

THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA



**CANDIDATES' ITEM RESPONSE ANALYSIS REPORT
FOR THE CERTIFICATE OF SECONDARY EDUCATION
EXAMINATION (CSEE) 2015**

**051 FOOD AND NUTRITION
(For School Candidates)**

THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA



**CANDIDATES' ITEM RESPONSE ANALYSIS
REPORT FOR THE CERTIFICATE OF SECONDARY
EDUCATION EXAMINATION (CSEE) 2015**

051 FOOD AND NUTRITION
(For School Candidates)

Published by

National Examinations Council of Tanzania,
P.O. Box 2624,
Dar es Salaam, Tanzania.

© The National Examinations Council of Tanzania, 2016

All rights reserved.

TABLE OF CONTENTS

| | |
|--|----|
| FOREWORD | iv |
| 1.0 INTRODUCTION | 1 |
| 2.0 ANALYSIS OF THE CANDIDATES' PERFORMANCE IN EACH QUESTION | 2 |
| 2.1 Section A: Objective Questions | 2 |
| 2.1.1 Question 1: Multiple Choice Items | 2 |
| 2.1.2 Question 2: Matching Items | 6 |
| 2.2 Section B: Short Answer Questions | 10 |
| 2.2.1 Question 3: Raising Agents | 10 |
| 2.2.2 Question 4: Fish Cookery | 14 |
| 2.2.3 Question 5: Cooking Food | 18 |
| 2.2.4 Question 6: Accidents in the Home | 22 |
| 2.2.5 Question 7: Kitchen and Food Hygiene | 26 |
| 2.2.6 Question 8: Food and Nutrition | 30 |
| 2.3 Section C: Essay Questions | 34 |
| 2.3.1 Question 9: Meal Planning | 34 |
| 2.3.2 Question 10: Age Courtship and Marriage Practices | 40 |
| 2.3.3 Question 11: Laundering in the Home | 45 |
| 3.0 ANALYSIS OF CANDIDATES' PERFORMANCE PER TOPIC | 50 |
| 4.0 CONCLUSION AND RECOMMENDATIONS | 51 |
| 4.1 Conclusion | 51 |
| 4.2 Recommendations | 52 |
| Appendix A | 53 |
| Appendix B | 54 |
| Appendix C | 55 |

FOREWORD

The National Examinations Council of Tanzania is pleased to issue the 2015 Form Four National Examination (CSEE) report on the candidates' items response analysis on Food and Nutrition subject. It is a summative evaluation which among other things shows the effectiveness of the education system in general and education delivery system in particular. This report has been prepared so as to provide feedback to candidates, teachers, school managers and administrators on the performance of candidates in this subject. The report focuses on identifying and highlighting the strengths and weakness of candidates' responses in different examined topics which were covered by the candidates in their four years of Secondary Education. It also points out areas which need improvement and suggests a route of action that teachers, candidates and other stakeholders can take to improve teaching and learning process.

The analysis also shows that higher achievers provided correct responses since they were able to recognize the task of the questions, had enough knowledge of the subject matter and good use of English Language. This report also provides some of the reasons that made the candidates fail to score high marks in the questions. Such reasons include failure to recognize the task of the question, poor understanding of English Language and lack of knowledge on the concepts related to the subject.

In addition, the Council hopes that if the recommendations given in this report are taken into consideration, there will be a change in learning that will lead to greater performance in the future assessment. Finally, the National Examinations Council of Tanzania would like to thank everyone who participated in the preparation of this report. The Council will also appreciate to get suggestions and recommendations from the teachers, candidates and other stakeholders which will help to improve future assessment reports.



Dr. Charles E. Msonde
EXECUTIVE SECRETARY

1.0 INTRODUCTION

This report analyses the performance of the candidates who sat for Food and Nutrition Theory Paper of Certificate of Secondary Education Examination (CSEE) in November 2015. This paper was attempted by both school and private candidates. The examination assessed competences according to the 1997 Home Economics syllabus for Certificate of Secondary Education and the examination format.

The paper consisted of 11 questions categorized into three sections, namely A, B and C. Section A consisted of 2 questions and each carried 10 marks. Section B consisted of 6 short answer questions each carried 10 marks. Section C consisted of 3 essay questions which carried 20 marks. Questions in section A and B were compulsory while in section C candidates were required to attempt only 1 question.

A total of 2,059 candidates sat for the examination. The results show that 1,958 candidates (95.19%) passed with the following grades: Grade A 2 (0.09%), Grade B 183 (8.89%), Grade C 1,298 (63.04%) and Grade D 475 (23.07%). However, 99 candidates (4.81%) failed the examination by obtaining grade F. This analysis of candidates' results indicates that the performance of this paper is average as majority (1,773 out of 2,059) of the candidates got grade C and D. The comparison of the results in 2014 and 2015 indicated that the 2015 performance slightly decreased by 2.25 percent compared to 2014 whereby, 95.19 percent of the candidates who sat for the CSEE 2015 passed and 4.81 percent failed. In the CSEE 2014 about ninety seven percent (97.44%) of the candidates who sat for the examination passed and 2.56 percent failed.

The performance of the candidates in each question was categorized as Good, Average or Weak using green, yellow and red colours, respectively. The pass rate for each question was 30 percent and above of the marks allocated. The candidates who scored an average of 45 to 100 percent fall under Good category, those who scored from 30 to 44 percent fall under an Average category while those who scored from 0 to 29 percent fall under Weak category.

This analysis presents the requirements of each question, the performance of candidates and the reasons for their performance. Some extracts obtained from the candidates' examination scripts, tables and graphs that indicated distribution of candidates' scores are inserted to illustrate the reported cases.

2.0 ANALYSIS OF THE CANDIDATES' PERFORMANCE IN EACH QUESTION

2.1 Section A: Objective Questions

2.1.1 Question 1: Multiple Choice Items

This question consisted of 10 multiple choice items derived from seven topics, namely *Food and Nutrition*, *Cakes and Biscuits Making*, *Cooking Food*, *Food Contamination*, *Laundering in the Home*, *Pastry Making* and *Bread Making*. The candidates were required to choose the correct answer among the given alternatives and write its letter in the box provided.

This question was attempted by all (100%) candidates who sat for this paper. Their score were as follows: 23.7 percent scored from 0 to 2 marks, 39.5 percent scored from 3 to 4 marks and 36.8 percent scored from 5 to 9 marks. There were no candidates who scored full marks (10). These data show that the candidate' performance on this question was good since the majority (76.3%) scored from 3 to 10 marks as illustrated in Figure 1.

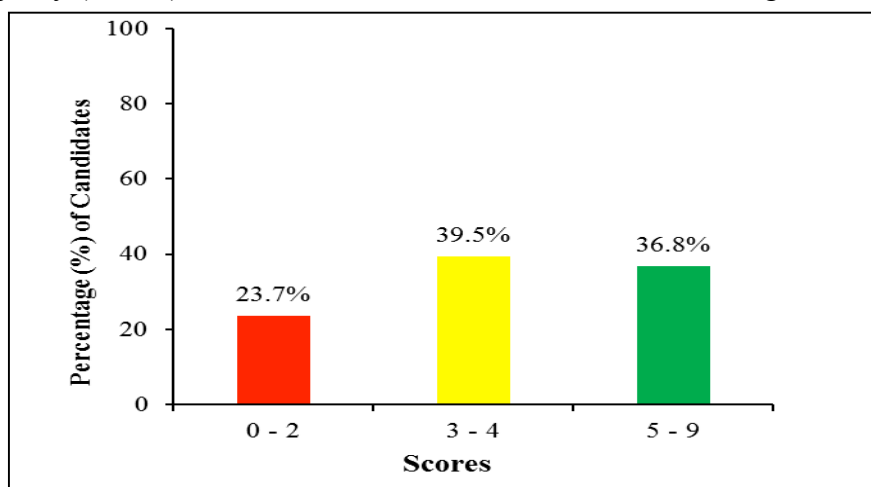


Figure 1: Distribution of candidates' scores

In item (i), the candidates were required to identify the disease caused by deficiency of iron in the body. The correct answer was E - *Anaemia*. Candidates who opted for this response understood that the deficiency of iron in the body will lead to Anaemia. Candidates who opted for A - *Scurvy*, B - *Goitre* and C - *Pellagra* failed to understand that, scurvy is caused by the deficiency of vitamin C, Goitre is caused by lack of Iodine in the body and pellagra is caused by lack of Niacin (Nicotinic acid – Vitamin B3). Candidates who opted for C - *Iodine*, failed to understand that iodine is a mineral and not a deficiency disorder. These candidates had inadequate knowledge of nutrients and nutrient deficiency disorders.

In item (ii), the candidates were required to identify the class in which rock cakes belong. The correct answer was D - *Plain cakes*. The candidates who opted for this response understood that rock cakes are found in a class of plain cakes as they use rubbing in method. Candidates who opted for A - *Rich cakes* and E - *Queen cakes* failed to understand that these cakes are prepared using creaming method, while those who chose E - *Sponge cakes* did not understand that sponge cakes are prepared using whisking method. Moreover, the candidates who opted for C - *Melted cakes* confused the methods of making cakes with the types of cakes, since there are no melted cakes but there is a melted method which is used for making the cakes such as ginger bread.

In item (iii), the candidates were required to identify the nutritional deficiency of the disease pellagra. The correct answer was A - *Vitamin B₃*. The candidates who opted for the correct answer were aware that the lack of Vitamin B₃ (niacin) in the diet may develop deficiency disorder called pellagra. The candidates who opted for B - *Vitamin B₁*, C - *Vitamin B₁₂* and E - *Vitamin B₂* had inadequate knowledge of nutritional deficiency disorders since the deficiency diseases caused by the lack of these vitamins are *Beriberi*, *Megaloblastic Anaemia*, *Pernicious Anaemia*, and *Eye Disorders*, respectively. Furthermore, those who opted for Vitamin B₆ had inadequate knowledge of this kind of vitamin because the deficiency of this vitamin is not common and usually associated with low concentration of other B - Complex Vitamins, such as Vitamin B₁₂ and Folic acid. These candidates had inadequate knowledge of vitamins of the B group.

In item (iv), the candidates were required to choose the suitable method for cooking liver. The correct answer was C – *Frying*. The candidates who opted for the correct answer understood that frying is a method suitable for cooking liver because frying, especially, shallow frying is a quick method of cooking that produces instant coagulation of the surface protein of the liver thus preventing escape of the natural juice. The candidates who opted for A - *Roasting* and E - *Grilling* did not understand that the suitable food for roasting and grilling are good quality meat and poultry which are tender and moist when roasted. Those candidates who opted for B – *Poaching* and D – *Steaming* had insufficient knowledge of the methods of cooking various types of food. They also had insufficient knowledge on the various methods of cooking and their suitability for the foods.

In item (v), the candidates were required to identify types of organisms that cause food decay. The correct answer was C - *Moulds, Bacteria and Yeast*. The candidates who chose this response understood that *Moulds, Bacteria* and *Yeast* are organisms that cause food decay. They had adequate knowledge of microbial food spoilage. The candidates who opted for A - *Yeast, Fungus and Flies*; B - *Fungi, Yeast and Moulds*; D *Bacteria, Rats and Flies* and E - *Yeast, Rodents and Moulds*, had inadequate knowledge on microbial food spoilage and microbiology in general as they did not understand that *Fungi* are organisms that include *Moulds* and *Yeast*.

In item (vi), the candidates were required to identify essential minerals for assisting absorption of vitamin D. The correct answer was D - *Calcium and Phosphorus*. The candidate who opted for the correct answer had sufficient knowledge of food nutrients and their functions. The candidates who failed to choose correct response had inadequate knowledge of the functions of minerals in the body. For example, *Calcium and Phosphorous* are essential for strong bones and teeth, *iron* for formation of haemoglobin and prevention of Anaemia. *Iodine* is for proper functioning of thyroid glands and prevention of Goitre.

In item (vii), the candidates were required to identify suitable stain removal of mildew stains on cottons and linens. The correct answer was C - *Potassium permanganate*. The candidate who chose the correct response

had adequate knowledge of various ways of removing stains. The candidates who failed to choose the correct response had inadequate knowledge of stain removal agents and their suitability on different kinds of fabrics. For example, the candidates who opted for A, did not understand that *Hyposulphite bleach* is an oxidizing bleach which used to remove stain that have dried into fabric. The candidates who opted for B - *Ammonia solution* had insufficient knowledge of vegetable stains since *ammonia solution* is suitable for removing vegetable stains. Furthermore, those who opted for D - *Carbon tetrachloride* did not understand that *Carbon tetrachloride* is a grease solvent thus suitable for removing grease stains. The candidates, who opted for E - *Methylated spirit*, were not aware that *Methylated spirit* is suitable for removing grass stains and ball point pen stains.

In item (viii), the candidates were required to identify the reason for baking pastry without greasing the baking sheets. The correct answer was D - *the fat in the pastry is enough to prevent sticking to the tin*. The candidates who managed to give the correct response had adequate knowledge of pastry making. These candidates were aware that pastry dough contains large proportion of fat. Candidates who opted for C – *grease from the tin causes the pastry to become soggy* were not aware that pastry may become soggy if steam do not escape during cooking. The candidates who opted for A – *the proportions of ingredients in the pastry may be altered*, B - *grease from the tin may spoil the texture of the pastry* and D – *the fat in the pastry is enough to prevent sticking to the tin* had inadequate knowledge of the effect of greasing baking sheets as it can cause too much fat to the pastry dish.

In item (ix), the candidates were required to identify the cause of heavy texture in cakes. The correct answer was B - *Too little raising agent incorporated during creaming and whisking*. The candidates who opted for the correct response had sufficient knowledge of the faults in cake making. The candidates who opted for A - *too much raising agent causing large pockets of gas to be produced* were not aware of the causes of coarse and open texture in cakes. The candidates who opted for C - *too much sugar has been used causing the structure to collapse* did not understand that, too much sugar causes the fruit in fruit cakes to sink. Furthermore, the

candidates who opted for E - *the sugar is too coarse for the mixture and does not dissolve in time*, did not understand that if sugar is too coarse the cake become hard with sugary crust. While those who opted for D – *too much raising agent causing the gluten to overstretch and collapse*, were not aware that this is the cause for the cake to sink in the middle.

In item (x), the candidates were required to identify the reason for avoiding too much heat during the first rising of the dough. The correct answer was A – *the growth of the yeast will be retarded*. The candidates who opted for this answer had adequate knowledge of the changes that occur during the baking of bread. Candidates who opted for C – *baked bread will have unpleasant smell*, did not understand that too much yeast may cause unpleasant smell. Moreover, those who opted for D - *gas pockets in the dough will breakdown*, were not aware that this will occur when the dough is over fermented. In addition, the candidates who opted for E - *dough will become stiff to allow expansion* were not aware that this is the results of insufficient liquid during dough making. These candidates had inadequate knowledge on bread making concept.

2.1.2 Question 2: Matching Items

This question consisted of ten (10) matching items. The items were constructed from the topic of *Materials Used in the Home*. The candidates were required to match the phrases in list A with responses in list B by writing the letter of the correct response beside the item number. This question tested the candidates knowledge on the concept of different types of materials used in home specifically metals.

The question was attempted by almost 100 percent of all the candidates who sat for the examination. The candidates' performance in this question was poor because 90.2 percent scored from 0 to 2 marks. Moreover, 9.3 percent of the candidates scored from 3 to 4 marks and 0.5 percent scored from 5 to 6 marks. Figure 2 shows the percentage distribution of candidates' score in this question.

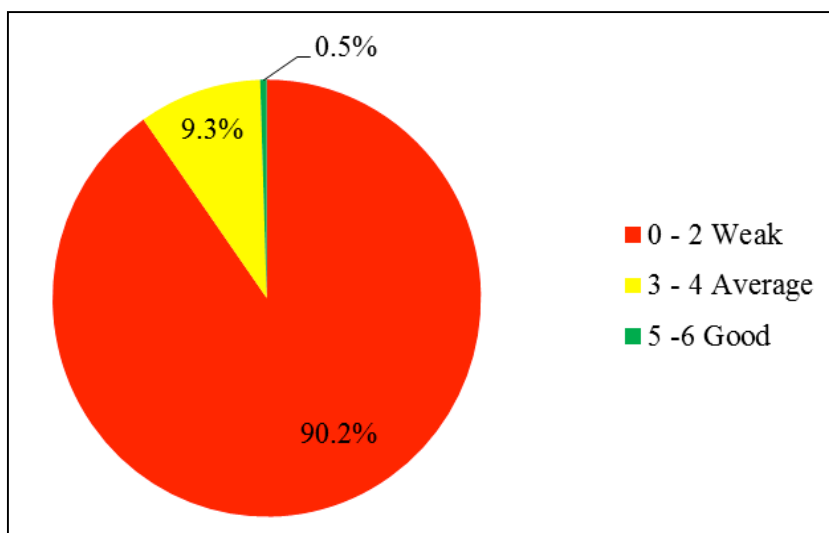


Figure 2: Distribution of Candidates' Scores

In item (i) the candidates were required to identify an alloy that contain chromium, iron, carbon and nickel. The correct response was J - *Stainless steel*. The candidates who opted for the correct response were aware that stainless steel contains chromium, iron, carbon and nickel that make it durable and not easily rust. However, majority of the candidates opted for H – *Tin*. These candidates had inadequate knowledge of metals and alloy of metals because they failed to differentiate tin from stainless steel. Tin is a metal used in making bronze, the alloy made from tin and copper while stainless steel is an alloy from a mixture of metals - chromium, iron, carbon and nickel.

In item (ii) the candidates were required to identify a fairly soft metal which is found naturally in the earth. The correct response was N - *silver*. These candidates were aware that silver is found naturally in the earth in form of silver salts from which it is obtained. However, majority of the candidates opted for L - *Gold*. These candidates confused the characteristics of silver with gold as both are soft metals, shiny and commonly used in making decorations and jewels. In addition, those who opted for other incorrect responses had inadequate knowledge of soft metals used at home.

In item (iii) the candidates were required to identify a metal mined as an ore from the earth crust. The correct response was G - *Iron*. The candidates, who opted for the correct response, understood that iron ore is a mineral substance which when processed will yield metallic iron. However, majority of the candidates opted for N - *Silver* and L - *Gold*. The candidates who opted for *Silver* did not understand that silver is not mined as an ore from the earth crust but rather it is found naturally in the earth in form of silver salts from which the metal is obtained. Pure silver is soft compared to iron which is heavy. Those who opted for *Gold* were not aware that *Gold* is mined from its ore and not as an ore. These candidates were attracted with this answer because they were aware that both Gold and Silver are mined from the earth crust. Other candidates who opted for the other incorrect responses were attracted by the word “mined” because they were aware that metals are mined from the earth crust though not all are mined as an ore.

In item (iv) the candidates were required to identify an alloy of copper and zinc which has high corrosion resistance. The correct response was K - *Brass*. The candidates who opted for this response were aware that brass is a metal alloy of copper and zinc. Moreover, its good heat conductivity and resistance to corrosion from salt water makes it useful in plumbing and electrical appliances. However, the majority of the candidates opted for C - *Steel*. These candidates did not understand that steel is an alloy of iron and carbon. These candidates had inadequate knowledge of steel and Brass. The candidates who opted for the other incorrect responses had inadequate knowledge of metals, specifically the meaning of an alloy that is a metal made by combining two or more metallic elements to give greater strength or resistance to corrosion.

In item (v) the candidates were required to identify a metal mostly used for protecting metals that end to corrode. The correct response was E - *Zinc*. The candidates who opted for this response were aware that zinc is used in making alloy such as brass, aluminium, nickel and silver. However, majority of the candidates opted for A - *Manganese* and D - *Chromium*. The candidates who opted for Manganese, had insufficient knowledge of Manganese as it is not commonly used at home but it is used to harden

other metals and make them to have a compact structure that make them durable. Moreover, those who opted for D - *Chromium* confused the characteristics of Zinc with that of Chromium which has high corrosion resistance and hardness. The candidates who opted for the other wrong responses had insufficient knowledge on the characteristics of metals commonly used at home.

In item (vi) the candidates were required to identify a type of metal made by refining molten pig iron. The correct response was C - *Steel*. The candidates who opted for this response understood that steel is made from refining molten pig iron and is manufactured as either high carbon or low carbon depending on the amount of carbon combined in it. On the contrary, the majority of the candidates opted for M – *Galvanized Iron*. These candidates were attracted by the word *iron* from the statement in list A and thought that *galvanized iron* is the correct answer. However, those who opted for other incorrect responses had inadequate knowledge on the types of metal commonly used at home.

In item (vii) the candidates were required to identify a white metal produced from clay-like material. The correct response was I – *Aluminium*. The candidates who opted for the correct response understood that *aluminium* is made from clay like material called Bauxite and is widely used in home and particularly for household utensils such as bowls, fraying pans, baking tins and sauce pan. However, the majority of the candidates who opted for O – *Nickel*, failed to understand that *nickel* is silvery-white lustrous metal with a slight golden tinge and not a white metal produced from clay-like material.

In item (viii), the candidates were required to identify a hard and shiny metal that can be used to coat other metals used in many surfaces at home. The correct response was D - *Chromium*. The candidates who opted for the correct answer understood that Chromium is hard and has high corrosion resistance, hence commonly used in coating other metals used in many surfaces. However, the majority opted for I – *Aluminium*. These candidates did not understand that *Aluminium* is hard with silvery appearance which

make it shining and is not used in coating other metals but it is used for making household utensils and building materials.

In item (ix) the candidates were required to identify the metal which is commonly used as a finish on base material but tends to change colour with age. The correct response was O – *Nickel*. The candidates who opted for the correct response were aware that Nickel resists corrosion and is used to plate other metal to protect them. Nevertheless, majority of the candidates who opted for E – *Zinc*, confused the use of zinc and nickel because both has ability to resist corrosion and protect other metals but zinc is commonly used to make alloys such as brass which is an alloy of copper and zinc.

In item (x), the candidates were required to identify a fairly hard metal that contain copper and tin and resist corrosion. The correct response was F – *Bronze*. The candidates who opted for the correct response had adequate knowledge of the properties of metals thus managed to identify the metal which is an alloy of copper and tin (Bronze). However, majority of the candidates who opted for K - *Brass*, confused the two alloys bronze with brass. They were not aware that *Bronze* is an alloy of Copper and Tin while *Brass* is an alloy of Copper and Zinc. Those candidates who opted for the incorrect responses had insufficient knowledge of the various alloys of metals.

2.2 Section B: Short Answer Questions

This section was comprised of six compulsory short answer questions from the topics *Raising Agents*, *Fish Cookery*, *Cooking Foods*, *Accidents in Home*, *Kitchen and Food Hygiene* and *Food and Nutrition*. Each question consisted of three parts, (a), (b) and (c).

2.2.1 Question 3: Raising Agents

This question was constructed from the Raising Agents topic. The part (a) of this question required the candidates to explain four mechanical methods of introducing air into the mixture. In part (b), the candidates were required to outline four points to remember when using raising agent and in part (c),

they were required to give three results of using too little raising agent in the mixture.

The question was attempted by 95.7 percent of the candidates and 4.3 percent did not attempt the question. The candidates' performance on this question was good since 44.8 percent of the candidates scored 30 percent of the 10 marks that were allocated to this question. Moreover, 55.2 percent scored from 0 to 2.5 of which 11.2 percent scored 0 mark. 26.5 percent scored from 3 to 4 marks and 18.3 percent scored from 4.5 to 8.5 marks. There was no candidate who scored above 8.5 marks. Figure 3 is an illustration of this data.

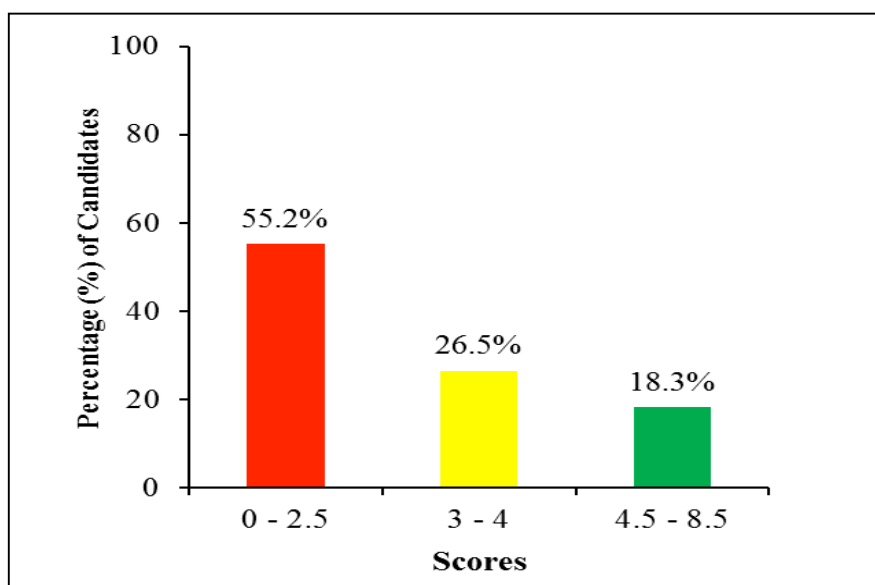


Figure 3: Distribution of Candidates' Scores

The analysis indicates that the candidates who performed averagely and good were able to explain some of the mechanical methods of introducing air in to the mixture as well as to outline few points to remember when using raising agents. Moreover, they managed to give few points on the results of using too little raising agent in the mixture. These candidates provided incorrect answers in some parts of the question, hence failed to get all marks allocated to this question. Extract 3.1 shows a sample of a responses from a script of a candidate who performed well.

Extract 3.1

| | |
|------|---|
| 3a) | Sieving - This is the process of passing flour through a sieve. In this process air is trapped through the fine particles of flour. |
| ii) | Rubbing in - When fat is rubbed in flour by raising it high, some amount of air is incorporated in the fat and flour. |
| iii) | Whisking - When the eggs are whisked they incorporate as much air. This is aided by the ovalbumin which is able to stretch to more than half of its size. |
| iv) | Folding in - When the flour mixture is folded, air is trapped in the layers of the mixture being folded. |
| b) | Use moderate raising agent. The raising ^{agent} should be used according to the recipe as too much tends to make the mixture sour. |
| ii) | Check on the expiry date. Raising agents which are out of use do not perform proper function in the mixtures. |
| iii) | Raising agent should be proper for the food being cooked. Example yeast for bread, baking powder for cakes etc. |
| c) | The flour mixture shrinks. |
| i) | The mixture will not be light. |
| ii) | The mixture may form a hard skin. |

In Extract 3.1, the candidate managed to answer part (a), while in part (b) and (c) some of the points were incorrect, hence failed to get full marks (10).

However, the candidates who scored 0 mark provided irrelevant responses. For example in part (a), instead of explaining mechanical methods of introducing air into the mixture, one candidate wrote methods of cooking, such as *Boiling, Frying and Steaming*. Another candidate wrote, *kneading and beating the eggs*. In part (b), the candidates provided various irrelevant answers, such as *collection of ingredients and washing ingredients, use the raising agent overstretch and collapse, do not use the large pockets of gas to be produced* the sentences which were copied from the other question. These candidates had inadequate knowledge on the use of raising agents.

In part (c), the candidates failed to give the results of using too little raising agent in the mixture. They provided answers that were not related to the question demand with a lot of grammatical errors. For example, one of the candidates wrote; *it improves the flavour; helps in braizing and it improve the appearance*. Another candidate wrote *large pockets to be produced; the sugar is too coarse for the mixture and does not dissolve in time*, the words were copied from question one. These candidates had inadequate knowledge of raising agents, hence scored zero. Extract 3.2 indicates a sample of a response from a script of a candidate who provided irrelevant answers.

Extract 3.2

| | |
|----|---|
| 3@ | 10 Explain four mechanical methods of introducing air into a mixture! |
| 1. | Boiling → this is the method of boiling water at a temperature of 100°C to be vapour (moisture) in atmosphere |
| 2. | Baking → is the process of baking food (Bread) in the oven by small heat and contain amount of air into a mixture of gas fry! |
| 3. | Steaming → is the process of cooking suitable foods by using a steam (air) into mixture! |
| 4. | Frying → this is the process of fry the food by using oil only into mixture to air into a mixture! |

Extract 3.2 continue....

| | |
|-----|---|
| (b) | Four points to remember when using Raising Agent. |
| 1. | Collecting all ingredients that used to preparation of their foods. |
| 2. | Washed the ingredients before started to prepared, and then dry it. |
| 3. | Do not used fully ingredient if is not necessary for used in preparation. |

In Extract 3.2, the candidates provided irrelevant answers, hence scored a zero mark.

2.2.2 Question 4: Fish Cookery

The question was constructed from the topic of Fish Cookery. The part (a) of this question required the candidates to outline four characteristics of fresh fish. In part (b), the candidates were required to explain four steps for preparing fresh fish, whereas in part (c) they were required to describe four methods of preserving fish.

The question was attempted by 99 percent of the candidates and their scores were as follows: 41.5 percent of the candidates scored from 0 to 2.5 marks, 32.1 percent scored 3 to 4 and 26.4 percent scored 4.5 to 9 marks. There were no candidates who scored full marks (10). The candidates' performance in this question was good as 58.5 percent scored above 2.5 marks. Table 1 gives a summary of the data.

Table 1: Candidates' Performance

| Scores | Candidates | | Remarks |
|---------|------------|----------------|---------|
| | Number | Percentage (%) | |
| 0 – 2.5 | 845 | 41.5 | Weak |
| 3 – 4 | 654 | 32.1 | Average |
| 4.5 - 9 | 539 | 26.4 | Good |

N = 2038

The candidates with good performance had adequate knowledge of *Fish Cookery*. In part (a), some of these candidates managed to outline four characteristics of fish while others outlined one to three characteristics. In part (b), the candidates explained the steps for preparing fresh fish and in part (c) they were also able to describe the methods of preserving fish. Extract 4.1 is a sample of a script of a candidate who had adequate knowledge of fish cookery, hence managed to outline characteristics of fresh fish and to describe the methods of preserving fish.

Extract 4.1

| | |
|----|--|
| | Characteristics of fresh fish |
| 4a | i) Should have pleasant fishy smell. |
| | ii) Should have prominent eyes bright eyes. |
| | iii) Should be firm to touch. |
| | iv) Should have bright red gills. |
| | |
| 4b | Four steps for preparing fresh fish |
| | i) First you hold the fish's tail and scrape the scales towards its head using the back of the knife. |
| | ii) Then you keep it under running water so as to remove the remaining scale. |
| | iii) Then you cut the fins by using pair of scissors. |
| | iv) Lastly, you cut the belly of the fish to remove all entrails and wash it through thoroughly with cold water. |
| | |
| | Four methods of preserving fish. |
| 4c | i) By frozen method- here the fish is kept in the refrigerator in freezing temperatures hence prevent multiplication of microorganisms that may lead to decay. |
| | |
| | ii) Curing of the fish- here the fish may be smoked or kept in spice that would prevent growth of microorganism. |
| | |
| | iii) Canning- here fish are kept in special tins and are well sealed hence preserving it from decaying. |
| | |
| | iv) Drying - the fish are kept under sunlight and the water content |

Extract 4.1 continue.....

| | |
|--|---|
| | ent in it tends to dry off. This will help to keep the fish for |
| | a long time without going bad. For example; Sardines. |
| | |

In Extract 4.1, the candidate managed to outline characteristics of fresh fish and explained correctly some of the steps of preparing fresh fish. Also, he/she described correctly the methods of preserving fish.

The candidates who scored 0 had inadequate knowledge of fish cookery, hence provided irrelevant answers to the parts of the question. For example in part (a), one of the candidates wrote the importance of eating food as *it avoid diseases, it help to get minerals and vitamins in the body* instead of outlining characteristics of fresh fish. Another candidate wrote; *It tail should be shocking, (i) The mouth of the fish must be cutting, (ii) the fish will still be alive and (ii) the gills of fish must be shocking*. These answers had no meaning and the language used was also poor. In part (b), these candidates failed to outline steps of preparing fish. Some of them provided methods of cooking foods such as *roasting, frying and steaming*, and others wrote funny answers such as *fish has chest for moving, chin for eating and leg*.

For the candidates who scored 0.5 – 2.5 marks (weak scores), some managed to outline the characteristics of fresh fish but failed to explain the steps for preparing fish and methods of preserving fish. One of these candidates wrote methods of cooking food, such as *roasting, grilling, baking, steaming and poaching* instead of methods of preserving fish. Other candidates managed just to mention some of the methods of preserving fish without describing them and failed to answer parts (a) and (b) of this question. This shows that the candidates had inadequate knowledge of fish cookery as well as methods of preserving fish. Extract 4.2 is a sample of a response from a script of a candidate who performed poorly.

Extract 4.2

- 419 (i) When eat will not get any disease.
(ii) When eat will get Inclining to the body.
(iii) When eat will get vitamin B.
(iv)

(b) (i) Rowing This mean when you wheel
to rowing fish you must be the place
your will go to put it down and you
have the rowing

4. (iii) Frying you must be before to what wash wash the tub will the clean water and the place which you going to use must be clean and the place which going to ^{use for} cooking must it clean well.

(iii) Steaming you must be fore steaming the fish you must have very thing which you going to use to steaming the fresh fish.

(11) You must be clean the tank when you did not before cooking

c) (i) Roasting. This means that when going to roasting fish you must be no the ingredient to thing what your going to use in the Roasting fish.

Extract 4.2 continue.....

| | |
|---------------|---|
| (iii) Frying | This mean that when going to trying fish you must not to ingnent for. thing what your going to used is trying fish. |
| (iv) Steaming | This mean that when going to steaming you must be no to all ingnent for the thing what your going to used is the steaming the fish. |
| (v) Boiling | This mean that when going to Boiling you must be no to all ingnent |

Extract 4.2 shows that the candidate failed to outline the characteristics of fresh fin fish. He/she explained methods of cooking, i.e. frying and steaming as the method of preparing fish. Furthermore, he/she mixed up the preservation methods with cooking methods, hence scored 0.

2.2.3 Question 5: Cooking Food

The question was constructed from the topic of Cooking Food, specifically from the sub topic Methods of Cooking. In part (a), the candidates were required to explain four important points to remember when steaming food. In part (b), the candidates were required to differentiate grilling from roasting method of cooking. Moreover, in part (c) the candidates were required to outline four rules to be observed during roasting.

The question was attempted by 95.7 percent of all the candidates who sat for the examination and 4.3 percent did not attempted this question. The data analysis shows that, the candidates' performance was poor since 86.9 percent of all the candidates scored from 0 to 2.5 marks of which 45 percent scored 0. Furthermore, 9.2 percent of the candidates scored 3 to 4 marks and 3.9 percent scored 4.5 to 7 out of 10 marks. There were no candidates who scored above 7 marks. Figure 5 illustrates this data.

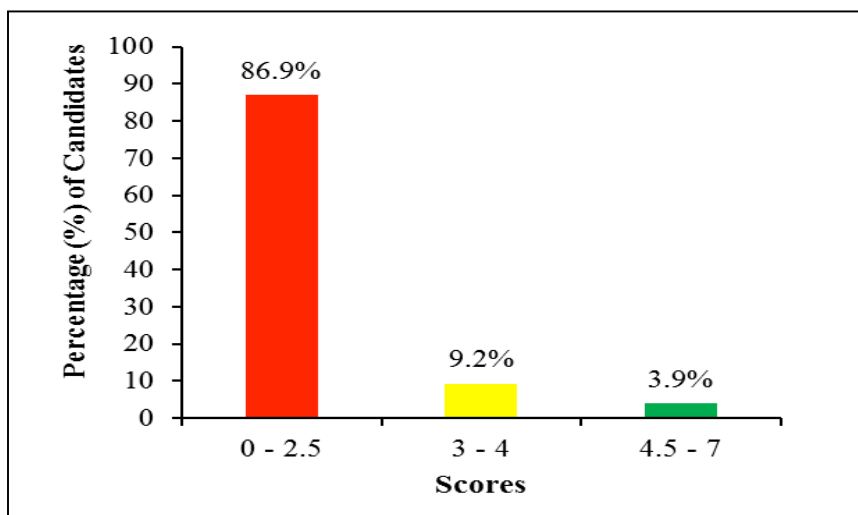


Figure 4: Distribution of Candidates' Scores

Figure 4 shows that, the majority (86.9%) of the candidates who attempted the question scored low marks (from 0 to 2.5). This is because most of them failed to understand the demand of the question. In part (a), some of the candidates provided reasons of cooking food and functions of food instead of points to remember when steaming food. In part (b), some of the candidates confused roasting method with stewing method, thus provided explanation on stewing methods instead of roasting method. Others provided incorrect explanation. Some of these candidates failed to differentiate roasting and grilling methods while others mentioned methods of cooking instead of differentiating grilling from roasting method.

In part (c), some candidates outlined the personal hygiene rules such as *to wash hands after finishing eating*; *to wash hands before cooking*; and points to remember when serving meals, such as *prepare the plates*, *putting the salt*. Furthermore, some candidates outlined the points on cooking preparation instead of the rules to observe during roasting. For example, one candidate wrote: *prepare of clean kitchen*, *it prepare the spice and season*, *it prepare tools for washing before using* and *it prepare fire for cooking food*. These answers are completely unrelated to the demand of the question and the language used was also poor. Extract 5.1 is a sample

answer from the script of one of the candidates who also provided irrelevant answers to the questions.

Extract 5.1

| 5. | a) i) It produce human body. | | | | |
|--|---|----------|----------|--|--|
| | ii) It protect for walking. | | | | |
| | iii) It provide on the nutritive nutritive. | | | | |
| | iv) It provide on the human to avoid in the body. | | | | |
| | | | | | |
| | | | | | |
| | (b) | | | | |
| | <table border="1"> <thead> <tr> <th>grilling</th><th>Roasting</th></tr> </thead> <tbody> <tr> <td>- It is poisonous in the food for the grilling</td><td>Is the roasting on the food for baking on the food example Mishikaki</td></tr> </tbody> </table> | grilling | Roasting | - It is poisonous in the food for the grilling | Is the roasting on the food for baking on the food example Mishikaki |
| grilling | Roasting | | | | |
| - It is poisonous in the food for the grilling | Is the roasting on the food for baking on the food example Mishikaki | | | | |
| 5 | c) i) Prepare the Clean Kitchen. | | | | |
| | ii) It prepare the spice and season. | | | | |
| | iii) It prepare tools for washing before using. | | | | |
| | iv) It prepare fire for cooking food. | | | | |

In Extract 5.1, the candidate wrote meaningless sentences in part (a) and (b). In part (c), the candidate outlined the points for cooking preparation instead of outlining the rules to observe during roasting.

On the other hand, only few candidates (3.9%) performed well as in this question. In part (a), they managed to explain four important points to remember when steaming food. They managed also in part (b) to differentiate grilling from roasting but in part (c) they failed to outline the rules to be observed during roasting. This indicates that the candidates had inadequate knowledge of roasting, hence they failed to remember the rules for the roasting method of cooking. Extract 5.1 shows a sample of responses of a candidate who performed well.

Extract 5.2

| | |
|----|---|
| 5a | i) The water use used for steaming should be hot enough to cook the food. |
| | ii) The food cooked should be covered up by a foil paper so as to prevent loss of heat. |
| | iii) The steamer should fit well on the pan in which contains water for steaming. |
| | iv) The steamed food should be kept in a suitable equipment that would allow penetration of the steam produced so as to cook well. |
| b | Grilling is the dry method of cooking that involves direct heat from the cook on the food. Example of the food grilled is meat as oil is applied often so as to prevent drying of the meat. Meat are cut in cubes and put in special sticks then laid on a grill on top of the cook. WHILE Roasting is also a dry method of cooking but it is done in the oven, so there is no direct heat on the food. The food roasted is kept on baking tray and oil is spilled over it, but basting is done to keep the food moist. Example, Roasted chicken |
| c | i) The oven is hot enough with right temperature. ii) The food is well marinated for easy cooking. iii) Enough oil is applied on the food, it should not cover up the food. iv) Basting is done regularly to keep the food moist and avoid hardening of the food. |

In Extract 5.2, the candidate managed to explain correctly few points to remember when steaming food. However, he/she managed to differentiate correctly the grilling method from steaming method of cooking and also outlined correctly some rules to be observed during roasting.

2.2.4 Question 6: Accidents in the Home

This question was constructed from the topic of Accidents in the Home. In part (a), the candidates were required (i) to give the meaning of first aid and (ii) to list six essential items of a first aid kit. In part (b), the candidates were required to explain the causes of fainting. In part (c), the candidates were required to explain four first aid measures to be taken to a fainting person.

This question was attempted by almost all the candidates. The performance of this question was good since 91.9 percent scored above 2.5 marks. The majority of the candidates (70.2 percent) scored from 4.5 to 10 marks, while, 21.7 percent score from 3 to 4 marks and 8.2 percent score from 0 to 2.5 marks. Figure 6 is an illustration of this data.

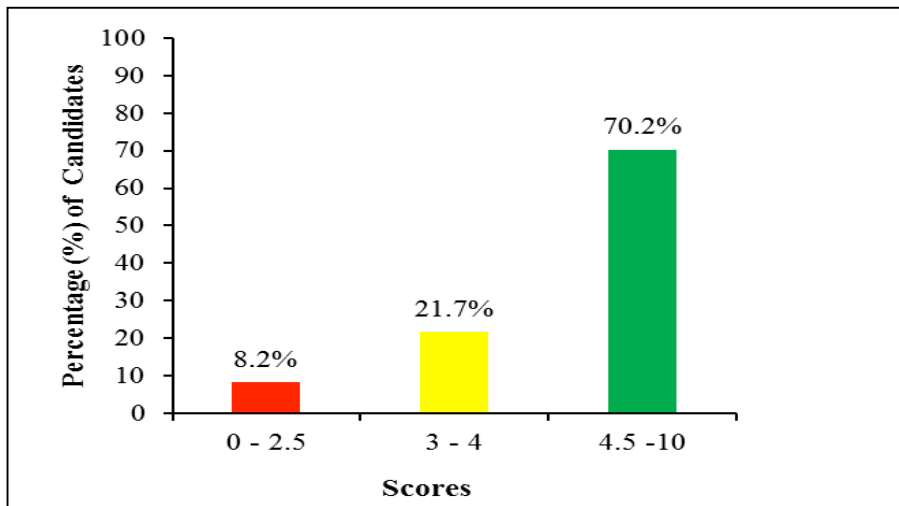


Figure 5: Distribution of candidates' scores

Candidates who performed well in this question were able to define First Aid and to list six essential items found in a First Aid Kit such as *bandages, safety pins, petroleum jelly, plaster, sterile gauze, cotton wool, triangular sling and gloves*. They were also able to explain the causes of fainting and four First Aid measures to be taken to a fainting person. This analysis indicates that such candidates had sufficient knowledge of the topic of *Accidents in the Home*. Extract 6.1 indicates good response from a script of a candidate who performed well.

Extract 6.1

| | |
|-----|---|
| 6a, | i, First aid is the assistance or help given to a sick or injured person before taking the person to the hospital for more medical help. |
| | ii, First Aid Kit should contain |
| | i, Disposable gloves. |
| | ii, Cotton wool. |
| | iii, Bandages |
| | iv, Antiseptics |
| 6 | v, Adhesive bandages. |
| | vi, Pain killers. |
| b, | Fainting can be caused by sudden lack of oxygen in the brain of the person. This can be due to lack of enough air, suffocation, drowning and also facing a danger that cause blood to flow more in the muscles than in the brain. |
| c, | i, Take out the fainted person outside for fresh air |
| | ii, reduce clothes and loosen the clothes of the person |
| | iii, Raise the feet on the higher level than the head to allow blood flow to the brain. |
| | iv, In case the person won't wake up. Take him or her to the nearest hospital as fast as possible. |

In Extract 6.1, the candidate managed to define First Aid, to lists equipment found in a First Aid Kit, causes of fainting and explains First Aid measure that can be taken to a fainting person.

Further, the analysis shows that, the candidates who had weak performance (0 – 2.5 marks) had inadequate knowledge on the topic of *Accidents in the Home*. In part (a), some of these candidates failed to give the meaning of First Aid as well as to list essential items of a First Aid Kit. Others failed to give the meaning of first aid but some were able to list the essential items of a First Aid Kit or vice versa. Moreover, others wrote one of the following: *box, fainting, chemicals, rodents, yeast, fungus* as the essential items of a First Aid Kit. These words were copied from question 1 and were not related with the question requirement.

In part (b), some of the candidates wrote the definition of faint instead of the causes of faint. Others relate fainting with blood pressure and deficiency disorders. For examples one of the candidates wrote;

Fainting can be caused by the increase of blood pressure due to shock or bad news, stress leading a person's heart beats to increase randomly without the normal speed.

Another candidate wrote:

Fainting is the pressure of blood of the body and the lack of vitamin C.

These candidates had inadequate knowledge as well as difficulties in expressing themselves using correct Language.

In part (c), the candidates provided irrelevant answers. For example, some explained how to handle different accidents that occurs at home instead of explaining first aid measures to be taken to a fainting person. Others copied some words from other questions, such as *yeast, rodents* and *moulds* while a number of candidates did not answer this part. Extract 6.2 was taken as an example from a script of one of the candidates to illustrate the poor performance.

Extract 6.2

Q. what is first and

ii) essential items of fainting

⑤ Cause of Fainting

Yeast rodents and moulds

Fungus und Filter

(c) Explain the four Firs and Fambing person

ii) backed breed will have unpleasant smell

iii) The sugar is too coarse for the mint extract.

11 The greased tin may cause pastry to melt and burn.

v) The proportions of ingredients in the past may be altered.

i) ~~Top~~ Sugar has been used causing the structure to collapse.

Ther. rush raising agent causing this gluten to overstretch.

(iii) The sugar is too coarse for the mixture and doesn't

Vii) The Fat in the poultry is enough to prevent Sticking

Extract 6.2 shows that the candidate wrote nothing in part (a) and he/she copied words/sentences from other questions and wrote them as answers in part (b) and (c).

2.2.5 Question 7: Kitchen and Food Hygiene

This question was constructed from kitchen and food hygiene topic. In part (a), the candidates were required to explain briefly four safety rules to be observed before beginning cooking. In part (b) (i), the candidates were required to give the meaning of food poisoning while in part (b) (ii) they were required to describe two main causes of food poisoning. In part (c), the candidates were required to outline three measures to be taken to prevent chemical food poisoning.

The question was attempted by 99.3 percent of the candidates and their scores were as follows: 96 percent scored from 0 to 2.5 marks of which 27.5 percent scored zero, 3.2 percent scored 3 to 4 marks and 0.6 percent scored 4.5 to 6 out of 10 marks. There were no candidates who scored above 6 marks. These data shows that the candidates' performance in this question was extremely poor as illustrated in Figure 6.

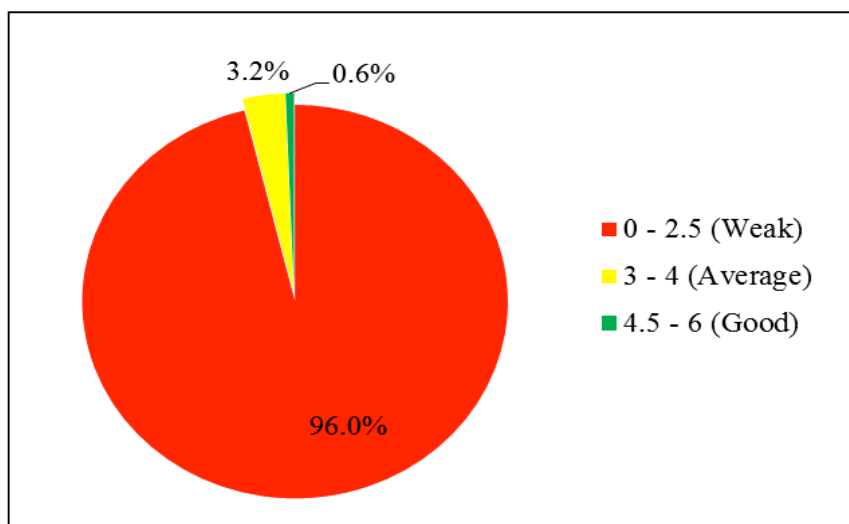


Figure 6: Distribution of candidates' scores

The candidates who scored zero failed to understand the demand of the question. In part (a), some of the candidates explained the personal hygiene rules, for example one candidate wrote, *to cut nails, to put on aprons and to cover the hair by wearing caps* instead of safety rules to be observed before beginning cooking. Others wrote the points to consider when planning

meals, for example one candidate wrote, *consider money, number of people, period of the year* and age, while some candidates wrote things to be observed before cooking and hygienic rules instead of safety rules to be observed before beginning cooking.

In part (b) (i), the candidates failed to give the correct meaning of food poisoning. For example, one candidate wrote the meaning of food poisoning as *the process where food is spoiled or decay others*; another candidate wrote, *food poisoning is a type of food that can cause allergic reaction to a person* and also another candidate wrote *food poisoning is the process where the food be contaminated by putting person through it*. In part (b) (ii), the candidates failed to describe the causes of food poisoning. The candidates provided varieties of irrelevant answers. To illustrate the case, one candidate wrote, *personal hygiene, allergy, uncooked food poisoning*; and another candidate wrote *pollution and industrial process* as the causes of food poisoning.

In part (c), some of the candidates had inadequate knowledge of the concept of chemical food poisoning, hence failed to outline the measures to be taken to prevent chemical food poisoning. For example, one candidate wrote:

- (i) *By washing the food before eating.*
- (ii) *By putting water and boil before used and drink.*
- (iii) *By coating the food before use of the people.*

This candidate failed to differentiate the measures to be taken to prevent “chemical food poisoning” from “bacterial food poisoning”.

Another candidate wrote:

- (i) *discouraging use of chemicals in food preservation,*
- (ii) *discouraging use of food additives,*
- (iii) *discouraging use of fertilizers in food production.*

This candidate did not understand the importance of food additives, food preservation and use of fertilizers in food production as they contain non-harmful chemicals.

The analysis further shows that some candidates provided irrelevant answers such as *sieving the flour, properly using clean equipment and using good quality fruits and vegetables*. Extract 7.1 shows the responses from one of the candidates who provided irrelevant answers.

Extract 7.1

| | |
|----|--|
| 7. | (a) (i) clean the area where you use for cooking food |
| | (ii) put the food on the fire |
| | (iii) make sure the food preserve it |
| | (iv) make sure the food are make more tastay |
| | |
| | (b) Food poisoning : Is the process where the food be contaminated by putting person through it. |
| 7. | (b) (i) (1) pollution |
| | (2) industrial process. |
| | |
| | (c) (i) By washing the food before eating |
| | (ii) By putting water and salt before used or drink |
| | (iii) By coating the food before used of the people |
| | |

In Extract 7.1, the candidate provided irrelevant answers, hence scored a zero mark.

On the other hand, very few (0.6%) candidates performed well (4.5 – 6 marks). These candidates managed to explain the safety rules to be observed before beginning cooking. Some managed to give the meaning of food poisoning but failed to describe the main causes of food poisoning. Moreover, in part (c), these candidates failed to outline the measures to be taken to prevent chemical food poisoning. These candidates failed to differentiate the measures to be taken to prevent “chemical food poisoning” from “bacterial food poisoning”, hence failed to provide relevant answers.

Extract 7.2

| | |
|---|--|
| 7 | a) The safety rules to be observed before cooking include |
| | 1. Avoid wearing scarfs or clothes with hanging loops as they may catch fire during cooking. |
| | 2. The handle of the frying pan and cooking pots should be directed away from fire. |
| | 3. The floor of the kitchen should be dried so as to prevent it from being slippery as it may accelerate falls. |
| | 4. There should be prepared materials for holding pots during cooking so as to prevent burns when holding ^{hot} pots with bare hands. |
| 7 | b) i. Food poisoning is an illness which a person develops as a result of eating contaminated food. |
| | ii. The main causes of food poisoning are |
| | 1. Chemicals such as pesticides entering food during cooking, serving or even preparation. |
| | 2. Eating food which is not well cooked also cause food poisoning. |
| 7 | c) The measures taken to prevent chemical food poisoning are |
| | i. The ingredients for cooking food should be prepared in a clean environment. |
| | ii. Food should be covered during cooking and after serving so as to prevent contamination by chemicals. |
| | iii. The utensils for cooking and serving food should be washed with clean water and dried well before being used. |

Extract 7.2 shows that the candidate failed to score full marks (10) because he/she confused the measures to be taken to prevent “chemical food poisoning” with those taken to prevent “bacterial food poisoning”.

2.2.6 Question 8: Food and Nutrition

The question was constructed from the Food and Nutrition topic. In part (a), the candidates were required to write the classification of vitamins. In part (b), the candidates were required to explain briefly four functions of vitamin and in part (c), they were required to describe four conditions that may destroy vitamin C during food preparation.

The question was attempted by 98.5 percent of all the candidates while 1.5 percent did not attempt this question. The data analysis shows that 62 percent of the candidates who attempted the question scored from 0 to 2.5 marks, 23.8 percent scored 3 to 4 and 14.2 percent scored 4.5 to 8.5 out of 10 marks. There was no candidate who scored above 8.5 marks. Generally, the candidates' performance in this question was poor as seen in Figure 7.

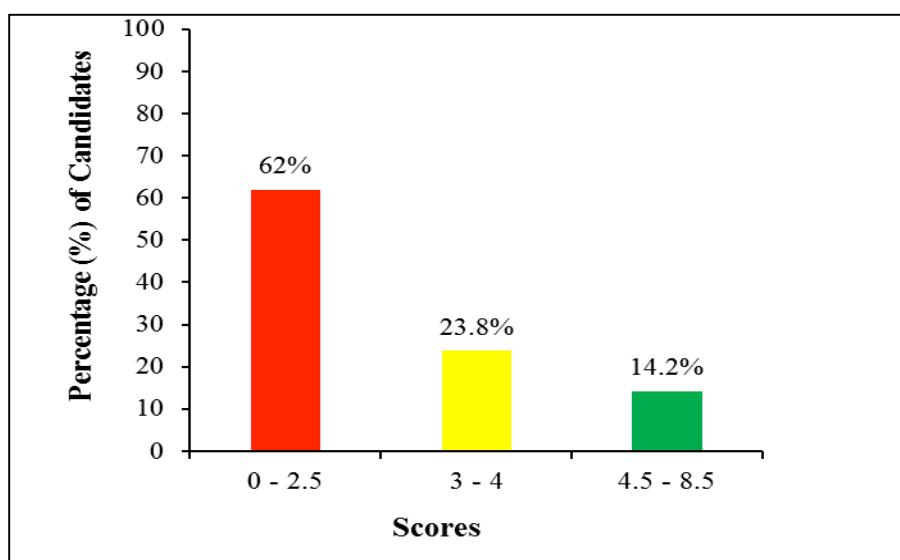


Figure 7: Distribution of candidates' scores

The candidates (14.2%) who performed well (4.5 -8.5 marks), managed to classify vitamins in two major groups, namely water soluble vitamins and fat soluble vitamins with their examples vitamins B and C and vitamins A, D, E and K, respectively. However, these candidates were able to explain some of the functions of vitamin C and conditions that may destroy vitamin C during food preparation, such as *exposure to air, the use of an alkali,*

water and heat. Extract 8.1 is a sample of a response from a script of a candidate who performed well.

Extract 8.1

| | |
|---------|---|
| 8 a) i) | Water Fat soluble vitamin |
| | Which are A - Retinol / Carotenes |
| | Vitamin D |
| | Vitamin E |
| | Vitamin K |
| | |
| | ii) Water soluble vitamin |
| | which are Vitamin C - Ascorbic acid |
| | |
| 8 b) i) | Vitamin C provide the body with nutrients which prevent the body from getting deficiency diseases known as Scurvy. |
| | |
| | ii) Vitamin C help in the repairing of body tissues which are destroyed by either infection disease or deficiency diseases |
| | |
| | iii) Vitamin C is a water vitamins which help in the stimulating of appetite of a person before getting the main meals. |
| | |
| | iv) Vitamin C help in the digestion system by stimulating the enzymes which can help in the digestion of the food while in in the stomach of a human being. |

Extract 8.1 continue.....

| | |
|------|---|
| 8 J. | Vitamin C can be destroyed by Air because air is the oxidizing agent of vitamin C so it cause it to evaporate easily especially in milk. |
| | |
| | Vitamin C can be store destroyed by alkaline when the vitamin C is applied into the alkaline the alkaline like Bicarbonate of soda lead to easily destruction of vitamin C in the food |
| | |
| | Vitamin C can also being destroyed by Water, If the vitamin C is soaked in water all the nutrients will be washed away because vitamin C is water soluble vitamin. |
| | |
| | Vitamin C can also be destroyed by heat when vitamin C is passed through grates heat it will lost easily through evaporation because of its solubility in water |
| | |

Extract 8.1 shows that the candidate managed to classify vitamins and describing conditions that may destroy vitamin C during food preparation. However, he/she failed to provide some of the functions of vitamin C, thus could not score full marks (10).

However, the candidates (62%) who had low marks (0 – 2.5) had insufficient knowledge of vitamins, hence in part (a), failed to write the classification of vitamins. Some candidates listed all types of vitamins which are vitamin A, B, C, D, E and K. Others listed the types of

carbohydrates instead of water soluble vitamin which are vitamin C and B, and fat soluble vitamins which are A, D, E and K. Some of these candidates wrote the two major groups of vitamins which are fat soluble vitamins and water soluble without giving the examples in each group.

In part (b), these candidates failed to explain the functions of vitamin C; one of the candidates wrote the functions of proteins and carbohydrates instead of the functions of vitamin C. Another candidate wrote the functions of various nutrients, such as *“To protect and regulate body processes, helps in blood clotting, to produce heat and energy, and help in regulating the water in the body”*. Moreover, others provided irrelevant answers, for instance one candidate wrote, *provide river, ocean, dams*. These candidates scored 0. On the other hand, other candidates managed to explain some of the functions, hence they got few marks.

In part (c), the candidates failed to describe conditions that may destroy vitamin C during food preparation as they had inadequate knowledge of vitamins. For instance, one candidate wrote; *overcooking, overheating and boiling for long time*; without understanding that in cookery the words have the same meaning. Other candidates who failed in this part wrote irrelevant answers. For example, one candidate wrote *eggs cause fainting, ignorance, social services*. Another candidate wrote types of foods: *fish, meat, cabbage and chaina* (Perhaps he/she meant Chinese spinach). Furthermore, these candidates demonstrated a poor command of English which hindered them from expressing themselves fluently. Extract 8.2 is a sample answer that was taken from a script of one of the candidates who performed poorly in this question.

Extract 8.2

| | |
|---|----------------------|
| 8 | i/ Mono sacralized |
| | ii/ disacralized |
| | iii/ poly sacralized |
| | |
| | (b) protein |
| | ii/ fat |
| | iii/ Carbohydrates |
| | |
| | (c) i/ fish |
| | ii/ Meat |
| | iii/ chana |
| | iv/ Cabbage |
| | |

Extract 8.2 shows that, the candidate provided irrelevant answers. In part (a), the candidate listed types of carbohydrates, in part (b), he/she mentioned the types of food nutrient and in part (c), he/she listed types of food instead of classification of vitamins and functions of vitamin C, respectively.

2.3 Section C: Essay Questions

This section consisted of three optional essay type questions from the topics of *Meal Planning*, *Age Courtship and Marriage Practices and Laundering in Home*. The candidates were required to answer only one question.

2.3.1 Question 9: Meal Planning

This question was constructed from *Meal Planning* topic. The question required the candidates to explain seven important points to ensure adequate intake of essential nutrients when planning vegan diet. The candidates were also required to suggest a three course meal for a vegan.

This question was attempted by 6.8 percent of all the candidates. The candidates' performance in this question was average since 34 percent of

the candidates scored from 6 to 20 marks. However, 66 percent of all the candidates who opted for this question scored from 0 to 5.5 marks and 24.8 percent of the candidates scored from 6 to 8.5 marks while 9.2 percent scored from 9 to 12.5 out of 20 marks. There was no candidate who scored above 12.5 marks. Figure 9 is an illustration of these data.

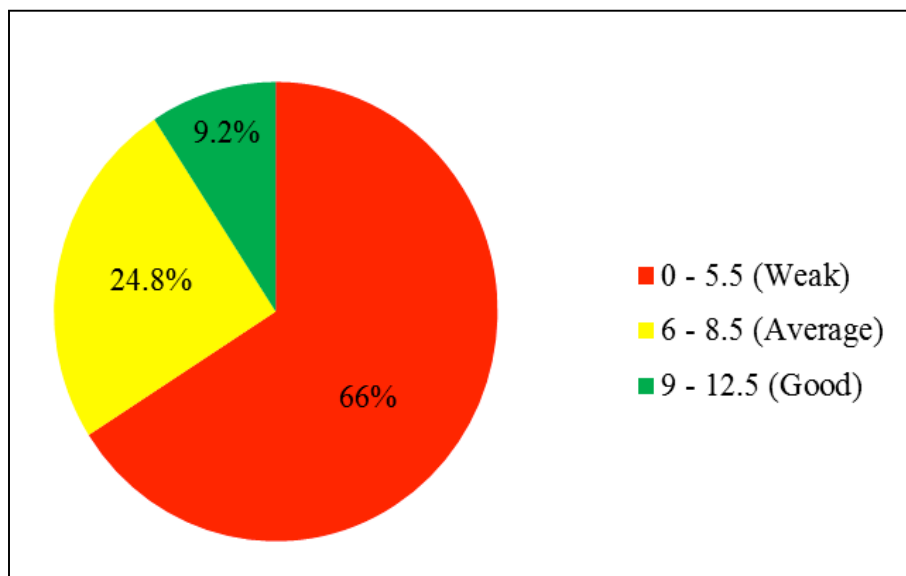


Figure 8: Distribution of candidates' scores

The candidates who scored low marks in this question had insufficient knowledge on the topic of meal planning, thus failed to describe the factors to consider when planning meals. For example, some of the candidates described the factors to consider when planning meals, such as *income*, *number of people*, *climate* and *time* instead of the factors that ensure adequate intake of essential nutrients when planning vegans' diet. Other candidates described some functions of various nutrients, for instance one candidate wrote: *food prevents the body against diseases, it strengthens bones and teeth and it support the body health*. Another candidate wrote the following factors: *lack of capital, lack of knowledge, lack of technology, lack of agriculture and lack of government support and lack of domestic industrial* as the factors that ensures adequate intake of essential nutrients when planning vegan meals. These candidates had inadequate knowledge of vegetarian and the meaning of a vegan.

The further analysis shows that the candidates failed to suggest a three-course meal for a vegan. Others did not answer this part of the question. The candidates also showed incompetence in using English, hence, failed to express the concepts required. Extract 9.1 shows a response from a script of a candidate who performed poorly.

Extract 9.1

| | |
|----|--|
| 9. | Planning is the arrangement of food according to the members of the family. |
| | The following are important points to ensure adequate intake of essential nutrients when planning vegan diets. |
| | lack of education This mean that a person must have planning but she/he cate to planning because she/he did get education. |
| | lack of capital This mean that a person must be have planning but she/he cate to do planning because she/he do not have money for planning. |
| | lack of knowledge This mean that a person must be have planning but she/he cate to planning because she/he do not have knowledge. |
| | lack of technology This mean that a person must be have planning but she/he do he do have technology so he can not perm panning because of that. |
| | lack of agriculture This mean that a person must be have planning but she/he do have eplace of for agricultur so can cause the aperson to fall to planning. |
| | lack of government support This mean that a person meny be she/he have a planning which have planning to do but he/she did the government support but the cate to support has so can cause a person to fall to planning. |

Extract 9.1 continue.....

| | |
|----|---|
| 9. | lack of domestic industrial This mean that |
| | a person must have planning for planning |
| | industrial but can not be planning because |
| | e of lack of domestic industrial and |
| | Transport and communication |
| | |
| | Conclusion |
| | Planning mean that arrangement |
| | of food according the members of the |
| | family. Example to day many be you eating |
| | ing rice to beans and to more you are |
| | eating cheap chicken so that it planning |
| | between two people are 5 five people to |
| | the family. |

In Extract 9.1, the candidate explained on various factors which did not relate to the meal planning concept.

On the other hand, the candidates (9.2 percent) who performed well managed to explain some of the points to ensure adequate intake of essential nutrients when planning meals for a vegan. However, some of the candidates confused the factors to consider when planning meals with the factors used when planning vegans' meals.

Moreover, the candidates faced difficulties to suggest a three-course meal for the vegans. On the first course meal, some of the candidates had suggested meat soup in which vegans does not taken meat and meat products. In the second course, some candidates had suggested incomplete balance diet as they lacked enough knowledge. These candidates did not understand that vegetarian' foods like protein in plants are found in relatively small amount. Therefore, a large bulk of plant protein from various ingredients/foods may have to be used/eaten in order to provide enough protein.

On third course meal, some candidates suggested the use of yoghurt without recognizing that vegans do not eat milk and its products. They could suggest use of fruits, salad or mixed fruit juice or vegans ice cream. Further, the analysis indicated that some of the candidates managed to suggest a three courses meal for a vegan. Extract 9.2 is a response from a script of a candidate who performed well.

Extract 9.2

| | |
|----|--|
| 9. | Vegeterian is a person who does not eat meat or meat together with meat products such as milk and eggs. Some of the causes for becoming a vegeterian is religious beliefs. |
| | The following are important points to ensure adequate intake of essential nutrients when planning vegan diets: |
| | The food should be well balanced ; to provide all nutrients required by the body such as carbohydrates, proteins, vitamins, fats/oil and mineral salts . |
| | Low biological value protein such as peas and beans in the diet should be replaced by high biological value protein such as soya beans to replace the nutrients found in meat, milk and eggs . |
| | The method of cooking should be appropriate such as steaming to retain the nutrients of the food and ensure adequate intake of |

Extract 9.2 continue.....

| | |
|----|---|
| 9. | essential nutrients in vegan diets . |
| | The vegan diets, should consist of natural foods more than convenience foods because convenience foods tend to have inferior taste, lack some of the essential nutrients and contain preservatives such as too much sugar which can result to diseases like Diabetes Mellitus . |
| | Avoid monotony of foods which may be having one kind of nutrients, the vegan diets should be made with varieties of food so as to acquire and replace nutrients from meat products foods so as to ensure ^{enough} supply of essential nutrients . |
| | The essential nutrients like fats from animal meat and meat products such as eggs and milk should be replaced by vegetable oils, olive oil , sunflower oil , castor oil so as to provide the essential nutrients to the vegan diets . |
| | Lastly, the food should have good appearance and well seasoned to provide appetite to the vegan to eat the food. If the food is not well seasoned and served, it tend not to appertize the eater, hence it won't ensure the intake of essential nutrients. |
| | This is an example of a three course meal for a vegan : |
| | <u>Starter</u> : Groundnut soup with popcorns . |
| | <u>Main meal</u> : Savoury rice , stewed soya beans and Arranged vegetable salad . |
| | <u>Dessert</u> : Queen cakes and cold ^{mixed} fruit juice |

Extract 9.2 continue.....

| | |
|----|--|
| 9. | The vegan diet should be well prepared so |
| | as to ensure high intake of the food to |
| | provide enough nutrients for the body normal |
| | functioning. |
| | |

In Extract 9.2, the candidate managed to explain some few important points to ensure adequate intake of essential nutrients when planning vegan meal. However, some of the points provided were the factors to consider when planning meals, hence failed to get 20 marks.

2.3.2 Question 10: Age Courtship and Marriage Practices

The question was constructed from the topic of Age Courtship and Marriage Practices. This question required the candidates to support the statement that said “high rate of divorce and separation is due to the fact that young people are not prepared before marriage”. The candidates were given the guided point in answering the question as follows: to describe three types of marriage, to explain four basic factors to consider when choosing a partner and to outline four advantages of been in relationship for a long time before marriage.

This was an optional question which was attempted by 86.8 percent of all the candidates. The candidates’ performance in this question was good, since 56.3 scored from 6 to 17 out of 20 marks. There was no candidate who scored above 17 marks. The data analysis on this question indicates that 26.5 percent scored from 9 to 17 marks, 29.8 percent scored from 6 to 8.5 marks and 43.7 percent scored from 0 to 5.5 marks. Table 2 summarizes this data.

Table 2: Candidates' Performance

| Scores | Candidates | | Remarks |
|---------|------------|----------------|---------|
| | Number | Percentage (%) | |
| 0 – 5.5 | 781 | 43.7 | Weak |
| 6 – 8.5 | 533 | 29.8 | Average |
| 9 - 17 | 474 | 26.5 | Good |

N = 1788

The candidates (26.5%) who performed well managed to describe the three types of marriage which are *traditional marriage*, *religious marriage* and *civil marriage*. These candidates performed well in this part because they had enough knowledge of the types of marriage as it is also taught in Civics subject. The candidate also managed to explain some of the factors to consider when choosing a partner, such as *age*, *religion*, *background*, *family life education and health status*. However, some failed to outline four advantages of been in relationship for a long time, hence failed to get all (20) marks. Extract 10.1 is a sample of a response from a script of a candidate who performed well.

Extract 10.1

| | |
|-----|--|
| 10. | <p>Marriage refers to the union of two people of opposite sex who agree to live together as husband and wife. It is true that the rate of divorce and separation is increasing which is due to lack of preparation before marriage especially for young people under 18 years. The following are the types of marriage:</p> <p>Religious marriage: This is the type of marriage which the partners unite and religion rules and laws. There can be done in churches and mosques. This marriage require the bride and the groom to be of the same religion either christian or Islamic.</p> |
|-----|--|

| | |
|--|---|
| | Traditional marriage; this is the type of marriage which is conducted traditionally under parents as well as elders of the clans in charge. It is accompanied by initiations such as female genital mutilations which encourage these marriages. Here the bride and the groom receive teachings and blessings from the parents and elders. Example as Maasai tribes in Arusha Tanzania. |
| | Public or Governmental marriage; this is a type of marriage that is conducted under the laws of the government. It is commonly conducted in the Courts where it is not necessary for the partners to be of the or same religion. |
| | There factors that are considered which are basic and important when choosing a partner. They include: Age; before ^{when} choosing a partner one should consider the age of the couples. Every one has his/her own likes and dislikes on the age. When one fails to do this may marry an Important man or a woman who is in menopause already. |

Extract 10.1 continue.....

| | |
|-----|---|
| 10. | <p>Religion and tribe; it is important for the partners to consider the religion either muslim or christian as well as the tribe. This is because some parents or relatives do not accept some tribes and religions. So the partners should ensure the case of religion and tribe. Example in Tanzania a muslim is not commonly ready to be a christian and vice-versa.</p> <p>Back grounds; the partners should check their backgrounds such as education level, family status as well as Origin. Every partner has his or her own perception on the level of education she/he wants the opposite side to have. So it is important to check when choosing a partner for happy marriage.</p> <p>Job and Health conditions; since the world of today has many diseases and evils, before and when choosing a partner one should consider the health condition of the other. Either HIV/AIDS tests and other diseases. Also one should consider the job where the other does. Example some men do not prefer to marry traffic women as well as doctors, also those who get salary beyond 10000.</p> <p>Being in relationship for a long time before marriage is important due to the followings that can be done during this time.</p> <ul style="list-style-type: none">• Understanding each other well; when partners have relations early and for a long time can understand their behaviours and weakness well and find measures to solve and remove such differences. Examples of them may be anger, selfishness and cleanness.• Help in family planning; having more time in relations creates wide field of planning on the number of children the partners would like to have as well as other de- |
|-----|---|

Extract 10.1 continue.....

| | |
|-----|---|
| 10. | developmental issues such as building, in a certain place or region. Example living in town or village. |
| | It prepares the partners for happy marriage and family. knowing each other well for a long time helps and prepares the partners to come and live good and happy life without quarrels and conflicts. |
| | Helps to understand the likes and dislikes; having more time before marriage helps the partners to be aware of their likes and dislikes such as alcoholism. This gives a chance for the couples to accept or refuse what one likes or doesn't like. |
| | Generally, the rate of blockage of family and divorce is can be reduced by adhering to the above points. Also the pillars for family stability are are love, peace and Unity. |

Extract 10.1 shows that the candidate managed to describe types of marriage, factors to consider when choosing a partner and some of the advantage of being in a relationship for a long period.

On the other hand, candidates with a low performance (43.7%) had inadequate knowledge of the concept of marriage. This was observed on the introduction part where the candidates provided incorrect meaning of marriage. For instance, one of the candidates defined marriage as *a situation where by a girl is married by an old man*. Another candidate defined marriage as *a relationship between two sides*. Furthermore, others defined marriage as *a bond between male and female*.

In part (a), the candidates failed to describe three types of marriage. Some of the candidates confused the types of marriage with the types of family. For example, one of the candidates wrote the types of marriage as *monogamy, polygamy and polyandry*. Another candidate described the

following: *Early marriage, Late marriage and Government (Judiciary) marriage* as the types of marriage. These candidates mixed up the knowledge which was acquired in the family topic and that from topic of Age Courtship and Marriage Practices.

Further, the analysis indicates that, in part (b), some of the candidates managed to explain some basic factors to consider when choosing the partner. Other candidates provided irrelevant answers such as *equal age, person who love and hard working partner*. While others wrote *the partner should be beautiful and handsome, boys should have greater education than girl, a partner must be good hygiene and sanitation, good fearing partner, level of life and job opportunity of his/her partner*. These candidates had inadequate knowledge of early marriages and its consequence since the divorce is one of the outcomes of early marriages.

In part (c), some of the candidates had insufficient knowledge on the advantages of been in a relationship for a long time, hence, provided incorrect answers. For example, one of the candidates wrote, *to create a good interaction, to plan for future when you are in the marriage and to be confident with each other*. Other irrelevant responses from various candidates were: *to make people to prepare for a marriage, to bring love, to build future, e.g. houses and to prepare family as they will consider family planning*. Moreover, these candidates showed a poor use of English Language and hence failed to express their ideas fluently.

2.3.3 Question 11: Laundering in the Home

This question required the candidates to explain seven processes used in laundry work and four treatments carried out after washing and before drying.

This was an option question which was attempted by 5.5 percent of all the candidates. The candidates' performance in this question was good, since 54.4 percent of the candidates who attempted the question scored from 9 to 19 marks although there were no candidates who scored all marks (20). The candidates who scored from 6 to 8.5 marks were 17.5 percent and 28.1 percent scored from 0 to 5.5 marks as illustrated in Figure 9.

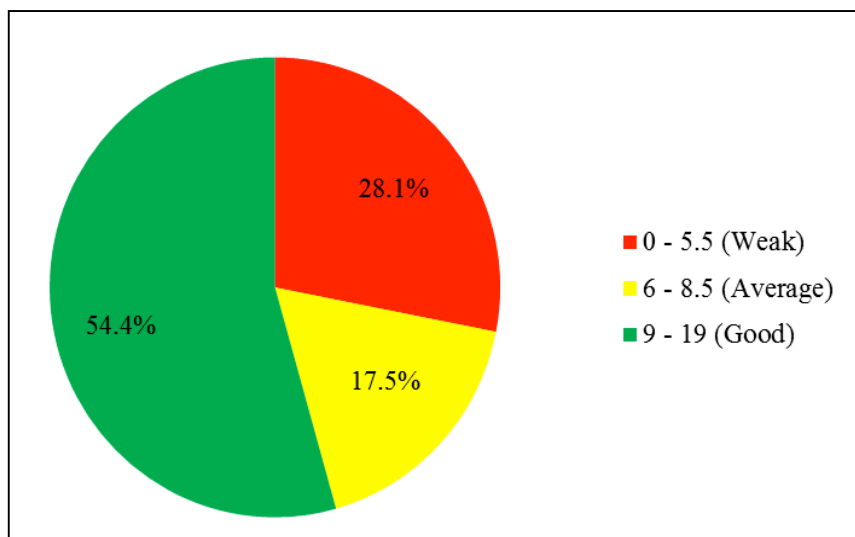


Figure 9: Distribution of candidates' scores

The candidates who scored from 9 to 19 marks (good performance) had adequate knowledge of the processes used and treatments applied in the laundry work. These candidates managed to explain some of the processes used in laundry work, such as *sorting, mending, stain removal, steeping/soaking, washing, rinsing, drying, ironing and pressing*. Moreover, the candidates were able to explain some of the treatments carried out after washing and before drying. Extract 11.1 is a sample of a response from a script of a candidate who performed well.

Extract 11.1

| | |
|----|--|
| 11 | <p>Laundering is the process of washing and ironing cloths according to the type of fabric.</p> <p>There are different processes action taken during laundry. They include:-</p> <p>Sorting. This is the act of placing fabric in different categories basing on their colour, material and texture to avoid discolouration (stain).</p> <p>Mending. This is another process which involves sewing of torn cloths and patching up new pieces of cloths.</p> <p>The next process is soaking. This involves dipping of cloths in soapy water for a long time so as to melt the greasy dirty clothes.</p> <p>Washing is the next process where by fabric is rubbed between hands to remove fixed dirty. The fabric is scrubbed or brushed to ensure that all dirty is removed.</p> <p>The next step is rinsing. Here the fabric is kept repeatedly in clean water to dissolve the soap and leave the fabric clean and magnificent.</p> <p>After rinsing drying follows. Rinsed cloths can be hanged on hanging lines in the sun</p> |
|----|--|

Extract 11.1 continue.....

| | |
|----|--|
| 11 | in order to dry them ready to be worn again Ironing or Pressing is the next process. Ironing involves moving the hot iron box to all sides of the fabric while pressing involves putting a hot iron on a fabric and removing it to go to another part. Ironing improve the appearance of the fabric due to smartness. During laundry there are different treatments carried out for the fabrics before drying. They include; Bleaching. This is treatment given to white fabrics to whiten the more. Example of the bleach as used is hyposulphite bleach. Another treatment is boiling. Clothes mostly with stains are boiled in soapy water to kill germs and dirty and to remove stains. Salting is another treatment which involves adding of salt to handkerchiefs containing mucus so as to dissolve the mucus and leave the handkerchief clean. The last treatment is bluing. This involves addition of blue solution to white fabrics to improve their appearance. Generally, laundering help kill dirty and germs and make someone look smart and present able. |
|----|--|

In Extract 11.1, the candidate failed to score full marks because he/she failed to explain some of the laundry processes and treatments used in laundry work.

The candidates (28.1%) who scored from 0 to 5.5 marks had inadequate knowledge of laundry work, hence failed to explain the processes used in laundry work. For instance, one of the candidates explained the list of laundry equipment such, as *soap, dirty clothes, basins and water* as the laundry work processes. Other candidates provided irrelevant answers, for

example, one candidate wrote *to clean the clothes, to clean their shirt, and to clean on their rubber, to kill harmful bacteria and should be avoid the work*. On the other hand, these candidates failed to explain the treatments carried out after washing and before drying as a result they wrote few sentences which were unrelated to the demand of the question and the English used was also poor and other candidates left this part unanswered. Extract 11.2 is a sample of a response from a script of a candidate who performed poorly.

Extract 11.2

| | |
|-----|---|
| | |
| 11. | laundary work is the basic for their are washing the clothes. The used in laundry work and four treatments carried out after washing and before drying. |
| | To clean their clothes, There are people should be washing the clothes their are waste product. Their people to clean the clothes. |
| | To clean their shirts, Their are used for the cleaning shirts on the protected on the washing before drying. |
| | To clean on their rubber There are people should be washing their rubber who protect on the used in the laundry work. |
| | To kill harmful bacteria, Their after washing clothes should be protect to iron clothes. Their are bacteria should be dead on the iron. |
| | Should be smart the clothes, their are clothes should be smartness of the protected on the laundry and treatment on the work. |
| | Should be avoid the work, There are people should be protected on the laundry, there people should be avoid on the source income in the society to be produce laundry work. |

Extract 11.2 continue.....

| | |
|--|---|
| | Therefore, The. Used in laundry work and treatm |
| | ement carried out after washing and before drying |
| | Should be protecting on the people in the sou |
| | Ce income in the society. |
| | |

In Extract 11.2, the candidate explained on cleaning clothes and rubber instead of processes used in laundry work. Also he/she explained on the importance of washing clothes, such as to kill bacteria instead of treatment carried after washing and before drying. The language used was also poor.

3.0 ANALYSIS OF CANDIDATES' PERFORMANCE PER TOPIC

The analysis of candidates' performance in each topic shows that questions number 2, 5 and 7, which were constructed from the topics of *Materials Used in the Home*, *Cooking Food and Kitchen* and *Food Hygiene*, respectively were poorly performed. The analysis indicates that the poor performance was attributed to candidates' inadequate knowledge of these topics. Furthermore, from the topic of *Materials Used in the Home*, specifically metals and the *Kitchen and Food Hygiene*, it has been revealed that perhaps these topics were not exhaustively taught and as a result the candidates failed to identify various metals according to their use, properties or occurrence. Also the candidates showed insufficient knowledge of the kitchen safety rules and food poisoning concept. Likewise, in the topic of *Cooking Food* candidates seemed to lack enough practical skills, hence failed to apply practical knowledge on answering the question. These candidates lack knowledge of cooking methods.

The questions which were performed averagely were question number 8 and 9 which were constructed from the topics of *Food and Nutrition* and *Meal Planning*, respectively. The analysis indicates that the average performance of candidates on these topics had been contributed by the

inadequate knowledge on the subject content and practical skills on the topic of *Food and Nutrition and Meal Planning*.

Conversely, the good performance was observed on question number 4 (*Fish Cookery*), 6 (*Accident in Home*), 10 (*Age courtship and Marriage Practices*), 11 (*Laundering in Home*) and 1 (various topics). This analysis shows that the contents of these topics were taught well as the candidates demonstrated adequate knowledge on the tested content.

4.0 CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

The general performance of the candidates in Food and Nutrition subject in CSEE 2015 was average since majority (86.1%) of the candidates who sat for this examination got grade C and D as illustrated in Appendix A. On the other hand, the comparison analysis in 2014 and 2015 indicates that the performance in both years was average but there was a decrease of 2.24 percent in 2015. Appendix C illustrates the comparison of candidates' performance in 2014 and 2015.

The analysis of the candidates' performance in each question indicates that the average performance was contributed by inadequate knowledge of the topics and misinterpretation of the demand of the question. These led the candidates to provide irrelevant answers, funny answers, partial answers and unanswered questions. The candidates who demonstrated good performance understood well the demand of the questions and had adequate knowledge of the subject matter. However, inability in using English Language was observed as a major problem to the candidates who performed poorly and those who performed well.

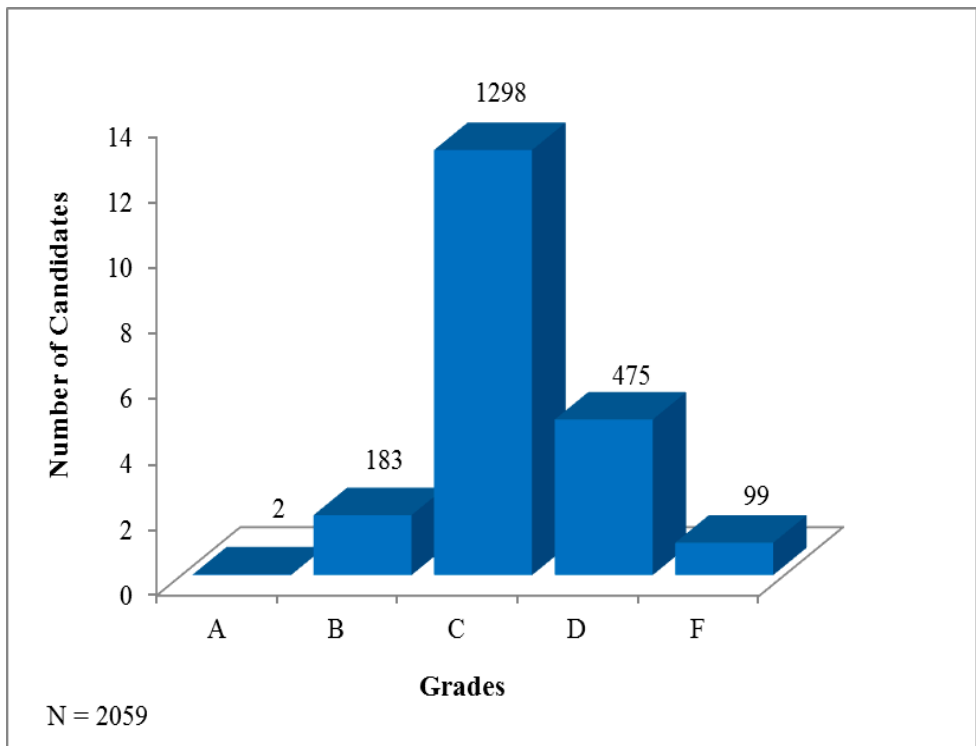
The analysis of the performance of the candidates per topic indicates that the topics of *Materials Used in Home and Kitchen and Food Hygiene* perhaps were not taught thoroughly. Likewise, the candidates performed averagely on the topics of *Food and Nutrition and Meal Planning* due to inadequate knowledge of the subject content and practical skills.

4.2 Recommendations

According to the analysis of the candidates' performance in each question and the analysis of the performance of candidates per topic in Food and Nutrition subject it is recommended that:

- (a) Teachers should ensure comprehensive teaching on all the topics stipulated in the Food and Nutrition Syllabus, with emphasis on both theory and practical lessons.
- (b) Teachers and students should be encouraged to use English Language in all aspects of teaching and learning processes in order to improve English Language skills.
- (c) Teachers should guide students to make intensive examination preparation by providing students with adequate exercises and tests. This may also motivate students to do well.
- (d) The candidates should read the questions carefully so as to be able to identify the demands of each question and answer correctly.

Candidates Performance in 2015



Analysis of Candidates' Performance per Topic

| S/n | Topic | Question No. | The % of Candidates with Score of 30% and Above | Remarks |
|------------|--|---------------------|--|----------------|
| 1. | Accidents in the Home | 6 | 92 | Good |
| 2. | Food and Nutrition, Cakes and Biscuits Making, Cooking Food, Food Contamination, Laundering in the Home, Pastry Making and Bread Making. | 1 | 76 | Good |
| 3. | Laundering in Home | 11 | 72 | Good |
| 4. | Fish Cookery | 4 | 59 | Good |
| 5. | Age Courtship and Marriage Practices | 10 | 56 | Good |
| 6. | Raising Agents | 3 | 45 | Good |
| 7. | Food and Nutrition | 8 | 38 | Average |
| 8. | Meal Planning | 9 | 34 | Average |
| 9. | Cooking Food | 5 | 13 | Weak |
| 10. | Materials Used in Home | 2 | 10 | Weak |
| 11. | Kitchen and Food Hygiene | 7 | 4 | Weak |

The Comparison of Candidates Performance in 2014 and 2015

