



Cambridge IGCSE™

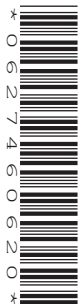
CANDIDATE
NAME

CENTRE
NUMBER

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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.

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]

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]

(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]

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]

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]

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