



# Cambridge IGCSE™

CANDIDATE  
NAME

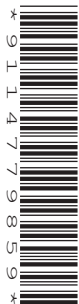
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**FOOD & NUTRITION**

**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><b>Use by:</b> 20 November 2020</p>	<p><b>Keep refrigerated</b></p>	
<p><b>Ingredients:</b> white bread (contains wheat flour, water, salt, yeast) chicken blended dairy-free spread (contains rapeseed oil, palm oil, sunflower oil, salt)</p>	<p><b>Nutritional information</b></p>	
		<p><b>each pack contains</b></p>
	<p>energy</p>	<p>301 kcal 1291 kJ</p>
	<p>protein</p>	<p>17.6 g</p>
	<p>carbohydrates of which sugars</p>	<p>36.5 g 1.5 g</p>
	<p>fats of which saturates</p>	<p>10.4 g 1.6 g</p>
	<p>fibre</p>	<p>1.2 g</p>
	<p>sodium</p>	<p>1.1 mg</p>

(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]

Section B

Answer **all** questions.

4 Nutritionists advise eating at least two portions of fish every week.

(a) Justify the nutritional benefits of including fish in the diet.

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..... [6]

(b) List **four** points to look for when buying fresh white fish from the fish market.

1 .....

2 .....

3 .....

4 ..... [4]

(c) A basic recipe for making fish cakes uses cod.

(i) Name **two** different white fish which could also be used to make the fish cakes.

1 .....

2 ..... [2]

(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 .....

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2 .....

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3 .....

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4 .....

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[4]

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

1 .....

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2 .....

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3 .....

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4 .....

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5 .....

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[5]

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

1 .....

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2 .....

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3 .....

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4 .....

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5 .....

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[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 .....

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2 .....

.....

3 .....

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4 .....

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5 .....

.....

[5]

**Section C**

Answer **either** Question 8 **or** 9.

- 8 Discuss the importance and uses of soya beans and their products in the preparation of meals. [15]

**OR**

- 9 Discuss the factors which need to be considered when planning and preparing meals to minimise the risk of family members suffering from obesity. [15]

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