

Candidate Name: \_\_\_\_\_

Centre Number			Candidate Number											

**EXAMINATIONS COUNCIL OF ZAMBIA**

**Examination for General Certificate of Education Ordinary Level**

**Food and Nutrition**

**6065/1**

**Paper 1**

**Thursday**

**21 JULY 2016**

Additional materials:

Answer Booklet

**Time: 2 hours**

**Instructions to candidates**

Write your name, centre number and candidate number in the spaces at the top of this page and on all separate Answer Booklets used.

There are **seven** questions in this paper.

**Section A**

Answer **all** parts of question 1.

Write your answers in the spaces provided on the question paper.

**Section B**

Answer **any four** questions.

Write your answers on the separate Answer Booklet provided.

At the end of the examination:

- 1 fasten any separate Answer Booklet used securely to the question paper, tie with a string in the left corner of the booklets.
- 2 enter the numbers of the Section B questions you have answered on the left side on the grid below, under the column "For Candidate's Use".

**Information for candidates**

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

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

**Cell phones are not allowed in the examination room.**

For Candidate's Use	For Examiner's Use
Section A	
Section B	
Total	

**Section A (40 Marks)**

**Answer all parts of question 1.**

**Write your answers in the spaces provided on the question paper.**

**1 (a)** Potassium is a mineral element required in relatively large amounts. State:

**(i)** The mineral element that potassium has a complementary action with.  
..... [1]

**(ii)** **Four** rich sources of potassium.  
.....  
.....  
.....  
..... [2]

**(iii)** **Two** functions of potassium in the body.  
.....  
..... [2]

**(iv)** The deficiency disease which occurs if too little potassium is absorbed.  
..... [1]

**(b) (i)** State **two** functions of iron in the body.  
.....  
..... [2]

**(ii)** Suggest **two** groups of people who may be advised to increase the intake of iron.  
.....  
..... [1]

**(iii)** What is the relationship between ascorbic acid (Vitamin C) and iron?  
.....  
..... [1]

**(c)** What problems are associated with the statements below?

**(i)** A low sodium intake  
..... [1]

**(ii)** Too much or high sodium intake.  
..... [1]

For Examiner's use

- (d) (i) State **four** functions of water in the body.

.....

.....

.....

..... [4]

- (ii) Define dehydration.

.....

..... [1]

- (iii) Explain **two** circumstances which can bring about body dehydration.

.....

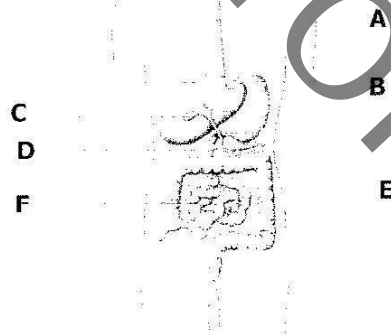
..... [2]

- (iv) What is the recommended daily intake of water?

.....

..... [1]

- (e) The figure below shows some parts of the human digestive system.



- (i) Label the parts above (A, B, C, D, E, F).

A .....

B .....

C .....

D .....

E .....

F ..... [3]

For Examiner's use

- (ii) Explain briefly the roles played by the following structures in the process of digestion:

**C:** .....

.....

..... [2]

**E:** .....

.....

..... [2]

- (iii) Name the nutrient digested in structure **B** and state any condition under which the nutrient would be digested.

Nutrient: ..... [1]

Condition: .....

..... [1]

- (iv) Explain the functions of the following enzymes during digestion and absorption of food.

Lactase: .....

.....

Rennin: .....

.....

Ptylin: .....

..... [6]

- (f) Give **three** general rules to follow when feeding invalids.

.....

.....

..... [3]

- (g) Write down any **two** uses of eggs in cookery.

.....

..... [2]

[Total 40 marks]

**Section B (60 Marks)**

**There are six questions in this Section. Answer any four.**

**Write your answers on the separate Answer Booklet provided.**

- 2** Manufactured foods often contain certain food additives.
- (a) List **five** reasons why food should contain additives. [5]
  - (b) Give **three** examples of synthetic additives. [3]
  - (c) Mention **five** important requirements of food additives. [5]
  - (d) Why are nutrients added to food during manufacturing? [2]
- [15]**
- 3** Preservation prolongs 'shelf life' of foods.
- (a) Define preservation. [1]
  - (b) Name **four** main methods used in the preservation of food. [4]
  - (c) Name **four** common faults and causes likely to be found in a home-made jam. [8]
  - (d) Suggest **four** chemical preservatives which can be added to flour. [2]
- [15]**
- 4**
- (a) Name three methods of heat transference, giving an example in each case. [3]
  - (b)
    - (i) Name **two** methods of steaming. [2]
    - (ii) List down **four** points to consider when steaming. [4]
  - (c)
    - (i) Give **four** differences between boiling and stewing. [4]
    - (ii) Give **two** suitable foods which can be cooked by each method mentioned in part (c) (i). [2]
- [15]**
- 5** Cereals are one of the most important foods in nearly every country.
- (a) Name any **six** types of cereals. [3]
  - (b) Draw the wheat grain and label the following parts.
    - (i) Endosperm
    - (ii) Aleurone layer
    - (iii) Germ
- [5]**

- (c) Define the term 'extraction rate' of flour. [1]
  - (d) Show the difference between whole-meal and white flour. [3]
  - (e) Explain why spring wheat is best suited for bread making. [3]
- [15]**

**6 (a)** Explain each of the following terms or processes.

- (i) Collagen
- (ii) Basting
- (iii) Garnishing
- (iv) Dextrin
- (v) Gelatinization
- (vi) Blending

[12]

(b) State any **three** health problems associated with obesity.

[3]  
**[15]**

**7 (a)** Define a sauce.

[1]

(b) State **four** different ways of thickening sauces.

[4]

(c) Write down **four** functions of sauces in food preparation.

[4]

(d) Give the basic recipe for making Roux sauce.

[6]  
**[15]**