

CARIBBEAN EXAMINATIONS COUNCIL

**REPORT ON CANDIDATES' WORK IN THE
CARIBBEAN SECONDARY EDUCATION CERTIFICATE® EXAMINATION**

MAY/JUNE 2012

**FOOD AND NUTRITION
GENERAL PROFICIENCY EXAMINATION**

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GENERAL COMMENTS

The 31st Food and Nutrition examination was administered by the Caribbean Examinations Council in May/June 2012.

This examination took the form of two papers: (i) a multiple-choice paper (Paper 01) of 60 items worth 60 marks and (ii) a structured essay paper (Paper 02) of seven questions worth 16 marks each. Paper 02 was divided into Parts A and B and reflected two profiles: candidates' ability to recall information, represented by the symbol K, and to use such information to give context, represented by the symbol UK.

Part A comprised three compulsory questions which were taken from the following modules: Modules 3 — Diet, Health and Nutrition; Module 6 — Food Preservation, and Module 11 — Food Preparation Methods.

Part B comprised four optional questions which were taken from the remaining nine modules of the syllabus. Candidates were required to choose any two optional questions in addition to the compulsory questions. Eighty marks were available for this paper.

Overall, candidates' performance was satisfactory.

Paper 03 consisted of three practical assignments, each worth 20 marks with a maximum of 60 marks. All assignments were structured by the class teacher or groups of teachers. Assignments one and three were assessed by the class teacher, while assignment two was jointly assessed by the class teacher and an external moderator.

DETAILED COMMENTS

Paper 02 – Structured Essay Questions

Question 1

Candidates were required to define the term *over-nutrition*, identify signs of over-nutrition, name conditions associated with mineral deficiencies and suggest reasons for and health benefits of a vegetarian diet. Candidates were also asked to plan a two-course meal for a vegetarian.

For Part (a), the majority of candidates were able to describe *over-nutrition* as *a condition triggered by an over consumption of food or nutrients*.

For Part (b), candidates were able to identify signs of over-nutrition; responses included

- diabetes mellitus
- hypertension
- obesity
- heart disease.

In Part (c), most candidates were able to identify a condition associated with calcium deficiency; however, most candidates were unable to correctly identify a condition associated with sodium deficiency. Expected responses included

- muscle cramps
- loss of appetite
- vomiting.

Part (d) (i) was widely known by the majority of candidates. Correct responses given included

- allergies
- objection to animals being slaughtered
- religious beliefs.

For Part (d) (ii) many candidates knew the health benefits of consuming a vegetarian diet. Expected answers included

- incidence of heart diseases is reduced because of the lower intake of cholesterol and saturated fats
- Due to the high presence of dietary fibre, the incidence of diverticular disease is reduced.

For Part (d) (iii), the majority of candidates were able to plan an appropriate two-course lunch.

Question 2

Candidates were required to define the term *blanching*, outline benefits of preserving food and to give an example of a food packaged using aluminium foil, giving one reason for the use of the aluminium foil. Candidates were also required to discuss guidelines to be used when selecting mangoes for making jam and to describe how the *plate test* or *flake test* is used to determine when a jam mixture is ready for bottling.

Part (a) was partially answered by most candidates; while candidates emphasized heat treatment, they omitted to state that the food should be transferred to cold water to complete the process. Part (b) was done very well, most candidates were able to outline the benefits of preserving food.

Part (c) was very well done, most candidates were able to give an example of a food usually packaged in containers lined with aluminium foil and also suggest a correct reason for the practice. Responses included

- retain nutritional value
- provides barrier to light
- retains flavour
- prevents contamination
- provides a barrier to moisture
- retains colour.

Parts (d) (i) and (d) (ii) were done very well. Acceptable responses included

- should be free from blemishes and mould growth to prevent other forms of spoilage
- should be clean to prevent the entry of contaminants
- should be firm (not ripe, slightly under-ripe) because at this stage it contains large quantities of pectin and acid
- pectin is required for the jam to set
- acid is required to extract pectin and to hydrolyse the sugar.

Part (d) (iii) was also very well done with most candidates correctly describing the *plate test* and the *flake test*. The correct response is:

Plate or Wrinkle test

- Spoon a small amount of jam on a cold plate or saucer.
- Allow to cool slightly and push with finger to observe wrinkle.

Flake test

- Dip wooden spoon into jam, cool slightly and allow to run slightly over side of spoon.
- If it comes off the spoon in wide flakes, jam has reached setting point.

Question 3

Candidates were required to list methods of cake making, state one function of specified ingredients in cake making and identify sweet dishes other than cakes where egg is the main ingredient. Candidates were also required to explain principles of heat transfer and to give the stages involved in the preparation of a corn starch base for ice-cream.

The majority of candidates obtained the maximum marks for Part (a); however, for Part (b), a large number of candidates were unable to state a function of the specified ingredients in cake making. Correct responses included:

Flour

- Forms the structure of the cake
- Increases volume of cake

Sugar

- Sweetens the mixture
- Helps to entangle air in the mixture
- Increases the volume of the cake
- Adds colour
- Moistens
- Raises the temperature at which the proteins in the egg and flour coagulate

Butter or margarine

- Has the ability to entangle and hold air in the mixture
- Adds flavour
- Improves keeping quality
- Adds colour
- Adds moisture

Part (c) was challenging, most candidates were unable to identify sweet dishes other than cakes where egg is the main ingredient. Correct responses included:

- Flan
- Meringue
- Soufle'
- Custards
- Milk pudding

For Part (d), the majority of candidates understood the methods and principles of heat transfer and were able to explain them in a clear and concise manner.

Part (e) was poorly done by the majority of candidates as most of them seemed to be unfamiliar with the product corn flour. The correct response is:

- carefully measure corn starch
- blend cornstarch with some cold milk
- heat some milk
- pour in the blended starch and stir continuously until it thickens

Question 4

This optional question was the most popular of all the optional questions and was very well done. Candidates were required to outline the functions of specific nutrients, identify the nutrients present in brown rice that made it more nutritious than white rice and to justify whether the dishes provided were suitable or unsuitable for an elderly person. Candidates were also asked to suggest guidelines for planning and preparing meals for a teenaged secretary.

Part (a) was very well done as the majority of candidates were able to outline the functions of the specific nutrients. Candidates were unable to identify the nutrients present in brown rice that made it more nutritious than white rice. Responses included:

- Vitamin B1 or thiamin
- Vitamin B2 or riboflavin
- Vitamin B3 or niacin
- Calcium
- Potassium
- Iron
- Dietary fibre

Part (c) was very well done by most candidates. Correct responses included:

- steamed fish is easy to digest
- steaming is a healthy method
- due to the fat content in the potato chips, the bedridden individual may be susceptible to obesity and heart-related conditions.

Part (d) was very well done by most candidates. Correct responses included:

- meals should not be too bulky as they may take longer to digest
- energy dense snacks should be eaten in moderation
- cut down on carbohydrate and fatty foods
- cook foods by healthy methods such as grilling, baking and steaming
- include iron-rich foods and foods containing vitamin C
- include various textures.

Question 5

This question was the second most popular in the optional section. Candidates were presented with a scenario which required their class to prepare a checklist for observing food handling practices while on a field trip to food outlets. Candidates were required to identify factors that contributed to food contamination which should be included in the checklist and to give desirable hygiene practices which should be observed at the food outlets.

The question also tested candidates' knowledge of consumerism and required them to discuss one advantage of purchasing a gas cooker rather than an electric cooker and also to state factors other than warranty to be considered before purchasing a cooker. Candidates were also asked to suggest reasons for specific actions in the application of first aid treatment to a burn.

Part (a), was well done. Most candidates were able to identify the factors that could contribute to food contamination and to give desirable hygienic practices that should be observed in the food outlets.

Part (b) was well done, with candidates discussing advantages that were both relevant and practical and also correctly stating the factors to be considered before purchasing a gas cooker.

Part (c) was well done. Most candidates explained that cold water is applied to the burnt area to ease the pain and reduce the risk of blisters and that the burnt area is covered to reduce the risk of infection.

Question 6

This question was the least popular of the optional questions. Candidates were required to show their knowledge of the information found on a UPC or bar code, define the terms *comparative shopping* and *impulsive buying*; assess the nutritional content of two boxes of carrot cake mix and identify factors other than income that influence the purchasing of food in a supermarket. Candidates were also required to give one effect

of dry heat on sugar and moist heat on flour during the process of making bread and to use the terms *smoke point* and *flash point* to explain how oil catches fire during frying.

For Part (a), only a small number of candidates were familiar with the information found on a barcode or UPC. Correct responses included

- country in which the product was manufactured
- name of the manufacturer
- packet size
- nature of the content
- serial number (batch number)
- date of manufacture.

In Part (b), many candidates were unable to give a complete definition for the two terms. Correct responses are:

- Comparative shopping is the act of comparing prices and quality of a specific item in different stores.
- Impulsive buying is an unplanned decision to buy a product.

Part (c) was very well done. Candidates were able to correctly assess the nutritional content of the two boxes of carrot cake and to indicate factors that influenced the purchasing of food in a supermarket.

For Part (d) (i), while the majority of candidates was able to state the effect of dry heat on sugar, they were unable to state the effect of moist heat on flour, and for Part (d) (ii) the majority of candidates experienced difficulty in applying the terms *smoke* and *flash point* in a practical context.

Question 7

This question was the third most popular in the optional section. Candidates were required to show their knowledge of packaging materials, state the difference between a menu and a main course and give guidelines for conserving food when using an oven. Candidates were also required to give the order of preparation for three specialized dishes and to justify the order given.

For Part (a), the majority of candidates were able to identify suitable packaging material. In part (b), while most candidates understood what a menu was they were unable to explain the concept of a main course.

Part (c) was very well done, the majority of candidates were able to give the correct order of preparation of the three dishes and to justify the order given.

Part (d) was very well done with most candidates giving correct guidelines for conserving fuel when using an oven.

RECOMMENDATIONS

- Students should be discouraged from using ‘*text*’ or cell phone language.
- Students should be encouraged to spell technical terms correctly.
- Teachers should cover the entire syllabus using different teaching techniques.
- Students should be encouraged to read the recommended texts.
- Students should be encouraged to underline the salient points in questions before attempting to answer them.