

# **Cambridge IGCSE**<sup>™</sup>

CANDIDATE NAME					
CENTRE NUMBER			CANDIDATE NUMBER		

**FOOD & NUTRITION** 

0648/12

Paper 1 Theory

October/November 2022

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.

# Section A

# Answer all questions.

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

1	Ora	inges	are citrus fruits.	
	(a)	Nar	ne <b>three</b> other citrus fruits.	
		1		
		2		
		3		[3]
	(b)		its are an important part of the diet as they have a high water content. te <b>three</b> different effects on the body if there is a lack of water in the diet.	[0]
		1		
		2		
		3		
	(c)	Frui	its such as apricots are a good source of vitamin A as beta-carotene.	[3]
		(i)	State <b>three</b> functions of vitamin A.	
			1	
			2	
			3	
				[3]
		(ii)	Vitamin A is also found in food as retinol.  Name <b>three</b> different sources of retinol.	
			1	
			2	
			3	[3]
				[J

	(d)		ate and explain <b>two</b> reasons why including fruit in the diet can help reduce the esity.	ne risk of
		rea	ıson 1	
		ехр	planation	
		rea	ison 2	
		ехр	planation	
				[4]
				[Total: 16]
2	(a)	Nar	me <b>three</b> different animal sources of vitamin B <sub>2</sub> (riboflavin).	
		1		
		2		
		3		
	/b\	Nor	me the deficiency disease caused by a lack of vitamin D. (thiomin)	[3]
	(D)	ivai	me the deficiency disease caused by a lack of vitamin B <sub>1</sub> (thiamin).	[41
				[Total: 4]
3	(a)	Iror	n and phosphorus are minerals that are found in eggs.	
		(i)	State <b>two</b> functions of iron.	
			1	
			2	
		/::\	Ctate true franctions of whombonie	[2]
		(ii)	State <b>two</b> functions of phosphorus.  1	
			2	[2]
	(b)	Des	scribe <b>two</b> different physical changes that happen when eggs are heated.	
		1		
		2		
				[2]

water, tomatoes, onion, red pepper, wheat flour, tomato purée, cream, butter, basil, garlic, salt,

4 The ingredient list from a carton of tomato and red pepper soup is shown.

Ingredients:

Exp	plain why someone who is a coeliac should <b>not</b> eat this soup.	
	eping foods at the correct temperature can help prevent food poisoning.  Ite the recommended temperature for the following:	
(a)	refrigerator	
		[1]
(b)	freezer	
		[1]
(c)	core temperature for cooked food.	
		[1]
	[Tota	ıl: 31

6

(a) St	ate <b>two</b> reasons to include each of the following nutrients in the diet of a 70-year	r-old male:
(i)	vitamin C	
	1	
	2	[2]
(ii)	) calcium	[2]
	1	
	2	[2]
(iii)	non-starch polysaccharide (NSP) / dietary fibre.	
	1	
	2	[2]
<b>(b)</b> St	rate <b>one</b> reason to reduce each of the following in the diet of a 70-year-old male:	
(i)	salt	
		[1]
(ii)	sugar.	
		[1]
		[Total: 8]

### **Section B**

# Answer all questions.

7 The following ingredients can be used to make shortbread biscuits using the rubbing-in method.

125 g plain wholemeal flour 25 g cornflour 100 g butter 50 g caster sugar

(a)	Suggest <b>two</b> reasons why butter is used for the shortbread.	
	1	
	2	
		[2]
(b)	Suggest <b>two</b> reasons why plain wholemeal flour is used for the shortbread.	
	1	
	2	[2]
(0)	Suggest <b>one</b> reason why cornflour is used for the shortbread.	L <del>-</del> .
(0)		F.4.
		[1]
(d)	Give <b>four</b> steps for making the shortbread dough using the rubbing-in method.	
	1	
	2	
	3	
	4	
		[4]
(e)	Name <b>three</b> spices that could be used to flavour the shortbread.	
	1	
	2	
	3	[3]

	(f)	Suggest <b>two</b> ways the biscuits can be shaped before baking.	
		1	
		2	
			[2]
	(g)	Before baking, shortbread is traditionally decorated by piercing with a fork. Suggest <b>one</b> other reason for this process.	
			[1]
	(h)	Suggest two reasons why shortbread biscuits should not be stored in a container with ca	kes.
		1	
		2	
			[2]
		[Total:	: 17]
8	Sta	te <b>four</b> guidelines to follow for the safe storage of kitchen knives.	
	1		
	2		
	4		[4]
9	Sta	te <b>four</b> guidelines to follow for the safe storage of raw chicken.	
	1		
	2		
	3		
	4		
			[4]

10	(a)	Describe <b>two</b> ways eggs may be used to make pastry products look attractive.
		1
		2
		[2]
	(b)	Name <b>two</b> different dishes that use eggs as part of a coating.
		1
		2
		[2]
	(c)	State why eggs are used for binding food products.
		[1]
	(d)	Name <b>two</b> dishes that use eggs for binding.
		1
		2
		[2]
	(e)	Name and describe <b>one</b> test that can be used to tell if an egg is fresh.
		name of test
		description
		[3]
		[Total: 10]
11		gnant women are advised <b>not</b> to eat soft cheese as it may contain listeria which could cause
		carriage. ne <b>four</b> other types of foods that should be avoided during pregnancy.
	1	
	2	
	4	[4]

Once a food has been preserved, it must be stored in a sealed container to prevent contamination.

**12** The aim of preservation is to prevent food spoilage due to the growth of microorganisms.

	Explain <b>three</b> other ways that the preservation principles used for each of the following foods prevent spoilage:					
(a)	frozen peas					
	1					
	2					
	3					
		3]				
(b)	a jar of tomato chutney.					
	1					
	2					
	3					
	[3	3]				
	[Total: 6	3]				

# Section C

# Answer either Question 13 or 14.

13	Frying is a popular method of cooking.  Discuss:  the disadvantages of frying safety points to follow when deep frying.	[15]
OR		
14	Convenience foods are a popular choice when preparing meals.  Discuss the advantages of convenience foods for elderly people who live alone.	[15]


Permission to reproduce items where third-party owned material protected by copyright is included has been sought and cleared where possible. Every reasonable effort has been made by the publisher (UCLES) to trace copyright holders, but if any items requiring clearance have unwittingly been included, the publisher will be pleased to make amends at the earliest possible opportunity.

To avoid the issue of disclosure of answer-related information to candidates, all copyright acknowledgements are reproduced online in the Cambridge Assessment International Education Copyright Acknowledgements Booklet. This is produced for each series of examinations and is freely available to download at www.cambridgeinternational.org after the live examination series.

Cambridge Assessment International Education is part of Cambridge Assessment. Cambridge Assessment is the brand name of the University of Cambridge Local Examinations Syndicate (UCLES), which is a department of the University of Cambridge.