Cambridge Assessment International Education

Cambridge IGCSE™

CANDIDATE NAME									
CENTRE NUMBER						CANDIDATE NUMBER				

0627460620

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.

© UCLES 2024

Section A

Answer **all** questions.

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

1 State the term used to describe an incorrect intake of nutrients.

..... [1]

2 Vitamins are vital to life and help prevent many diseases.

(a) Identify **one** disease that vitamin A helps prevent.

..... [1]

(b) Name **four** different animal foods that are a good source of vitamin A.

1 .....

2 .....

3 .....

4 .....

[4]

(c) Name **one** disease that vitamin C helps prevent.

..... [1]

(d) Name **four** different foods that are a good source of vitamin C.

1 .....

2 .....

3 .....

4 .....

[4]

(e) State **one** function of vitamin K.

..... [1]

[Total: 11]

© UCLES 2024

3 **(a)** Name **one** element that combines with carbon to form fat.

..... [1]

(b) Fats can be classified as monounsaturated, polyunsaturated and saturated.

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 or oil.

..... [1]

(f) State the type of additive used in foods containing fats and oils to prevent rancidity.

..... [1]

[Total: 11]

4 Foods containing protein are classified according to their biological value.

(a) Define the term low biological value (LBV) protein.

.....

..... [2]

(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]

5 Current 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]

© UCLES 2024

(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 .....

[5]

[Total: 7]

Section B

Answer **all** questions.

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

3 eggs
75 g caster sugar
75 g 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 .....

.....

5 .....

.....
[5]

[Total: 10]

© UCLES 2024

7 Explain **two** benefits to the consumer of each of the following pieces of information that can be found on a food label.

(a) picture of product

1 .....

2 .....
[2]

(b) cooking instructions

1 .....

2 .....
[2]

[Total: 4]

8 Convection is a method of heat transference.

(a) Describe how convection takes place.

.....

.....

.....

.....

.....

..... [4]

(b) Name **four** moist methods of cooking that use convection.

1 .....

2 .....

3 .....

4 .....
[4]

[Total: 8]

9 Care must be taken when storing and handling fresh eggs as they may carry bacteria that cause food poisoning.

(a) Name the bacteria that may be present in eggs.

..... [1]

(b) Give **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) Give **one** way to prevent cross-contamination after handling raw eggs.

..... [1]

[Total: 5]

10 Explain why manufacturers advise leaving food to stand for a few minutes after microwave cooking.

.....

.....

.....

..... [3]

© UCLES 2024

11 Freezing is a popular method of preservation.

(a) State the correct temperature for storing food in a freezer.

..... [1]

(b) State and explain **four** different reasons why it is useful for a family to own a freezer.

reason 1 .....

explanation 1 .....

reason 2 .....

explanation 2 .....

reason 3 .....

explanation 3 .....

reason 4 .....

explanation 4 .....
[8]

(c) Give **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]

[Total: 15]

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]

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

© UCLES 2024

[Turn over

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.

© UCLES 2024