

THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA



**STUDENTS' ITEM RESPONSE ANALYSIS REPORT
FOR THE FORM TWO NATIONAL
ASSESSMENT (FTNA) 2019**

051 FOOD AND NUTRITION

THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA



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051 FOOD AND NUTRITION

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ABBREVIATIONS

SIRA	Students' Item Response Analysis
NECTA	National Examinations Council of Tanzania
FTNA	Form Two National Assessment

FOREWORD

This report analyses of the students' item response on the Form Two National Assessment (FTNA) for the Food and Nutrition subject which was conducted in November 2019. It has been written to provide feedback to students, teachers, parents, policy makers and the public in general on the performance of the students who sat for this assessment. It is also meant to recommend proper measures to be taken in order to improve the students' performance in the future assessments provided by the Council.

The analysis in this report focuses on identifying the strengths and weaknesses of the students' responses for the assessed topics and subtopics. It highlights some of the factors that made students score high marks. Such factors include students' understanding of the requirements of the questions and possessing adequate knowledge and skills on the subject content. Moreover, the analysis in this report highlights some of the factors which contributed to poor performance in some questions. These factors include students' misinterpretation of the questions, failure to understand the demands of the questions and having insufficient knowledge and practical skills on some of the assessed concepts.

The National Examinations Council of Tanzania believes that this report will enable education administrators, school quality assurers, school managers, teachers and students to take appropriate measures in order to improve the teaching and learning processes. Finally, the Council would like to express its gratitude to everyone who participated in the preparation of this report in different capacities.



Dr. Charles E. Msonde
EXECUTIVE SECRETARY

1.0 INTRODUCTION

This report presents analysis of performance for the students in the Form Two National Assessment (FTNA) in the 2019 Food and Nutrition subject. The paper assessed the competences acquired by the students after completing two years of study in Ordinary Level of education based on the 1997 Home Economics Syllabus for Secondary Schools Forms 1 to 4.

The paper had eleven (11) questions divided into sections A, B and C. Section A had three (3) objective questions. Question one (1) consisted of ten (10) multiple choice items; question two (2) had seven (7) True or False items and question three (3) had seven (7) matching items. Question one (1) carried 10 marks while questions two (2) and three (3) carried 7 marks each. Section B consisted of six (6) short answer questions which carried 10 marks each. On the other hand, section C had two (2) essay type questions which carried 16 marks each. Sections A and B were compulsory, while in section C, the students were required to attempt one (1) question.

According to the FTNA 2019 results, a total of 5,507 (91.5%) students sat for this paper of whom 3,800 (69.0%) students passed and 1,707 (31.0%) students failed. In 2018 the students who sat for this subject were 6,199 (91.7%) students of whom 3,315 (53.5%) students passed and 2,884 (46.5%) students failed. This implies that the students' performance this year has increased by 15.5 percent compared to 2018.

In this report, the analysis of students' performance in each question is regarded to be good if the scores range from 65 to 100 percent, average if the scores range from 30 to 64 percent and weak if the scores range from 0 to 29 percent. These categories of performance are represented by green, yellow and red colours for good, average and weak performance respectively. The pass rate for each question was 30 percent or above as per marks allocated.

The report also presents the requirement of each question, the percentage of the students who attempted the question and the possible reasons for the performance. Some extracts obtained from the students' scripts and graphs that indicate distribution of students' scores are inserted in this report for illustration purposes. It is expected that education stakeholders will find this report useful as it is anticipated that the information provided will enable them to take the necessary measures in order to improve teaching and learning processes in the country.

2.0 ANALYSIS OF STUDENTS' PERFORMANCE IN EACH QUESTION

2.1 Section A: Objective Questions

This section consisted of ten (10) Multiple Choice Items; seven (7) True or False Items and seven (7) Matching Items. The section carried 24 marks and the students were required to answer all the questions.

2.1.1 Question 1: Multiple Choice Items

This question consisted of ten (10) multiple choice items whereby in each item the students were required to choose the correct answer from the given alternatives. The items were constructed from various topics/sub-topics, namely *Materials used in the home, Kitchen and food hygiene, Kitchen planning, Food and nutrition, Accidents in the home, Cooking food, Cleaning the house and Laundering in the home*.

The question was attempted by all (100%) students who sat for this paper. The analysis indicates that 1,204 (21.9%) students scored from 7 to 10 marks, 3,731 (67.7%) scored from 3 to 6 marks and 572 (10.4%) scored from 0 to 2 marks as illustrated in Figure 1.

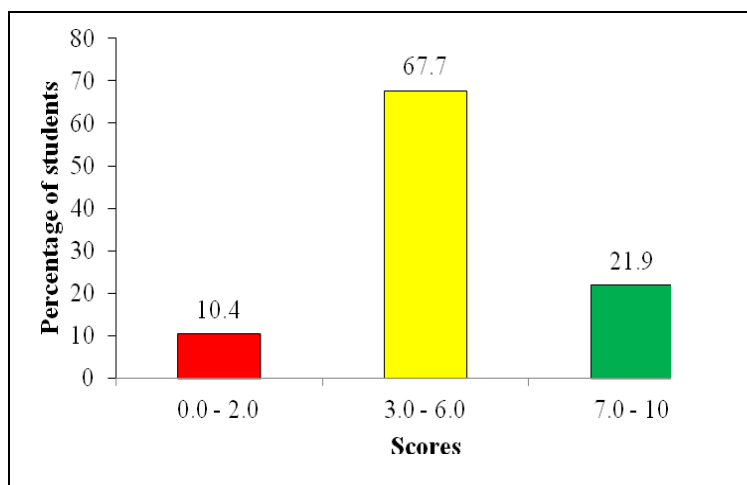


Figure 1: Distribution of students' scores in question 1.

Figure 1 indicates that the performance in this question was good since 4,935 (89.6%) students managed to get scores ranging from 3 to 10 marks. This implies that the students had adequate knowledge on the topics tested. Those who performed poorly gave only one to two correct responses. The analysis of the students' responses to the items is as follows:

Item (i) required the students to give reasons on why iron items used at home are protected with a coat of paint, enamel or zinc. The correct response was C, *To prevent rusting*. The students who opted for the correct response understood that iron reacts with moisture in the air to form rust. Therefore, iron items used at home are protected either by paint, enamel or zinc. The students who opted for A, *For decoration*, B, *To improve its appearance* and D, *For easy cleaning* did not understand that the aim of coating iron items with paint, enamel or zinc is to prevent them from rust which damages them by corrosion, thus making them last longer.

Item (ii) required the students to give reasons on why food such as meat, milk and vegetables are called perishables. The correct response was D, *They deteriorate very fast*. The students who opted for the correct response were aware that perishable foods such as meat, milk and vegetables contain high levels of moisture thus, they get spoiled quickly when not stored or preserved safely. Those who opted for A, *They can be dried easily* failed to understand that this is a characteristic of non-perishable foods and not the reason for the given foods to be perishables. The students who opted for B, *They need preservation* and C, *They need refrigeration* did not understand that refrigeration is a method of food preservation that prevent growth of spoilage micro-organisms and not the reason for food to perish quickly.

In item (iii), the students were required to identify a characteristic of a good kitchen floor. The correct response was B, *Should be easy to clean*. The students who chose the correct response understood that during food preparation, there must be food spatters and stains from inevitable spills onto the flooring, thus the floor need to be relatively easy to clean. On the other hand, the students who responded incorrectly had insufficient knowledge on the characteristics of a good kitchen floor. The students who chose the incorrect response A, *Should be easily soiled* did not understand that the kitchen floor should be kept clean throughout and not soiled as soiling may contaminate food and cause accidents. Those who chose C, *Should be easy to polish* and D, *Should shine and slip* were not aware that polished and slippery kitchen floor may cause accidents which include making people fall.

In item (iv), the students were required to identify the types of food necessary for supplying energy to the body. The correct response was

C, *Fats and carbohydrates*. The students who opted for the correct response had adequate knowledge on the functions of different nutrients in the body. They understood that fats and carbohydrates are oxidized in the body to provide energy. The students who opted for incorrect responses A, *Minerals and water*, B, *Minerals and fats*, D, *Roughages and vitamins* had insufficient knowledge on the functions of various food nutrients. Hence, they failed to recognise that minerals, water, roughages and vitamins cannot supply energy to the body.

Item (v) required the students to identify the cause of scalds accident in the home. The correct answer was A, *moist heat*. The students who opted for the correct response had adequate knowledge on heat-caused accidents. They understood that scalds occur when a portion of skin is exposed to moist heat such as steam and hot water. Conversely, the students who opted for the incorrect response B, *dry heat*, failed to recognise that dry heat causes burn type of accidents and not scalds. Those who chose C, *hot metal* and D, *hot object* failed to understand that hot metal and hot objects cause dry heat accidents and not scalds.

Item (vi) required the students to identify the advantages of frying method of cooking. The correct response was D, *it is a quick method*. The students who opted for the correct response understood that fat is better at transferring heat than either air or water because it has a higher boiling point hence, it cooks quickly. Students who opted for A, *it retains vitamin C* and B, *it maintains B vitamins* did not understand that frying method requires high temperature which destroy vitamin C and B vitamins. Those who opted for C, *Economize fuel* did not understand that in order to avoid absorption of fat in the food, the food should be fried at the correct temperature and the temperature should be maintained throughout the frying process. This is why frying is not a fuel saving process.

In item (vii), the students were required to identify the proper procedure for washing dusters used to dry polishing. The correct answer was A, *Soaking them in hot soapy water before cleaning*. The students who opted for the correct answer understood that the polish can easily be removed from the duster if the duster is soaked in hot soapy water in order to loosen the wax before washing. The students who opted for B, *Washing in kerosene before rinsing in cold water* were not familiar with the procedure of polishing. In fact, kerosene dissolves wax effectively

but cold water is usually used to dilute kerosene oil before washing in soapy water or grease-cutting detergent. The students who opted for C, *Shaking them before washing in hot water* were not aware that polishing is done when there are no particles that can be removed by shaking but there is no wax which needs hot water to loosen them before washing. Those who opted for D, *Drying them thoroughly before washing* did not understand that dusters should be cleaned immediately after use so, drying will make washing difficult.

Item (viii) required the students to identify the purpose of starching in the laundry process. The correct response was D, *To make the garment dirt resistant*. These students were aware that starch acts as a barrier between fabric and dirt, causing dirt to stick to the starch instead of the fabric, hence may be used as a dirt resistant. Conversely, the students who failed to opt for the correct response had inadequate knowledge on the functions of laundering agents, hence mixed up the functions of various cleaning agents. For example, those who opted for A, *Remove stubborn stains in white cotton* and B, *To whiten and disinfect cotton garments* failed to understand that these are the purposes of bleaching and not starching. Moreover, the students who opted for C, *To enhance colour of white materials* failed to understand that this is the purpose of blueing and not starching clothes.

In item (ix), the students were required to identify advantages of using pressure cooker. The correct response was A, *Is economical on the use of fuel*. These students were aware that pressure cooker is a sealed pan used to cook food at high pressure hence, it cooks food in a short time. On the other hand, the students who chose responses B, *Food is likely to be overcooked*, C, *It needs low cooking temperature* and D, *It is cheap, easy to use and to maintain* had inadequate knowledge of the advantages and disadvantages of different cookers. They failed to understand that in the pressure cooker, foods can be cooked in steam or water based liquid and its manual indicates instructions of cooking various foods, thus if properly observed no food will be overcooked. Pressure cookers need cooking temperature that can raise pressure which increases the boiling point of water from 212°F to 250°F which is not low and they vary in price from expensive to medium and cheap.

In item (x), the students were required to show the effects of washing eggs before storing in a refrigerator. The correct response was B, *the*

shell become porous and allows bacteria to pass through. The students who opted for the correct response had sufficient knowledge on the structure of an egg. They were aware that during washing, water affects the natural barriers in the egg shell and increases the risk of the bacteria found on the shell to pass into the egg through the pores in the shell. The students who opted for A, *they will absorb colours from other foods and turn black*, C, *they will shake and allow the egg white and egg yolk to mix* and D, *the shell will become tough and prevent cold air to pass through* did not understand that when one is washing the egg water can pass through the egg shell but cannot affect its content and structure of the shell.

2.1.2 Question 2: True or False Items

This question consisted of seven (7) True or False Items constructed from the topics/sub-topics of *Good grooming, Age courtship and marriage practice, Cleaning agents, The adolescents, Accidents in the home, Planning balanced meals* and *The kitchen planning*. Students were required to write *True* for the correct statement and *False* for the incorrect statement in the space provided.

This was a compulsory question and all (100%) students attempted it. The analysis of the performance indicates that 3,812 (69.2%) students scored from 5 to 7, marks 1,526 (27.7%) scored from 3 to 4 marks and scored from 0 to 2 marks were 169 (3.1%). Figure 2 illustrates this performance.

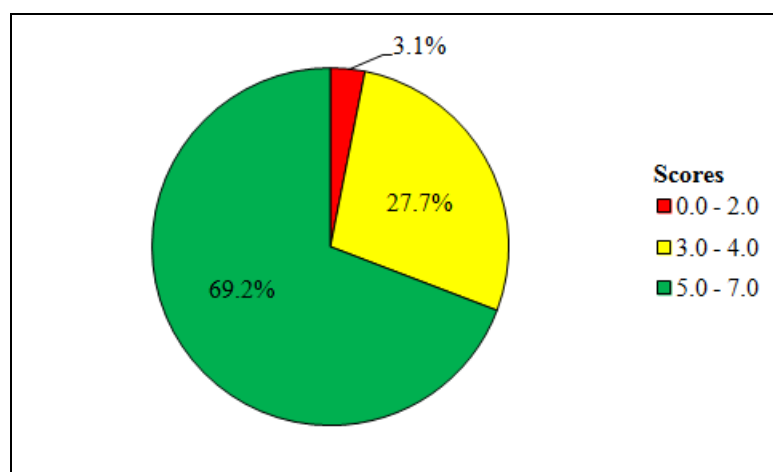


Figure 2: *Distribution of Students' scores in question 2.*

Figure 2 shows that the students' performance in this question was good since 5,338 (96.9%) students got average scores and above. This shows that the majority of the students had adequate knowledge on the topics tested. The analysis of responses to the items of this question is as follows:

The analysis of the students' responses indicates that, most of the students who got good scores demonstrated good comprehension on the tested concepts. Hence, they were able to identify the correct and incorrect statements. On the other hand, a few (3.1%) students who scored low marks showed insufficient knowledge on the tested concepts.

In item (i), the statement was *Good grooming is about proper eating and well balanced diet*. The correct response was *False*. The students who wrote the correct response had sufficient knowledge on the concept of good grooming. Those students who wrote *True* mixed good grooming with good nutrition. They failed to understand that good grooming implies practising good hygiene which includes neat appearance of the body and clothing.

The statement *Civil marriage is a type of marriage based on local customs* was given in item (ii). The correct response was *False*. The students who responded correctly were familiar with various types of marriage. They understood that civil marriage is a legal marriage ceremony presided over by a legal officer. The students who wrote *True* lacked sufficient knowledge on various types of marriage thus, failed to understand that type of marriage based on local customs is a traditional or customary marriage. Traditional or customary marriage meets the legal requirements of the state or community but takes place without any religious connection.

Item (iii) stated *Soaps form scum when used with hard water*. The correct response was *True*. The students who responded correctly had adequate knowledge on the properties of hard water. Those who wrote *False* did not understand that when soap is added to hard water during washing, the Calcium or Magnesium ions present in hard water reacts with the sodium salt present in the soap to form insoluble salt which is known as scum.

In item (iv), the statement was *Adolescence is a development stage between childhood and adulthood*. The correct response was *True*. The students who responded correctly had adequate knowledge on the stages of human development which enabled them to understand that adolescence is between childhood and adulthood stages. On the other hand, the students who wrote *False* had inadequate knowledge on the stages of human development.

The statement in item (v) was *First aid is the treatment prescribed by a doctor at the hospital*. The correct response was *False*. The students who wrote the correct response were aware of the meaning of first aid and how it is carried out. Those who wrote *True* failed to understand that First aid can be provided anywhere and by anybody intelligent enough to use a few common treatment materials available to treat an injured person before the arrival of a doctor.

In item (vi), the statement was *Planning a meal should consider the health status of those who will eat*. The correct answer was *True*. The students who wrote the correct response were aware of the factors to consider in meal planning. Those who wrote *False* had insufficient knowledge on meal planning particularly on the factors that should be considered when planning it.

Item (vii) stated *The kitchen sink should be placed near the kitchen window*. The correct answer was *True* and was written by the students who had adequate knowledge on kitchen planning. Thus, they were aware that in the kitchen room the sink is placed near the window which is located on the outside wall for good light when working at the sink. The students who wrote *False* had inadequate knowledge on kitchen planning particularly on the placing of fixed kitchen equipment.

2.1.3 Question 3: Matching Items

This question consisted of seven (7) Matching Items constructed from the topic of *Cleaning agents*. The students were required to match the phrases in List A with the corresponding ones in List B by writing the letters of the correct responses in the table provided. The question tested the students' understanding on various types of cleaning agents.

The question was attempted by all (100%) students who sat for this paper. The analysis shows that 3,201 (58.1%) students scored from 0 to

2 marks, 1,694 (30.8%) scored from 3 to 4 marks and 612 (11.1%) scored from 5 to 7 marks as summarized in Figure 3.

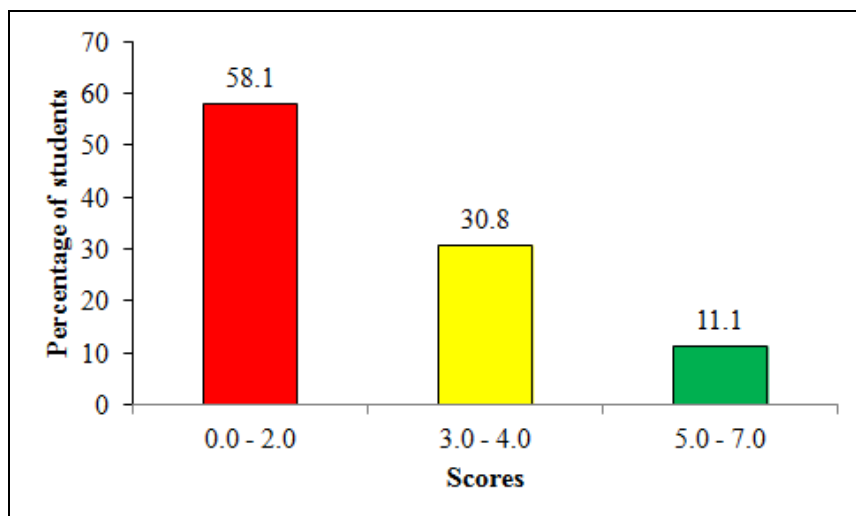


Figure 3: *Distribution of students' scores in question 3.*

In figure 3, the analysis shows that the question was averagely performed since 2,306 (41.9%) students scored from 3 to 7 marks. These students had adequate knowledge on the types and uses of various cleaning agents which enabled them to identify correctly all or most of the asked cleaning agents. The students who scored low (0 - 2) marks failed to give correct responses as per the requirement of the question due to inadequate knowledge on cleaning agents. The following is the analysis of the students' responses to different items of this question.

In item (i), the students were required to identify *a cleaning agent used for scouring aluminium and stainless steel*. The correct response was E, *Steel wool*. The students who matched correctly the statement had a clear understanding on the meaning of scouring and the properties of aluminium and stainless steel kitchen utensils. However, the students who incorrectly matched the statement failed to understand how to clean aluminium and stainless steel utensils.

Item (ii) required the students to identify *a common cleaning agent which removes dirt when used together with detergent*. The correct response was G, *Water*. The students who matched the statement correctly the statement understood that water dissolves only the non-

greasy dirt otherwise it should be used together with detergents to dissolve all types of dirt. The majority of the students who incorrectly matched this statement selected B, *Soap*. These students failed to understand that soap is a type of detergent so it cannot be used with another detergent to remove dirt. Moreover, the students who selected other cleaning agents showed inadequate knowledge on the properties and uses of cleaning agents.

In item (iii), the students were required to identify *a cleaning agent used for improving the colour of a certain garment*. The correct answer F, *Bleach* was selected by the students who were familiar with the use of bleach. Some of the students identified an incorrect response C, *Soapless detergent* because they did not understand that a soapless detergent is used for cleaning and washing and not for improving colour. The students who identified other incorrect responses lacked knowledge on the uses of different cleaning agents.

In item (iv), the students were required to identify *a local scouring agent used for cleaning kitchen utensils*. The correct answer was A, *Ashes*. The students who selected the correct response understood that ash is a solid substance (powder) that is left after something is burnt and can be used as a local scouring agent for cleaning kitchen utensils. The students who matched the statement with incorrect responses showed inadequate knowledge on local scouring agents.

Item (v) required the students to identify *a substance which is suitable for removing blood stain*. The correct answer was D, *Common salt*. The students who matched the statement correctly understood the classes of stains and the methods of removing them. The majority of the students matched the statement with incorrect responses selected H, *Methylated spirit*. These students did not understand that methylated spirit is suitable for removing grass stain and not blood stain. Those who opted for F, *Bleach* failed to understand that bleach improves the colour of the article and that it is not a stain remover.

The students were required to identify *a common cleaning agent which is efficient in cleaning greasy article* in item (vi). The correct answer was H, *Methylated spirit*. The students who matched correctly the statement understood that *methylated spirit* is an alcohol suitable for use as a solvent for removing grease on articles. The students who

selected B, *Soap*, F, *Bleach* and G, *Water* failed to understand that these cleaning agents have no ability to dissolve grease.

In item (vii), the students were required to identify *a cleaning agent which requires stabilizers to prevent early collapsing of lather*. The correct response was C, *Soapless detergent*. The students who matched the statement correctly understood that a soapless detergent contain enzymes which catalyze the decomposition process. A stabilizer is therefore required to protect the enzymes and make them function thus, prevent early collapsing of lather during cleaning. The students who incorrectly matched the statement had inadequate knowledge on the components of various cleaning agents and their functions.

2.2 Section B: Short Answer Questions

This section comprised six (6) compulsory short answer questions constructed from the topics of *Kitchen and food hygiene*, *The family*, *Cooking food*, *Materials used in the home*, *Accidents in the home* and *Food*. Each question carried 10 marks.

2.2.1 Question 4: Kitchen and food hygiene

In this question, the students were required to give the meaning of the term *household pests* in part (a). In part (b), they were required to outline three effects of rats and mice in our homes and to outline five ways of preventing cockroaches from a house in part (c).

The question was attempted by all (100%) students of whom 875 (15.9%) scored from 6.5 to 10 marks and 2,302 (41.8%) scored from 3 to 6 marks. The students who scored from 0 to 2.5 marks were 3,330 (42.3%) of whom 1,194 (21.7%) scored 0. Figure 4 illustrates this performance.

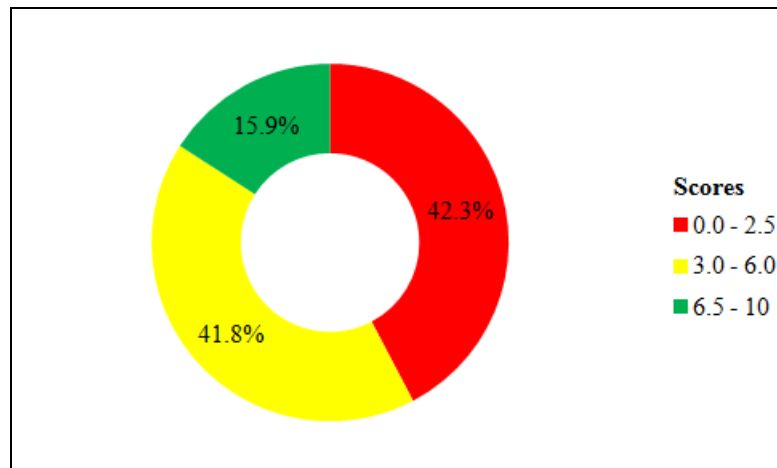


Figure 4: *Distribution of Students' scores in question 4.*

Students' scores in Figure 4 shows that the performance on this question was average because 3,177 (57.7%) students scored 3 marks and above. It was observed that these students managed to define household pests as the insects and small animals that are harmful to human which destroy or spoil things around the house in part (a). In part (b), most students managed to outline the effects of rats and mice in our homes which included the following: *they contaminate food through their hair and waste products, they spread infection, their movements disturb sleep, they destruct properties such as furniture and clothes, may bite people and domestic animals, their skin and waste cause bad smell and they eat stored food.*

The students also managed to outline ways of preventing cockroaches from the house in part (c). The mentioned ways included: *by spraying insecticides, by cleaning the cupboards, repairing places where there are cracks so that their habitats may be destroyed, store foods carefully and covered and good arrangement of the furniture.* However, majority of the students in this category provided either less than three correct effects of rats and mice or less than five ways of preventing cockroaches from a house hence, they failed to score all the 10 marks. Extract 4.1 is a sample of responses from a student with good performance.

4. (a) Give the meaning of the term household pests.
- Refer to animal and insects which are harmful when are in the house. For example rats, mice, fly and cockroaches.
- (b) Outline three effects of rats and mice in our homes.
- Spread of diseases such as cholera and typhoid.
 - Bad smell.
 - Distraction of things such as clothes, furniture and utensils.
- (c) Outline five ways of preventing cockroaches from a house.
- By spraying insecticides.
 - By cleaning the cupboards and cracks regularly.
 - By repairing places where there is cracks so that their habitat may be destroyed.
 - By putting poison in food leftovers so that when they eat they may die.
 - By not keeping dirty utensils over long period of time.

Extract 4.1: The student's good responses in question 4.

Extract 4.1 exhibits a sample of responses from the student who managed to give the meaning of household pests in part (a). He/she correctly outlined three effects of rats and mice in our homes in part (b). Also, he/she managed to give five ways that can be used to prevent cockroaches from the house.

On the other hand, the students who scored lower (0 - 2.5) marks faced difficulties in answering the question due to insufficient knowledge on the concept of household pests. As a result, the majority of the students provided irrelevant responses in all parts of the question. For example, in part (a), one student defined household pests as *a cleaning agent which require stabilizers to prevent early collapsing of lather*. This student just copied a statement from question three (3). Another one defined it as *the process of the house to live in all good facility of toilet and flowers*.

In part (b), the students outlined incorrect effects of rats and mice in our homes. For example, one student wrote, *are small animals, vegetable rats and mice* and *metal rats and mice. clear the house*. Another student wrote, *is not harmful to animals, it is weak to kill and is animal in a house*. Other students provided incorrect responses because they failed to understand the demand of the question. For example, one student mentioned the following points: *to improve its appearance, for easy cleaning* and *to prevent rusting*. This student failed to understand that these are the advantages of coating utensils and not the effects of rats and mice in our homes.

In part (c), the majority of the students failed to provide the correct ways to prevent cockroaches from the house. Some mentioned the uses of pets and domestic animals such as *to eat food wastes, give food, they kill dangerous animals as rats* and *to protect house* instead of the ways to prevent cockroaches from the house. Others outlined irrelevant responses such as *kitchen cockroaches in house can be killed easily, cockroaches are very dangerous, they make food dirty to eat, doors and windows to be closed, big cockroaches eat small cockroaches, cover well cooking food, washing sink, plates and knives with soap, get cat in houses* and *cockroaches eat our food*. Extract 4.2 is a sample of responses from a script of a student who scored low marks.

4. (a) Give the meaning of the term household pests.

.....~~is a family~~.....is a place where.....family.....likes to be toge.....
ther.....where strong sense.....of the developed.....

(b) Outline three effects of rats and mice in our homes.

(i) To remove dirt.....moist heat.....
 (ii) To kill harmful bacteria.....
 (iii) To remove retain.....durability:.....

4. (c) Outline five ways of preventing cockroaches from a house.

(i) ..fruits...and...cassava.....
.....
.....

(ii) ..fat...and...protein.....
.....
.....

(iii) ..carbohydrate...and...carbondioxide.....
.....
.....

(iv) ..Blushes...and...soap.....
.....
.....

(v) ..oil...and.....vegetable.....
.....
.....

Extract 4.2: *The students' poor responses in question 4.*

In Extract 4.2, the student provided irrelevant responses in all parts of the question. The responses indicate that the student lacked knowledge on the concept of household pests.

2.2.2 Question 5: The family

The question required the students to define the term *family* in part (a). Part (b) required the students to outline five aspects on the importance of the family in the society and in part (c), to briefly describe four types of families.

The question was attempted by all (100%) students. The data shows that 2,463 (44.7%) students scored from 6.5 to 10 marks, 2,383 (43.3%) scored from 3 to 6 marks and 661 (12.0%) scored from 0 to 2.5 marks. Figure 5 summarizes this performance.

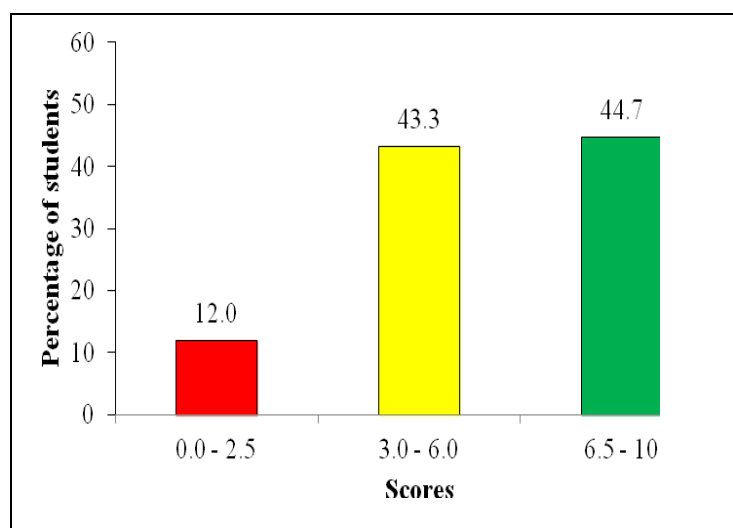


Figure 5: *Distribution of students' scores in question 5.*

Figure 5 indicates that the students' performance in this question was good since 3,177 (88.0%) students scored 3 marks and above of all the 10 marks allocated for this question. The students who performed well in this question had sufficient knowledge on the concept of the family which enabled them to respond correctly to all parts of the question. The majority of the students managed to define family as a group of people who are closely related to each other either by blood, adoption or marriage in part (a). They also managed to outline the importance of the family in the society in part (b). The mentioned aspects of importance included: *it help in passing culture and traditions from one generation to another, it helps to bring responsible citizens through moulding their behaviour, it helps one to acquire his/her basic needs, it helps to teach people different roles and duties and it helps one to have a feeling of belonging.* Other mentioned points were *to give financial and social support, give love and the family, to pass property from parents to children and for continuation of life and the family.*

In part (c), the students managed to describe the types of families which include *polygamous, nuclear family, extended, single parent and child headed/orphan family.* However, some of the students failed to score all marks because they either provided three to four correct points on the importance of family or two to three correct types of family. Extract 5.1 is a sample of responses from a script of a student who performed well in this question.

5. (a) Define the term 'family'.

It is a social group of people who are closely related to each other either by blood, marriage or adoption.

(b) Outline five importance of the family in the society.

(i) Families leads to peace and harmony in the society.

(ii) It provides a suitable environment for child growth.

(iii) It leads to economy stability.

(iv) It is a source of respect in the community.

(v) It enables children to get their basic needs.

(c) Briefly describe the four types of families.

(i) Nuclear family - It is the type of family which consists of father, mother and their children. There no other clan member is living with the family.

(ii) ~~Extending fam~~ Extended family - It is the type of family which consists of father, mother, children and other clan members like aunt, ~~as~~ uncle, grandmother and grandfather.

(iii) Single parent family - Is the type of family which consists of only one parent either mother or father with children. It can be due to divorce, death, or one parent travel.

(iv) Polygamous family - It is the type of family which where a husband marries two wives or more. This family can cause conflicts.

Extract 5.1: The student's good responses in question 5.

Extract 5.1 illustrates a sample of responses from the student who correctly defined the term *family* in part (a). Also he/she correctly outlined five points on the importance of the family in the society in part (b). The students also managed to describe briefly four types of families in part (c).

On the other hand, the students who scored low (0 -2.5) marks in this question had inadequate knowledge on the concept of the family. Most of them failed to provide the correct definition of the term family in part (a). For example, one student defined family as *the people example father, mother and students or people*. Another one defined it as *the*

make of garment dirty resistant for family. In part (b), some students provided irrelevant responses due to lack of knowledge. For example, one student wrote, *it helps single family, it makes natural family, it is single parent family, it helps parents and can be children family.* Another student mentioned, *build trust, own money, build self-confident, build money and create jobs.*

In part (c), most of the students who scored from 1 to 2 marks managed to mention between one and four correct types of family but gave incorrect explanations. For example, one student gave the following response: *single parent family - this consists of two people only, Nuclear family - this consist of the whole clan, extended family - this consists of father, mother and children and single parent family - this consists of may be mother and children only.* This student provided wrong explanations to the correct types of family he/she mentioned. The students who scored zero provided irrelevant responses to all parts of the question. Extract 5.2 is a sample of responses from a script of a student with poor performance.

5. (a) Define the term 'family'.

Is the section of family of who term family
and compulsion language socialion.

(b) Outline five importance of the family in the society.

- (i) To help of Mother and father
- (ii) To help mother father and children
- (iii) help of family nuclear and B.Gration mother
- (iv) To understand to chemical land of food
- (v) To Nuclear land compulsion society

5. (c) Briefly describe the four types of families.

(i) Nution Families

(ii) Exterion Family

(iii) member family

(iv) consition Family

Extract 5.2: *The student's poor responses in question 5.*

Extract 5.2 shows responses from the student who failed to define the term family in part (a). The student provided incorrect responses to parts (b) and (c) of the question due to inadequate knowledge on the concept of the family.

2.2.3 Question 6: Cooking food

The question required the students to explain briefly three things to remember when baking in part (a). In part (b), they were required to outline four advantages of cooking food by steaming. Part (c) required them to describe briefly the three methods of frying.

The question was attempted by all (100%) students. The analysis of students' performance shows that 3,918 (71.1%) students scored from 0 to 2.5 marks of which 1,694 (30.8%) scored zero. The students who scored from 3 to 6 marks were 1,363 (24.8%) while 226 (4.1%) scored from 6.5 to 9.5 marks. Figure 6 summarizes this performance.

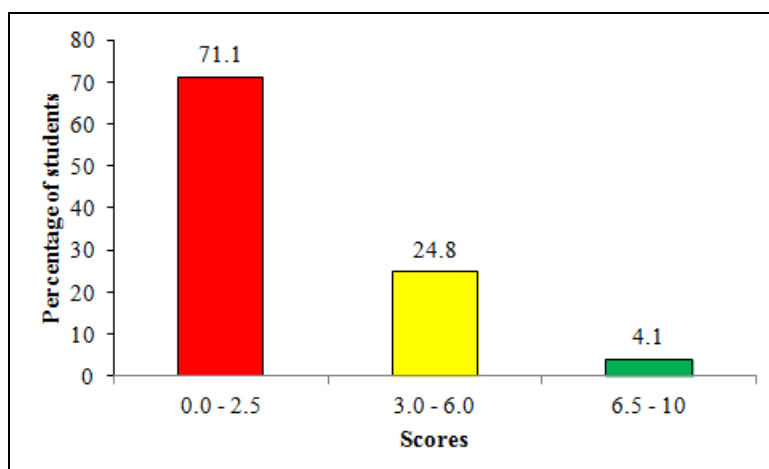


Figure 6: *Distribution of students' scores in question 6.*

Figure 6 shows that the performance in this question was poor since 3,918 (71.1%) students scored low (0 - 2.5) marks. It was observed that most of the students who scored low marks failed to understand the demand of the question. In part (a), the majority of the students provided responses which are not related to the question. For example, some of the students mentioned factors to consider when planning meals; others provided the basic ingredients for baking which included, *wheat flour, fat, yeast, sugar/salt* and *liquid* instead of things to remember when baking. In part (b), the students also mentioned incorrect advantages of cooking food by steaming due to misconception. For example, some students mentioned the methods of cooking such as *boiling, grilling, steaming* and *roasting*. Other students outlined incorrect responses due to inadequate knowledge on the advantages of different cooking methods.

In part (c), the majority of the students mentioned the methods of cooking instead of methods of frying. The mentioned methods included, *steaming, grilling, baking, roasting* and *boiling*. Other students provided irrelevant methods such as *frying by tradition method, frying by modern method, economic fuel, it is quick method* and *it retains C vitamins*. Those irrelevant and incorrect responses were due to limited knowledge and practical skills on different methods of cooking foods which led students to score low marks. Extract 6.1 is the sample of script of a student with poor performance.

6. (a) Briefly explain three things to remember when baking.

(i) should consider the type of food.....

(ii) should consider the type of food.....

(iii) should consider the time.....

(b) Outline four advantages of cooking food by steaming.

(i) It takes a not use big cost.....

.....

(ii) It is simple way.....

.....

(iii) It can use any type of eco kitchen.....

.....

(iv) It is not last time.....

.....

(c) Briefly describe the three methods of frying.

(i) frying by traditional method.....

.....

(ii) Frying by modern method.....

.....

(iii) Frying by old method.....

.....

Extract 6.1: The student's poor responses in question 6.

In extract 6.1, the student provided incorrect responses in all parts of the question because he/she failed to understand the demand of the question.

On the other hand, the students who showed good performance on the question had sufficient knowledge on the concept of cooking food particularly on cooking methods. The students managed to mention factors to consider in part (a) such as *pre-heat the oven before placing the food in the oven, bake the food at the recommended temperature, do not unnecessarily open the oven door and put food at the food at the right level in the oven*. In part (b), the students managed to outline advantages of cooking food by steaming showing that they were familiar with this method. The students also managed to describe the methods of frying to include *deep frying, dry frying and shallow frying* in part (c). However, the majority of the students in this category failed

to score all the marks in this question because they mixed correct with few incorrect responses. Extract 6.2 is a sample of responses from a script of a student who performed well on this question.

6. (a) Briefly explain three things to remember when baking.
- (i) Pre-heating the oven before putting the food to be baked.
 - (ii) When baking, do not open the door of the oven.
 - (iii) Put the food at the right level in the oven and heat.
- (b) Outline four advantages of cooking food by steaming.
- (i) Cooking by steaming helps to retain food nutrients.
 - (ii) Cooking by steaming saves time and it is not expensive.
 - (iii) Cooking by steaming helps to make food be soft.
 - (iv) Cooking by steaming does not require a lot of fuel and so it is economical to use.
- (c) Briefly describe the three methods of frying.
- (i) Shallow frying - Is a method of frying which requires a little oil. The food should not be more than 2.5cm thick. Example is pancake.
 - (ii) Dry frying - Is a method of frying where the food is fried with its own oil. The food may contain a lot of oil. Example of food is pork.
 - (iii) Deep frying - Is a method of frying where the food is completely immersed in a hot fat. Karais can be used here. Examples of foods include samosas, meatballs and buns.

Extract 6.2: The student's good responses in question 6.

Extract 6.2 shows a sample of responses from a script of the student who managed to explain three things to remember when baking in part (a). He/she outlined four advantages of cooking food by steaming in part (b). The student was also able to give three correct methods of frying in part (c) showing that he/she had sufficient knowledge on the methods of cooking food.

2.2.4 Question 7: Materials used in the home

The question required the students to define the term *porcelain* in part (a)(i), and to explain briefly three things to be observed for proper care of porcelain in part (a)(ii). In part (b), the students were required to outline things to bear in mind when choosing 'chinaware' while in part (c), they were required to differentiate painting from vanishing methods as applied on wood.

The question was attempted by all (100%) students. The percentage of the students who scored from 0 to 2.5 marks were 5,020 (91.2%) of whom 3,117 (56.6%) students scored zero. Moreover, 476 (8.6%) students scored from 3 to 6 marks, 11 (0.2%) scored from 6.5 to 7.5 marks and none scored above 7.5 out of 10 marks. Figure 7 provides a summary of the performance of the students in this question.

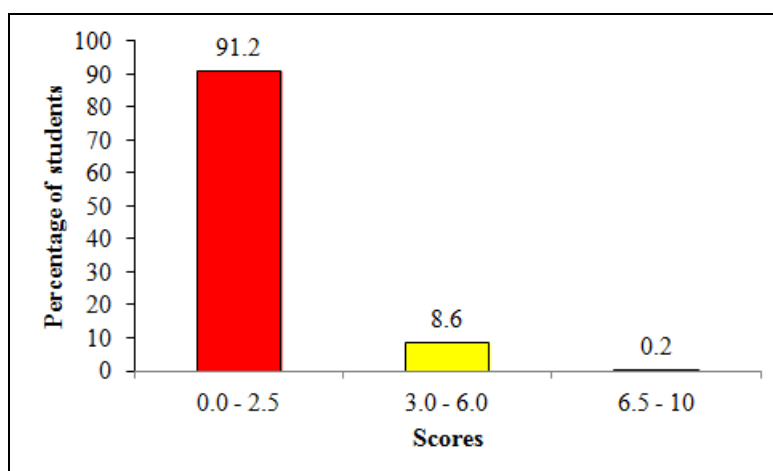


Figure 7: Distribution of Students' scores in question 7.

This data in Figure 7 shows that this question was poorly performed since 5,020 (91.2%) students scored from 0 to 2.5 marks. The analysis of the students' responses indicates that most of the students who scored zero (56.6%) lacked knowledge and skills of different materials used in the home. Most of them were not aware of the terms 'porcelain' and 'chinaware'. For example, the students provided either incorrect or incomplete definition of porcelain in part (a)(i). They consequently provided incorrect things to observe for proper care of porcelain in part (a)(ii). In part (b) of the question, the students provided irrelevant responses on the things to bear in mind when choosing chinaware. For example, one student wrote, *is economical in the use of fuel, it is used*

to keep food hot and food is usually cooked under low cooking temperature. Another student wrote; the time which can stay be longer, quality of the material be good and the style and method used for making it. It was observed that a large number of students left parts (a) and (b) unanswered due to insufficient knowledge of the porcelain and chinaware materials used in the home.

In part (c), the students failed to differentiate painting from varnishing as applied on wood. They provided irrelevant responses such as *painting is the process between the application and conservation method and varnishing is the application of the process to the source of wood, painting is the one which will apply colour on wood while varnishing it to make wood look attractive and painting is the process of putting colour after washing while vanishing is the process of washing items*. The students who scored from 1 to 2.5 marks managed to give one thing to be observed for proper care of porcelain and one thing to bear in mind when choosing 'chinaware'. Extract 7.1 is a sample of responses from a script of a student who performed poorly in this question.

7. (a) (i) Define the term 'porcelain'.

is the process of the items to
kill germs

(ii) Briefly explain three things to observe for proper care of Porcelain.

- They are natural eg. sand and ash
- They are chemical eg. petroleum oil
- They are physical eg. boiling.

(b) Outline three things to bear in mind when choosing of 'chinaware'.

- (i) To prevent disease
- (ii) To reduce spread of bacteria
- (iii) To prevent bad smell

7. (c) Differentiate painting from varnishing methods as applied on wood.

.....
..... differentiate a varnishing or a chemical
..... in the food eg petroleum and oil applied
..... wood or physical of food eg: boiling
..... and etc
.....

Extract 7.1: *The student's poor responses in question 7.*

Extract 7:1 shows a sample of the student who provided irrelevant responses in all parts of the question due to inadequate knowledge and skills on different materials used in homes.

Further analysis indicates that the students who had average scores and above managed to define *porcelain* as a material which is obtained by mixing white china clay and white rock or stone in part (a)(i). They managed also to explain two to three correct things to observe for proper care of porcelain in part (a)(i). In part (b), the students mixed correct and incorrect things to bear in mind when choosing chinaware hence, they failed to score all marks in this part. The incorrect points mentioned included *handle it with both hands to avoid dropping down, keep them away from children, do not use abrasive like steel wool, store porcelain in clean and dry place, don't keeping one porcelain over another and wash them after each use*. The majority of the students in this category managed to differentiate painting from varnishing methods as applied on wood in part (c) of the question. They were aware that painting is the process of coating the wood surface with paint to make it more attractive and protect it from the effects of water and sun while, varnishing is the process of coating the wood surface with a special kind of liquid mixture made by dissolving a resin in a solvent or volatile oil for surface shine and protection.

2.2.5 Question 8: Accidents in the home

The question required the students to give the meaning of first aid in part (a). In part (b), they were required to mention eight essential items of the first aid kit while in part (c), they were required to outline five symptoms observed from a poisoned person.

The question was attempted by all (100%) students out of whom 1,731(31.4%) scored from 6.5 to 10 marks, 3,191 (58.0%) scored from 3 to 6 marks and 585 (10.6%) scored from 0 to 2.5 marks. Figure 8 illustrates this data.

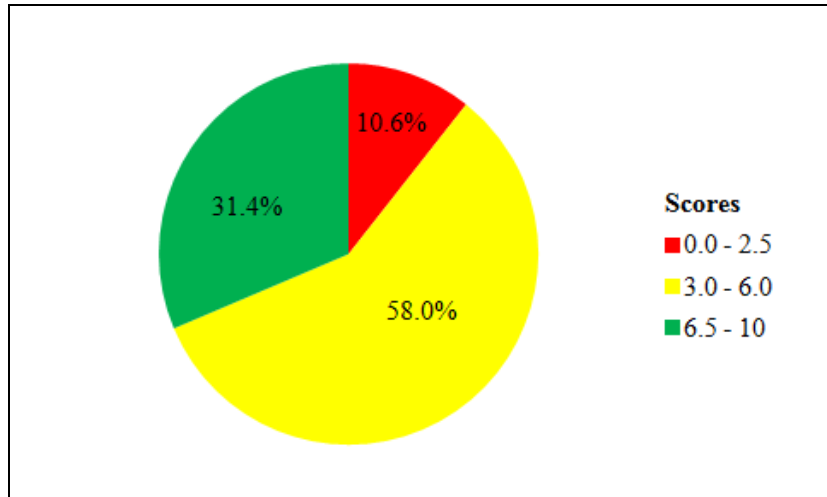


Figure 8: *Distribution of students' scores in question 8.*

The distribution of scores in Figure 8 shows that the performance of the students in this question was good since 4,922 (89.4%) students scored from 3 to 10 marks. The analysis of students' responses shows that the students' who scored good marks in this question had adequate knowledge on first aid practices. These students managed to define first aid in part (a) and correctly mentioned the essential items of first aid kit in part (b). However, the majority of these students managed to outline only one to four correct symptoms observed from a poisoned person hence they failed to score all the 5 marks allocated to part (c) of the question. The incorrect symptoms mentioned by these students included *poor vision, increased rate of heart beat, sore skin, serious dehydration* and *swelling of the body*. Extract 8.1 provides a sample of the answer from a script of a student with high marks.

8. (a) Give the meaning of first aid.

This is the immediate care or help taken or given to a sick or injured person before taken to the hospital for further treatment.

(b) Mention eight essential items of the first aid kit.

- (i) Pair of scissors
- (ii) Liniment
- (iii) Methylated spirit
- (iv) Hand gloves
- (v) Bandage
- (vi) Petroleum jelly
- (vii) Sterile gauze
- (viii) Cotton wool

(c) Outline five symptoms observed from a poisoned person

- (i) High Fever; a person with poison he/she may experience a very high fever.
- (ii) Vomiting; a person who is poisoned he/she may vomit.
- (iii) Diarrhoea; a person who is ~~poised~~ poisoned he/she may be diarrhoea.
- (iv) Stomachache; a ~~poised~~ person may experience pain in the stomach.
- (v) Headache; a poisoned person may experience pain in the head which may lead to high fever.

Extract 8.1: The student's correct responses in question 8.

Extract 8.1 exhibits a sample of responses from the student who managed to provide the meaning of first aid in part (a). He/she correctly mentioned eight essential items of the first aid kit in part (b). The student also managed to outline five symptoms observed from a poisoned person.

Further analysis shows that 585 (10.6%) students scored below average due to either misconceptions or limited knowledge on the concept of accidents in homes. Most students failed to provide a correct meaning of first aid in part (a). For example, one student defined first aid *as the treatment which are prescribed by doctors at the hospital*. Another student wrote, *first aid is the process of avoiding people of accident before the hospital*. In part (b), some of the students in this category

managed to mention one to four correct essential items of the first aid kit. Other students mentioned the responses which are not related to the first aid kit items.

In part (b), the majority of the students failed to outline correctly the symptoms observed from a poisoned person. Some of them mentioned the first aid kit items. Others mentioned the common diseases and nutritional disorders. For example, one student wrote, *cholera*, *kwashiorkor*, *smallpox*, *tuberculosis* and *malaria*. Students who scored 0 failed to provide correct responses to all parts of the question. Extract 8.2 is a sample of responses from a script of a student who performed poorly in this question.

8.	(a)	Give the meaning of first aid.	<p>It help to sick injured before a person to sent hospital</p>
	(b)	Mention eight essential items of the first aid kit.	<p>(i) It saves life</p> <p>(ii) It bring hope</p> <p>(iii) It reduce pain</p> <p>(iv) It promotion good reardship among the people</p> <p>(v) It prevent infection</p> <p>(vi) It recover time</p> <p>(vii) It Sholten infection recovery</p> <p>(viii) It encourage of people in the hospital</p>
	(c)	Outline five symptoms observed from a poisoned person	<p>(i) Pain kills</p> <p>(ii) planter</p> <p>(iii) Petroleum jelly</p> <p>(iv) Cotton wool</p> <p>(v) Safet bandage</p>

Extract 8.2: The student's poor responses in question 8.

In Extract 8.2, the student provided incorrect definition of first aid in part (a). He/she mentioned five functions of first aid instead of essential items of the first aid kit in part (b). In parts (c), the student provided the

essential first aid kit items instead of the symptoms observed from a poisoned person.

2.2.6 Question 9: Food

This question required the students to define the term *Food* in part (a). Part (b)(i) required them to give two main sources of fats and oils and three examples in each source while in part (b)(ii), the students were required to write two functions of fat and oils in the body. Furthermore, the students were required to identify three types of oils and to give the origin of each type which formed part (c) of the question.

The question was attempted by 5,506 (100%) students. The analysis shows that 2,971 (54.0%) students scored from 0 to 2.5 marks of whom 952 (17.0 %) scored zero and 2,022 (36.7%) scored from 0.5 to 2.5 marks. The students who scored from 3 to 6 marks were 1,861 (33.8%) and 674 (12.4%) scored from 6.5 to 10 marks. Figure 9 summarizes this performance.

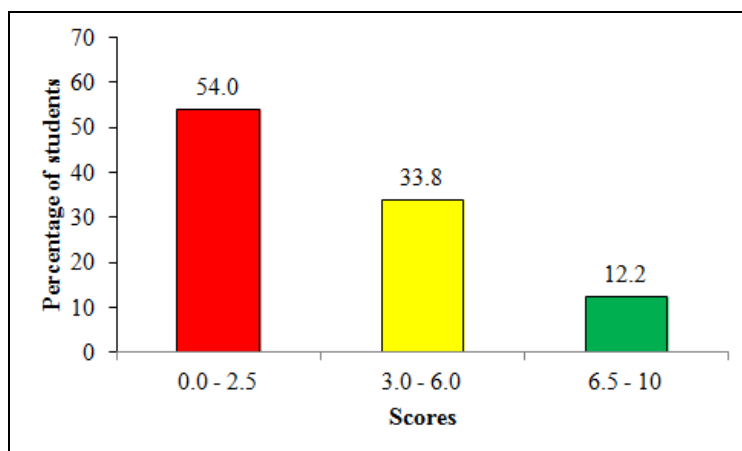


Figure 9: Distribution of the students' score in question 9.

In figure 9, the distribution of scores shows that the question was averagely performed because 2,535 (46.0%) students scored average and above. The analysis of students' responses shows that the students who scored low marks (54.0%), had insufficient knowledge on the concept of food and food nutrients. Such students provided a variety of incorrect definitions of food in part (a). For example, one student defined food as *the diet which consider the amount needed*. Another student defined it as *the substance liquid or solid swallowed and cause*

simulation of the body. These students failed to understand that food is any solid or liquid substance which when taken provides the body with nutrients. In part (b) of the question, the students provided incorrect main two sources and functions of fats and oils. For example, one student gave the uses of fats and oils in cooking foods by writing, *for baking foods as cake and bread and for frying food.*

In part (c), some of the students managed to identify one or two correct types of oils and gave the origin of each. They mentioned the common oils such as sunflower oil, groundnut oil and cotton seed oil. Those students who scored zero provided incorrect responses in all parts of the question. Extract 9.1 shows a sample of poor responses.

9. (a) Define the term Food.

Is any solid or liquid in the swallowed to provide body diet to with material (Nutrients)

(b) (i) Give the two main sources of fats and oils and three examples in each source.

• *They a oil of vegetable*
Examples: *fats*, *banana*, *fruit*

• *They a chemical of oil*
Examples: *petrol*, *oil through solid whistle*

(ii) Write two functions of fats and oils in the body.

• *They a vegetable eg fats*

• *They a oil are liquid a petrol and oil*

(c) Identify three types of oils and in each give its origin.

(i) Type *Natural and bandage*
Origin *They a sun and air*

(ii) Type *Chemical and whistle*
Origin *They a petrol*

(iii) Type *physical and roqs*
Origin *They a boiling*

Extract 9.1: The student's poor responses in question 9.

Extract 9.1 shows a sample of responses from the student who failed to define *food* in part (a). The student provided unrelated responses in parts (b)(i), (b)(ii) and (c) of the question due to lack of knowledge on the concepts of introduction to nutrition and food nutrients.

On the other hand, the students who got average scores and above defined correctly the term *food* in part (a). In part (b), they provided two main sources of fats and oils which are animal and plant sources together with the examples in each source in part (b)(i). However, majority of the students failed to score all (4) marks allocated to part (b) because they provided only one instead of two correct functions of fat and oils in the body in part (b)(ii). The students were able to identify correctly the types of oils and to give the origin of each type showing that they were familiar with the types of oils as they use them for cooking various foods. Extract 9.2 is a sample of responses from a script of a student with good performance.

9. (a) Define the term Food.

Food is any substance which when swallowed provide the body with materials which enable it to function well.

(b) (i) Give the two main sources of fats and oils and three examples in each source.

• Plants oils and fats

Examples: Coconut, sunflowers, Groundnuts.

• Animals sources

Examples: Egg yolk, Meat, Fish

(ii) Write two functions of fats and oils in the body.

• To provide the body with energy so that a body can perform different tasks.

• To keep the body hot also to protect organs like heart and liver.

9. (c) Identify three types of oils and in each give its origin.

(i) Type ... Sunflower oil
 Origin ... The origin is the seeds of sunflowers after they are extracted we get its oil.

(ii) Type ... Coconut oil
 Origin ... The origin is coconuts. after extracting it we get coconut oil.

(iii) Type ... Palm oils
 Origin ... The origin is from the palms after the extraction process we get palm oil.

Extract 9.2: *The student's correct responses in question 9.*

Extract 9.2 shows a sample of responses from the student who was able to provide correct responses in all the parts of the question because he/she had sufficient knowledge on food and food nutrients.

2.3 Section C: Essay Questions

This section consisted of two essay questions constructed from the topics on *Cleaning agents* and *Food*. Each question carries 16 marks and the students were required to answer one question.

2.3.1 Question 10: Cleaning a house

In this question, the students were required to explain five points to consider when choosing cleaning equipment in part (a). In part (b), they were required to show how to make a homemade long handled broom using locally available materials.

The analysis shows that the question was opted by 1,391 (25.3%) students and 4116 (74.7%) students did not select it. The students who scored from 0 to 2.5 marks were 894 (64.3%) of which 636 (45.7%) scored zero. The students who scored from 5 to 10 marks were 389 (27.9%) and 108 (7.8%) students scored from 10.5 to 16 marks. Figure 10 is a summary of the performance in this question.

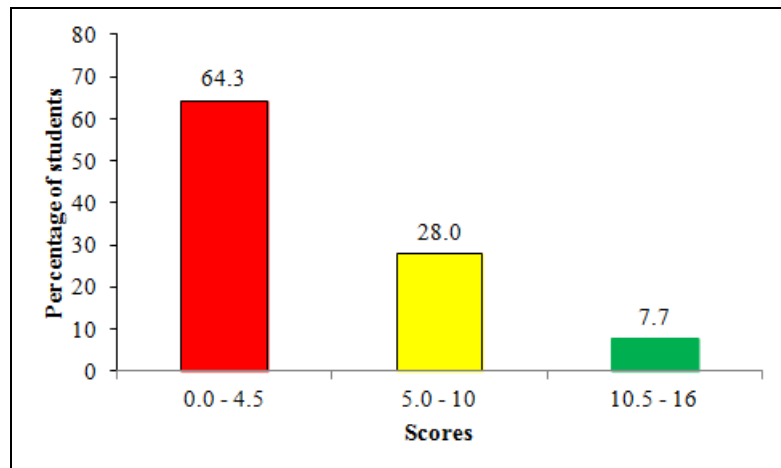


Figure 10: *Distribution of students' score in question 10.*

Figure 10 indicates that the performance of the students on this question was average since 497 (35.7%) students scored 3 marks and above. The analysis of students' responses shows that the students with poor performance (64.3%) failed to understand the demands of all parts of the question. In part (a), some of the students mentioned laundry equipment instead of factors to consider when choosing cleaning equipment. Other students explained the methods of obtaining a house which included *buying, renting, leasehold property* and *building a house* instead of factors to consider when choosing cleaning equipment. In part (b) of the question, majority of the students failed to show how to make a long handled broom using locally available materials. Some of the students gave responses not related to the demand of the question while others left this part unanswered. Extract 10.1 is a sample of responses from a script of a student with poor performance.

cleaning equipment refers of clean to keeping of the body every day: with cleaning equipment of the home without cleaning body to should be the refuse in the body to treatment of the diseases in the body. they are following of the cleaning equipment include:

Soap: this are common cleaning agent which removes dirty when used together with detergent with soap without soap cleaning in the body to don't of the clothes and body to with of the take of the soap to are common cleaning:

Water: this are common cleaning agent in which is efficient in cleaning greasy article with water in the assented for human being and healthy to with the appearance with water cleaning equipment to should be the take of the water are common cleaning in the health and body to with of smartness cleanliness in the body with to action of the water in cleaning in the body:

Brushes: are cleaning agent of the health in the body with take brusher it is common of the cleaning agent of the body:

Basin: this are basin of cleaning agent of the improvement of the basin to control of the cleaning to action body to develop of the cleaning of the health.

Laundry lines: certain they were of the laundry lines to should be the lines to takes of clothes and brushes to with of the common of the laundry of the cleaning equipment

Therefore: certain cleaning equipment this is of the equipment of common to cleaning but also very are cleaning equipment include soap, water, brusher and basin, make sure to take cleaning equipment of the keep health in the body

Extract 10.1: The student's poor responses in question 10.

In extract 10.1, the student explained two cleaning agents and three laundry equipment instead of the points to consider when choosing cleaning equipment and the procedure of making a homemade long handled broom using locally available materials. This suggests that the student failed to understand the demand of the question.

Furthermore, the analysis shows that the students who performed well in this question had sufficient knowledge and practical skills on cleaning a house particularly on cleaning equipment. The students managed to explain the points to consider when choosing cleaning equipment in part (a). They also managed to explain the procedure of making long handled brooms using locally available material in part (b). However, the majority of the students failed to score full marks as they were able to provide three to four points to consider when choosing cleaning equipment instead of the required five while others were partially explained. Extract 10.2 is a sample of responses from a script of a student with good performance.

CLEANING EQUIPMENT

Cleaning equipments are things used for moving dirt in the house by different methods such as dusting, sweeping, wiping, and scrubbing. Cleaning equipments are such as brooms, dust pan and dust pan brush, cleaning cloth, mop and duster. The cleaning equipments must be chosen by considering different factors. The following are the points to consider when choosing cleaning equipments.

Purpose of the equipment: Cleaning equipments should be chosen according to their purposes. Example brushes should be chosen so as to scrub the toilet bowl, stairs, for polishing shoes and rubbing edges. This is important because there is no wastage of money because each equipment is useful.

Durability of the equipment: The cleaning equipments should be chosen while considering their durability. They should be durable that means they should live longer without being damaged. Example buckets should be durable so that they can be used for a long time.

Quality: When choosing cleaning equipments they must be of a good quality. A cleaning equipment of a good quality can be used for a long time that helps to avoid wastage of money which would be used to buy another equipment.

Material used to make the equipment: The materials used to make the equipments must be strong especially for the equipments which are used regularly example dust pans and mops.

Easy maintenance. The cleaning equipment should be easy to maintain especially during cleaning them. Example brooms should be easy to clean and should not be heavy to carry.

Brooms are materials which are used for sweeping. Brooms can be made by different things such as metal, plastic or wood. The heads of brooms are usually made from animal hair, plants and some time artificially by using artificial products. The following is how to make a long handled broom by using local available materials;

Cut a long straight stick (should not be too narrow or too thick). Remove the upper layer by using a knife and then smoothen it by using the same knife in order to be soft to handle.

Cut long grass fibres and then trim them to make them equal. Attach the grass fibres on one end of the long stick for the handle. And then by using a rope, tie the fibres to hold them in place.

Take two short small pieces of wood which are flat and attach them horizontally between the fibres grass fibres and tie them by using ropes so as to make the broom easy for sweeping. Then the broom is ready for use.

Conclusion: Cleaning equipments must be cared well. They can be cared by washing them by warm soapy water such as dustpan and buckets. And also they should be stored in proper area mostly in cool and dry places. For brooms should be stored by hanging them while their heads facing upwards so as to avoid them from picking dirt and dust.

Extract 10.2: The student's good responses in question 10.

Extract 10.2 shows a sample of responses from the student who managed to explain the factors to consider when choosing cleaning equipment in part (a) of the question. The student showed how to make a homemade long handled broom using locally available materials in part (b).

2.3.2 Question 11: Food

In this question, the students were required to explain four functions of any four main food nutrients and give two examples of food for each nutrient.

The question was opted by 4,115 (74.7%) students and 1,392 (25.3%) students did not opt it. The analysis shows that 415 (10.1%) students scored from 10.5 to 16 marks, 2,534 (61.6%) scored from 4.5 to 10 marks and 1,166 (28.3%) scored from 0 to 4.5 marks. This performance is summarized in Figure 11.

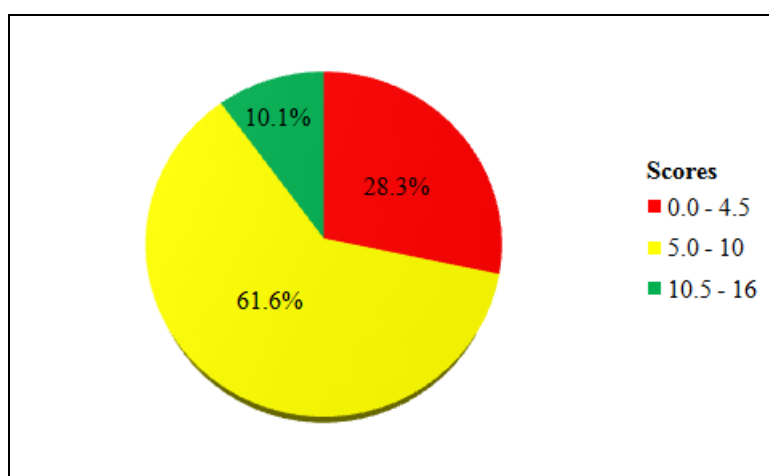


Figure 11: *Distribution of students' score in question 11.*

Figure 11 reveals that the students' performance in this question was good since 2,949 (71.7%) students scored 5 marks and above. The analysis shows that the students who scored good marks had adequate knowledge on the concept of food nutrients particularly on their functions and food that serves as sources. These students understood that foods supply different nutrients which when consumed serve various functions to make the body function well. This knowledge enabled these students to explain correctly the functions of main food nutrients and gave two examples of food that serve as sources of each nutrient. However, majority of the students failed to score all the marks in this question because either they provided two to three functions of a mentioned food nutrient instead of the required four or they gave one correct example of source food for each mentioned nutrient instead of the required two. Extract 11.1 is a sample answer from a script of a student who had good performance in this question.

⑪ Explain four functions of any four main food nutrients and give two examples of food for each nutrients.

Nutrients are food taken to the body which contains all essential things for the body. Example of these nutrients are Vitamins, carbohydrates, protein, fats and oils, minerals and water.

The following are the four functions of any four main food nutrients and their two example of food for each nutrients.

Vitamins is the main source of food nutrients because it protect us from diseases, it makes our immune system strong, It help to see properly during night, It boost our brains as it gives nutrients so as we can think wise, It gives nutrients to the blood as to prevent from diseases, It helps in growth and movement. Examples of Vitamin are fruits and vegetables. (Spinach)

Carbohydrates is the main source of food nutrients because it gives our body energy, it helps in growth of our body, it builds our body, it makes our body strong, it helps to prevent our body from different diseases, it also help to strengthen our immune system. Examples of carbohydrates are rice, cornmeal and vegetables.

Proteins is the main source of food nutrients because it helps to repair our bones tissue, it helps in growth of our body, it gives our body energy, it give nutrients to our body so as to prevent from infectious disease or damage of our skin, it helps in blood clotting, it helps in the transfer of blood. Examples of proteins are milk and Fish.

Fats and oil are the main source of food nutrients because it helps to give energy to our body, It provide heat to the body, it makes our body warm, it makes our body strong as well as it strengthen our immune system. Examples of fats and oil are sunflower and groundnuts.

To conclude, I would like to say that on the above mentioned are the four main food nutrients that are required to the body as it is required to every person to take food nutrient in a correct proportion so as it can make our immune system strong and prevent from any other diseases in our body.

Extract 11.1: The student's good responses in question 11.

Extract 11.1 is a sample of responses from the student who was able to explain the functions of four main food nutrients and provided two examples of source food for each nutrient.

Further analysis shows that 1,166 (28.3%) students who performed poorly, provided the functions of food instead of the functions of food nutrients. Moreover, some students mentioned correct food nutrients but failed to give the correct functions and source foods. These responses indicate that the students had misconceptions, insufficient knowledge or poor preparation for the assessment, hence they scored low marks. Extract 11.2 is a sample of responses from a script of one of the students with poor performance.

11. Food; is any substance that is taken by living organisms to provide nutritional support and nutrients. is any substance that provide by living organism;
The following are the function of food nutrients:-
It provide heat and light in the body. example of food nutrients of that point is rice and (cabbage); also food nutrients. If you get a ruler and you can eat so the body. It will be to provide heat and light; so it provide heat and light in the body. It is function of food nutrients.
It help to build the body. example of food nutrients of build the body. Orange, mangoes; also food nutrients. It help to build the body which is fruits so. If you can get a ruler and you can take that ruler of to see that food your body it will be to build.
It help to protecting against diseases; example of food nutrients to protecting against diseases. meat, ground nuts; also food nutrients which is meat and ground nuts. If you get the ruler. you can eat always so your body. It protecting against disease you can not to get any disease like kwashiorkor because you get to eat food for protecting diseases so. It help to protecting against disease. It is a function of food nutrients.
It help to get vitamin A and C. example of food nutrients; Vegetable; Cabbage and Chinese; also. If you can eat that food like Cabbage and Chinese. It help you to get Vitamin A and C and other disease which cause to get Vitamin A and C and can not to get because if always. you can eat that food of to get vitamin A and C so. It help to get Vitamin A and C. It is a function of food nutrients.

11. It help to protecting against diseases; example of food nutrients to protecting against diseases meat, ground nuts; also food nutrients which is meat and ground nuts if you get the rules you can eat always so your body it protecting against disease you can not to get any diseases like kwashiorkor because you get to eat food for protecting diseases so it help to protect ing against diseases it is a function of food nutrients.

It help to get vitamin A and C example of food nutrients, Vegetable; Cabbage and Chines; also if you can eat that food like Cabbage and Chines it help you to get Vitamin A and C and other disease which cause to get Vitamin A and C and can not to get because if always if you can eat that food of to get vitamin A and C so it help to get vitamin A and C it is a function of food nutrients.

Extract 11.2: The student's poor responses in question 11.

Extract 11.2 illustrates responses of the student who explained the functions of food instead of functions of any four food nutrients due to lack of knowledge on the topic.

3.0 ANALYSIS OF STUDENTS' PERFORMANCE PER TOPIC

The analysis of students' performance in each topic was done to identify the topics with good, average and poor performances. The analysis shows a number of topics had good performance including *Materials used in the home*, *Kitchen and food hygiene*, *Kitchen planning*, *Food and nutrition*, *Accidents in the home*, *Cooking food*, *Cleaning a house* and *Laundering in the home* (89.6%) and *Accidents in the home* (89.4%). Other topics with good performance include *The family* (88.0%) and *Age courtship and marriage practice*, *Cleaning agents*, *The adolescent*, *Accidents in the home*, *Planning balanced meals* and *The kitchen planning* (69.2%). Good performance on these topics was attributed to the students' ability to understand the requirements of the questions and having adequate knowledge on the assessed concepts.

The topics which had average performance were *Food* (58.9%), *Kitchen and food hygiene* (57.7%), *Cleaning agents* (41.9%) and *Cleaning a house* (35.7%). It was also observed that the average performance in these topics was attributed to inadequate knowledge and inadequate practical skills on the assessed concepts and failure for students to provide the required number of points.

On the other hand, the poorly performed topics were *Cooking food* (28.9%) and *Materials used in the home* (8.8%). Poor performance observed in these topics were caused by lack of classroom practical activities on the different methods of cooking foods, misinterpretation of the questions, failure to understand the demands of the questions and students having insufficient knowledge on the assessed concepts presumably caused by poor coverage of the topics. Moreover, it was observed that the topic *Materials used in the home* was the only topic which maintained poor performance when the 2019 results were compared with those of 2018. This poor performance was due to students having insufficient knowledge on the content of the topic. Appendix A illustrates the analysis of students' performance for each topic.

4.0 CONCLUSION

The general performance of the students in Food and Nutrition subject in FTNA, 2019 was good since out of 5,507 students who sat for the assessment, 3,800 (69.0%) passed with different grades whereby 12 (0.2%) obtained A grade, 231 (4.2%) B grade, 1,918 (34.8%) C grade and 1,639 (29.8%) D grade. However, 1,707 (31.0%) students failed by obtaining F grade as shown in Appendix B. The students' performance in 2019 was good compared to that of 2018 with the difference of 15.5 percent. The good performance observed was a result of the students' ability to understand the requirements of the questions and adequate knowledge of the assessed concepts. The comparison of the students' performance in 2018 with 2019 is summarized in Appendix C.

The analysis of the students' performance in each question indicates that the majority of the students had average performance. These students demonstrated inadequate knowledge and practical skills on the tested concepts and failed to correctly provide the required number of points in different questions. However, students who performed poorly in this assessment failed to understand the demands of the questions they attempted or had insufficient knowledge on the assessed concepts.

5.0 RECOMMENDATIONS

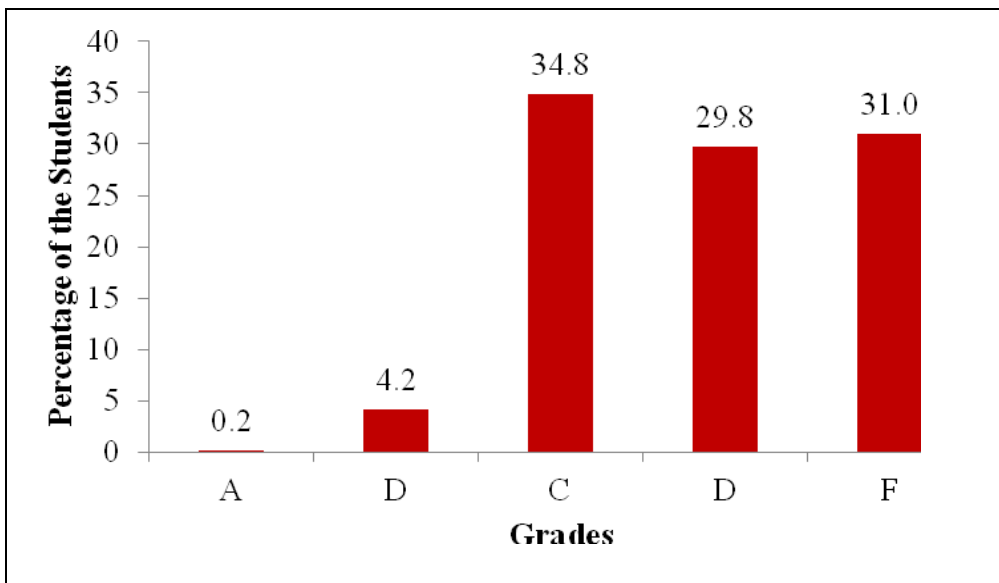
Based on the weaknesses observed during the analysis of Food and Nutrition responses, the following are recommended:

- (a) Teachers should guide students to carry out enough classroom practices on different methods of cooking foods and lead a class discussion on the procedures of cooking food using each method and the advantages and disadvantages of each method. This will enable the students to acquire enough competences of the sub-topic of *Methods of cooking food*.
- (b) Teachers should provide pictures and items made of different materials used at home and guide the students in groups to discuss the choice, properties and care of each material during teaching and learning the topic of *Materials used at home*.
- (c) Teachers, students, education administrators, school quality assurers and school managers should be advised to read the Students' Item Response Analysis reports. The information provided in these reports will enable them to take necessary measures in order to improve teaching and learning processes in the country.
- (d) Students should be encouraged to read widely and intensively before they sit for the assessments.
- (e) Students should be advised to read questions carefully during assessments to avoid misunderstanding of questions.

Summary of Students' Performance per Topic

S/N	Topic	Question Number	The % of Students who Scored an Average of 30% or Above	Remarks
1.	Materials used in the home, Kitchen and food hygiene, Kitchen planning, Food and nutrition, Accidents in the home, Cooking food, Cleaning the house and Laundering in the home	1	89.6	Good
2.	Accidents in the home	8	89.4	Good
3.	The family	5	88.0	Good
4.	Age courtship and marriage practice, Cleaning agents, The adolescent, Accidents in the home, Planning balanced meals and The kitchen planning	2	69.2	Good
5.	Food	9 and 11	58.9	Average
6.	Kitchen and food hygiene	4	57.7	Average
7.	Cleaning agents	3	41.9	Average
8.	Cleaning a house	10	35.7	Average
9.	Cooking food	6	28.9	Poor
10.	Materials used in the home	7	8.8	Poor

The General Performance of the Students in Food and Nutrition in 2019



The Comparison of Students Performance in 2018 and 2019

