refrigerated														
<p>Ingredients: white bread (contains wheat flour, water, salt, yeast) chicken blended dairy-free spread (contains rapeseed oil, palm oil, sunflower oil, salt)</p>	<p>Nutritional information</p> <table border="1" style="width: 100%;"> <thead> <tr> <th></th> <th style="text-align: center;">each pack contains</th> </tr> </thead> <tbody> <tr> <td>energy</td> <td style="text-align: center;">301 kcal 1291 kJ</td> </tr> <tr> <td>protein</td> <td style="text-align: center;">17.6 g</td> </tr> <tr> <td>carbohydrates of which sugars</td> <td style="text-align: center;">36.5 g 1.5 g</td> </tr> <tr> <td>fats of which saturates</td> <td style="text-align: center;">10.4 g 1.6 g</td> </tr> <tr> <td>fibre</td> <td style="text-align: center;">1.2 g</td> </tr> <tr> <td>sodium</td> <td style="text-align: center;">1.1 mg</td> </tr> </tbody> </table>		each pack contains	energy	301 kcal 1291 kJ	protein	17.6 g	carbohydrates of which sugars	36.5 g 1.5 g	fats of which saturates	10.4 g 1.6 g	fibre	1.2 g	sodium	1.1 mg
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- (a) The sandwich contains 17.6 g of protein.
State the main protein source.

..... [1]

- (b) Identify **three** different alternative protein foods which could be used so a vegan could eat the sandwich.

1

2

3

[3]

- (c) The fibre content of the sandwich is low at 1.2g.
Identify **two** different changes which could be made to increase the fibre content of the sandwich.

1

2

[2]

(d) State **five** benefits of increasing fibre in the diet.

- 1
 -
 - 2
 -
 - 3
 -
 - 4
 -
 - 5
 -
- [5]

(e) Name **two** enzymes involved in the digestion of the bread in the sandwich.

- 1
 - 2
- [2]

(f) Name **two** enzymes involved in the digestion of the chicken in the sandwich.

- 1
 - 2
- [2]

(g) A person with coeliac disease could not eat this sandwich as it contains wheat flour in the bread.

List **four** starchy foods that a person with coeliac disease could eat.

- 1
 - 2
 - 3
 - 4
- [4]

(h) Explain why there is a use-by date on the packaging for this sandwich.

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

(i) The sandwich is packaged in a plastic sleeve.
Give **six** reasons why foods are packaged.

1
.....
2
.....
3
.....
4
.....
5
.....
6
.....
..... [6]

[Total: 27]

(ii) Suggest **three** herbs which could be used to add flavour to the fish cakes.

1

2

3

[3]

(d) The fish cakes can be shallow fried.

(i) State **four** advantages of shallow frying as a method of cooking.

1

.....

2

.....

3

.....

4

.....

[4]

(ii) State **five** guidelines to follow when shallow frying.

1

.....

2

.....

3

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4

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5

.....

[5]

(e) Identify **five** different points to consider when choosing a pan for shallow frying.

- 1
-
- 2
-
- 3
-
- 4
-
- 5
-

[5]

[Total: 29]

5 Sauces may be used to add nutrients to a dish such as cheese sauce with cauliflower.

Identify **three** other reasons why a sauce may be served with a meal and suggest a different example to illustrate each reason.

- reason 1
- example
- reason 2
- example
- reason 3
- example

[6]

6 (a) Name **two** bacteria which can cause food poisoning.

1

2

[2]

(b) List **three** symptoms of food poisoning.

1

2

3

[3]

[Total: 5]

7 State **five** food safety rules which help delay food spoilage when using a refrigerator.

1

.....

2

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3

.....

4

.....

5

.....

[5]

