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CARIBBEAN EXAMINATIONS COUNCIL

CARIBBEAN SECONDARY EDUCATION CERTIFICATE® EXAMINATION

FOOD AND NUTRITION

Paper 02 – General Proficiency

2 hours 10 minutes

13 MAY 2013 (p.m.)

READ THE FOLLOWING INSTRUCTIONS CAREFULLY.

1. This paper consists of TWO parts: PART A and PART B.
2. PART A comprises THREE COMPULSORY questions, one from each section of the syllabus. You are required to answer ALL questions.
3. PART B comprises FOUR questions drawn from all sections of the syllabus. You are required to answer TWO questions.
4. You must answer FIVE questions, ALL THREE from PART A and TWO from PART B.

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PART A

Answer ALL questions in this section.

Each question is worth 16 marks.

1. (a) State THREE symptoms or signs of a lack of Vitamin B_1/(thiamine) in the diet. **(3 marks)**

(b) Identify THREE factors that may influence the eating habits of persons in your community. **(3 marks)**

(c) The World Health Organization states that one-third of the world's infants suffer from protein energy malnutrition (PEM). Discuss THREE effects of protein energy malnutrition. **(6 marks)**

(d) At a Caribbean Food and Nutrition conference the following statements were made:

1. Persons should reduce the amount of salt they consume.
2. Iron-rich foods should be taken in conjunction with foods rich in Vitamin C.
3. Eggs contain cholesterol and should NOT be eaten on a daily basis.
4. The use of lean meat and fish is NOT the only way to reduce fat in the diet.

Give ONE reason EACH to justify any TWO of the above statements. **(4 marks)**

Total 16 marks

2. Petra receives a surplus of green beans and is advised to preserve some by freezing for later use.

(a) Name TWO methods, **other than freezing**, by which she may preserve the green beans. **(2 marks)**

(b) Name ONE preservative that can be used when preserving the green beans at home. **(1 mark)**

(c) Give ONE reason for the use of the preservative named in (b). **(1 mark)**

(d) Petra is advised to blanch the green beans before freezing to inhibit enzyme action. Define the term 'enzyme action'. **(2 marks)**

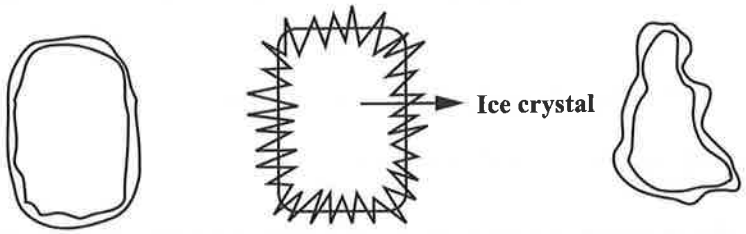
(e) Identify TWO undesirable effects of enzyme action on the green beans if they are not blanched before freezing. **(2 marks)**

(f) Identify TWO procedures to be followed before placing the blanched green beans in the freezer. **(2 marks)**

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(g) Give ONE reason for EACH procedure identified in (f) above. **(2 marks)**

(h) The diagrams below indicate the stages that the cell wall of a normal green bean goes through during and after freezing. Provide a scientific explanation for EACH of the stages II and III.



I. Normal cell **II. Cell ruptured** **III. Cell on thawing**

Figure 1. A normal green bean cell wall during and after freezing

(4 marks)

Total 16 marks

3. (a) Give ONE example of a herb and ONE example of a spice used in the preparation of food. **(2 marks)**

(b) State TWO advantages of conservative cooking and TWO advantages of steaming. **(4 marks)**

(c) Sifting, rubbing-in and glazing are techniques used to make short crust pastry items.

(i) Outline how EACH technique is done. **(3 marks)**

(ii) Suggest why EACH technique is important in making short crust pastry items. **(3 marks)**

(d) The list below summarizes some of the problems which moderators identified in the School-Based Assessment (SBA) at a school:

1. The baked custard curdled.
2. Beaten egg whites did not rise in peaks.
3. A dark ring was visible around the yolk of a hard-boiled egg.
4. The cocoa beverage had a starchy flavour.

Suggest to teachers ONE effective way to prevent a recurrence of EACH problem. **(4 marks)**

Total 16 marks

PART B

Answer TWO questions from this section.

Each question is worth 16 marks.

4. (a) Classify carbohydrates into three MAIN groups. **(3 marks)**

(b) Give ONE function of carbohydrates. **(1 mark)**

(c) The table below shows the specific carbohydrate present in cane sugar. Copy and complete the table by listing a specific carbohydrate present in the food given. **(2 marks)**

FOOD	CARBOHYDRATE
Cane sugar	Sucrose
Sweet corn	**(i)**
Milk	**(ii)**

(d) Discuss ONE factor that affects the nutritive value of corn either **after** harvesting or **during** preparation and cooking. **(2 marks)**

(e) As a Food and Nutrition student, you are asked to give information on meal planning and eating habits.

(i) Suggest a suitable breakfast for your pregnant neighbour. **(4 marks)**

(ii) Suggest FOUR guidelines for developing positive eating habits for preschool children in the community. **(4 marks)**

Total 16 marks

5. (a) It is important to practise food safety when preparing meals. The table below shows some accidents and the neccessary precautions to prevent these accidents. In your answer booklet, provide the missing information for (i), (ii), (iii) and (iv). **(4 marks)**

Accidents	Precautions
Burns	**(i)**
(ii)	Dry spills on the floor immediately.
Cuts	**(iii)**
(iv)	Do not handle appliances with wet hands.

(b) State the function of EACH of the following features of an oven:

(i) Thermostat

(ii) Glass oven door **(2 marks)**

(c) It was reported in a television newscast that students who ate meals while attending a one-day workshop experienced vomiting and diarrhoea. Suggest THREE causes of the students' illness in relation to EACH of the following:

(i) Personal hygiene practices during the preparation of the meals

(ii) Hygienic conditions of the place in which the meals were prepared

(iii) Food handling practices during the preparation of the meals **(9 marks)**

(d) During the preparation of the meal for the workshop the sink clogged. Suggest a method of clearing the blockage. **(1 mark)**

Total 16 marks

6. Mohan is required to shop for groceries in the supermarket in preparation for his practical Food and Nutrition examination.

(a) List TWO factors to be considered when purchasing EACH of the following:

(i) A fresh cut of beef **(2 marks)**

(ii) Leaf lettuce **(2 marks)**

(b) While shopping in the supermarket, Mohan decides to purchase a one-litre carton of peanut punch which showed the expiry date on the label. Define the term 'expiry date'. **(2 marks)**

(c) Explain how the peanut punch label could assist Mohan in ensuring that the peanut punch that he is purchasing contains milk and peanuts as the main ingredients. **(2 marks)**

(d) The label indicates that the peanut punch was ultra-heat treated. Describe the process of ultra-heat treatment of the peanut punch. **(4 marks)**

(e) Mohan purchases yeast which will be used to prepare bread rolls. Explain how the yeast works as a raising agent when preparing and baking the bread rolls. **(4 marks)**

Total 16 marks

7. (a) State TWO guidelines to be considered when organizing a buffet service. **(2 marks)**

(b) State the position of the dinner fork and the soup spoon in setting a 'cover' or 'place'. **(4 marks)**

(c) Based on her experience as a caterer, Lydia advises that 'shopping ahead' has the advantage of saving time.

(i) Suggest FOUR other ways that can be used by caterers to save time. **(4 marks)**

(ii) Lydia is asked to prepare 1000 slices of cake for a function. Normally a pound of cake yields 24 slices. How many pounds of cake (to the nearest whole number) does Lydia need to prepare? **(2 marks)**

(iii) Lydia is required to plan a TWO-course lunch for an event. Write a menu for the lunch, making sure that an indigenous food is used in ONE of the courses. **(4 marks)**

Total 16 marks

END OF TEST

IF YOU FINISH BEFORE TIME IS CALLED, CHECK YOUR WORK ON THIS TEST.