

**CARIBBEAN EXAMINATIONS COUNCIL**

**REPORT ON CANDIDATES' WORK IN THE  
CARIBBEAN ADVANCED PROFICIENCY EXAMINATION  
MAY/JUNE 2005**

**FOOD AND NUTRITION**

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**CARRIBBEAN ADVANCED PROFICIENCY EXAMINATION**  
**MAY/JUNE 2005**

**GENERAL COMMENTS**

The Caribbean Examinations Council administered its third open examination in Food and Nutrition Unit I and its second open examination in Unit 2 in May 2005. There were some good responses to questions in both Units.

There are some areas of the syllabus where greater depth of coverage is required. These areas are highlighted in the detailed comments on individual questions.

**DETAILED COMMENTS**

**Paper 01 –Short Answer Questions**

Question 1

This question tested candidates' understanding of dietary practices of persons who are at risk for high blood pressure, and dietary guidelines aimed at improving the quality of life of persons living with HIV/AIDS.

The overall performance of this question was good.

Part (a) (i) of the question was fairly well done. Most candidates understood that regular use of salted meat increased blood pressure. However, they were unable to make the link that a high intake of sodium leads to a retention of fluids and hence an increase in blood pressure.

In part (a) (ii) most of the candidates noted that carbohydrates are bulky so the total food intake is likely to be small, thereby keeping the body weight normal. Very few candidates were able to explain that fibre helps to lower blood pressure by keeping blood vessels healthy and elastic. It binds with, and removes cholesterol.

Performance on part (b) was good. Most candidates were able to list other nutrition related diseases.

Performance on part (c) was good. Most candidates correctly formulated guidelines for those living with HIV/AIDS.

Question 2

This question tested candidates' understanding of how dietary conditions may be verified, health effects caused by excessive consumption of dietary fibre and low calorie diets.

In general this question was poorly answered.

Part (a) was not done well by the majority of candidates who seemed not to be familiar with the term 'verified'. Similarly, they were unable to give measures such as blood tests and visual tests for verifying anaemia in pregnant women, and for overweight in the elderly; Body Mass Index (BMI); and weight for height.

Performance on part (b) was satisfactory. Several candidates correctly explained why children on low calorie diets are wasted or thin for their weight.

Part (c) posed the greatest challenge as candidates explained the role of fibre in the diet and did not focus on health effects caused by excessive consumption of dietary fibre, such as flatulence, diarrhoea, and displaced calories.

Question 3

This question tested candidates' understanding of nutrition related problems that are prevalent among young children, the activities that can be undertaken by a day care facility to address these problems, and the affects of an increase in

the metabolic rate of teenagers.

This question was very well done, although in part (b) some candidates identified PEM/malnutrition as a nutrition related problem in the region.

Performance on part (b) was good. Candidates were able to give responses which adequately addressed nutrition related problems in children.

In part (c) some candidates seemed not to understand the term 'metabolic rate' hence they did not describe effects of an increase of the metabolic rate in teenagers.

#### Question 4

This question tested candidates' understanding of genetically modified foods and nutrition labelling.

Performance on this question was good.

Part (a) of the question was satisfactory. Candidates showed a fairly good understanding of genetic modification. However, some were unable to link the effects the modification would have on the diet of a strict vegetarian.

Part (b) (i) was well answered. Candidates were able to read and interpret the label correctly identifying 'standard portion size' as a serving size and 'daily value' as the proportion of nutrients in relation to the Recommended Dietary allowance.

In part (b) (ii), the calculation of calories contributed by total carbohydrates and the percentages of energy from fat posed a challenge to candidates.

#### Question 5

This question tested candidates' understanding of the methods of preservation of milk, and food safety regulations.

The overall performance of this question was good.

Performance on part (a) was good. Candidates made a fair attempt in their responses as they were familiar with the methods of preservation but were unable to explain the scientific principles involved in each process. For example they could not state that ultra heated milk is heated for one second at 132.2 ° C and packaged under aseptic conditions to destroy food spoilage and pathogenic organisms.

In part (b) most of the candidates were aware of the food safety regulations. However, they were unable to give a comprehensive justification for the regulations. Many did not recognize that microbes grow best at temperatures between 4 ° C and 60 ° C which is the danger zone.

#### Question 6

This question tested candidates' understanding of feeding and safety practices of children.

The overall performance on the question was very good.

Performance on part (a) was excellent and it was evident that candidates enjoyed responding to this question.

In part (b) many candidates correctly explained safety practices for preparing beverages from fresh fruits. Some, however, focussed on the conservation of nutrients rather than on food safety practices.

#### Question 7

This question tested candidates' understanding of microwave cooking.

In general, performance on this question was poor.

Part (a) was poorly answered as candidates were generally unaware of the principles underlying microwave cooking;

instead they gave benefits of using the microwave.

Performance on part (b) was poor as candidates were not familiar with the term 'cold spots' and instead identified ways of cleaning the microwave. Expected responses of preventing cold spots include the following:

- Stirring food during cooking to facilitate even cooking
- Arranging food uniformly
- Removing bones and cooking at medium power for a longer period of time
- Following recommended standing time so that cooking is completed
- Ensuring that foods are at the same temperature when placed in microwave

Performance on part (c) was weak. Many candidates were unable to suggest suitable reasons for not heating a baby's milk in the microwave.

#### Question 8

This question tested candidates' understanding of factors which contributed to success in bread making and potential hazards found in a bakery.

The overall performance of the question was poor.

In part (a) candidates had some knowledge of the success factors but were unable to adequately explain the principles. For example, they mentioned the need to have warmth but did not explain that yeast will reproduce best at temperatures of 76° to 82° F. Below and above this temperature yeast is dormant, or is killed.

Part (b) was not well done. Candidates linked 'knocking back' with kneading the dough rather than explaining that this process distributes yeast cells that are formed during the fermentation stage, and allows for satisfactory volume of the finished product.

Part (c) was answered satisfactorily. However, some candidates misinterpreted the question and related it to problems that can result with the yeast product rather than general hazards that occur in the bakery.

#### Question 9

This question tested candidates' knowledge of recipe modification and the purposes of garnishes.

The overall performance on this question was very good.

Performance on part (a) was fairly good. Most candidates justified suitable modifications.

In part (b) excellent responses were given as candidates were able to give suitable garnishes and correctly identified their purposes.

### **Paper 02 - Structured Essay Questions**

#### **Section I - Compulsory Question, Modules 1, 2 And 3**

#### Question 1

This question tested candidates' understanding of the categories, role and needs of protein in the diet, protein content of the six food groups, feeding the vegan, serving entrees attractively and sensory characteristics of food.

This was a compulsory question and was attempted by all the candidates.

The overall performance on this question was satisfactory.

Part (a) was satisfactorily done. Most candidates were able to outline the role of protein in the diet. However; many experienced difficulty in listing legumes, food from animals, whole grains (nuts and cereals) and textured vegetable

protein as the four main categories of protein foods.

While many candidates showed an understanding of the differences in the protein needs of infants and the elderly, responses did not reflect those expected at this level of examination. Responses should have explained the comparison in relation to body mass in order to support periods of intensive growth of children and the need of the elderly for maintenance.

Candidates experienced difficulty in justifying the need for complementary proteins in the diet.

Performance on part (b) was fairly good.

When assessing the protein content of protein foods, candidates were not specific. It was expected that the responses would indicate if protein in a group was deficient, of high or low biological value and contained large or moderate amounts. Most of the candidates were able to plan two course meals for vegans, while a few included food items such as fish and chicken.

Performance on part (c) was weak. Candidates experienced difficulty in outlining ways in which entrées may be attractively served. Responses expected included:

- Garnishes should complement the food in colour, texture, design, size and taste;
- Garnishes should be used only when necessary to give balance to the arrangement of a dish;
- Garnishes should not mask the flavour of the food being presented
- Garnishes should be arranged so that there is unity, ensuring that the eyes are drawn to the dish.

Candidates identified the sensory characteristics of food but could not explain the principles.

## **Section II - Module 1**

### Question 2

This question tested candidates' understanding of terms commonly associated with eating and the multi-mix principle.

This question was attempted by a large percentage of the candidates. The overall performance on this question was good.

Performance on part (a) was good. Most candidates adequately differentiated between hunger and appetite and discussed psychological factors that affect eating behaviour.

In part (b) candidates were not very clear about the multi-mix principle, thus, explaining the rationale for its use and different types of mixes posed a challenge. Explanations and rationales for the use of the multi-mix principle include those listed below.

- It is based on the premise that a mixture of foods eaten together will complement and naturally reinforce one another.
- The four foundation groups are: staples, foods from animals, legumes and coloured vegetables.
- It is a simple way of ensuring nutrient balance in a way that the general population can understand.
- The mixes create several options so that persons with low incomes can have the best nutrient balance possible.
- The mixes are useful in planning crushes and meals for young children.

### Question 3

This question tested candidates' understanding of energy balance and was attempted by a small percentage of the candidates.

Performance of the few candidates who attempted this question was satisfactory.

Performance on part (a) was fair. Some candidates were not able to fully calculate the amount of energy needed to make up the diet. Candidates were not need to be provided with opportunities to practice calculating these types

of problems. Candidates did not fully comprehend the term 'energy balance' and were, therefore, unable to outline a clear response.

In part (b) candidates kept referring to 'prevention' as opposed to 'management' of diabetes. The focus was placed primarily on 'placing students on a diet'. Expected responses are given below.

- Screening - regular glucose testing and periodic fasting to ensure that blood glucose levels are in control.
- Diet - control of energy intake to ensure that the person does not fall into a coma, and to prevent hypoglycemia (low blood sugar). Use of complex carbohydrates rather than simple sugars. Use of low glycemic foods that do not raise glucose levels greatly.
- Medication - following the instructions of the doctor to ensure acceptable glucose blood levels.
- Exercise - following a regular exercise regime to help improve blood glucose and to maintain desirable weight.

### **Section III - Module 2**

#### Question 4

This question tested candidates' understanding of meal planning, use of convenience foods, caloric value of energy nutrients and implications of excessive intake of energy nutrients.

This question was attempted by a small percentage of the candidates and those who responded made a good effort.

Performance on part (a) was good. Many candidates skilfully incorporated convenience food into the meal.

In part (b) candidates gave suitable responses for implications of excessive energy intake on health. However, at this level candidates should be able to correctly interpret the term 'caloric value', which was not the case in several instances.

#### Question 5

This question tested candidates' understanding the implications of excessive consumption of particular nutrients and the importance of safety during food preparation.

This question was attempted by a large percentage of the candidates.

Performance on part (a) was good. The majority of the candidates outlined the implications for excessive consumption of sodium and protein but failed to give full explanations of these implications.

Part (b) was done well by the candidates as most were able to state the sanitary practices for ensuring food safety. It is evident that candidates have a perfunctory understanding of the importance of sanitation in food preparation. However; they experienced problems in fully discussing the concept.

### **Section IV - Module 3**

#### Question 6

This question tested candidates' understanding of the procedure for roasting a turkey, suitable accompaniments and the first-aid procedure for the treatment of injuries that may be sustained during the preparation of the turkey.

Performance on this question was fairly good. The question was attempted by a large percentage of the candidates.

Performance on part (a) was only fair. Candidates had a general idea of the requirements of the question but were unable to articulate responses well enough to attain maximum marks.

Part (b) was well done as evidenced by candidates outlining appropriate first-aid procedures.

#### Question 7

This question tested candidates' ability to outline standard management procedures for ensuring the efficient flow of work in a food preparation area, knife sharpening skills and illustrations of a variety of vegetable cuts.

Performance on this question was very poor. The question was attempted by very few candidates.

Performance on part (a) was very poor. Candidates did not focus on the term “management procedures”, and instead focussed exclusively on kitchen lay out. Expected responses include the following:

- Preparation of a plan of work - dishes to be prepared, shopping list, equipment needed and time to complete task;
- Organization of sequence of work;
- Dovetailing of tasks;
- Following procedures of recipe;
- Maintenance of efficient time management;
- Maintenance of clean areas and equipment throughout;
- Holding and serving foods at appropriate temperature.

In part (b) the responses of candidates were weak as evidenced by the inability to clearly explain the procedure for sharpening a knife. Candidates did not understand the term ‘illustrate’, thus, they were unable to score the maximum marks. In addition, several of them were not familiar with the Brunoise cut.

## **DETAILED COMMENTS UNIT 2**

### **Paper 01 - Short Answer Questions**

#### Question 1

This question tested candidates’ understanding of factors that influenced food customs in the Caribbean, and development of original recipes.

The overall performance on this question was very good.

Part (a) was well done.

Candidates responded fairly well in part (b) although many did not develop an original recipe.

#### Question 2

This question tested candidates’ understanding of the impact of excessive consumption of nutrients present in coconut, and strategies that can be used by care givers of school-aged children to promote inclusion of vegetables in their diet.

The overall performance on this question was very good.

In part (a) the majority of candidates were able to list nutrients present in coconut. However, some just wrote vitamins and minerals without being specific.

In part (b) some candidates did not seem to associate excessive consumption of coconut with excessive consumption of saturated fat. However, the majority of candidates stated storage of excess body fat as one possible impact on health.

In part (c) most candidates seemed to understand what the question required but they could not always give two distinct responses. For example the following response ‘make dishes attractive, use colours, shapes and sizes’ counted as the same point but students listed them as single points.

#### Question 3

This question tested candidates’ understanding of functions of food regulatory agencies which ensure food safety, and critical control points in the production of baked goods.

The overall performance on this question was good.

Candidates responded well to part (a) by giving a list of appropriate functions of food regulatory agencies.

In part (b) many candidates confused critical control points in the production process with hygiene practices.

#### Question 4

This question tested candidates' understanding of the role of additives in food manufacturing.

The overall performance on this question was good.

Performance on part (a) was fairly good. Most candidates were able to name various additives, but did not fit them into the right categories. This resulted in only a few candidates scoring the maximum mark.

In part (b) many candidates were unable to identify 'safety' as the major factor when considering the use of additives in food products.

#### Question 5

This question tested candidates' understanding of food labelling to meet international standards and effective packaging of food products.

The overall performance on this question was very good.

Parts (a) and (b) were generally well done. Most candidates scored maximum marks.

Part (c), which required candidates to explain criteria for effective packaging of soups and sauces, posed some challenges to candidates. Though most of the candidates seemed to understand the question, in general, they were unable to provide responses which were accurate and not repetitious.

#### Question 6

This question tested candidates' understanding of properties of egg white and factors to be considered when costing home-made preserves.

The overall performance on this question was fairly good.

Performance on part (a) was only fair. Candidates seemed unable to differentiate between physical and chemical properties. Instead they randomly discussed facts about eggs.

In part (b) candidates clearly understood what was required, even though they were unable to score maximum marks.

#### Question 7

This question tested candidates' understanding of the quality of food service in an eating establishment.

The overall performance on this question was good.

The majority of candidates performed well in part (a). However, some candidates interpreted the question incorrectly as evidenced by the listing of reasons for delays in serving the meals rather than giving measures to be put in place to address the problem of lateness.

Part (b) was done very well.

#### Question 8

This question tested candidates' understanding of pest control strategies for food establishments.

The overall performance on both parts of this question was very good.

#### Question 9

This question tested candidates' understanding of menu types and use of the multi-mix principle to plan menus.

The overall performance on this question was good.

Performance on part (a) was satisfactory. Most candidates were familiar with the menus and gave reasonable explanations.

In part (b), while many of the candidates seemed to have a cursory understanding of the multi-mix principle, they did not seem to know the term 'five day cycle menu' and were, therefore, unable to apply it in responding to the question.

### **Paper 02 - Structured Essay Questions**

#### **Section I - Compulsory Question, Modules 1, 2 and 3**

#### Question 1

This question tested candidates' understanding of principles of menu planning, comparison of the qualities of traditional and modern equipment used for preparing indigenous dishes, health implications of the use of nutrients, and preservation of meat by smoking.

This compulsory question was attempted by all candidates.

The overall performance on this question was good.

Part (a) presented a challenge to many of the candidates because they concentrated on factors to be considered when planning meals such as adequacy, balance variety, and portion control instead of on principles of menu planning.

Performance on part (b) was good as many candidates were able to identify indigenous equipment and discuss advantages of using modern equipment. Additionally, they were able to list nutrients and give the health implications of each.

In part (c), while most of the candidates were able to identify products preserved by smoking, the majority seemed to have only a vague idea of the steps involved in the process of smoking.

#### **Section II - Module 1**

#### Question 2

This question tested candidates' understanding of food security for the household and ensuring adequate nutrition for persons housed in a shelter after a natural disaster.

This question was attempted by a large percentage of the candidates.

Performance on part (a) was fairly good. The majority of candidates had a good understanding of food security and were able to give reasonably good responses to how food security could be improved.

Part (b) required candidates to discuss factors which affected food availability. Some candidates did not differentiate between food availability and accessibility; thus, they provided responses related to both concepts.

Performance on part (c) was good as candidates were able to discuss appropriate factors to ensure adequate nutrition after natural disasters.

### Question 3

This question tested candidates' understanding of the cultural beliefs about food, and guidelines for ensuring that a healthy diet is maintained.

This question was attempted by a moderate percentage of the candidates. The overall performance on this question was good.

In part (a), candidates were familiar with popular food beliefs. However, they did not always restrict the explanation to nutritional facts. For example, when discussing the fallacy, 'Liver makes babies get worms', several reasons were given for babies contracting worms at that age, without any indication of the nutritional implications of babies consuming liver. Several candidates also looked at dietary guidelines advocated by specific religions, rather than popular cultural beliefs about food.

In part (b), candidates did not restrict responses to dietary measures but included other elements of healthy lifestyle such as exercise.

## **Section III - Module 2**

### Question 4

This question tested candidates' understanding of structural components of carbohydrates in fruits and vegetables and the process involved in manufacturing frozen vegetables.

This question was attempted by very few candidates.

The overall performance on this question was poor.

Performance on part (a) was poor. Most of the candidates were unable to identify the structural components of carbohydrates in fruits and vegetables; instead, the classification of carbohydrates was described. Only a few candidates mentioned fibre and cellulose.

In part (b) candidates explained some of the processing stages in the manufacture of frozen mixed vegetables, but were unable to score the maximum mark, since they failed to include temperatures for blanching, cooking and storing.

### Question 5

This question tested candidates' understanding of food supplementation, vitamin and mineral supplements, and health claims listed on labels.

This question was attempted by the majority of the candidates.

The overall performance on this question was good.

Part (a) was generally well done by the candidates who attempted this question, though some could not clearly differentiate between fortification and enrichment. However, they were very familiar with foods that are supplemented by both processes.

Performance on part (b) was fairly good. Most candidates named the groups of persons who could benefit from supplements, but failed to name the correct micronutrients from which the group may benefit.

In part (c) candidates had a general idea of what a health claim was. They were, however, not familiar with the criteria or legal requirements for the use of certain health claims. Many of them could not give concrete examples of health claims. Expected responses include those listed below.

- Statements that characterize the relationship between a nutrient or other substance in a food and a disease or health related condition.
- The relationship between diet and health must be clearly established by scientific evidence.
- They must emphasize the importance of a total diet and not exaggerate the role of a particular food or diet in disease prevention.
- Manufacturers must not distort the role of their products in promoting health.

- Claims must be honest and balanced. For example, they can state that foods high in calcium may reduce the risk of osteoporosis.

<b>Category</b>	<b>Example</b>
Free	sugar free, sodium free, cholesterol free
High	high in iron, vitamin C, fibre
Less	saturated fat, cholesterol
Light	sodium, sugar, fat
Fat free	seen in most products

### **Section IV - Module 3**

#### Question 6

This question tested candidates' understanding of the requirements for managing and regulating portion control in establishments and factors to be considered when designing menu cards.

This question was attempted by a fairly large percentage of the candidates.

The overall performance on this question was satisfactory.

In part (a), many candidates gave excellent responses for suitable equipment for regulating portion sizes. While most candidates seemed to have an understanding of indicators that may signal to management that portioning standards need to be adjusted, they were unable to fully explain them.

Part (b) was poorly done by the majority of candidates who focussed on menu planning rather than on the design of menu cards.

#### Question 7

This question tested candidates' ability to include Caribbean dishes in a buffet for International Night, considerations for arrangement of the buffet dishes and calculation of the selling price of dishes.

This question was attempted by a fairly large percentage of the candidates.

The overall performance on this question was very good.

Part (a) was widely known. Candidates were able to identify appropriate dishes. However, some responses were not restricted to the factors to be taken into consideration when arranging the dishes on the buffet table.

Candidates responded fairly well to part (b). While many of them knew the components of the pricing system they were unable to integrate these components into the calculation of the selling price.

### **INTERNAL ASSESSMENT**

This paper consisted of a portfolio comprising two pieces of work which tested objectives across all Modules. Candidates, in consultation with the teacher, and using the guidelines provided by the Caribbean Examinations Council, selected the activities.

The first assignment was marked out of 30, while the second was marked out of 60. The overall performance of the candidates has shown great improvement.

The majority of portfolios exhibited a high level of professionalism in organization and were very well presented. Most of the illustrations were clear and creative. The quality of the assignments was appropriate for the Advanced Proficiency Level. It is imperative that teachers are aware that a portfolio should be submitted, instead of three distinct pieces.

Some candidates submitted exemplary portfolios. The work of these candidates was scientifically based and rigorous. These candidates are to be highly commended for their effort.

Several teachers seemed to have used the old syllabus, however. Teachers are asked to ensure that the current syllabus is used in the preparation of candidates .

### **Assignment 1 - Research**

Most of the candidates selected appropriate topics and demonstrated knowledge of relevant facts. In most cases literature reviews were comprehensive, but sources used were not always cited. Data were well presented, but very little reference was made to the data. In several cases, inferences, predictions, or conclusions were not attempted by the candidates. The conclusions and recommendations were not accurately or scientifically based. Similarly, they did not support the analyses of data.

### **Assignment 2 - Experimentation And Recipe Modification**

Candidates selected appropriate experiments and demonstrated knowledge of relevant facts. Reports were well written and presented. Most of the candidates developed rationales, but many hypotheses were not clearly formulated. The procedures for experiments were, in most cases, clearly documented. A large majority of the candidates modified the product after critical or unexpected outcomes.

### **RECOMMENDATIONS TO TEACHERS**

Overall, the performance on the examination was satisfactory. This performance can be improved if recommendations to teachers are used as guidelines to help address weaknesses of candidates. Although candidates had an understanding of concepts they did not elaborate and fully develop answers as was expected at the Advanced Proficiency Level. Some candidates were not fully prepared for this level of examination. It was also clear that they were not familiar with some areas of the syllabus and so they performed poorly or omitted parts of questions. Candidates should, therefore, cover the entire syllabus so that they can satisfy the requirements of the examination. Greater emphasis must be placed on those concepts which can be regarded as current areas of nutrition.

### **EXTERNAL ASSESSMENT**

Candidates should be encouraged to note the following general guidelines:

- Read questions carefully, paying attention to key words;
- Place emphasis on comprehending reasons for certain principles and procedures, rather than just learning by rote;
- Develop responses fully, paying attention to the marks allocated for each part of the question;
- Practice answering questions with a variety of key words, namely - discuss, explain, list, describe and define. (Ignoring these command words and simply listing responses when required to explain, for example, resulted in candidates' inability to gain as many marks as possible);
- Participate in mock examinations using past examination papers and administered under examination condition in order to develop good examination techniques;
- Utilize different media to become familiar with current nutrition issues;
- Place emphasis on research techniques, case studies and problem solving;

- Engage in field trips and work attachments so as to understand fully nutrition concepts such as methods for assessing nutrition status of children; complementary feeding and breast feeding; nutrition related disorders; and practices and procedures for ensuring safety of food;
- Engage in practical exercises in the identification and use of the nutritive value of food not categorized in the food groups namely - functional/genetically engineered foods, fat replacers, sugar, salt and other substitutes; and convenience foods;
- Develop ideas and demonstrate clarity of expression. (In many instances candidates showed some knowledge of the concept being tested, but could not adequately respond to questions to the standard that is required at the Advanced Proficiency level);
- Adhere to general instructions. Many candidates ignored the instruction to begin each question on a new page, sometimes without even skipping a line. In some cases, candidates did not keep parts of a question together. They should be advised to leave a blank page in the workbook when going on to a new question, if the previous question has not been completed. Also, the question number must be written in the space provided.

### **INTERNAL ASSESSMENT**

Candidates should be encouraged to note the following general guidelines:

- Seek guidance in choosing topics for projects as well as throughout the entire exercise;
- Select topics that are of interest and that relate to a problem in the region or community. This should ensure that there is ownership and motivation for the project;
- Note that literature reviews for each assignment do not have to be extensive, but should be thorough enough to outline the problem and research relevant to the same. This cannot be adequately done in two to three pages. A variety of sources should be utilized and the APA referencing style for citing sources and developing a reference list must be used;
- Develop rationales and explain the significance of the topic.

#### **Assignment 1—Research**

- Candidates must not only present the data but they should discuss the data clearly. They should attempt to discuss several of the important or significant questions asked in the questionnaire or interview.
- Candidates must make simple inferences, and draw conclusions from the data. A summary or conclusion must be given at the end of the project.

#### **Assignment 2 - Experimentation and Recipe Modification**

- Candidates should be advised that a detailed report must be written, which accurately records and reports all observations.
- It is important to understand that experiments are not completed on a one-shot basis. It is necessary to repeat and modify experimental methods after critical or unexpected outcomes.
- Efforts should be made to introduce candidates to the role of product development and recipe modification. In addition, demonstrations should be completed before engaging in individual assignments.
- more than removing or changing one ingredient or just throwing ingredients together. This assignment entails detailed experimentation which usually necessitates several trials prior to achieving success. For this reason, it should involve the altering of several ingredients, hence baked products is suggested as an example for modification. For example, at this proficiency it is unacceptable to modify the amount of fat in “beef stew” and view this as competent work,

- Experiences must be provided for candidates to fully understand that a recipe is a formula; thus, any change in an ingredient will necessitate a substitution of ingredients. Reliable and quality products cannot be achieved on a one shot basis.
- Efforts should be made for candidates to understand the role of major ingredients used in recipes, especially baked items. For example, if the amount of sugar in a creamed mixture is altered there must be a suitable substitute or the texture and flavour of the cake will be changed. The goal of recipe modification is to make changes to the ingredients, yet retain the flavour, colour, shape, texture and acceptability of the product. Similarly, product development entails creating a product which is pleasing to consumers.
- Candidates should be encouraged to use food composition tables to determine energy values for the original and new product.
- Candidates should be encouraged to formulate valid hypotheses.
- Candidates should be encouraged to record and report methods, observations and results accurately.
- Candidates should include the results from the sensory evaluation in their discussions.
- Candidates should develop conclusions to summarize their findings.