

CARIBBEAN EXAMINATIONS COUNCIL

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

MAY/JUNE 2007

FOOD AND NUTRITION

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FOOD AND NUTRITION
GENERAL PROFICIENCY EXAMINATION
MAY/JUNE 2007

GENERAL COMMENTS

The Caribbean Examinations Council administered its twenty-sixth examination in Food And Nutrition in June 2007.

Paper 01 – Multiple Choice

Paper I was a multiple-choice paper which consisted of 60 items and carried a maximum of 60 marks.

Performance on this paper was satisfactory. The mean score was 34 out of 60 and marks ranged from 0 to 52.

Paper 02 – Structured Essay Questions

This paper consisted of seven questions divided into two parts. Part A 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 B comprised four questions which tested the remaining Modules of the syllabus. Candidates were expected to answer two questions from the optional section for 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. Question 4 was the most popular, while Questions 5 and 7 were of equal popularity. Question 6 was the least popular.

Overall, the performance of candidates was fairly good. However, candidates continue to miss key words and phrases and give general responses to a specific topic and as a result lose valuable marks.

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 external examiner.

DETAILED COMMENTS

Paper 02 – Structured Essay Questions

Question 1

This question related to Diet, Health and Nutritional Status. Generally the performance on this question was satisfactory.

In part (a) candidates were required to outline two reasons why some individuals become vegetarians, in part (b) they were required to list two symptoms of anaemia, and in (c) explain why dietary fibre was important in the diet. In part (d) (i) candidates were given a menu for Mr. Smart an elderly convalescent, and asked to identify

and justify which items or dishes were unsuitable for him, and in (d) (ii) to adapt the identified dishes/items to make them suitable for Mr. Smart. Additionally in (d) (iii) candidates were requested to give four guidelines that should be followed when planning and preparing meals for Mr. Smart.

Parts (a), (b), (c) and (d) (i) were very well answered with many candidates obtaining full marks. However, in part (d) (ii) the word *adapt* seems to have been misunderstood by some candidates. Candidates were required to change the method of cooking to suit the age and condition of Mr. Smart; however, many gave entirely new dishes such as grilled lamb, stewed beef, baked fish, boiled rice, macaroni salad. Dishes such as baked, steamed, grilled, boiled or stewed chicken or potatoes would have been the appropriate choices.

Part (d) (iii) also posed a problem to many of the candidates as they gave general rules for preparing, planning and in some cases serving meals instead of focusing on an elderly convalescent individual. Inappropriate responses such as *time of day or year, climate, experience of the cook, use of colourful china, serving small quantities* were often given.

Responses such as - *Doctor's orders should be obeyed; Meals must be prepared out of the sight and smell of the patient; Food must be fresh and of good quality; Strict hygienic practices must be observed, Avoid re-heated foods; Avoid spicy foods;* would have been acceptable.

Question 2

This question was a compulsory question and dealt with Food Preservation.

Part (a) focused on food additives; part (b) required candidates to list two changes that could occur during the process of dehydration; and, part (c) requested candidates to give possible effects on green beans that were not blanched before freezing. In part (d) candidates were asked to provide one reason for given steps in the pickling of onions.

Part (e) dealt with fermentation and crystallization of jam.

Part (a) was very well done with the majority of candidates gaining full marks.

Part (b) was not very well answered. However, the majority of candidates were able to give at least one correct answer. Part (c) was fairly well answered. A significant number of the candidates were able to state that there would be changes in the colour, texture and flavour of the beans.

Part (d) proved to be challenging to the majority of candidates. They were unable to give the scientific reasons for the steps involved in the pickling of the onions. Correct responses would have been:

- (i) Soak onions in brine for 12 -24 hours
Reasons: – micro organisms would be destroyed/the development of microbes is retarded /there is a reduction in the water content of the onions due to osmosis/ the tissues are hardened due to the removal of starch from cells.
- (ii) Drain thoroughly, then put onions in bottle
Reason: – draining of the onions prevents the dilution of the vinegar.
- (iii) Pour vinegar into bottle to cover onions
Reason: – the presence of the vinegar will retard the development of the micro-organisms due to a low ph medium.
- (iv) Secure bottle with non-metal cover
Reason: – the cover of the pickle will not erode.

Parts (e) (i) and (ii) were very well answered. Candidates were able to give logical reasons for the fermentation of jam as well and give precautions to prevent crystallization of jam.

Question 3

Food Preparation Methods was the focus of this question. Candidates were required to

- (a) state three uses of cheese in food preparation;
- (b) suggest one accompaniment for
 - (i) fresh green salad
 - (ii) steamed pudding,
 - (iii) pumpkin soup; and,
- (c) name and describe the preparation, cooking and service of a one-pot dish using uncooked rice, raw chicken, dried peas or beans and fresh and dried seasonings.

Candidates performed creditably on this question. In part (a) many candidates were able to give correct responses for the uses of cheese in Food Preparation. However, far too many gave incorrect responses such as *coating* and *binding*.

In Part (b) many candidates were unable to distinguish between an accompaniment for a dish or item and accompaniments for a complete meal. As a result, responses such as a protein dish and starch dish for example, *baked chicken and fried rice* were popular, instead of a french dressing for the fresh green salad. As an accompaniment for the steamed pudding many candidates substituted decorations such as whipped cream and fresh fruit instead of jam or fruit sauce. The majority of candidates were able to give *croutons* as one of the correct responses for the pumpkin soup.

Part (c) was challenging to most candidates. The main difficulty appeared to be the requirement to list steps in the procedures named. Many responses did not follow a logical sequence although candidates were not penalized for answering in that form. The majority of candidates were able to give the correct points for the preparation. However, the cooking aspect was not answered correctly. Many candidates omitted important points such as softening of the dried peas or beans, reducing the heat, and the recognition of doneness. The service of the dish was also not well answered. Many candidates stated that the rice should be put on a plate after having been cooled, and garnished, instead of *serve in an appropriate dish or platter, garnish with a suitable item for example, a sprig of parsley, wedge of tomato or slices of sweet pepper. Serve hot or at once.*

Question 4

This question was the most popular of the optional questions, and very well answered. The question was designed to test:

- (a) (i) functions of water,
- (ii) vitamin A , and
- (iii) protein,

- (b) nutritional needs of
- (i) active teenage boys,
 - (ii) elderly women and
 - (iii) young children and
- (c) factors which could affect the nutritional value of food after harvesting and before reaching the consumer.

Part (a) was exceptionally well done. Candidates had a good understanding of the functions of the different nutrients and were able to obtain full marks.

In part (b) candidates were required to give two reasons why the following foods should be included in the diet of each named group.

- (i) Active teenage boys : Liver, dark green leafy vegetables, red meat, dried peas and beans. Popular correct responses given were: these foods are rich sources of iron needed to provide blood for the growth spurt, general wear and tear of the body and the prevention of anaemia.
- (ii) Elderly women : Milk, cheese, cereals, sardines and other fish with edible bones. Candidates were able to state that these foods are rich sources of calcium which is necessary. As women get older, calcium is not replaced therefore it is necessary to prevent bone degeneration (osteoporosis.)
- (iii) Young children: Fortified milk, oily fish, margarine, and red meat. Candidates were again able to note that these foods are rich sources of Vitamin D which promotes growth in young children as well as to provide minerals to bones and teeth and increase absorption of calcium.

The majority of candidates were able to identify the specific nutrient as it related to the list of foods for the named group. However, quite a number of candidates misread the word *elderly* and discussed *adult* women, mentioning incorrect responses which involved pregnancy, lactation and menstruation.

Part (c) was fairly well done. Many candidates discussed pre harvesting effects such as the use of fertilizers and preparation of the soil instead of post harvesting.

Correct responses were:

- Over-exposure to light
- Careless handling or breaking of leaves and stalks
- Delays in transportation
- Poor storage facilities for example heat, rodents, insects
- Delays in processing
- Poor packaging
- Use of additives in processing: if too much is used it can be detrimental to health.

Question 5

This question dealt with purchase, use and care of equipment, as well as precautions to prevent food contamination.

Candidates were required to

- (a) identify the features of a pot or saucepan and a free standing mixer;
- (b) suggest safety measures to be taken during filleting and frying fish;
- (c) suggest how fish could become contaminated at the place of sale; and,
- (d) develop guidelines for the proper use of blenders.

In Part (a) it was apparent that many candidates did not read the question carefully and gave points on choosing each piece of equipment, rather than stating its features. Incorrect responses such as *the price, size suitable for the family*, were very popular. Many candidates gave incomplete answers such as *handle, base and material*.

Examples of some features of a pot or saucepan were:

- The pot should be manufactured from durable material
- The base should be thick and flat
- The handle should be easy to grip
- The cover should be tightly fitted with a heat-resistant knob
- The handle should be constructed from heat-resistant material

Examples of some features of a free-standing mixer were:

- It should have the power and capacity to do a range of jobs.
- It should be easy to keep clean and maintain
- It should be made of a durable material
- The attachments should be easy to fit
- It should be easy to operate

Part (b) was also challenging for candidates. Instead of focusing on measures to be taken when filleting and frying the fish, they wrote about general accidents which could happen in the kitchen.

Part (c) was fairly well answered, although many candidates focused on contamination in the food preparation area rather than the place of sale.

Part (d) proved to be challenging to some candidates as well. They were requested to develop guidelines that a Food and Nutrition teacher could implement in the food laboratory to ensure proper use of the blenders. Many candidates gave administrative reasons for the teacher to use rather than how to use the blenders efficiently.

Examples of acceptable responses were:

- The machine should not run beyond the stipulated time as this would result in overheating
- Large pieces of food should not be placed in the goblet as this may dull the blade.
- The manufacturer's instructions must be followed.
- The base should not be immersed in water.
- Sharp objects such as knives should not be placed in the goblet when in use.
- The recommended capacity of the goblet should be adhered to.
- The lid must be placed on the blender when in use.

Question 6

This question was the least popular.

In part (a) candidates were required to state two advantages of the Universal Product Code (UPC); (b) state two characteristics of a fresh egg; (c) explain the principle by which heat is transferred through radiation; (d) describe three ways of introducing air as a raising agent into mixtures, other than by sieving, and give an example of an item or dish that can be prepared by the method; and, (e) briefly describe the physical changes that take place in oats when oatmeal porridge is prepared.

Part (a) of the question proved very challenging to the majority of candidates as they were unable to state the advantages of the UPC. Examples of acceptable responses were:

- It shows an itemized receipt so that the consumer can read the name and price of the item.
- Less time is spent at the check out counter.
- It is accurate as the cashier cannot punch incorrect prices.
- The consumer can get information on stock of the product available.

Part (b) was quite well answered, although some candidates gave characteristics of a stale egg. Part (c) was also very well answered. In part (d) candidates also did very well, although in some cases the incorrect example was given.

In part (e) many candidates described quite accurately the physical changes that would take place when oatmeal porridge was prepared, although many never mentioned that heat was required for gelatinization to take place.

Question 7

This question required candidates to (a) differentiate between a 'menu' and a 'main course'; (b) give one advantage of a u-shaped kitchen and one disadvantage of a one-wall kitchen, (c) (i) develop four guidelines that could be used in planning a three-course packed lunch and (ii) outline factors to be considered when packing the items; and, (c) suggest how eggs, flour, and root vegetables should be stored at home.

Part (a) proved to be somewhat challenging to the majority of candidates. They were able to define the term *menu* but did not fare so well with the term *main course*. Some candidates wrote that it was *the main meal of the day*, others *the main dish in a meal*. The correct definition was *a set of dishes or a dish (one - pot) which includes protein, carbohydrates, fat, vitamins and minerals*.

Part (b) was fairly well answered. However, many candidates incorrectly stated that the one-wall layout was smaller, therefore there was less room to move around. Candidates scarcely mentioned the work triangle.

In part (c) (i) many candidates gave general guidelines for meal planning instead of focusing on packed meals. Many candidates wrote menus even though they were directed not to do so. Part (c) (ii) was reasonably well answered. Examples of correct responses were:

- Plastic or styrofoam containers should be used for packing.
- Vacuum flasks or insulated bags should be used for hot or cold beverages, dishes or items.
- Aluminium foil and plastic cling wrap should be used for wrapping.
- Care should be demonstrated in packing.
- All items should be well sealed to prevent spills.

Part (d) was very well answered with the majority of candidates obtaining full marks.

SCHOOL-BASED ASSESSMENT

Performance on the School-Based Assessment was good. The assessment given by the External Examiners seemed to suggest that the integrity of the examination was not compromised. In the majority of cases, teachers' marks varied slightly from those of the External Examiners or both were identical.

Positive observations made by External Examiners were as follows:-

- Assignments administered by teachers were appropriate in terms of tasks selected.
- Sufficient attention was paid to skill level, and economy of time, fuel and energy.
- Candidates exhibited a wide range of culinary skills.
- Implementation of tasks was done methodically in an examination atmosphere.
- The level of creativity demonstrated by most of the candidates was commendable.
- The majority of candidates were adequately prepared.
- Candidates developed legible, well-structured time plans which bore the essential elements of the assignments.

The following areas need special attention:

- Where feasible, it is suggested that candidates do not all do the same assignment. It is envisaged that a spread will lessen the demands on limited resources such as cookers and sinks. Thus tasks will be performed with expediency.
- Prior to the activity, time should be spent ensuring that the Food Laboratories are scrupulously clean and equipment and appliances are in good working condition.
- Special equipment and materials should only include those specific to the tasks and not general equipment such as measuring spoons and mixing bowls.

- Large quantities or extra ingredients and extra equipment should be discouraged.
- Time allocations should not exceed 20 minutes and should be realistic, for dishes/items.
- Times given for completion of dishes should be adhered to.
- Dovetailing of tasks should be encouraged.
- All dishes/items should be followed through from preparation to service.
- Excessive handling of food should be discouraged.
- Greater emphasis should be placed on table setting and meal service.

RECOMMENDATIONS TO TEACHERS

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

1. Every effort should be made to cover the syllabus as thoroughly as possible.
2. Candidates should have access to a syllabus in order to assist them in their preparation.
3. Experiences should be provided for candidates to answer questions with a variety of key words such as define, discuss, list, suggest and state.
4. Encourage candidates to read questions carefully, paying attention to key words and phrases.
5. Provide numerous opportunities for candidates to work on the use of knowledge profile of questions so that they will be exposed to application, analysis, synthesis and evaluation.
6. Candidates should note the technical terms at the beginning of the Modules and learn to apply them to other aspects of the Module.
7. When asked for guidelines or rules for planning meals for specific groups, candidates should be encouraged to give the specific rules or guidelines instead of general rules or guidelines.
8. Candidates should be advised to develop responses fully, paying attention to the marks allocated for each 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 failure of various procedures in food preparation.
10. Teachers are encouraged to make use of past examination papers for homework, class discussions and class examinations.