

Cambridge Assessment International Education

Cambridge International General Certificate of Secondary Education

CANDIDATE NAME					
CENTRE NUMBER			CANDIDATE NUMBER		

FOOD AND NUTRITION

0648/12

Paper 1 Theory

October/November 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 10(a) or 10(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)	Explain the term <i>metabolism</i> .
		[1]
	(b)	Explain the term basal metabolism.
	(c)	Metabolism is controlled by thyroxine.
		Name the mineral which is used to make thyroxine.
		[1]
		[Total: 3]
2	Foo	ds containing protein are classified by their biological value.
	(a)	Explain the term high biological value protein.
		[1]
	(b)	Explain the term low biological value protein.
		[1]
	(c)	Name four different foods which are good sources of high biological value (HBV) protein.
		1
		2
		3
		4[4]

[Total: 6]

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Dis	accharides are sugars.	
(a)	Complete the equations to show the composition of the named disaccharides.	
	(i) sucrose = 1 unit of glucose + 1 unit of	[1]
	(ii) lactose = 1 unit of glucose + 1 unit of	[1]
(b)	Name two enzymes involved in the digestion of sugars.	
	1	
	2	[2]
(c)	It is recommended that people reduce their intake of sugar.	[-]
(0)		
	Name two health problems which might be caused by too high an intake of sugar.	
	1	
	2	[2]
(d)	State five ways of reducing sugar in the diet.	
(-)	1	
	2	
	3	
	4	
	5	[5]
(e)	State three effects of dry heat on sugar.	[-]
(0)		
	1	
	2	
	3	[3]

State **five** different ways of increasing non-starch polysaccharide (NSP)/dietary fibre in the diet.

4

5		
Com	plete the table to give one disease cause	d by a deficiency of each of the named vitam
	vitamin	disease
	vitamin C/ascorbic acid	scurvy
	vitamin A/retinol	
	vitamin B ₁ /thiamin	
	vitamin B ₃ /nicotinic acid	
/ege	vitamin D/cholecalciferol	
a)	etables form an important part of the diet. Give five points to consider when choosin	ng green leafy vegetables.
a)	etables form an important part of the diet. Give five points to consider when choosin	
a)	etables form an important part of the diet. Give five points to consider when choosin 1	
a)	etables form an important part of the diet. Give five points to consider when choosis 1	
(a)	etables form an important part of the diet. Give five points to consider when choosing the consideration which considers which	

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Section B

Answer all questions.

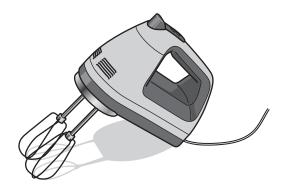
7	The following	ingredients	can be	used to	make a	Swiss	roll:

3 eggs 75 g caster sugar 75 g plain flour

(a)	Name the method used to make the Swiss roll.
	[1]
(b)	Describe the method of making the Swiss roll mixture.
	[5]
	[-]
(c)	Suggest two different ingredients which could be used to vary the flavour of the Swiss roll mixture.
	1
	2
	[2]
(d)	Suggest three reasons why the finished Swiss roll might have a close texture.
	1
	2
	3
	[3]

(e) An electric hand mixer can be used to make a Swiss roll to save time and energy.

Give six different factors to consider when choosing a new electric hand mixer.



1
2
3
4
5
6
[6]
State five safety points to prevent accidents when using an electric hand mixer.
1
2
3
4
5[5]

(f)

(g)	Describe the first aid procedure for a person who has just received an electric shock.
	[3]
	[Total: 25]

IVIIC	roorg	janisms cause food spollage.
(a)	lder	ntify three conditions needed for the growth of microorganisms.
	1	
	2	
	3	[3]
(b)	Son	ne microorganisms can be used to make yoghurt from milk.
	Giv	e a reason for the following when making yoghurt:
	(i)	sterilising all equipment;
		[1]
	(ii)	after heating the milk, allow to cool and add <i>Lactobacillus bulgaricus</i> and <i>Streptococcus thermophilus</i> ;
		[1]
	(iii)	adding a stabiliser to the yoghurt.
		[1]
(c)		e two different reasons for each of the following pieces of information found on the label pot of yoghurt:
	(i)	a list of ingredients;
		1
		2[2]
	(ii)	storage instructions;
		1
		2
	/:::\	[2]
	(iii)	weight of product. 1
		2
		[2]
		[Total: 12]

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Identify and explain eight reasons why convenience foods are popular.
1
2
3
4
5
6
7
8
[8]

Section C

Answer either Question 10(a) or 10(b).

10 OR	(a)	Compare and contrast grilling and stewing as methods of cooking.	[15]
	(b)	Discuss the role that different religions play in influencing food choices.	[15]

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