

Cambridge IGCSE[™]

CANDIDATE NAME					
CENTRE NUMBER			CANDIDATE NUMBER		



FOOD & NUTRITION

0648/12

Paper 1 Theory

May/June 2024

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.

Sta	te the term used to describe an incorrect intake of nutrients.	
Vita	amins are vital to life and help prevent many diseases.	
(a)	Identify one disease that vitamin A helps prevent.	
(b)	Name four different animal foods that are a good source of vitamin A.	
	1	
	2	
	3	
	4	
	T	
(c)	Name one disease that vitamin C helps prevent.	
(d)	Name four different foods that are a good source of vitamin C.	
` ,	1	
	2	
	3	
	4	
(e)	State one function of vitamin K.	
(e)	State one function of vitamin K.	
		[Total: 1

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3	(a)	Name one element that combines with carbon to form fat.	[4]
	(b)	Fats can be classified as monounsaturated, polyunsaturated and saturated.	. [1]
		State three facts about monounsaturated fats.	
		1	
		2	
		3	 [3]
	(c)	Give four different examples of monounsaturated fat.	
		1	
		2	
		3	
		4	 [4]
	(d)	Identify the enzyme involved in the breakdown of fats during digestion.	
			. [1]
	(e)	Name the stage during heating at which a blue haze is given off from the surface of fat o	r oil.
			. [1]
	(f)	State the type of additive used in foods containing fats and oils to prevent rancidity.	
			. [1]
		[Total	l: 11]
4	Foo	ds containing protein are classified according to their biological value.	
	(a)	Define the term low biological value (LBV) protein.	

(b)	Name four different foods that are a good source of LBV protein.	
	1	
	2	
	3	
	4	
		[4]
(c)	Different people need different amounts of protein.	
	Name four groups of people and explain why each of their protein needs differs.	
	group 1	
	explanation	
	group 2	
	explanation	
	group 3	
	explanation	
	group 4	
	explanation	
		[4]
		[Total: 10]
Cur	rent dietary advice is to reduce the amount of sugar in the diet.	
(a)	Give two health reasons for reducing the amount of sugar in the diet.	
	1	
	2	
		[2]

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(b)	Suggest five different ways to reduce the amount of sugar in the diet when shopping for ingredients for family meals.
	1
	2
	3
	4
	5
	[9]
	[Total: 7]

Section B

Answer all questions.

6 The following ingredients can be used to make a Swiss roll.

3 eggs 75g caster sugar 75g plain flour

(a)	Identify two ways air is incorporated into the Swiss roll mixture.	
	1	
	2	 [2]
(b)	Name the ingredient that causes coagulation during baking.	
		[1]
(c)	Name the ingredient that causes dextrinisation during baking.	
		[1]
(d)	Name the ingredient that causes caramelisation during baking.	
		[1]
(e)	An electric hand mixer can be used to make a Swiss roll.	
	State five safety points to follow when using an electric hand mixer.	
	1	
	2	
	3	
	4	
	E	
	5	
		 [5]

[Total: 10]

(a)	picture of product
	1
	2
	[2
(b)	cooking instructions
	1
	2
	[2
	[Total: 4
Con	vection is a method of heat transference.
(a)	Describe how convection takes place.
	[4
(h)	Name four moist methods of cooking that use convection.
(6)	
	1
	2
	3
	4
	[4
	[Total: 8

9

9	Care must be taken when storing and handling fresh eggs as they may carry bacteria that cause food poisoning.						
	(a) Na	me the bacteria that may be present in eggs.					
		[1]					
	(b) Giv	ve one reason for each of the following guidelines.					
	(i)	Eggs should be stored in a cool place.					
		[1]					
	(ii)	A cracked egg should not be used.					
		[1]					
	(iii)	Eggs should be stored away from strong-smelling foods.					
		[1]					
	(c) Giv	ve one way to prevent cross-contamination after handling raw eggs.					
		[1]					
		[Total: 5]					
10	Explain cooking	why manufacturers advise leaving food to stand for a few minutes after microwave					
		[3]					

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ezing	g is a popular method of preservation.	
Sta	te the correct temperature for storing food in a freezer.	
		[1]
rea	son 1	
ехр	lanation 1	
rea	son 2	
ехр	lanation 2	
rea	son 3	
ехр	lanation 3	
rea	son 4	
ехр	lanation 4	
		[8]
Giv	e two reasons for each of the following guidelines when freezing food at home.	
(i)	blanch vegetables before freezing	
	1	
	2	
		[2]
(ii)	wrap or cover food and remove air from all packaging	
	1	
	2	
		[2]
(iii)	cool a home-made lasagne before freezing	
	1	
	2	[2]
	П	Гotal: 15]
	Sta Sta rea exp rea exp rea exp (ii) (iii)	reason 1 explanation 1 reason 2 explanation 2 reason 3 explanation 3 reason 4 explanation 4 Give two reasons for each of the following guidelines when freezing food at home. (i) blanch vegetables before freezing 1 2 (ii) wrap or cover food and remove air from all packaging 1 2 (iii) cool a home-made lasagne before freezing 1 2

Section C

Answer either Question 12 or 13.

12 Many consumers use different types of convenience foods.

Discuss the positive and negative impacts of convenience foods on health.

	[15]
OR	
13	The foods we eat should contain a variety of nutrients to help keep our bodies healthy. Discuss why it is important that different age groups each have a good supply of calcium in their diet. [15]

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