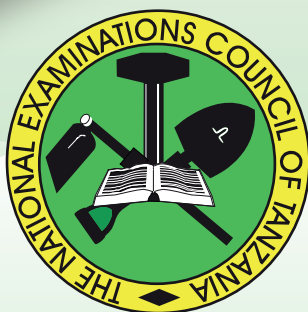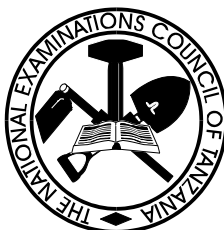**THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA**

CANDIDATES' ITEM RESPONSE ANALYSIS REPORT FOR THE CERTIFICATE OF SECONDARY EDUCATION EXAMINATION (CSEE) 2019

051 FOOD AND NUTRITION

THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

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051 FOOD AND NUTRITION

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ABBREVIATIONS

CIRA	Candidates' Item Response Analysis
CSEE	Certificate of Secondary Education Examinations
NECTA	National Examinations Council of Tanzania

FOREWORD

The report on Candidates' Item Response Analysis (CIRA) for the Certificate of Secondary Education Examination (CSEE) in the 2019 in the Food and Nutrition subject has been written to sensitize the future candidates, teachers, parents, policy makers and the public in general on the performance of the candidates who sat for this examination. Essentially, the candidates' responses to the examination questions is a strong indicator of what the education system was able or unable to offer to the students in their four years of secondary education.

This report analyses the candidates' performance for each question using statistical data prepared by The National Examinations Council of Tanzania (NECTA). In addition, samples of responses from the scripts of the candidates are used for elaboration. The report also highlights some of the factors which made the candidates fail to score high marks in the questions. The factors included: inability to understand the demands of the questions, inadequate knowledge and practical skills on the contents of the topics and poor proficiency in English language. Moreover, the analysis highlights some of the factors which made some of the candidates score high marks. The factors included ability to understand the demands of the questions and students possessing adequate knowledge and skills on the subject content.

It is expected that the feedback provided in this report will enable the education administrators, school quality assurers, school managers, teachers and students in different capacities to come up with proper measures for improving teaching and learning for the Food and Nutrition subject. Finally, the National Examinations Council of Tanzania would like to thank everyone who participated in the preparation of this report.

Dr. Charles E. Msonde
EXECUTIVE SECRETARY

1.0   INTRODUCTION

This report provides the analysis of candidates' performance in the Food and Nutrition subject for the CSEE Theory paper done in November 2019. The examination intended to measure the candidates' competences attained according to the 1997 Home Economics Syllabus.

The paper had sections A, B and C with a total of eleven (11) questions. Section A comprised two (2) objective questions. Question one (1) consisted of ten (10) multiple choice items and question two (2) consisted of five (5) matching items. Question one (1) carried 10 marks while question two (2) carried 5 marks. Section B comprised seven (7) short answer questions which carried 10 marks each. On the other hand, section C had two (2) essay questions each worth 15 marks. All questions in both sections A and B were compulsory, while in section C, the candidates were required to attempt one (1) question.

A total of 2,200 candidates sat for this paper of whom one candidate had his/her results withheld. For other candidates, the examination results show that 2,183 (99.3%) candidates passed at different grades whereby 66 (3.0%) obtained A grade, 484 (22.0%) B grade, 1,414 (64.3%) C grade and 219 (10.0%) D grade. However, a total of 16 (0.7%) candidates failed the examination by obtaining F grade. The data show an increase of 0.8 percent when the results are compared to the 2018 performance where out of 2,214 candidates who sat for this subject 2,179 (98.5%) passed and 32 (1.5%) failed.

This report provides the analysis of the candidates' performance for each question. The candidates' performance for each question is regarded as good, average or weak/poor if the percentage of the candidates who scored 30 percent or above fell within the ranges of 65 - 100, 30 - 64 and 0 - 29 respectively. Green, yellow and red colours are used in figures and appendix I to indicate good, average and weak performance respectively.

The report also highlights the demand of each question, candidates performance, the weaknesses or strengths observed and the possible reasons for the type of performance observed. In addition, samples of extracts from the candidates' responses, figures and appendices are incorporated in this report for illustrations to support the analysis.

2.0 ANALYSIS OF CANDIDATES' PERFORMANCE FOR EACH QUESTION

2.1 Section A: Objective Questions

This section consisted of ten (10) Multiple Choice Items and five (5) Matching Items. The section carried 15 marks and the candidates were required to answer all the questions. The analysis of each question is as follows:

2.1.1 Question 1: Multiple Choice Items

The question consisted of ten (10) multiple choice items derived from ten (10) topics. The topics were: *Good manners, Adolescence, Food and nutrition, An ideal home, Children ailments, Family planning Floors and floor coverings, Batters, Catering* and *Fish*. The candidates were required to choose the correct response among the given alternatives and to write its letter in the answer booklet provided. Each item carried 1 mark.

This question was attempted by all (100%) candidates. Out of them, 591 (26.9%) scored from 7 to 9 marks, 1,516 (69.0%) scored from 3 to 6 marks and 91 (4.1%) scored from 0 to 2 marks. Figure 1 summarizes the candidates' performance for this question.
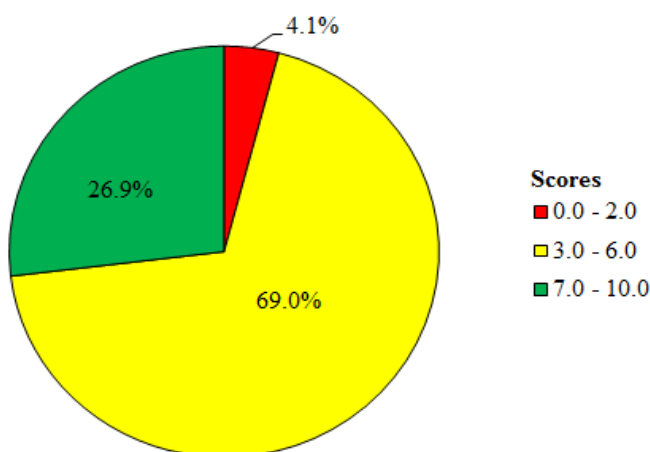

Figure 1: *The candidates' performance for question 1*

Figure 1 indicates that the candidates' performance for this question was good since majority of the candidates (95.9%) scored from 3 to 9 marks out of 10. This shows that the candidates had adequate knowledge on the tested concepts. The candidates who performed poorly responded incorrectly to most of the items of this question. The analysis of the responses in each item is as follows:

In item (i), the candidates were required to identify the statement that stands for the most correct meaning of good manners. The correct response was B, *Behaviours socially accepted in a society*. The candidates who chose this response had a clear understanding on the meaning of good manners. Majority of the candidates who opted for incorrect responses selected A, *style of greeting elders in a society,* C, *Practices of the young to greet the elders* and D, *Good style of living in the society.* These candidates failed to understand that these are the activities that demonstrate manners in the society and not the meaning of good manners.

Item (ii) required the candidates to identify the stage of development before a person becomes an adult. The correct response was D, *adolescence*. The candidates who chose the correct response had adequate knowledge on the stages of growth of a human being. The candidates who opted for A, *infancy* did not understand that infancy is the stage of development in a newly born baby before it becomes a child. Those who opted for B, *childhood* did not know that childhood is the stage of development that comes before adolescence. Moreover, the candidates who opted for C, *adulthood* were not aware that adulthood is the stage of development before a person reaches an old age. Furthermore, the candidates who opted for E, *maturity* failed to realize that maturity is a stage of development after adolescence at which the person is physically, mentally and intellectually grown up. These incorrect responses show that the candidates had insufficient knowledge on the stages of growth of a human being.

In item (iii), the candidates were required to identify the function of the retinol in diet. The correct response was A, *it aids people to see in dim light*. The candidates who chose the correct response demonstrated to have adequate knowledge on the functions of various

food nutrients in the body. They were aware that retinol is an important component of the visual purple of the retina of the eye and its deficiency reduces the ability of the eye to see in dim light. The candidates who opted for B, *it helps the formation of bones* did not know that this is the function of vitamin D and calcium in the body. Those who opted for C, *it assists absorption of calcium* could not realize that this is the function of vitamin D. Moreover, the candidates who opted for D, *it assists absorption of iron* were not aware that this is the function of vitamin C. Those who opted for E, *is essential for releasing energy* failed to understand that energy is released from the diet in the presence of vitamin B and not retinol. These incorrect responses imply that the candidates had insufficient knowledge of the functions of food nutrients in the body.

Item (iv) required the candidates to identify the factors which should be considered when choosing an ideal home. The correct response was A, *Financial status, size of the family, plan of the house and site*. The candidates who chose the correct response had an adequate knowledge of the concept of an ideal home. Candidates who opted for B, *sitting room, size of the family, site and financial status*, C, *family samples, plan of the house, financial status and furniture*, D, *size of the family, financial status, furniture and plan of the house* and E, *financial status, kitchen size, health status and furniture* failed to understand that the sitting room, kitchen size, furniture, health status are the factors to consider when furnishing a house not when choosing an ideal home.

In item (v), the candidates were required to identify the secondary infection in children after being attacked by whooping cough. The correct response was E, *Diarrhoea*. The candidates who chose this response understood that whooping cough affects the metabolic activities of the body including digestion process hence, end up with diarrhoea. The candidates who chose A, *Measles,* B, *Yellow fever,* C, *Cholera* and D, *Tuberculosis* were not aware that these are infectious diseases caused by a specific type of virus or bacteria and not the secondary infection in children after being attacked by whooping cough.

Item (vi) required the candidates to identify the place where the Intra-Uterine Cervical Device (IUCD) can be put. The correct response was D, *the cervix to prevent implantation of the fertilized ovum*. The candidates who chose the correct answer had adequate knowledge of IUCD particularly, its insertion and how it prevents conception. On the other hand, the candidates who selected A, *the placenta to prevent sperms from entering and fertilize the ovum*, C, *the placenta to prevent implantation of the fertilized ovum* did not understand that, the placenta develops during pregnancy to filter oxygen and nutrients from the mother's blood to the unborn baby and removes carbon dioxide and waste products from the baby's blood via the umbilical cord. Those candidates who chose B, *the fallopian tubes to prevent implantation of the fertilized ovum* and E, *the vagina wall to prevent sperm from entering and prevent implantation of the fertilized ovum* had inadequate knowledge of the insertion of IUCD to prevent conception.

In item (vii), the candidates were required to identify the procedure of making floor polish by using candles at home. The correct answer was D, *simmering shredded candle mixed with kerosene*. The candidates who responded correctly to this item had sufficient knowledge on how to care for the floor. The candidates who chose A, *stirring shredded candle mixed with cooking oil*, B, *boiling shredded candle mixed with petrol,* C, *shaking shredded candle mixed with turpentine* and E, *boiling shredded candle mixed with paraffin* failed to understand that these procedures cannot melt the shredded candle mixed with the given agents to produce a soft mixture of floor polish.

Item (viii) required the candidates to identify the correct response which explains why is it advisable to avoid adding all the liquids at once when making a batter mixture. The correct alternative was C*, the mixture will develop lumpy and difficult to handle*. The candidates who selected the correct alternative had adequate practical skills on the concept of instructions/procedures of making different types of batter. Those who opted A, *bubbles will appear on the surface of the mixture*, B, *mixture may become thin to handle and light in cooking*, D, *mixture may become lumpy and soft when cooking* and E, *when cooking mixture will be thick and heavy to turn* had inadequate

knowledge of the concept of instructions/procedures and ingredients for making batters.

In item (ix), the candidates were given a list of catering establishments which are: (a) Welfare catering, (b) Transport catering, (c) Outdoor catering, (d) Retail store catering and (e) Hospital catering. They were required to identify a set of catering establishments which was correct in relation to the types of commercial catering. The correct response was E, *(a) Transport catering, (c) Outdoor and (d) Retail store catering*. The candidates who chose the correct response had adequate knowledge of the classes of catering establishments. They were aware that the named caterings are the types of catering establishments which provide food and beverage services to the customers as per their demand with the main aim of earning profit. Those who chose A, *(a) Welfare catering, (b) Transport catering and (e) Hospital catering*; B, *(b) Transport catering, (c) Outdoor catering and (e) Hospital catering;* C, *(c) Outdoor catering, (d) Retail catering and (e) Hospital catering* and D, *(d) Retail catering, (e) Hospital catering and (a) Welfare catering* did not understand that welfare and hospital catering are non-commercial catering establishments. This is because they provide food and beverage services as part of another business and the customers/guests/patients do not have choice of catering facilities. The incorrect responses showed that the candidates had inadequate knowledge on the classification of catering establishments.

Item (x) required the candidates to identify the items which display the classes of fish. The correct response was A, *White, oily and shell*. The candidates who chose the correct answer had adequate knowledge on the classes of fish. Those who opted B, *White, oily and king*, C, *White, oily and tilapia*, D, *White, shell and oyster*, and E, *White, prawns and king* failed to understand that king, tilapia, oysters and prawns are the types of fish and not the classes of fish.

2.1.2 Question 2: Matching Items

This question consisted of five (5) items in list A and seven (7) responses in list B constructed from the topic on *Malnutrition*. The candidates were required to match the nutritional condition in list A with the corresponding nutritional disorder in list B and write the letter of the correct response beside the item number in the answer booklet provided. Each item was worth 1 mark.

The analysis indicates that out of 2,198 (100%) candidates who attempted this question, 1,320 (60.1%) scored from 4 to 5 marks, 695 (31.6%) scored from 2 to 3 marks and 183 (8.3%) scored from 0 to 1 mark. Figure 2 illustrates this performance.
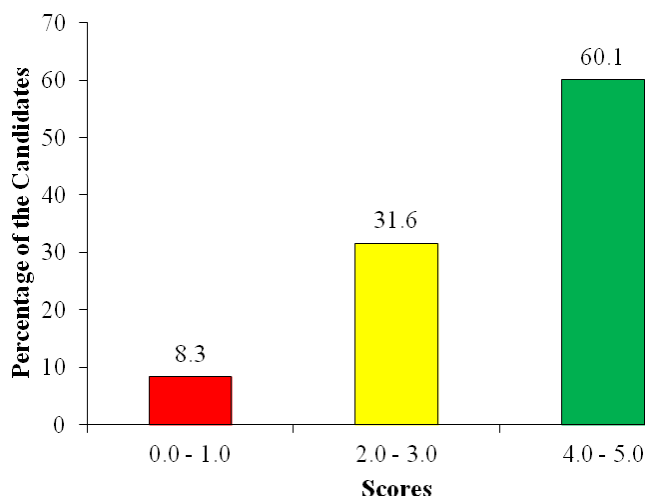

Figure 2: *The candidates' performance for question 2*

Figure 2 shows that the candidates' performance for this question was good since 2,015 (91.7%) candidates scored average marks and above average. This performance indicates that the candidates had adequate knowledge on the concept of nutritional disorders, particularly their types, causes and symptoms. The candidates who scored low marks (0 to 1) failed to match correctly most of the items. The analysis of the candidates' responses in each item is as follows:

Item (i) required the candidates to identify a condition in which the bones become weak and deformed. The correct response was E, *Rickets*. Majority of the candidates matched correctly the item

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showing that they had a clear understanding of the characteristics of rickets. A few candidates failed to give a correct response because they failed to differentiate the characteristics of rickets with those of scurvy.

Item (ii) required the candidates to identify the kind of disorder in which gums become swollen and bleed easily. The correct response was B, *scurvy*. The candidates who managed to provide the correct response knew the characteristics of scurvy. On the other hand, some candidates failed to match the item correctly because they did not understand the symptoms of scurvy.

In item (iii), the candidates were required to identify a condition in which the body lacks sufficient amount of nutrients specifically carbohydrates. The correct response F, *Marasmus* was selected by the candidates who understood the causes of this disorder. The majority of candidates who chose incorrect responses selected A, *Kwashiorkor*. These candidates failed to understand that kwashiorkor is associated with deficiency in dietary protein and not dietary carbohydrates or energy intake.

In item (iv), the candidates were required to identify a condition caused by lack of thiamine which affects carbohydrate metabolism in the body. The correct response was G, *Beriberi*. The candidates who opted for the correct response were aware that lack of thiamine in the body may affect the release of energy from carbohydrates eaten in the diet resulting into a nutritional disorder called *beriberi*. However, some candidates selected incorrect responses indicating that they were not aware of the effects of lack of thiamine in the body.

Item (v) required the candidates to identify a state of health which is characterized by the swelling of the thyroid gland. The correct response was C, *Goitre*. The candidates who chose the correct response had adequate knowledge on the characteristics of various nutritional disorders. Those candidates who opted other responses did not understand the characteristics of various nutritional disorders so they guessed the responses.

2.2   Section B: Short Answer Questions

This section consisted of seven (7) compulsory short answer questions from the topics *Public health services, Meal planning, Materials used in the home, Staple foods, Food preservation, Beverages* and *The expectant mother*. Each questions carried 10 marks. The analysis of each question is as follows:

2.2.1   Question 3: Public health services

The candidates were required to (a), outline three aspects on the importance of public health services to the community, (b) describe briefly two types of public health services and (c), explain briefly four preventative health services which can be provided at community level.

The data analysis indicates that this question was attempted by 2,194 (99.8%) candidates. Out of them, 582 (26.5%) scored from 6.5 to 10 marks, 924 (42.1%) scored from 3 to 6 marks and 688 (31.4%) scored from 0 to 2.5 marks. Figure 2 summarizes the data.
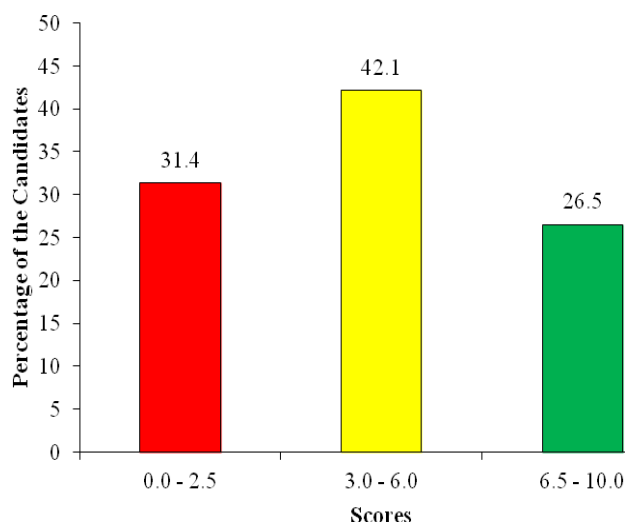

Figure 3: *The candidates' performance for question 3*

The analysis shows that the candidates' performance for this question was good since 1,506 (68.6%) candidates scored average marks and above. The candidates with good performance (26.5%), managed to outline three aspects on the importance of public health services to the

community in part (a). In part (b), the candidates correctly described the two types of public health services as preventive health services and curative health services. In part (c), they explained four preventative health services which can be provided at community level. These responses indicate that the candidates had adequate knowledge on the topic on Public health services. Extract 3.1 provides a sample of correct responses from one of the candidates.

3 a)	i) It help the people to protect themselve from Infections.	
	ii) It help in reducing the number of deaths.	
	iii) It help in providing health services in the society.	
3 b)	i) Preventive public services.	
	Are types of services publics which are used to protect the people from Infection and diseases by pro vidition vaccines to the babys and other people so that they can't been affected early with diseases.	
	ii) Currative public services.	
	Are types of public services which are used to treat the people who are Infected by the Infection and diseases so that they can be safe and having goo d healthy to Live.	
3 c)	i) food supply	
	- The community level they should been provided the food so that to enable them to have energy whi ch will improve their healthy.	
3 c)	ii) Reproductive healthy education	
	- Also the people In the community they should be en have given the education for their reproductive healthy so that to know themselve better and to be able to protective him or her self better.	

iii) Water supply.	
- The community they should be supplied water for their survival which enable them to do their activities and also to been used for the body healthy.	
iv) Provision of Immunization.	
- The people in the community they should been given the Immunization such as vaccines so that to protect them from various diseases and to maintain their good healthy.	

Extract 3.1: *A sample of the candidate's correct responses to question 3*

Extract 3.1 shows a sample of responses from the candidate who managed to provide the correct importance of public health services to the community in part (a). In part (b) he/she managed to correctly describe two types of public health services. The candidate also managed to correctly explain four preventative health services which can be provided at community level in part (c).

Further analysis indicates that some of the candidates who scored low marks provided unrelated responses in all parts of the question due to insufficient knowledge on the concept of public health services. Others misinterpreted the demands of some parts of the question. For example, in part (a) one candidate wrote, *make people be stable, give people medicine* and *advice people about something*. Another candidate wrote, *it helps to get a medical check-ups when requested*, *it gives hope for the victims when the health service is provided* and *it have perfect services*. These responses imply that the candidates did not understand the importance of public health services to the community.

In part (b), some of the candidates misunderstood the demand of the question. For example, one candidate mentioned *hospitals* and *dispensaries* which are examples of centres which provide health services instead of the types of public health services which are preventive and curative health services. Another candidate mentioned *nutrition education services* and *treatment of diseases and infections*

example treatment of cholera. This candidate failed to understand that these are the types of health services which are provided in health centres and not the types of public health services. Other candidates provided irrelevant types of public health services due to insufficient knowledge.

Furthermore, in part (c) some of the candidates misinterpreted the demand of the question. For example, one candidate wrote the following: *treatment of malaria, provide oral dehydration to sick people, care of children with malnutrition* and *give medicine to people with communicable diseases such as tuberculosis*. The candidate failed to understand that these are curative health services and not preventative health services. Those who had inadequate knowledge of the public health services provided incorrect answers such as: *all people should check their health twice per year, they should provide support to patients, they should use high technology and high science in order for people to get good health services, they should ensure all medicine are available, must give medicine at low cost, must ensure that there are skilled doctors* and *should be advised to eat balance diet*. Other candidates left this part unresponded to due to lack of knowledge of the health services provided at community level. Extract 3.2 provides a sample of responses from the script of a candidate who performed poorly on this question.

3a)	It helps the community to be aware from affected by communicable disease. It helps the community to participate in different activities such as economic activities. It helps to increase man power to the country due to the people to have a good health services.
b)	First Community Level this is the health services which given to the certain society.

3 b.	National level This is the type of health services which given to the nation at particular country example of national services treatment of cholera this services are given free with out charge or give credit to the national.	
c)	First the community that responsible to give people healt services must give out, with a low cost, this will help people to get this services.	
	Secondaly the health service that give with community level must ensure to have a skilled doctor.	
	Third the government must ensure that they do servey in order to check if something wrong going on through community level.	
	And the last health services that give with community level must ensure that they use high technology and high science in order people to get a good health services.	

Extract 3.2: *A sample of the candidate's poor responses to question 3*

In Extract 3.2, the candidate provided irrelevant responses in all parts of the question. This indicates that the candidate had insufficient knowledge on the concept of public health services.

2.2.2   Question 4: Meal planning

Part (a) of the question required the candidates to outline essential nutrients needed to be included when preparing meals for elderly people with reasons and examples of food. Part (b) required them to suggest breakfast and lunch meals for elderly people.

The question was attempted by 2,195 (99.9%) candidates while 3 (0.1%) candidates did not attempt it. The analysis shows that 1,089 (49.6%) candidates scored from 6.5 to 10 marks, 958 (43.7%) scored

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from 3 to 6 marks and 148 (6.7%) scored from 0 to 2.5 marks. Figure 4 is an illustration of these data.
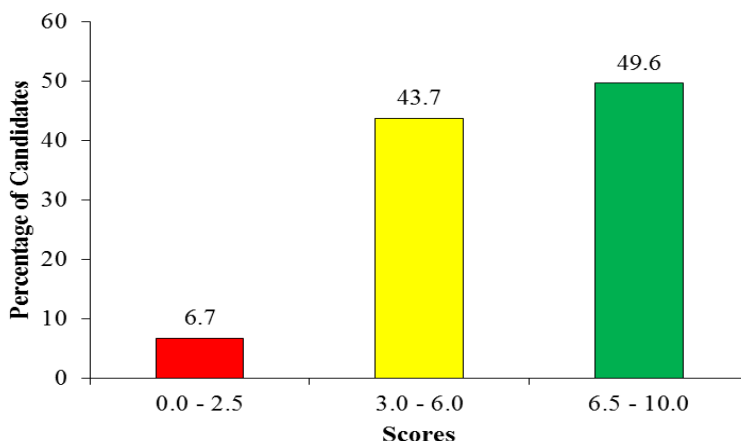

Figure 4: *The candidates' performance for question 4*

Figure 4 shows that the performance for this question was good since the majority (93.3%) of the candidates scored average marks and above. These candidates had adequate knowledge on the concept of planning suitable meals for different groups of people. In part (a), the candidates managed to outline the essential nutrients needed to be included when preparing meals for elderly people. The mentioned nutrients were: carbohydrates, protein, vitamins D, C and B_1, iron and calcium minerals and dietary fibre. They also managed to give the reasons for including each nutrient in the meals for elderly people and examples of food.

In part (b), the candidates correctly suggested the breakfast and lunch meals for elderly people. These candidates were aware that the meals prepared for elderly people should be balanced and easy to chew and digest. However, majority of the candidates did not score all marks because they mentioned minerals and vitamins without specifying the types of minerals and vitamins which are essentially needed. Others provided unbalanced lunch meal. For example, one candidate provided the following lunch: *whole meal stiff porridge, stewed fish* and *fried pumpkin leaves*. This candidate was not aware that fruits in the form of whole fruits, fruit salads or juices are also essential in the meals for elderly people.

On the other hand, majority of the candidates who performed poorly on this question had inadequate knowledge of the topic on Meal planning. Others failed to understand the demand of the question or part of it. In part (a), some of the candidates managed to mention one or two correct nutrients but failed to provide correct reasons and examples of food. Others provided the functions of food in the body and the examples of food instead of the essential nutrients needed to be included when preparing meals for elderly people.

In part (b), majority of the candidates managed to mention at least one correct food in each meal and no one managed to provide a balanced breakfast or lunch meal for elderly people. Other candidates included various fried foods such as fried fish, samosas, chicken and chips and fried eggs in their meals. These candidates failed to understand that during frying the food retain much of the fat from cooking fat leading to digestive upset due to reduced metabolic rates in elderly people. The candidates who scored zero provided incorrect responses to all parts of the question due to their incompetence in the essential nutrients, their functions in the body and meal planning for different groups of people. Extract 4.1 illustrates a sample of poor responses in this question.

i) lunch Meal for elderly people	
ii) Maandazi	
iii) Tomato rice	
iv) Vegetable soup	

Extract 4.1: *A sample of the candidate's poor responses to question 4*

Extract 4.1 shows a sample of responses of the candidate who provided the functions of food in part (a). In part (b), the candidate suggested unbalanced breakfast and lunch meals. The responses imply that the candidate had inadequate knowledge on the topic on meal planning.

2.2.3 Question 5: Materials used in the home

The candidates were required to (a), give two reasons for aluminium to be commonly used in making saucepans, (b) state three precautions necessary for the caring of aluminium utensils and (c), explain briefly five steps for cleaning aluminium saucepans.

The question was attempted by 2,137 (97.2%) candidates and 61 (2.8%) did not attempt it. The data analysis shows that 187 (8.8%) candidates scored from 6.5 to 9 marks, 1,330 (62.2%) scored from 3 to 6 marks and 620 (29.0%) scored from 0 to 2.5 marks as summarized in Figure 5.
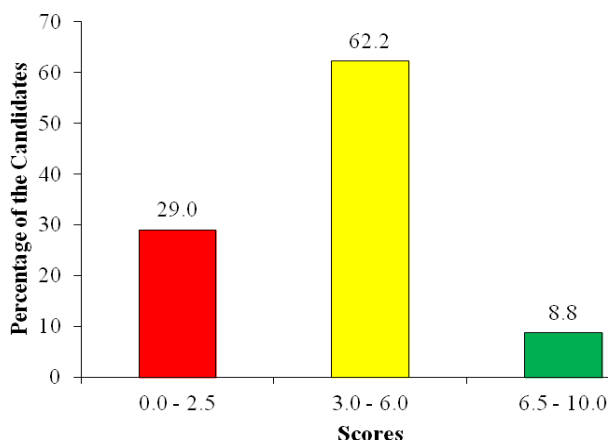

Figure 5: *The candidates' performance for question 5*

Figure 5 shows that the candidates' performance for this question was good since 1,517 (71.0%) candidates scored from 3 to 9 marks. It was observed that most of the candidates who scored good marks managed to give a correct response in part (a) of the question. The candidates were aware that aluminium materials are good conductors of heat, does not rust, are durable and easy to clean. These characteristics make the material to be used in making saucepans.

In part (b), majority of the candidates managed to state two to three precautions necessary for the caring of aluminium utensils hence, failed to score all marks in this part. Some of the candidates mentioned the precautions instead of stating them. They mentioned precautions which included: *avoid acids, do not use scoring powder, avoid alkalis* and *handle it carefully*. However, in part (c), some of the candidates managed to provide four to five steps for cleaning aluminium utensils. Others treated the step of cleaning the saucepan as two separate steps by writing: *clean inside the saucepan with suitable material* and *clean the outside of the saucepan with materials such as steel wool*. The correct responses provided by the candidates indicate that they had adequate knowledge on materials used in the home particularly their characteristics, care and cleaning.

Further analysis indicates that some of the candidates who scored low marks had little understanding on the basic concepts regarding the topic on materials used in the home hence, provided irrelevant responses. Other candidates failed to understand some parts of the question. In part (a), for example, some of the candidates mentioned incorrect responses such as *the material cannot be stained by air or water, is resistant to food, cannot be affected by alkalis* and *is not easy to be dented*. These candidates failed to understand that these are the characteristics of stainless steel materials and not aluminium materials. Moreover, the candidates showed poor English language proficiency hence, used Kiswahili language and poor grammar in expressing their ideas. For example, one candidate wrote, *because inapitisha joto kwa hiyo upika kwa mda mfupi* and *is free rust*.

In part (b), majority of the candidates provided wrong precautions necessary for the caring of aluminium utensils. For instance, one

candidate wrote, *they should be kept away from heat sources, they should be washed with steel wires* and *when used on the charcoal they should be covered with ashes*. Another one wrote, *keep away from water source, keep away from children to avoid injury* and *wash the utensils thoroughly to remove the remaining food material*. Other candidates did not respond to this part.

In part (c), some of the candidates managed to recall one to three steps for cleaning aluminium saucepans but failed to write them sequentially. Others misunderstood the demand of the question. Hence, they provided incorrect responses. For example, one candidate wrote *sorting, mending, soaking, washing* and *drying*. This candidate did not know that these are the steps in laundry work and not steps for cleaning the aluminium utensils. Extract 5.1 shows a sample of poor responses given by one of the candidates.

c) Steps for cleaning aluminium	
i) wash the aluminium	
ii) clean the water of the aluminium	
iii) sieve the make adhesive purposes.	
iv) Start work for the minutes	
v) cleaning for the laboratory of the house kitchen.	

Extract 5.1: *A sample of the candidate's poor responses to question 5*

In Extract 5.1, the candidate gave wrong responses in all parts of the question. The candidate also showed poor English language proficiency.

2.2.4 Question 6: Staple foods

In this question, the candidates were required to (a)(i) draw the diagram of wheat grain and label its five parts and (ii) identify the nutritive value of each part of wheat grain labelled in (a)(i). The candidates were also required to (b)(i) differentiate white rice from brown rice and (ii) briefly describe how cereal grain can be processed to be taken easily as food.

The question was attempted by 2,172 (98.8%) candidates while 26 (1.2%) did not attempt it. The analysis shows that, 1,522 (70.1%) candidates scored from 0 to 2.5 marks including 510 (23.5%) who scored zero, 591 (27.2%) scored from 3 to 6 marks and 59 (2.7%) scored from 6.5 to 9.5 marks. Figure 6 summarizes the performance of the candidates for this question.
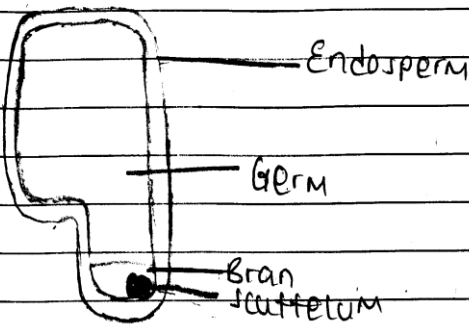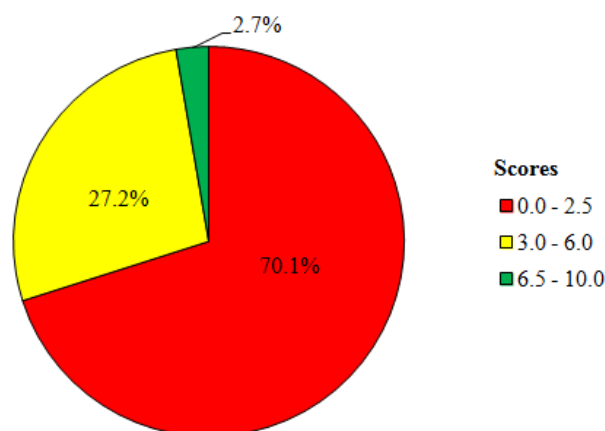
Figure 6: *The candidates' performance for question 6*

Figure 6 shows that the candidates' performance for this question was poor since 29.9 percent of the candidates scored from 3 to 9.5 marks out of 10. The candidates who performed poorly in this question had inadequate knowledge on the structure, nutritive value and processing of cereal grains. In part (a)(i), some of the candidates drew a diagram of maize grain, bean seed or egg. Other candidates drew correct diagrams with incorrect labels. For example, one candidate labelled the respective parts of wheat grain such as *cover, membrane, food* and *nuclear* in the place of *bran, aleurone layer, endosperm* and *germ* respectively. In part (a)(ii), the candidates who provided incorrect diagrams and labels in part (a)(i), also provided incorrect nutritive values of the parts.

In part (b)(i), the candidates failed to differentiate white rice from brown rice. For instance, one candidate differentiated the two types of rice such as, *white rice is white in nature while brown rice is brown in nature*. Another candidate wrote, *white rice is the common food for Africans while brown rice is the common food for Asians*. These responses indicate that the candidates were not familiar with the difference between brown rice and white rice. However, a few candidates managed to describe correctly how cereal grain is processed to be taken easily as a food in part (b)(ii) of the question. Other candidates failed to understand the demand of this part hence, provided irrelevant responses such as: *the process produce white flour*

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which contain too much carbohydrates, the cereal product has low nutritive value, fat is removed when the germ is removed, vitamins are lost in the process and some processes can cause beriberi. These candidates failed to understand that these are the negative effects of processing cereal grain. In addition, other candidates did not respond to this part of the question. The candidates who scored zero responded incorrectly to all parts of this question. Extract 6.1 provides a sample of poor responses from one of the candidates.

6. a)

A well labelled diagram of a wheat grain

ii) Endosperm
It contain Minerals. Such as Calcium and phosphorus.

b) Germ
It contains carbohydrate

c) Bran
It Ontains protein

d) scuttelum
It Contains fats and oil.

<table>
<tr><td>b) white rice and brown rice.
white rice is the rice which is made
by using water salt and oil while brown
rice it is made by using different -
spices so as to colour the rice which help
in increasing appetite and improve appear
ance of the food.</td><td></td></tr>
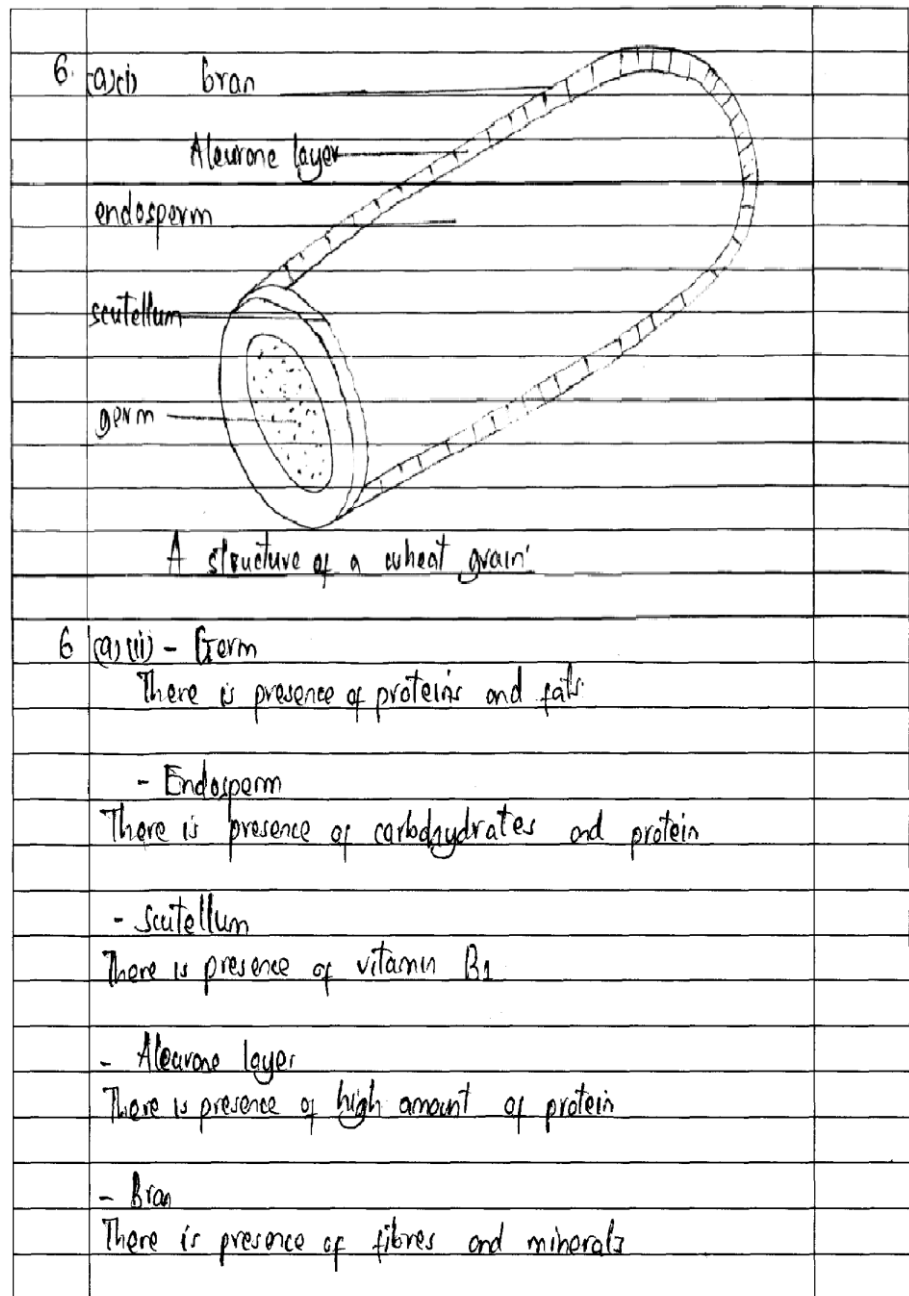<tr><td>b) ii) cereal grain can be processed
easily by making pop-cornes.</td><td></td></tr>
</table>

Extract 6.1: *A sample of the candidate's poor responses to question 6*

In Extract 6.1, the candidate drew an incorrect diagram of wheat grain and incorrectly labelled four parts in part (a)(i). In part (a)(ii), the candidate consequently provided incorrect nutritive value of each part labelled in (a)(i). The candidate gave the difference between plain rice and spiced rice in part (b)(i) and wrong process through which cereal grain can be taken easily as a food in part (b)(ii).

On the other hand, the candidates who scored from 3 to 9.5 marks (29.9%) managed to respond correctly to most parts of the question. The majority of the candidates managed to provide a well-labelled diagram of wheat grain in part (a)(i) and identified the nutritive value of the labelled parts in part (a)(ii). Other candidates failed to label correctly some parts of the wheat grain diagram in part (a)(i) hence, failed to give the correct nutritive values of some parts in part (a)(ii) of the question.

In part (b)(i), some candidates managed to differentiate white rice from brown rice. They were aware that brown rice is a whole-grain rice with the inedible outer husk removed while white rice is a grain with the husk, bran layer and cereal germ removed. Other candidates failed to provide a clear difference. For example, one candidate wrote, *white rice is one which is highly milled while brown rice is less milled to remove only few layers*. Furthermore, in part (b)(ii), the candidates

managed to mention the process under which cereal grain is processed to be taken easily as a food which is *milling*, but some of them failed to describe clearly how the grain is milled. Other candidates provided incorrect description. Extract 6.2 is a sample of good responses from one of the candidates.

6 (a)(i) bran

Aleurone layer

endosperm

scutellum

germ

A structure of a wheat grain'

6 (a) (ii) - Germ
There is presence of proteins and fats

- Endosperm
There is presence of carbohydrates and protein

- Scutellum
There is presence of vitamin B_1

- Aleurone layer
There is presence of high amount of protein

- Bran
There is presence of fibres and minerals

6. (b) (i) - White rice is produced after high milling of the rice grain involving the removal of germ and bran while brown rice is produced by just removing the bran leaving the germ.	
- White rice is less nutritious since it mainly contain carbohydrates while brown rice is more nutritious since it contain germ.	
(b) (ii) A cereal grain is processed firstly by washing the grains and then drying them. After they are dried, they are passed through milling machines whereby they are ground into flour hence used as flour for cooking various foods like 'ugali'.	

Extract 6.2: *A sample of the candidate's correct responses to question 6*

Extract 6.2 shows responses from one of the candidates who had adequate knowledge of the structure, nutritive value and processing of cereal grains. The candidate responded correctly to each part of the question.

2.2.5 Question 7: Food preservation

The candidates were required to (a) give four reasons why acid is important in jam making, (b) briefly describe two ways of testing the setting of jam and (c), give three reasons why low sugar jam is preferred to be better for use.

The question was attempted by 22,014 (91.6%) candidates while 184 (8.4%) did not attempt it. The analysis shows that 1,917 (95.2%) candidates scored from 0 to 2.5 marks, 54 (2.7%) scored from 3 to 6 marks and 43 (2.1%) scored from 6.5 to 9 out of 10 allocated marks. Figure 7 summarizes this performance.
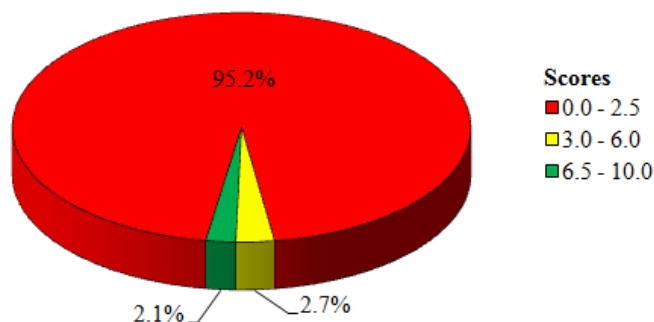
Figure 7: *The candidates' performance for question 7*

Figure 7 indicates that, the candidates' performance for this question was poor since 1,917 (95.2%) candidates scored low (0 - 2.5) marks. It was observed that these candidates had inadequate knowledge and practical skills on jam making. In part (a), some of the candidates gave responses which were contrary to the requirement of the question. For example, instead of giving reasons for acid being important in jam making, some candidates wrote the importance of sugar in jam making such as: *it impairs the action of enzymes, keep jam last longer, prevent growth of microorganisms* and *it bind water*. Others mentioned the types of acids used in jam making which include: *citric acid, tartaric acid, lemon juice* and *cream of tartar*. However, a few candidates managed to give one or two reasons why acid is important in jam making.

In part (b), some of the candidates wrote incorrect ways of testing the setting of jam such as: *check the date of manufacturing, check the expiring date of the jam, oral testing by eating the jam to test its flavour, test by nose by smelling the jam, look for the appearance as ready cooked jam have heavy consistency* and *look at the colour as it should be attractive*. Other candidates misinterpreted the demand of this part and hence, provided ways of testing to see if the food products such as cake, bread and other snacks are cooked. For example, one candidate wrote the tests for the cooked bread as, *test by tapping the bottom to get hollow sound* and by *inserting a clean skewer into the centre* instead of the tests for the setting of jam. Other candidates mentioned the nutritional composition of jam by writing, *carbohydrates/sugar, vitamin C, fibre* and *minerals*.

In part (c), the candidates provided incorrect reasons why low sugar jam is preferred to be better for use. For example, one candidate wrote, *because the fruits themselves are ripe so contain sugar, to make the amount of sugar moderate* and *to avoid to too tasty jam*. A few candidates managed to write one correct reason, *reducing the amount of sugar* but gave unclear explanation. Extract 7.1 provides a sample of poor responses in question 7.

7.	a) • To neutralize the substances. • To soften the substances. • To improve sour taste. • To add nutrients in the body. b) - By seeing colour change espacially red. - By dipping a stick into the substance then taste the flavour. c) i/ It has low amount of acid. ii/ It adds amount of nutrients at a correct proportional. iii/ It lower the concentration of hydro-chloric acid in stomach.	

Extract 7.1: *A sample of the candidate's poor responses to question 7*

Extract 7.1 shows the responses of a candidate who provided incorrect reasons for acid being important in jam making, ways of testing the setting of jam and the reasons for low sugar jam being preferred for use.

Despite the poor performance for this question, 4.8 percent of the candidates correctly gave the reasons for acid being important in jam making in part (a). In part (b), the candidates managed to describe correctly at least one way of testing the setting of jam. In part (c), some of the candidates managed to give two correct reasons for low sugar jam being preferred for use. These responses prove that the candidates had adequate knowledge and practical skills of jam

making. Extract 7.2 shows a sample of good responses in this question.

> 7 a.i. To help the pectin to form gel during stewing
> ii. To convert any penctase to pectin which help the jam set
> iii. To improve the flavour and colour of the jam
> iv. To prevent sugar from forming crystals during storage.
>
> b. i. temperature when jam is at setting point it should reach 105°c this can be checked with sugar thermometer.
>
> ii. Wrinkle test, Have a cold place and a saucer, place a little of the jam on it and leave to cool, push the jam with finger to see if it wrinkles.
>
> c. i. Because it have good fruity taste
> ii. can be used by all groups of people
> iii. Have low sugar, hence used by all people as healthy diet.

Extract 7.2: *A sample of the candidate's correct responses to question 7*

Extract 7.2 shows the responses from the candidate who managed to provide correct answers in parts (a) and (b). However, the candidate provided an incorrect response in (c)(ii) hence, he/she failed to score all the marks.

2.2.6 Question 8: Beverages

The candidates were required to: (a) differentiate with examples stimulating beverages from refreshing beverages, (b) briefly explain why cocoa does not have the same stimulatory effect compared to coffee and (c) briefly describe four procedures of making black tea.

This question was attempted by 2,189 (99.6%) candidates. Out of them, 269 (12.3%) scored from 6.5 to 10 marks, 1,448 (66.1%) scored from 3 to 6 marks and 472 (21.6%) scored from 0 to 2.5 marks. Figure 8 is a summary of this performance.
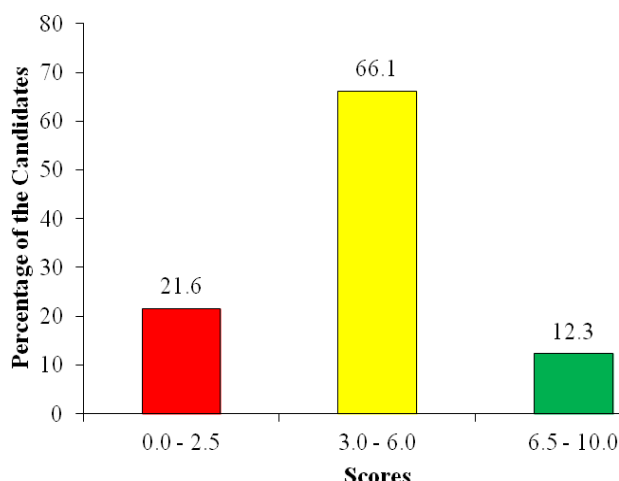

Figure 8: *The candidates' performance for question 8*

Figure 8 shows that the performance for this question was good since 1,717 (78.4%) candidates scored from 3 to 10 allocated marks. These candidates managed to differentiate stimulating beverages from refreshing beverages in part (a). Majority of the candidates also managed to give correct examples of stimulating and refreshing beverages.

In part (b), some of the candidates managed to state why cocoa does not have the same stimulatory effect compared to coffee. The candidates were aware that cocoa contain trace of caffeine which is responsible for stimulatory effect compared to coffee which contains large quantity. Other candidates provided some incorrect or partial explanations.

Moreover, in part (c) majority of the candidates were able to correctly describe the four steps of making black tea. The correct responses indicate that the candidates were familiar with the procedure for making black tea. A few candidates were not able to write all the steps sequentially hence, they failed to score all marks in this part. Extract 8.1 gives a sample of candidates' correct responses.

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8 a) Stimulating beverages are the type of beverages which stimulate the nervous system in the body and make a person active example tea and coffee. while Refreshing beverages are type of beverage which are used to refresh the body and provide enjoyment to a person example juices and soft drinks such as soda.		
b) This is because cocoa does not contain a high amount of caffeine compared to coffee whereby caffeine is the one which stimulate the body therefore since cocoa contain low amount of caffeine it has low stimulatory effect to body compared to coffee.		
c) i) Boil the water and put it in a kettle. ii) Add tea leaves to the kettle containing boiled hot water where by one teaspoon of tea leaves per a person is added.		
iii) leave it for some time to extract flavour and colour. iv) Strain the tea and pour it into another kettle and serve it immediately with sugar for taste.		

Extract 8.1: *A sample of the candidate's correct responses to question 8*

Extract 8.1 shows the responses of the candidate who in part (a), correctly differentiated stimulating beverages from refreshing beverages and mentioned correct examples of beverages in each category. In part (b), the candidate correctly explained why cocoa does not have the same stimulatory effect compared to coffee. Likewise, in part (c) he/she described correctly four procedures of making black tea.

On the other hand, the candidates who performed poorly (from 0 – 2.5 marks) in this question were not able to differentiate stimulating beverages from refreshing beverages in part (a). For example, one candidate incorrectly wrote, *stimulating beverages are the types of beverages that have many chemicals and alcohol while refreshing beverages are the types of beverages that don't have any chemical and have no alcohol.* Another one wrote, *stimulating beverages are those which increase blood circulation in the body while refreshing*

beverages are those for stopping thirsty. The irrelevant responses indicate that the candidates had inadequate knowledge on the categories of beverages.

Most of the candidates did not attempt part (b) of the question. A few candidates who attempted it, provided incorrect responses. The responses indicate that the candidates had insufficient knowledge on cocoa and coffee beverages, particularly on the chemical substances they contain which affect the nervous system in the body. For example, one candidate wrote, *cocoa does not have the same stimulatory effects compared to coffee because when you drink cocoa you easily fall asleep but with coffee the body becomes more active.* Another candidate wrote, *it is because cocoa drink contain milk which acts as a nourishing beverage and refreshing beverage.*

Likewise, in part (c), some of the candidates provided wrong procedures for making black tea because they were not able to recall all the steps. Other candidates failed to understand the demand of this part of the question hence, they provided irrelevant steps. For example, one candidate mentioned the items and equipment for making black tea such as, *water, tea leaves, sugar, saucepan* and *kettle* instead of the procedure for making black tea. Extract 8.2 represents a sample of poor responses.

8 a.	Stimulating beverage this is the type of beverage in which was Introduced in order to make the food where by they would be eliminated and e originated to the people while refreshing beverage this was the process in which the food they would be making the good appiarance of the food.	
b.	Because cocoa it is reduce to the rate of sleeping all the time than the coffee in which was Introduce to the people to originated to the people.	

C	iv To prepare the cooker/ ~~since was~~ oven since was	
	because to due to Introduce the light was to be	
	originated and to be eliminated.	
	iii) To prepare the equipment used in cooker, since was,	
	because due to the people to prepare they need	
	use the amount of the people to be originated	
	and to be maked in which should be elim	
	inated to the people.	
	iii To take the sugar and put into the cooker and to fly,	
	until the colour of the sugar was to be red, since	
	was because due to the people to be change the	
	colour in which would be eliminated and to be	
	originated they would be reduced to the people.	
	ivy To mix the sugar with water in order to	
	make the clear tea, since was because	
	due to the people to make the tea they sho	
	uld be Introduced in which they would	
	be originated and was Introduced to the	
	people where they were to be originated to the	
	people in which was Introduced it to the people.	

Extract 8.2: *A sample of the candidate's poor responses to question 8*

In Extract 8.2, the candidate provided incorrect responses to all parts of the question due to inadequate knowledge on the types of beverages and the procedure of preparing black tea.

2.2.7   Question 9: The expectant mother

The candidates were required to (a) give three reasons for the recommended child bearing age to be above the age of 20 years and (b) describe two dangers of early child bearing.

This question was attempted by 2,150 (97.8%) candidates whereas 48 (2.2%) did not attempt the question. The data analysis shows that of the candidates who attempted this question 186 (8.7%) scored from 6.5 to 10 marks, 793 (36.8%) scored from 3 to 6 marks and 1,171

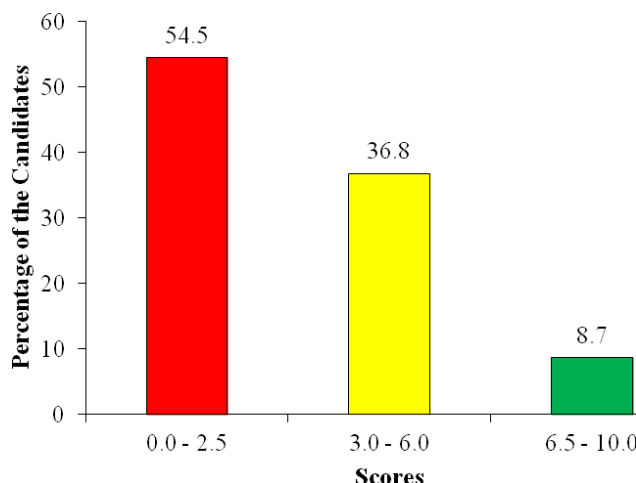(54.5%) scored from 0 to 2.5 marks. Figure 9 illustrates the performance.

Figure 9: *The candidates' performance for question 9*

Figure 9 shows that the performance in this question was average since 979 (45.5%) candidates scored average marks and above. The candidates' response analysis shows that the candidates who scored from 6.5 to 10 marks had adequate knowledge on the concepts of the appropriate age for child bearing and dangers of early child bearing. In part (a), the candidates were aware that at above 20 years of age the girls: have their bones able to accommodate pregnancy and delivery complications, have completed their basic (secondary school) education hence no interference, are already matured both physically, emotionally and psychologically to take care of the family, are able to make family decisions and are fully matured in hormonal production to produce all the required hormones for pregnancy and lactation. However, majority of the candidates failed to score all the marks in this part of the question because either they provided two correct points out of the required three, they provided insufficient explanations to some of the points or they repeated some of the points. For example, some candidates treated the point of physical, emotional and psychological maturation as two or three different points while they are supposed to be explained under one point: For example, one candidate wrote, *(i) because the girl is well matured so can make a family, (ii) also is psychologically matured to care herself, the coming baby and the family*.

In part (b), the candidates managed to describe two dangers of early child bearing. The described dangers included: to have health problems and complications during pregnancy and child birth, the mother may have many children at short intervals, can result into premature, delayed or still births and may cause conflicts to the family.

On the other hand, the analysis indicates that 54.5 percent of the candidates had poor performance. Most of the candidates failed to give the reasons for the recommended child bearing age to be above the age of 20 years in part (a). Some candidates wrote the factors which encourage early marriage such as: *because of social security, pressure from parents, poverty, lack of family life education* and *traditional laws*. Others wrote the changes that take place in adolescents which include: *increase in size of the body, feeling to act as adults, increase conflicts with teachers and parents* and *start of sexual relationships which result to early child bearing*.

In part (b), the majority of the candidates were not able to describe the dangers of early child bearing. They provided a variety of irrelevant responses such as: *body immunity becomes low easily, enlargement of the abdomen and vomiting, spread of diseases, the baby cannot grow to complete size, to check health of our children every time, lead to diseases when you don't care the baby* and *burdening responsibilities to parents*. The incorrect responses provided indicate that, the candidates had inadequate knowledge of the topic on The expectant mother particularly of the appropriate age for child bearing and dangers of early child bearing. Extract 9.1 provides a sample of poor responses to this question.

9. a) Reasons for bearing child above 20years:	
i) To avoid complications during delivery	
ii) To avoid deaths either of a mother or child	
iii) To avoid the spread of diseases	

9. b) Dangers of early child bearing	
i) The person May give birth to Mongols.	
ii) Utein Uterus becomes tighten .	
iii) Musles become tough	

Extract 9.1: *A sample of the candidate's poor responses to question 9*

Extract 9.1 shows a sample of responses from the candidate who in part (a), provided incorrect reasons for the recommended child bearing age to be above the age of 20 years. In part (b), he/she also mentioned incorrect dangers of early child bearing.

2.3 Section C: Essay Questions

This section consisted of two (2) essay questions from the topics *Bread* and *Convenience foods*. The candidates were required to answer only one (1) question from this section. The analysis of each question is as follows:

2.3.1 Question 10: Bread

The question required the candidates to explain eight steps of preparing bread dough using yeast.

The question was opted by 723 (32.9%) candidates. This means 1,475 (67.1%) candidates did not attempt this question. Data analysis shows that 68 (9.4%) candidates scored from 10 to 15 marks, 297 (41.1) scored from 4.5 to 9.5 marks and 358 (49.5%) scored from 0 to 4 marks. Figure 7 summarizes the data.
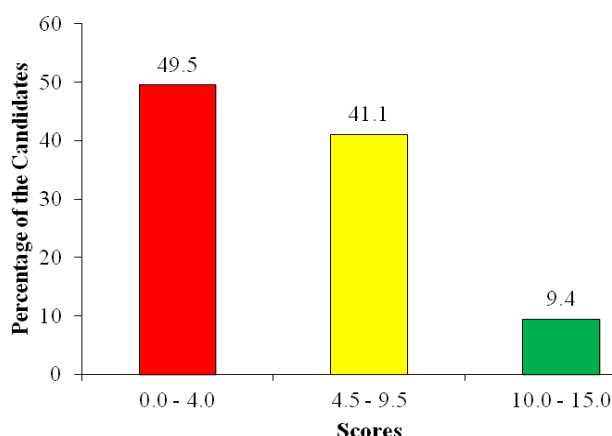

Figure 10: *The candidates' performance for question 10*

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The analysis shows that the candidates' performance for this question was average since 50.5 percent of the candidates scored average marks and above. The candidates' response analysis indicates that the candidates with good performance (9.4%), correctly explained eight steps of preparing the bread dough using yeast. The steps provided by the candidates were: *creaming, sponging/setting, mixing, kneading, rising, re-kneading, shaping* and *proving*. Their good performance was attributed to better understanding of the requirement of the question, adequate knowledge of the procedure of making bread by using yeast and good mastery of essay writing skills. Those who scored averagely, either provided four to six correct steps or provided insufficient explanations to some of the steps. Extract 10.1 shows a sample of correct responses provided by one of the candidates.

Kneading. The small amount of liquid is added to the mixture of flour and yeast so as to make sure that yeast has spread throughout the dough and to bind the mixture of dough together. This is done by using finger tips but later on by using the palm of the hand.

Rising. The dough is placed to the place where there is required temperature for fermentation to take place. Where the products of fermentation are carbohydrates, alcohol and carbondioxide. As carbondioxide is the raising agent as it pushes the gluton because it wanted to escape and cause the dough to rise.

Re-kneading. After After the dough has risen will repeat the process of kneading thoroughly so as to prepare the dough for shaping and also to remove bubbles formed by carbondioxide.

Shaping. This involve cutting of the dough in different shapes needed for a certain bread prepared.

Proving. After shaping, proving is more important because it prove the shape prepare and also rising also take place in this stage so as to prove the shape of a type of bread prepared.

Generally, all these steps are not only useful in preparing bread dough but all doughs which are prepared by using yeast as the only rising agent.

Extract 10.1: *A sample of the candidate's correct responses to question 10*

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In Extract 10.1, the candidate managed to explain correctly the steps of preparing the bread dough by using yeast. He/she also showed a good mastery of essay writing skills by providing relevant introduction and conclusion.

Further analysis indicates that the candidates who performed poorly in this question provided incorrect procedure of preparing the bread dough using yeast. For example, one candidate wrote: *prepare the dish, measure the flour and the yeast, add baking powder, put the margarine, put water and mix, put it outside in the sun light, cut into small pieces* and *put in the oven*. Other candidates included some incorrect steps in the procedure. Moreover, some of the candidates provided irrelevant explanations on some of the correct steps mentioned. Extract 10.2 shows a sample of poor responses from one of the candidates.

10	Dough is the mixture of egg wheat flour, liquid, butter, raising agent and yeast which are found and used in making of bread, buns and many more. the following are the eigth eight steps to prepare bread dough using yeast :	
	Collecting of Ingredients : by collecting of the ingredials in lime it may increase the time for the making of bread because it will not make you to return where the the ingridients are found so that to get and it will many time to start to prepare the dough requires and to let it rote raise in the outside .	
	Prepare the yeast ; a In order to start well the preparetneetho preparing of the yeast and it to change may take alot of time by putting some amount of yeast in the cup and add some water and to wait untill the sere smell of alotal smell it will be ready .	
	Rubbing in method ; this method is appx applyed in bread making you rubb in fat with flour untill the fat stages is well mixed and the method is not only used in bread making but also in other way of making stuff	

Adding yeast: when the fat is mixed well in the flour your can smell if the yeast has the alcohol smell and your add in the mixture of fat and flour

Kneeding: this is process of making the dough to be more light and not heavy by adding other ingredient in the mixture.

raising it; this happen when the dough is ready been kneeded and been sent out so that to raising and become big enough to be baked and to allow the air to not escape by covering it with clean towel.

baking: After been left to raise it can be your can pre heat the oven until it is well raised and your can send it in the oven for about 10 - 15 mins and going to check if it is baked well.

therefore the above were the steps which prepares the bread dough with yeast and when followed well can be helpfull to student when doing the Nutrition practicals proper to maintain time given

Extract 10.2: A sample of the candidate's poor responses to question 10

Extract 10.2 is a response of the candidate who provided wrong procedure for preparing bread dough using yeast. The candidate explained some incorrect steps. He/she failed to understand that kneading and rising are done after creaming, sponging and mixing the ingredients. Furthermore, the baking process provided by the candidate is a step in bread making but not in the preparation of bread dough.

2.3.2 Question 11: Convenience foods

The candidates were required to describe four types of convenience foods in part (a). In part (b), they were required to analyse four advantages of using convenience foods.

This question was opted by 1,458 (66.3%) candidates while 740 (33.7%) did not attempt it. The data analysis indicates that 473 (32.4%) candidates scored from 10 to 15 marks, 653 (44.8%) scored from 4.5 to 9.5 marks and 332 (22.8%) scored from 0 to 4 marks as summarizes in Figure 11.
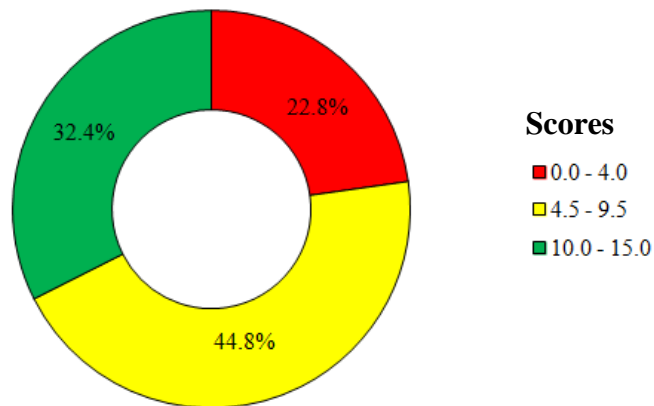

Figure 11: *The candidates' performance for question 11*

Figure 11 shows that the performance for this question was good since 77.2 percent of the candidates scored from 4.5 to 15 marks. The analysis of candidates' responses shows that the candidates who scored from 10 to 15 marks were able to describe four types of convenience foods in part (a) and analyze four advantages of using convenience foods in part (b). In the introduction part, they correctly defined convenience foods as *the foods which are partly or completely processed by the food manufacturers so that they are either ready-to-eat or require minimum preparations by the consumers*. This response indicates that the candidates had adequate knowledge on the topic on convenience foods and essay writing skills. Extract 11.1 shows a sample of the candidates' good responses to this question.

11	Convinience foods are the food which are	
	processed partially or totally by the food	
	manufacturer inorder to be ready to eat or	
	need minimum preparation. Convinience foods	
	gains more popularity because it is advertised	
	to many people and hence making people	
	to be aware about that particular food.	
	rather than the packed meals or foods.	
	The following are the four types of	
	the convenience foods;	
	Ready to eat ; This is the type of	
	a convinience food which do not require	
	any for preparation in which when	
	they are bought they are just eaten in	
	which mostly are snacks and bites Example	
	of the convinience foods which are for	
	Ready to eat are ; Biscuits, crisps, .	
	Canned foods; This is when by this	
	canned foods is one among the types	
	of convinience foods which are canned	
	and just need minimal preparation	
	Example : Canned meat, Canned Bean in which	
	They are sealed in the tins.	
	Dehydrated foods; This is the type of	
	convinience food in which all amount of	
	water is removed and food became in a	
	powdered form hence not easy for po bacteria	
	to accumulate Example of the dehydrated foods	
	are like : Powdered milk.	
	Frozen Foods; This is the type of the	
	convinience food in which food are manufactured	
	or pocessed and then froed inorder to	
	prevent growth of bacteria in the food	
	In Example of this foods is ; sawages hence	
	they require minimal preparation.	

The following are the advantages of convenience foods;

Easy to prepare hence it save time and fuel; This is where by convenience food save time for some individuals like busy house wife and even when performing many activities or chores at home so who use convinience foods which require only minimum preparation.

They have little _and_ wastes or oct crumbs, This is where by convenience foods produce no or little waste or crumbs hence becoming easy to eat in any place & which distrying the environment & hence it conserves the environment.

They can be used for emergence, This is where by convenience food can be used for emergence visitor so an individual shand cook the food which require only minimum preparation inorder to serve time for the guests Example Canned foods like Beans. or meat.

They have been added _with_ extra nutrients; to convinience foods have added nutrients inorder for people to get required nutrients in the body to make them healthy

Generally; The following are the disadvantages of convinience foods : Expensive, some of the nutrients may not be present.

Extract 11.1: *A sample of the candidate's correct responses to question 11*

Extract 11.1 shows that the candidate was able to provide correct types of convenience foods and advantages of using convenience foods. The candidate also showed adequate essay writing skills.

Further analysis shows that the candidates who had poor performance (22.8%) failed to provide the correct types of convenience foods and

advantages of using convenience foods. In the introduction, majority of the candidates provided incorrect definitions of convenience foods. For example, one candidate defined it as *the foods which are already cooked and packed for consumers to buy and normally found in super markets*. Another candidate wrote, *convenience foods are the foods which are prepared in advance so need less time for preparation before consumption*. Some of the candidates failed to understand the demand of the question. In part (a), there were candidates who mentioned the examples of convenience foods instead of the types. For example, one candidate wrote: *canned fish, canned beans, meat pies* and *pastries*. Other candidates mentioned the types of catering establishments such as: *fast food centres, industrial canteen, motels, outdoor, restaurants, hotels* and *snacks bar*. The candidates who lacked knowledge on the types of convenience foods provided a variety of irrelevant responses. For example, one candidate wrote: *normal convenience foods, quick convenience foods, going to the hotel* and *paying by salary in a special place*.

In part (b), the candidates were not able to provide correct advantages of using convenience foods. Some of the incorrect responses provided by the candidates were: *Easy to use for everyone, it is a source of employment, support life of a person, it helps in growth and development of the body, it is fast type of food, it has cheap price, are used due to lack of enough fuel, not consuming time, used during war,* and *can be used as packed meal.* These responses indicate that the candidates had insufficient knowledge of the topic on convenience foods. However, some candidates mentioned one to two correct types and advantages of convenience foods but failed to give correct explanations. Others gave unclear explanations due to poor command of the English language. Extract 11.2 gives a sample of poor responses from one of the candidates.

Convenience - ly a person who is recovering with illness ery of food boiled rice, mixture fruit salad, boiled eggs. The following four types of Convenience food.

Protein these kind of food the Convenience should be taken daily life the protect her body against disease the function of protein are Body building food support energy, Replacement substance enzymes these are function of Protein in human body.

Carbohydrates, these food contain energy in the body Convenience should allow to get in order to energy in body example of food which rich in Carbohydrate such as green Banana, Boiling rice, more soup.

Vitamin these are food that can protect the Convenience from illness because it make the body against disease it make the body to get energy when the Convenience is sick he/she must be given the vitamin in order the body support energy from the body.

Mineral salt the Convenience should be given minerals salt in order to the protect against disease the body that Contain illness should provide Calcium to the body in order the body to energy Phosphorous, these food can protect the Convenience from illness and the provide energy to them.

The following are Advantage of using Convenience food In order to protect the body from disease these kind of food protect our body from disease such as HIV/AIN Malaria, kwashiorkor, Marasmus, Goiter, Obesity.

It provide energy to body these mean that when the body get balanced diet the body can provide energy in to all direction of the body these food provide enough energy in to the body.

It maintain good health these kind of food maintain person to get good health and make a person to look beautifull and strong.

It maintain good cooperation due to that a person that lacking balanced he/she can't be in good situation but a person that he/she getting good proportion of balanced diet can get good confedence of talking to people and other activities

Extract 11.2: *A sample of the candidate's poor responses to question 11*

Extract 11.2 shows the responses from the candidate who failed to understand the demand of the question. In the introduction part, the candidate defined "convalescent" and described the types of nutrients to be included to the meals for convalescents in part (a). In part (b), he/she analyzed the functions of food in the body.

3.0 ANALYSIS OF CANDIDATES PERFORMANCE PER TOPIC

The Food and Nutrition Theory paper in CSEE 2019 covered 19 topics in 11 questions. The analysis of the candidates' performance indicates that, the *Multiple Choice Items* constructed from the topics *Good manners, Adolescence, Food and nutrition, An ideal home, Children ailments, Family planning, Floors and floor coverings, Batters, Catering and Fish* had good performance (89.6%). Other topics with good performance were: *Meal planning* (93.3%), *Malnutrition* (91.7%), *Beverages* (78.4%), *Convenience foods* (77.2%), *Materials used in the home* (71.0%) and *Public health services* (68.6%). The good performance on these topics was attributed to the candidates' understanding of the demands of the questions, adequate knowledge of the candidates on the assessed concepts and adequate essay writing skills.

The topics with average performance were: *Bread* (50.5%) and *The expectant mother* (45.5%). The average performance for these topics was attributed to relatively adequate knowledge on the assessed concepts. It was observed that

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failure to provide the required number of points and lack of clarity in explanations for the points given was caused by candidates' inadequate preparations for the examination.

On the other side, the topics *Staple foods* and *Food preservation* had poor performance of 29.9 and 4.8 percent respectively. The poor performance observed in these topics has been associated with lack of practical skills on jam making, failure to understand the requirements of some parts of the questions and insufficient knowledge on the assessed concepts. Appendix I summarizes the analysis of the candidates' performance for each topic.

4.0   CONCLUSION

The general performance of candidates in the Food and Nutrition subject in CSEE 2019 was good since 2,183 (99.3%) candidates who sat for the examination passed by obtaining A to D grades. However, 16 (0.7%) candidates failed the examination by obtaining F grade as summarized in Appendix II. It was observed that the candidates' performance in 2019 was better compared to that of 2018 where 98.5 percent of the candidates who sat for this examination passed and 1.5 percent failed. The comparison of the candidates' performance in 2018 with 2019 is summarized in Appendix III.

The analysis of the candidates' performance for each question shows that the good and average performance observed were the result of ability to understand the demands of the questions, adequate knowledge of Food and Nutrition concepts and adequate essay writing skills. Conversely, the poor performance in some of the questions among some candidates was a result of candidates' failure to understand the demands of the questions and having inadequate knowledge on Food and Nutrition concepts. Hence, the candidates' provision of irrelevant responses, partial responses and skipping some parts of the questions were observed among some candidates. In addition, poor English language proficiency was observed to contribute to the candidates' poor performance because either the candidates used poor English or Kiswahili to express their ideas.

5.0 RECOMMENDATIONS

According to the analysis of the candidates' performance in the Food and Nutrition subject, it is recommended as follows:

(a) Teachers should provide charts/diagrams/various cereal grains and guide the students in groups to discuss the nutritive value and processing of each cereal grain to get various products during teaching and learning for the topic on *Staple foods* in which candidates seemed to lack adequate knowledge.

(b) Teachers should guide students to carry out enough practicals on jam making using different ingredients, testing the setting and then discussing the properties and nutritive value of the products while teaching the topic *Food preservation*. This recommendation is relevant because candidates seemed to lack knowledge on this topic.

(c) Because English was observed to contribute to candidates' poor performance, students should be encouraged to use English language in all aspects of teaching and learning processes in order to improve English language proficiencies. Grammar books should be provided for students to practice English language rules that will ultimately improve their proficiency in the language.

(d) Education administrators, school quality assurers, school managers, teachers and students should be advised to read the Candidates' Item Response Analysis reports so as to take appropriate measures for improving teaching and learning in the Food and Nutrition subject. This inturn, will improve the candidates' performance in this subject in the future examinations.

Summary of the Candidates' Performance per Topic

S/n	Topic	Question Number	The % of Candidates who Scored an Average of 30% or Above	Remarks
1.	Good manners, Adolescence, Food and nutrition, An ideal home, Children ailments, Family planning, Floors and floor coverings, Batters, Catering and Fish	1	95.9	Good
2.	Meal planning	4	93.3	Good
3.	Malnutrition	2	91.7	Good
4.	Beverages	8	78.4	Good
5.	Convenience foods	11	77.2	Good
6.	Materials used in the home	5	71.0	Good
7.	Public health services	3	68.6	Good
8.	Bread	10	50.5	Average
9.	The expectant mother	9	45.5	Average
10.	Staple foods	6	29.9	Poor
11.	Food preservation	7	4.8	Poor

The General Performance of the Candidates in terms of Grades
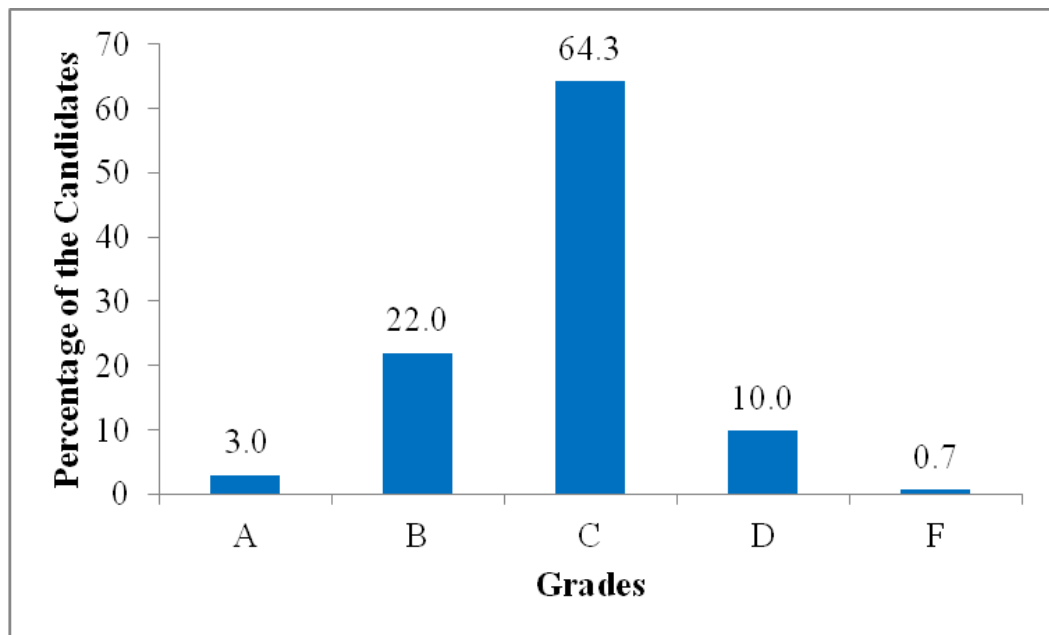
The Comparison of the Candidates' Performance between 2018 and 2019 in terms of Grades