

C A R I B B E A N E X A M I N A T I O N S C O U N C I L

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

JUNE 2004

FOOD AND NUTRITION

Copyright © 2004 Caribbean Examinations Council
St Michael, Barbados
All rights reserved.

FOOD AND NUTRITION
GENERAL PROFICIENCY EXAMINATION
JUNE 2004

GENERAL COMMENTS

The Caribbean Examinations Council administered its twenty-third examination in Food and Nutrition in June 2004.

Paper 01 – Multiple Choice

Paper I was a multiple-choice paper which consisted of 60 items and carried a maximum of 60 marks. Marks ranged from 0 - 56 and the mean mark was 38 out of 60.

Paper 02 – Structured Essay Questions

This paper consisted of seven questions divided into two parts. Part 1 comprised three compulsory questions, one from Module 3: Diet Health and Nutritional Status, one from Module 6 - Food Preservation, and the other from Module 11 - Food Preparation Methods. Part 2 comprised four questions which were taken from the remaining Modules of the syllabus. Candidates were expected to answer two questions from the optional section. Candidates were required to answer a total of five questions.

Each question was worth 16 marks, for a total of 80 marks on the paper. Questions 1, 2 and 3 were compulsory. Questions 4, 5, and 6 were more or less equal in popularity. Question 7 was by far the least popular.

Overall, the performance of candidates was only fair. The marks ranged from 0 to 66 and the mean was 28 out of 80. Many candidates did not take time to read questions carefully and so missed the key words or phrases in some questions.

Generally, responses were well set out. However, some candidates when responding to questions, failed to list the question numbers on the front of the booklet. This made it difficult for the Examiners, since it entailed them having to scan all of the questions and then listing the numbers on the front of the booklet.

Paper 03 – School-Based Assessment

This paper was the School-Based Assessment and consisted of three practical assignments. The first and third assignments were set and marked by the teacher. The second practical assignment was set by the teacher and assessed jointly by the teacher and an external examiner.

The mean mark on Paper 03 (SBA) was 46 out of a possible maximum of 60, with marks ranging from 2 to 60.

DETAILED COMMENTS

Paper 02 – Structured Essay Questions

Question 1

This question was a compulsory one and was handled very well. Marks ranged from 0 to 16, with the majority of candidates earning more than half of the marks.

This question tested the candidates' ability to list two disorders or diseases that could be caused from a deficiency of Vitamin A, Vitamin B1 (thiamin) and calcium. Candidates were required to (a) suggest two guidelines under the headings diet and lifestyle in coping with hypertension; and (b) to explain briefly two reasons for each of the following statements:

- (i) It is possible to have a balanced meal without including meat and fish.
- (ii) It is not necessary to skip meals in order to lose weight successfully
- (iii) It may be harmful to eat too much fat

Part (a) was very well done. The majority of candidates were able to give the correct response. However, a few candidates got some of the diseases confused, and some others wrote the functions of the nutrients.

In Part (b), although many candidates performed well, quite a few confused "diet" with "lifestyle" and "hypertension" with "diabetes".

Part (c) (i) was very well answered. The majority of candidates were able to state that "foods such as cheese, eggs, milk, cereals, and pulses would supply protein so it would be possible to have a balanced diet". Many candidates, however, stated that it would be possible to have a balanced diet without eating meat and fish, but never mentioned the foods needed or that one needed protein to have a balanced diet.

In Part (c) (ii), candidates were asked to explain why it was not necessary to skip meals in order to lose weight successfully. Most candidates stated that when one skipped a meal one would probably eat much more because one would be hungry, instead of stating that one needed to eat smaller servings and cut down on foods which contained large amounts of fat, sugar and starch.

Part (c) (iii) was very well answered. The majority of candidates were able to explain the harmful effects to the body if one consumed too much fat.

Question 2

This question focused on food preservation skills. It was poorly answered. Marks ranged from 0 to 14, with the majority of candidates gaining less than half of the total marks.

Part (a) (i) required candidates to describe either the "wrinkle test" or the "flake test". The majority of the candidates were unable to describe either, with many mixing both tests to come up with a description.

Part (a) (ii) requested candidates to define the term "pectin". Many candidates were aware that "pectin" was found in fruits and vegetables and assisted in the setting of jams and jellies, but very few stated what types of fruits and vegetables. Candidates also omitted to say that pectin was a polysaccharide.

Part (a) (iii) required candidates to give two qualities of a well-made jam. This part was not very well done. Candidates gave responses such as "good flavour" and "good consistency" or "not hard" or "not runny", "good colour". Correct responses such as "rich flavour characteristic of fruit used", "consistency firm, jelly-like and easy to spread", and "colour should be bright and should also have a clear appearance", "fruit should be evenly distributed" were sometimes given.

Part (b) sought to determine two changes which occur in drying green papaws, pickling cucumbers and sterilizing milk. Many candidates were able to mention the removal of water and the destruction of micro-organisms. Some candidates mentioned the ripening of the papaw, changing of the colour to yellow, to the rotting of the papaw.

In Part (b) (ii), candidates linked the pickling of the cucumbers with an acidic medium and hence microbial destruction. A small percentage of the candidates associated the principle of osmosis with the process. However, no candidate mentioned a low pH.

In relation to the sterilization of milk in Part (b) (iii), many candidates mentioned that micro-organisms were partially destroyed rather than completely destroyed. Many candidates also mentioned that nutrients were lost, but neglected to state which ones.

Part (c) required candidates to suggest four factors which may be responsible for a packet of frozen peas and carrots becoming discoloured, as well as developing crystals. This part of the question was not well answered. Popular responses which were correct included “poor packaging” and “vegetables not blanched or not blanched sufficiently”.

Question 3

This question focused on bread and pastry making. It was one of the compulsory questions and was fairly well answered. Marks ranged from 0 to 16.

In Part (a), candidates were asked to give two reasons for the use of each of the following ingredients in breadmaking:- (i) salt (ii) fat (iii) milk. This part of the question was reasonably well done and the majority of candidates were able to gain more than half of the marks.

Part (b) of this question required candidates to suggest four precautions which one should take in order to prevent the following faults: savoury rolls were small and dense, and short-crust pastry sausage rolls were hard and tough. This part of the question was poorly answered. Many candidates attributed faults associated with pastry making to that of breadmaking. However, some candidates were able to give correct responses such as “using fresh yeast, not destroying yeast by using hot liquid, allowing sufficient time for rising/proving when making bread rolls”. When making pastry, “not using too much water during mixing, avoiding use of too much flour during rolling and avoiding re-rolling”.

With regard to the qualities of a well-made cheese muffin, many candidates again described the qualities vaguely. Responses such as “good flavour, good texture” were common. However, many candidates were able to give correct responses such as “cheesy flavour”, “soft / moist texture, well risen, no peaks or tunnels.”

Question 4

This question was reasonably popular and focused on nutrition throughout the life cycle. It was quite well answered, and marks ranged from 0 to 16.

In Part (a), candidates were asked to state three benefits of breastfeeding. This part of the question was exceptionally well done with the majority of candidates getting full marks.

Part (b) focused on guidelines for successful complementary feeding (weaning). This part of the question was reasonably well done. A significant number of candidates, however, wrote about feeding the toddler. Responses such as “attractively-presented food, served with the correct cutlery” showed quite clearly that candidates confused the baby who would still be on breast milk with the toddler.

In Part (c), candidates were asked to suggest three nutritional factors which are responsible for under-nutrition in the elderly. This was reasonably well answered, and most candidates were able to gain more than half of the allocated marks.

In Part (d), candidates were required to name one vitamin and one mineral which would be increased during pregnancy and give one reason for the each nutrient selected. The majority of candidates were able to name the nutrients and give appropriate reasons for their selection.

Question 5

This question was also quite popular. It focused on hygienic and safety practices as well as factors which govern the planning, preparation and serving of meals for one hundred persons. Marks ranged from 0 to 15.

In Part (a), candidates were expected to state three hygienic practices which should be followed when (i) purchasing food and (ii) disposing of kitchen waste. Most candidates responded favourably to this part of the question. In some cases, however, candidates wrote about personal hygiene when purchasing food and when disposing of kitchen waste. Incorrect responses included “do not talk over the food”, “keep head covered”, “wash hands after disposing of kitchen waste”, “wear gloves when disposing of kitchen waste.” Responses such as placing the garbage bin outside of the kitchen and washing out the bin after use were also popular responses but there was no mention of hygiene.

Marks obtained and responses given in Part (b) were quite good. Candidates were asked to suggest four factors, apart from financial considerations, that were important when planning, preparing and serving one hundred lunches for the school’s Speech Day. However, some candidates did not address managing the overall situation and gave factors such as “time of day”, “number of persons”, “gender”, “age”. Although these are factors in general meal planning, they were not necessary here. Popular correct responses were “shopping and storage facilities”, “experience/capability of the cook”, “cooking equipment, cooking facilities and serving equipment”.

The final part of the question asked for two safety precautions which should be observed when preparing and serving the meal with regard to clothing, floor surfaces and the cooker. This was very well done; however, quite a few candidates referred to the “cooker” as the “person preparing the meal” or in some cases the “pressure cooker”.

Question 6

This question was also fairly popular and focused on consumerism and purchasing. Marks ranged from 0 to 16.

In Part (a), candidates were asked to give the definition for “impulse buying”. The majority of candidates were able to give a good definition. However, some candidates were unable to express themselves clearly to obtain full marks. Some candidates confused it with “bulk buying”.

Part (b) requested candidates to state four advantages of purchasing food in a large supermarket. This was very well done. It is heartening to note that candidates mentioned the technology that is used at the large supermarkets—UPC, which would lessen time spent at the cashier, and all items that were purchased would be recorded with the price on the bill.

Part (c) was not very well done. Candidates were asked to design a label for a “pasta” product. This would include macaroni, spaghetti, noodles, vermicelli, linguine, fettucini and a host of other products. However, many candidates did not know what pasta was and labels for jam, pickles, hair cream, shampoo, soft drinks were all mentioned. Further, many candidates listed the information without giving any particulars that should appear on the label, e.g. “net weight” instead of “net weight — 500g.” “name and address of manufacturer” instead of “Ben Lee, Industrial Compound, Arima, Trinidad and Tobago”. Also many candidates did not list the ingredients on the label in order of quantity.

Part (d) was very well done. It requested candidates to suggest four ways that a homemaker on a limited budget could get the most from the food dollar in order to provide nutritional meals for the family. Popular correct responses were “make use of a kitchen garden”, “buy cheaper cuts of meat and fish”.

Question 7

This question was the least popular and not very well answered. Marks ranged from 0 to 13.

In Part (a), candidates were required to list six guidelines that should be followed when planning and preparing a packed lunch to be eaten at a cricket match. The majority of candidates were able to give appropriate responses. However, a few candidates wrote about preparing the meal for the cricketers.

In Part (b), a place setting for a three-course meal was used as a stimulus and candidates were required to write a menu for a lacto-vegetarian that was compatible with the setting. This part of the question was not very well done as many candidates included meat and fish. Others wrote a two-course meal, as well as included a drink which was usually placed before the dessert. It should be noted that a drink is not necessary when writing such as menu.

In Part (c), the stimulus of a laid coffee tray proved very challenging for the candidates. Candidates were required to identify three faults and suggest how the faults could be corrected. The majority of candidates missed the point and made reference to the placement of the china, the spoon in the sugar bowl, the cup turned upwards, instead of saying that a teapot was used instead of a coffee pot, granulated sugar was used instead of brown sugar, and cold milk was used instead of hot milk.

SCHOOL-BASED ASSESSMENT

Performance on the School Based Assessment was good. The teacher and external examiner marked Assignment 2 of the School Based Assignment, and Assignment 2 was requested for moderation.

Administrative Details

In most cases, the guidelines for selecting the samples for moderation were adhered to, as most teachers provided a sample with a high, medium and low average. Candidates' details (component scores and total scores) were accurately recorded. The second assignment and mark schemes were not submitted in many cases, however.

Appropriateness of Activities

The majority of assignments submitted were relevant to the course and were of appropriate difficulty for the stipulated two-and-a-half hours. However, where mark schemes were submitted, some were not developed according to the generic mark scheme in the syllabus.

Adherence to Syllabus

The majority of assignments were selected according to the syllabus guidelines

Standard of Candidates' Performance

1. Choice of Activities

In most cases, the choice of activities was appropriate in terms of tasks selected, with sufficient attention paid to skill level, and economy of fuel, time and energy.

2. Selection of Equipment and Materials

Some candidates are still listing quantities of ingredients that are too large for the stated tasks. Special equipment and materials should only include equipment specific to the tasks and not general equipment such as measuring spoons and mixing bowls, for example.

3. Plan of Work

The majority of plans were well written. However, there are still a few areas of weakness.

- (a) Unrealistic time allocation for certain dishes/items
- (b) Times given for completion of activities not adhered to.

Quality of Teachers' Assessment

This was generally satisfactory as there was a high correlation between the external examiners' marks and the teachers' marks.

RECOMMENDATIONS TO TEACHERS

Overall, the performance in most of the questions on the Food and Nutrition examination was fair. Teachers are advised to use the recommendations suggested as a guide to improve candidates' performance.

The following suggestions are made to teachers.

1. Experiences should be provided for candidates to answer questions with a variety of key words such as define, discuss, explain, describe, select, list, suggest and state.
2. Encourage candidates to read questions carefully, paying particular attention to key words and phrases.
3. Provide numerous opportunities for candidates to work on the use of knowledge profile of questions, so that they will be exposed to analysis, synthesis and evaluation.
4. Candidates should make special note of the technical terms at the beginning of Modules, learn their meanings and apply them to other aspects of the Module.
5. Candidates should be taught the correct names and uses of equipment, for example, a cooker is made up of a stove and oven; a coffee pot is tall and slim while a tea pot is short and round. They should also be taught the appropriate words when describing jam/jelly. Instead of "good flavour", "the characteristic flavour of the fruit" or "rich fruity flavour" would be more explicit, and instead of "good texture", "firm, but easy to spread". Instead of "correct proportion of ingredients", candidates should say "too little or too much" of the ingredient, and in the case of oven temperatures "too hot or too cool an oven" instead of "correct or incorrect temperature". Although some of these answers may appear in texts the teacher should encourage candidates to use the appropriate terminology.
6. Candidates should be advised to develop responses fully, paying attention to the marks allocated for each question.
7. Teachers should emphasize the correct format for writing menus. Note that the drink or beverage is not necessary when writing a menu.
8. Candidates should be given practice in numbering each part of the question.
9. During demonstrations and at evaluation procedures in practical sessions, teachers should ensure that reasons are given for the different steps in the preparation of dishes or items, and the reasons for the failure of various procedures in food preparation.

School-Based Assessment

1. Prepare assignments and Mark Schemes in accordance with guidelines contained in the syllabus.
2. Submit Assignments/Mark Schemes and Plans of Work for the assignment requested by CXC, by the stipulated time.
3. Complete Record of Marks fully and accurately and use whole numbers for entering candidates' component and total scores.