

Cambridge Assessment International Education

Cambridge International General Certificate of Secondary Education

CANDIDATE NAME					
CENTRE NUMBER			CANDIDATE NUMBER		

FOOD AND NUTRITION

0648/13

Paper 1 Theory May/June 2019

2 hours

Candidates answer on the Question Paper.

No Additional Materials are required.

READ THESE INSTRUCTIONS FIRST

Write your centre number, candidate number and name on all the work you hand in.

Write in dark blue or black pen.

You may use an HB pencil for any diagrams or graphs.

Do not use staples, paper clips, glue or correction fluid.

DO NOT WRITE IN ANY BARCODES.

Section A

Answer all questions.

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

Section B

Answer all questions.

Section C

Answer either Question 8(a) or 8(b).

At the end of the examination, fasten all your work securely together.

The number of marks is given in brackets [] at the end of each question or part question.

This document consists of 12 printed pages.



Section A

Answer all questions.

1	(a)	Define the term <i>undernutrition</i> .					
	(b)	Nar	me one disease which is caused by protein–energy undernutrition.	[1]			
				[1]			
				[Total: 2]			
2	(a)	Cor	mplete the following sentences about protein.				
		(i)	Protein is the only nutrient which contains the elements				
			and	[2]			
		(ii)	Proteins are made up of molecules.	[1]			
	((iii)	Two enzymes which break down proteins are and and	[2]			
	((iv)	Absorption of protein takes place in the	[1]			
	(b)	Diff	erent protein foods 'complement' each other.				
		(i)	Explain the term protein complementation.				
				[1]			
		(ii)	Explain the benefit of protein complementation.	[.]			
				[1]			
	((iii)	Give four examples of protein complementation to illustrate your answer in (ii).				
			1				
			2				
			3				
			4	[4]			

[Total: 12]

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(a)	Describe the composition of polysaccharides.					
(b)	Starch is a polysaccharide.					
	Give four different dietary sources of starch.					
	1					
	2					
	3					
	4					
		[4]				
(c)	Describe three effects of moist heat on starch.					
	1					
	2					
	3	 [3]				
(d)	Describe four ways in which non-starch polysaccharide (NSP) / dietary fibre is used by body.					
	1					
	2					
	3					
	4	 [4]				
(e)	Give four health problems which may be caused by an excess of NSP in the diet.					
	1					
	2					
	3					
	4					
		[4]				

3

	(f)	Describe the digestion of cooked starch in the mouth.	
		[2	2]
		[Total: 18	3]
4	Cur	rent dietary advice is to drink plenty of water.	
	(a)	Explain what is meant by the term water balance.	
		[1	1]
	(b)	State three effects of an inadequate intake of water.	
		1	
		2	
		3	
			_
	(c)	Suggest four groups of people who have an increased need for water. Give a reason for each group's need.	r
		group 1	
		reason	
		group 2	
		reason	
		group 3	
		reason	
		group 4	
		reason	
		[4	+

[Total: 8]

Section B

Answer all questions.

5	Α	hasic	recipe	for	making	12	ainaer	biscuits	uses
J	$\overline{}$	Dasic	1 CCIPC	101	making	1 4	giriger	Discuits	uoco.

100 g plain four
50 g margarine
50 g syrup
50 g sugar
1 tsp ground ginger

1 tsp bicarbonate of soda

	$\frac{1}{2}$ tsp bicarbonate of soda
(a)	These biscuits are made using the melting method.
	Name two other methods which could be used to make biscuits.
	1
	2
	[2]
(b)	Complete the steps required to make these biscuits using the melting method.
	1. Grease and flour baking tray
(c)	Name the ingredient in the basic recipe that produces carbon dioxide.
	[1]

[Total: 8]

6 There are many different types of vegetables.

(:	a١	Complete the	table to give on	e example of ea	ach of the follow	ving types of ve	egetables
١,	u,	Complete the	table to give on	C Champic of Co	acii di tile idilev	virig types or ve	getables.

type of vegetable	example
root	
tuber	
fruit	
pod	
bulb	

		bulb		
				[5]
(b)	Veg	etables can be bo	ought in many forms.	
	Giv	e two disadvanta	ges of buying vegetables in the following forms:	
	(i)	fresh vegetables		
		disadvantage 1		
		disadvantage 2		
				[2]
	(ii)	canned vegetable	les.	
		disadvantage 1		
		disadvantage 2		
				[2]
(c)	Sta	te four points to c	consider when buying fresh vegetables.	
	1			
	2			
	3			
	4			

[4]

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(d) It is important to prepare and cook green vegetables correctly.

(i)	Give three ways to conserve nutritional value when preparing cabbage.	
	1	
	2	
	3	 [3]
		[၁]
(ii)	Give three ways to conserve nutritional value when cooking cabbage.	
	1	
	2	
	3	
		[3]

[Total: 19]

7	Many modern	households	own a freezer.	
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(a)	Suggest six factors for a family to consider before choosing a new freezer. Give a reason for each factor.
	factor 1
	reason
	factor 2
	reason
	factor 3
	reason
	factor 4
	reason
	factor 5
	reason
	factor 6
	reason[6]
(b)	Frozen food must be stored at the correct temperature.
	State the correct temperature for a home freezer.
	[1]
(c)	Give two reasons why freezing prevents food spoilage.
	1
	2
	[2]

(d) Some foods are blanched before freezing.			
	Give	e one benefit of blanching peas before freezing.	
(e)		e a reason for each of the following:]
(0)	(i)	thaw frozen chicken joints completely before cooking;	
	(ii)	fast freezing of fresh fish is essential for best quality;]
		[1]
	(iii)	food placed in a freezer must be well wrapped;	
	(iv)	do not place hot or warm foods in a freezer;	-
	(v)	never refreeze defrosted food.	
(f)		lain each of the following star ratings which can be seen on the packaging of frozen food star *	
	two	stars **	
	thre	e stars ***	
		[3]	 }]

[Total: 18]

Section C

Answer either Question 8(a) or 8(b).

8	(a)	Discuss reasons why more people are choosing to follow a vegetarian diet. [15]
OR		
	(b)	Discuss and explain the specific nutritional needs of a manual worker. Explain ways in which a manual worker can be economical with fuel when cooking meals. [15]

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