

CARIBBEAN EXAMINATIONS COUNCIL

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

MAY/JUNE 2011

**FOOD AND NUTRITION
GENERAL PROFICIENCY EXAMINATION**

**Copyright © 2011 Caribbean Examinations Council
St Michael, Barbados
All rights reserved.**

GENERAL COMMENTS

The 30th Food and Nutrition examination was administered by the Caribbean Examinations Council in May/June 2011.

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 respectively 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. In terms of popularity, Questions 4 and 6 were of equal popularity, Question 5 was most popular while Question 7 was least popular.

Overall candidates' performance was satisfactory.

Paper 03 consisted of three practical assignments, each valuing 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 explain the term *nutritional status*, identify food habits that have a negative effect on nutritional status and state one condition which may occur as a result of each food habit identified.

Candidates were asked to suggest two guidelines that should be followed when preparing meals to reduce the intake of fat and salt; outline signs and symptoms associated with vitamin K deficiency and suggest a food which could be used to correct vitamin A deficiency. In addition, candidates were provided with a menu intended for a convalescent and asked to identify one dish on the menu that was unsuitable, giving reasons for its unsuitability.

For Part (a) (i), the definition given by most candidates was not concise or accurate enough to earn full marks; most candidates focused on the over-nutrition aspect only.

For Part (a) (ii), most candidates were able to identify a food habit that would affect the status of an individual's health negatively and to correctly state a condition associated with the food habit.

Part (b) was answered very well by the majority of candidates. Candidates were able to provide two guidelines that could reduce the intake of fat and salt. Popular answers were

- Use healthy methods of cooking such as grilling, baking and stewing
- Use low fat products or use fat sparingly
- Cook with less salt or no salt
- Use less preserved foods.

The majority of candidates responded correctly to Part (c); the most popular response was *night blindness*. Candidates were also able to identify a food that could be used to correct the deficiency.

For Part (d), most candidates correctly identified the fried chicken as the unsuitable dish giving appropriate reasons for its unsuitability.

Question 2

Candidates were required to define the term *food additive* and to give advantages of using food additives; they were also required to give guidelines to follow when selecting mangoes for making chutney and to explain the role of vinegar as a preservative in the mango chutney.

Additionally, candidates were required to suggest a suitable material, giving a reason, from which a saucepan for cooking the chutney should be made; describe the method of preparation of chutney and outline giving reasons steps/procedures for bottling chutney.

Generally, this question was answered satisfactorily.

For Parts (a) (i) and (ii) the definition of *food additive* as well as the advantages of using food additives was well known by most candidates.

Candidates' performance on Part (b) (i) was also satisfactory.

For Part (b) (ii), candidates seemed to be struggling with the scientific aspect of the discipline which was evident in the partial response to how vinegar functions as a preservative. Very few candidates gave detailed explanations of the action of vinegar in the chutney. The correct answer is *the vinegar lowers the pH so that the chutney becomes too acidic for microorganism to grow*.

Part (c) (i) was challenging as most candidates named materials without considering the context. Some popular but incorrect responses were 'copper', 'brass' and 'aluminium'. Part (c) (ii) was well known with most candidates stating that the material used is to prevent corrosion.

Part (c) (iii) was satisfactorily done.

Parts (c) (iv) and (v) were challenging; although some candidates associated chutney-making with jam-making, they failed to transfer the bottling principles learnt to the bottling of chutney and therefore failed to earn maximum marks.

Question 3

Food preparation methods was tested in this question and performance was satisfactory. Candidates were asked to distinguish between a *garnish* and a *decoration* and to suggest ways of improving the presentation of food other than by garnishing.

Candidates were also asked to give general guidelines to be followed when garnishing foods and to state an appropriate garnish for baked fish and one for cream of pumpkin soup.

Candidates were provided with some observations of students' practical work and they were required to suggest the factors which were responsible for the observations.

In addition, they were provided with some characteristics of a roux-based sauce and were required to suggest the ways by which these characteristics were achieved.

In Part (a) (i), most candidates responded that *garnish* is for *savoury foods* and *decoration* is for *sweet foods* and were awarded full marks.

Part (a) (ii) was widely known by the majority of candidates as they were able to score maximum marks. Examples of some correct responses were

- Use various colours
- Cut food into various shapes
- Use dishes of various shapes and colour
- Use different textured food
- Use decorations

For Part (a) (iii), the majority of candidates gave the correct response. Examples of correct responses were

- Colour of garnish should complement food
- Garnish should not dominate dish
- Garnish should not overhand the dish
- Should be fresh and edible
- Arranged artistically

Part (b) was fairly well done. The ideas given brought out the creativity of many candidates. However, very few candidates suggested accompaniments such as bread rolls and croissants.

For Part (c), candidates' performance depended on the observation that was being evaluated.

Observation (1), *the bananas in the fruit salad did not become discoloured*, was done very well by the majority of candidates. They recognized that it was the presence of an antioxidant such as lime or lemon juice. Other valid responses given were

- Bananas were not prepared long in advance
- Syrup or sugar added early to the bananas

Observation (2), *the oil in the mayonnaise Jeffrey made remained stable*, was poorly done by the majority of candidates. Examples of good responses were

- Egg was used at room temperature
- Oil was added slowly
- Scrupulously clean equipment was used

Observation (3), *The batter Rhonda made to coat the chicken leg did not come off during frying*, was poorly done by the majority of candidates. Examples of correct responses were

- Clean oil was used to fry the chicken leg
- Frying was done at the correct temperature
- Deep fat frying was used
- Chicken was fried at the correct temperature

Observation (4), *Rita's coffee had an extremely bitter flavor*, was not done very well. Correct responses were

- The coffee was allowed to boil
- The coffee was reheated
- The coffee was brewed for a long period

Observation (5), *The sugar crystallized in the syrup Sandy made*, was done very well by the majority of candidates who stated that excess sugar was responsible for the crystallization of the sugar in the syrup. Correct responses were

- Insufficient boiling or boiling too fast
- Insufficient acid used or no acid used
- Syrup over-boiled

For Part (c) (ii), many candidates did not fully grasp what was required of them. Many of them treated the characteristics as one and restated the information in the stem. Acceptable responses for each characteristic were

1. Lump-free sauce
 - Fat was melted then the flour was added
 - Sauce cooked at the right temperature
 - Roux and liquid mixed smoothly
2. Non-starch flavour
 - Complete gelatinization of starch grains
 - Roux completely cooked
 - Sauce cooked at a moderate temperature
3. Correct pouring consistency
 - Roux was not over cooked
 - Sauce was not over cooked
 - Sauce was stirred continuously

Question 4

This optional question was similar in popularity to Question 6 and generally candidates performed satisfactorily. Candidates were required to state one function of iodine and one function of phosphorus.

Candidates were also required to name two minerals other than iodine and phosphorus that would be required in increased amounts by a pregnant woman and to give a benefit of each mineral named. Candidates were required to plan a nutritionally adequate dinner menu for an adolescent. In addition, candidates were required to outline the steps for making cheese muffins and to give the nutrients that are present in the cheese muffins that contribute to the energy requirements of an individual.

For Part (a), many candidates could not recall the function of iodine. However, they earned 50 per cent of the marks by stating the function of phosphorus.

The minerals required in increased amounts for a pregnant woman as well as their functions were well known. Candidates were able to identify the benefits for the mother and the unborn child.

The menu required for Part (b) (iii) was assessed for format, nutritional adequacy, texture, flavour and iron content. In most cases, candidates scored full marks for the menu.

For Part (c) (i), candidates' performance was poor; they did not adequately outline the steps for making muffins.

Part (c) (ii) was well done. The majority of candidates were able to identify the nutrients in the muffin that are energy providers.

Question 5

This question was the most popular optional question and candidates' performance was satisfactory.

Candidates were required to state desirable features of kitchen knives and cake mixers; procedures to be followed when cleaning cake pans and symptoms and signs of food poisoning together with the name of the bacteria that may cause food poisoning in baked chicken.

Candidates were also required to suggest personal hygiene practices which the person serving the baked chicken that caused the food poisoning might not have followed and essential steps that should be taken to clean the oven used to bake the chicken. In addition, candidates were required to suggest factors that could have caused a person to accidentally cut one of her fingers because of incorrect use of the knife.

The majority of candidates obtained maximum scores for Parts (a) (i), (ii); (b) and (c) (i).

For Part (c) (ii), very few candidates were able to name the bacteria that might have been present in the baked chicken.

In Part (c) (iii), many candidates were unable to make a clear distinction between kitchen hygiene practices and personal hygiene practices and therefore suggested a combination of both.

For Parts (c) (iv) and (d) the majority of candidates provided the correct responses.

Question 6

This optional question was similar in popularity to Question 4.

Candidates were required to state the roles of consumer organizations in their countries; state how customers can determine that the eggs purchased from the supermarket are fresh and state forms of textured vegetable protein available in supermarkets. Candidates were also required to suggest reasons why consumers may not benefit from bulk buying and to identify the main raising agent in swiss rolls and pancakes. In addition, candidates were asked to explain the scientific principles underlying the use of a chemical raising agent and the methods of heat transfer during the baking of a fruit cake.

Part (a) was poorly done by the majority of candidates. Part (b) was very well done as many candidates were familiar with methods used to determine the freshness of eggs.

Part (c) was not done well by the majority of candidates as many of them named soya beans rather than its by-products such as soy milk, soy sausage and soya chunks.

Many candidates scored at least 50 per cent of the marks awarded in Part (d). Responses given were

- Family members may grow tired of the product
- Takes up storage space
- Extra money is required

In Part (e) (i), a significant number of candidates were not familiar with the making of swiss rolls as they named yeast rather than air as the raising agent. For Part (e) (ii), the majority of candidates were familiar with the making of pancakes and they named air or baking powder as the main raising agent.

The responses to Parts (f) (i) and (ii) clearly indicated candidates' inability to explain concisely the scientific principles involved in the use of chemical raising agents and the methods of heat transfer in the context of baking cakes. In Part (f) (i), many candidates gave a partial response such as 'the cake will rise' rather than being explicit in stating that *heat causes the chemical to liberate carbon dioxide which in turn causes the mixture to rise*.

In Part (f) (ii), the pattern in responding mirrored that of Part (f) (i). Candidates named the method of heat transfer such as 'radiation', 'conduction', or 'convection' for which they gained a mark but could not explain the scientific principles associated with them.

Question 7

This question was the least popular question and candidates' performance was generally satisfactory.

This question was designed to test candidates' ability to define the term *cover/place setting*; state ways of enhancing a tray for tray service; give reasons why the layout of a kitchen will ensure maximum efficiency; plan a lunch menu for a preschool child and state how any one of the items in the menu should be appropriately packaged. Candidates were also required to suggest the qualities of flour and fat required to produce 48 biscuits from a given list of ingredients.

In Part (a) (i), many candidates obtained 50 per cent of the marks because they limited the definition of a *cover* to 'a place provided at the table' rather than *a place arranged on the table with cutlery for a dinner*.

For Part (a) (ii), the majority of candidates were able to obtain maximum marks for ways to enhance a tray to be used for serving a meal.

Part (b) (i) was not done well with most candidates perceiving that the cupboards were to be built; most candidates were able to obtain the maximum marks for Part (b) (ii).

For Part (c) (i), a high percentage of candidates scored the maximum marks; for Part (c) (ii), the majority of the candidates demonstrated knowledge of good packaging techniques.

The responses to Part (d) were excellent as the majority of candidates were able to calculate accurately the quantity of flour and fat.