

Cambridge IGCSE[™]

CANDIDATE NAME					
CENTRE NUMBER			CANDIDATE NUMBER		

716710002

FOOD & NUTRITION

0648/12

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.

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[Turn over

Section A

Answer all questions.

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

(a)	Name the type of molecules which combine to form protein.	
		[1]
(b)	State how many of this type of molecule are essential for children.	
		[1]
(c)	Name three different foods which are good sources of plant protein.	
	1	
	2	
	3	
		[3]
(d)	Protein can provide energy which is used to maintain body temperature. State three other different reasons the body needs energy.	
	1	
	2	
	3	
		[3]
(e)	State one effect on the body when energy intake is continually greater than energy output	ıt.
		[1]
(f)	Describe what happens to protein when it is heated.	
		[3]
	[Total:	: 12]

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2		me one different nutrient which would be needed to help prevent each of the following aditions:	g health
	(a)	night blindness	[1]
	(b)	osteoporosis	[1]
	(c)	spina bifida	[1]
	(d)	beri-beri	[1]
	(e)	goitre	[1]
	(f)	pellagra	[1]
		Γ	Total: 6]
3	(a)	Name the organ in the body which produces bile.	
			[1]
	(b)	Name two enzymes found in the stomach.	
		1	
		2	
			[2]
	(c)	State two places in the digestive system where starch is digested.	
		1	
		2	
			[2]
	(d)	Name one enzyme involved in the digestion of starch.	
			[1]
		Γ	Total: 6]

4	(a)	State why it is important to have a daily supply of vitamin C (ascorbic acid).
		[1]
	(b)	One of the functions of vitamin C is to prevent scurvy. Identify five other reasons why vitamin C is important in the diet.
		1
		2
		3
		4
		5
		[5]
	(c)	Vegetables are a source of vitamin C. List four vegetables which are good sources of vitamin C.
		1
		2
		3
		4
		[4]

[Total: 10]

A re	ecipe	for sweet kebabs uses peach, apple, strawberry, and kiwi.	
(a)	Sug	ggest two other fruits which would be suitable for making the kebabs.	
	1		
	2		 [2]
(b)	The	apples in the kebabs have turned brown.	
	(i)	Name this type of browning.	
			[1]
	(ii)	State one reason why this may have happened.	
			[1]
	(iii)	Suggest two ways to prevent this type of browning happening.	
		1	
		2	
			[2]
		[Total	: 6]

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Section B

Answer all questions.

25 g butter 25 g plain white flour 250 ml whole milk 75 g grated Cheddar cheese

		75 g grated Cheddar cheese	
(a)	The	cheese sauce contains ingredients which are high in energy.	
	(i)	State one unit of measurement for energy.	
			[1]
	(ii)	Name one group of people who need food which is high in energy.	
			[1]
(b)		cheese sauce is high in cholesterol. Intify four ways to reduce the amount of cholesterol in the cheese sauce.	
	1		
	2		
	3		
	4		 [4]
(c)		ur is used to thicken the sauce. me this thickening process.	[+]
			[1]

(d)	Give four guidelines, with reasons, for how to store flour in the home.
	1
	2
	3
	4
	[4]
(e)	Give step-by-step instructions for making the cheese sauce by the roux method.
	[7]
(f)	Name three dishes which include a cheese sauce.
	1
	2
	3
	[3]

[Total: 21]

7	(a)	Name two moist methods of cooking.	
		1	
		2	
	<i>(</i> 1.)		[2]
	(b)	Name two dry methods of cooking.	
		1	
		2	[2]
((c)	Conduction and radiation are two methods of heat transference used in cooking. Explain the difference between conduction and radiation.	
			[3]
	(d)	Name one material used in the kitchen which is a poor conductor of heat.	
			[1]
	(e)	Name two methods of cooking which use convection.	
		1	
		2	[2]
	(f)	State three advantages and three disadvantages of grilling as a method of cooking.	
		advantage 1	
		advantage 2	
		advantage 3	
		disadvantage 1	
		disadvantage 2	
		disadvantage 3	[6]

	(g)	Food can be marinated before grilling. State three benefits of marinating foods before grilling.	
		1	
		2	
		3	
			[3]
		[Total:	19]
8		ntify and explain five reasons why a laminate worktop is a suitable material for a kitchen w face.	ork
	1		
	2		
	3		
	4		
	5		
			 [5]

Section C

Answer either Question 9 or 10.

9	Mai	ny food items are packaged.	
	•	Identify and discuss reasons for packaging.	
	•	Assess the suitability of glass as a packaging material.	[15]
OR			
10	Disc	cuss and explain the uses and benefits to a family of:	
	•	a food processor when preparing food	
	•	a microwave when cooking family meals.	[15]

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