

**THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA**



**STUDENTS' ITEMS RESPONSE ANALYSIS  
REPORT FOR THE FORM TWO NATIONAL  
ASSESSMENT (FTNA) 2018**

**034 AGRICULTURAL SCIENCE**

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**034 AGRICULTURAL SCIENCE**

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## **FOREWORD**

The Agricultural Science Students' Items Response Analysis Report of the Form Two National Assessment (FTNA) in 2018 was written to provide feedback to students, teachers, parents, policy makers and other educational stakeholders on the students' response to Agricultural Science subject.

The Form Two National Assessment is a formative evaluation in secondary education, which among other things, shows the effectiveness of the education system in general and the education delivery system in particular. Essentially, the students' responses indicate what the education system was able or unable to offer to the students in their two years of learning.

In this year, the performance of the students was average. The analysis shows that the students who performance well in the assessment showed possession of adequate knowledge of different questions, adequate practical skills, good essay writing skills and good command of the English Language.

In contrary, poor performance of the students in the assessment has been caused by several factors which include inadequate knowledge of different topics, failure to meet requirements of the questions, inadequate practical skills, poor command of the English Language and poor essay writing skills.

This feedback is expected to enable educational administrators, school managers, teachers and students to identify proper measures to take to improve students' performance in future assessments by the Council.

The National Examinations Council of Tanzania would like to thank examinations officers, assessors and all who participated in processing data used in this report.



Dr. Charles E. Msonde  
**EXECUTIVE SECRETARY**

## 1.0 INTRODUCTION

This report is an analysis of students' items response in the Form Two National Assessment in Agricultural Science subject in 2018. Agricultural Science assessment was set according to the 1997 Agricultural Science Syllabus for Secondary Schools and the 2017 Assessment Format.

The assessment consisted of one theory paper, with ten questions in section A, B, and C. Students were required to answer all questions. Section A had three types of questions: multiple choices, matching items and True or False items. Question one carried 10 marks, whereas, question two and three carried 05 marks each, making a total of 20 marks for the section.

Section B comprised of six short answer questions, each carrying; 10 marks; making a total of 60 marks for the section. Section C had one essay type question with 20 marks.

The statistical analysis shows that a total of 20,247 students sat for the Form Two National Assessment in this subject. The analysis depicts that 6,818 (33.67%) students passed the assessment by scoring grades A to D, while 13,429 (66.33%) students failed after scoring grade F. Therefore, the performance in Agriculture Science in the 2018 FTNA was average. Compared to the 2017 FTNA results in this subject, the performance in this year's Agricultural Science increased by 9.72 percent. The following table shows the performance of the students in Agricultural Science by grade.

**Table 1: The Students' Performance in Agricultural Science Assessment of the 2018 FTNA by Grade**

Grades	A	B	C	D	F	Total
Female	33	127	1199	2480	5347	9186
Male	13	49	700	2217	8082	11061
Total	46	176	1899	4697	13429	20247

**Source:** NECTA Statistics Book, **pg 6**, FTNA (2018)

The following section presents the analysis of the performance in each question. The analysis gives an overview of what the students were required to do, how they responded and the reasons for either good or poor responses they made. Sample extracts for good and poor responses are also presented for the sake of illustration.

In this analysis, a question is described as poorly, averagely or well performed according to the following range of scores: 0 – 29 (Weak), 30 to 64 (Average) and 65 to 100 (Good).

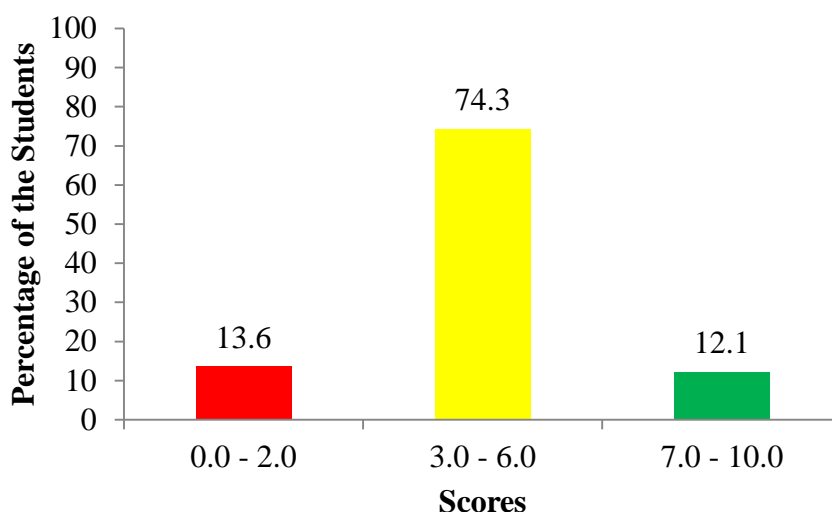
## **2.0 THE ANALYSIS OF THE STUDENTS' PERFORMANCE BYQUESTION**

### **2.1 SECTION A: OBJECTIVE QUESTIONS**

#### **2.1.1 Question 1: Multiple Choice Items**

This question comprised of ten items from various topics in the Agricultural Science Syllabus. The students were required to choose a correct answer from the given alternatives and to write its letter in the box provided.

The question was attempted by 20,311 (100%) students. The analysis shows that 2,769 (13.6%) students scored from 0 to 2 marks; 15,090 (74.3%) students scored from 3 to 6 marks and 2,452 (12.1%) students scored from 7 to 10 marks, out of 10 marks allocated to the question. The general performance of the students in the question was therefore good; since 17,542 (86.4%) students scored from 3 to 10 marks. Figure 1 shows the distribution of the students' scores in the question.



***Figure 1: The Students' Performance in Question 1***

Figure 1 illustrates that the majority of the students provided correct responses to item (i), (ii), (v), (vii), (ix) and (x). The items whose many of their responses were incorrect were: (iii), (iv), (vi) and (viii).

In item (i), the students were required to choose an alternative which is **not** a component of First Aid Kit. The item tested the knowledge of First Aid. The correct answer was D (Chloroquine). The distractors were: A (Razor blade), B (Cotton wool) and C (Antiseptic). Most of the students provided correct responses to this item; indicating that they had sufficient knowledge of First Aid Kit components. These managed to distinguish the components of the First Aid Kits from non-components of First Aid Kit.

Item (ii) tested the students' knowledge of farm workshop and its attendant works. The students were required to choose a term which refers to wood work in the farm workshop. Most of the candidates gave the correct response B (Carpentry). The incorrect options were: A (Masonry), C (Plumbing) and D (Metallurgy). Knowledge of different types of activities in the farm workshop enabled the students to correctly identify a term which refers to woodwork in the farm workshop from activities such as: "masonry" which deals with building walls using bricks, "plumbing" which involves pipes and pipe fittings and "metallurgy" which deals with metal work.

In item (v), the students were required to select a factor of production which is fixed in nature. The correct alternative was D (Land). The distractors were: A (Labour), B (Capital) and C (Entrepreneurship). The majority of the students provided the correct response to the item because of enough knowledge of factors of production and their major characteristics.

The correct option for "the most common source of farm power in Tanzania" in item (vii) was D, (Human power). The incorrect alternatives were: A (Solar power), B (Animal power) and C (Wind power). The item demanded the students to demonstrate good understanding of the sources of farm power and their uses. A good number of students correctly identified human power as the most common source of farm power in Tanzania; considering that the majorities of Tanzanians live in rural areas and engage in crop and livestock production, mostly by using their own energy.

Item (ix) required the students to show ample knowledge of poultry rearing systems by choosing the disadvantage of deep litter system in poultry rearing. The correct alternative was A (Disease outbreak can spread quickly)



The incorrect alternatives were: B (It needs large area for birds to search for food), C (Birds are easily preyed by predators) and D (Theft of birds is common). The majority of the students chose the correct response in this item, indicating that they had good mastery of the subject matter. The students managed to compare the disadvantages of different poultry rearing systems and identified option A as the correct response. Other alternatives were disadvantages of other systems of rearing poultry such as free range rearing system.

In item (x), the students were required to choose a factor that determines the speed at which the weathering occurs. The correct response was C (nature of parent material). The distractors were: A (Climate of the area), B (Living organism), D (Topography of the area). The item required the students to be knowledgeable of factors for soil formation. The majority of the students demonstrated good knowledge of factors for soil formation and the role of each factor in soil formation. They managed to identify the nature of the parent material as a factor which determines the speed at which the weathering occurs. They managed to exclude factors which determine other parameters.

In item (iii), the students were required to identify a factor that limits livestock production in Tanzania. The correct response was the alternative A (Occurrence of diseases and pests). The distractors were B (Presence of exotic breeds), C (Presence of established pasture) and D (Effective extension service). In this question, the students were required to exhibit enough knowledge of factors limiting livestock production in Tanzania by identifying the correct response. The students with insufficient knowledge provided incorrect responses. The majority of them were attracted to the option B (Presence of exotic breeds) probably because they did not know that exotic breeds are the modern breeds with good characteristics.

In item (iv), the students were required to show good understanding of principles of crop production. Most of the students were attracted to the distractor D (Soil conservation) as a non-principle of crop production. The correct answer was B (Excessive fertilization). Other incorrect alternatives were: A (Weeding) and C (Proper spacing). The majority of the students opted for the option D (Soil conservation). They settled for this choice likely because soil conservation measures were unfamiliar to them, whereas, weeding, spacing and fertilization appeared the common practices to them.

The students appeared unaware of excessive fertilization as a harmful practice to crops. Therefore they did not opt for it.

In item (vi), the students were required to identify a type of soil which exhibits single grained structure. The correct alternative was C (Sand soil). The distractors were: A (Loam soil), B (Clay soil) and D (Silt soil). For the students to answer this item correctly, they needed sufficient knowledge of the types of soil structure. It was noted from the analysis that most of the students opted for the alternative B (Clay soil); thinking that single grained structure stands for fine soil particles, which is incorrect. This implies that in addition to insufficient knowledge, the students also lacked practical skills in the types of soil structure.

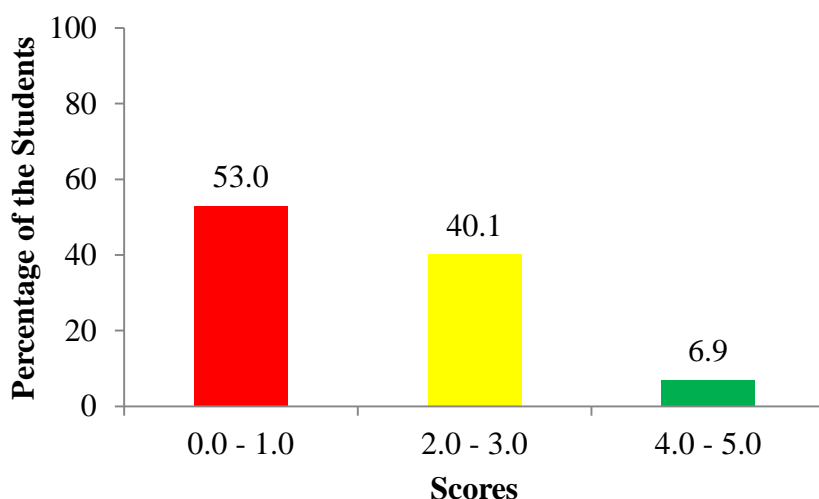
In item (viii), the students were required to choose a term which refers to the act of growing crops and or keeping livestock in a limited area of land. The correct answer was the alternative D (Small scale farming). Incorrect options were: A (Extensive farming), B (Intensive farming) and C (Large scale farming). The students were required to demonstrate knowledge of farming systems and their characteristics. Most of the students identified the alternative B (Intensive farming), on the grounds that intensive farming is usually done in limited areas of land, like in poultry rearing.

### **2.1.2 Question 2: Matching Items**

The question consisted of five items from the topic of the First Aid. The students were required to match the items in List A with their respective responses in List B by writing a letter of the correct response below the corresponding item number in List A. List A comprised of five uses of First Aid Kit components; whereas, List B consisted of seven (7) First Aid Kit components.

The question was attempted by 20,310 (100%) students, of which, 10,771 (53%) students scored from 0 to 1 mark; 8,143 (40.1%) students scored from 2 to 3 marks and 1,396 (6.9%) students scored from 4 to 5, out of 5 marks allotted to the question.

The analysis indicates average performance of the students in the question; going by the fact that 9,539 (47%) students scored from 2 to 5 marks. Figure 2 depicts the scores of the students in the question.



***Figure 2: The Students' Performance in Question 2***

Figure 2 shows that, 47 percent of the students scored from 2 to 5 marks; signifying average performance in the question. The majority of the students did well in item (ii) and (iv) but failed in items (i), (iii) and (v).

In item (ii), most of the students gave the correct response on the “component of the First Aid Kit, which cleans wounds to kill germs” which was G (Antiseptic). Likewise in item (iv), the majority of the students provided the correct response on the component of the First Aid Kit that clean and dry wounds as A (Cotton wool). The students provided the correct response to these items because antiseptic and cotton wool are commonly used in everyday life for providing first aid to injured patients.

In item (i), the correct response for the First Aid Kit component that covers wounds to protect them from dirt and germs was C (Sterile gauze). However, most of the students opted for D (Bandage). Similarly, in item (iii), most of them opted for C (Sterile gauze), instead of the correct response E (Safety pin), as the component which secures bandage.

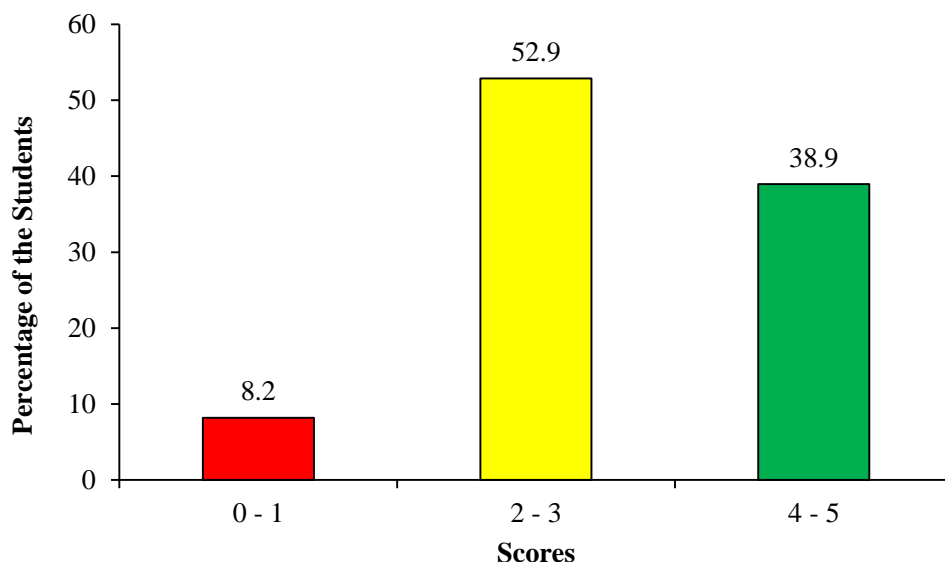
In item (v), the correct response on the component of the First Aid Kit which keeps dressing in place was D (Bandage). However, most of the candidates opted for F (Plaster). It was observed from the analysis that such students were unaware of the uses of some of the components of the First Aid Kit

such as sterile gauze and bandage. This might be because of the lack of practical skills in the components of the First Aid Kit and their uses.

### 2.1.3 Question 3: True or False Items

This question consisted of five (5) items from different topics in the Agricultural Science Syllabus. The students were required to write TRUE if the statement is correct or FALSE if the statement is incorrect.

The question was attempted by 20,311 (100%) students, of which, 1,665 (8.2%) students scored from 0 to 1 marks; 10,736 (52.9%) students scored from 2 to 3 marks and 7,910 (38.9%) students scored from 4 to 5, out of 5 marks allocated to the question. Based on these data, the general performance of the students in this question was good; as 18,646 (91.8%) students scored from 2 to 5 marks. Figure 3 represents the students' scores in the question.



***Figure 3: The Students' Performance in Question 3***

With respect to Figure 3, the general performance of the students in this question was good; as 91.8 % of the students scored from 2 to 5 marks.

The analysis indicates that the majority of the students provided correct responses to items (i), (iv) and (v) and did not manage to provide correct responses to items (ii) and (iii).

In item (i), the correct response for the statement “cleaning all the equipment used after the experiments is one of the laboratory rules” was TRUE. This implies that the students had good understanding of the laboratory rules. The statement “horticulture constitutes production of fruits” was also TRUE for item (iv).

A good performance in item (iv) was attributed to good understanding of the meaning of horticulture. In item (v), the correct response for the statement “a hen is a one day to eight weeks bird” was FALSE. Correct responses from the majority of the students in this item signify that the students had adequate knowledge of the types of poultry.

In item (ii), the statement “in carpentry, mallet is used to drive in chisel” was TRUE. Incorrect responses by students to this item evidenced the lack of knowledge and practical skills in the uses of farm workshop tools.

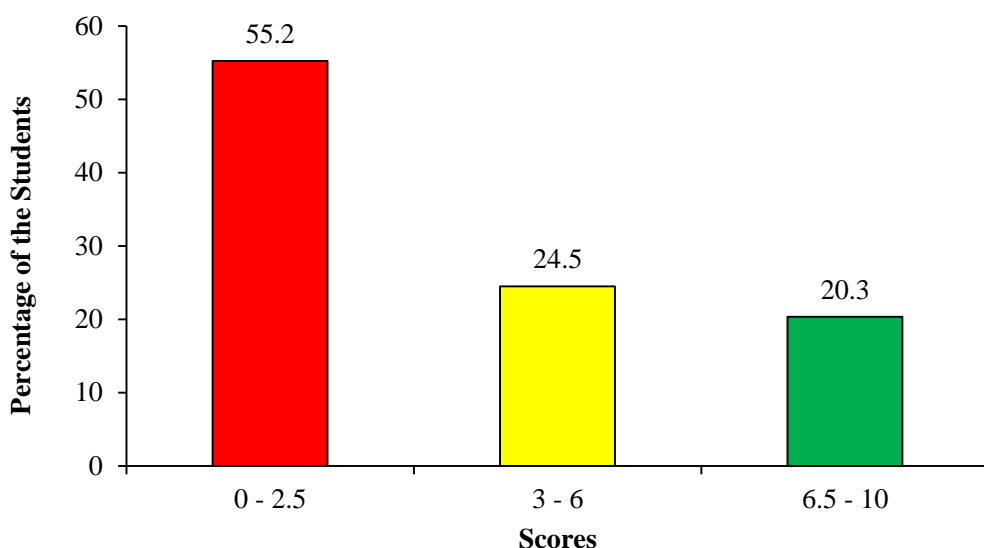
In item (iii), the correct response for the statement “land preparation involves the practices carried out on land after planting” was FALSE. The item required the students to demonstrate knowledge of the principles of crop production, which most of the students appeared to be unaware of.

## **2.2 SECTION B: SHORT ANSWER QUESTIONS**

### **2.2.1 Question 4: The Agricultural Science Laboratory**

This question consisted of two parts, (a) and (b). The students were required to (a) (i) Give the meaning of agricultural science laboratory, (ii) State the reason why it is important to know the safety practices in a workshop and (b) state six characteristics of a good agricultural science laboratory.

The question was attempted by 20,311 (100%) students, out of which, 11,219 (55.2%) students scored from 0 to 2.5 marks, 4,959 (24.5%) students scored from 3 to 6 marks and 4,133 (20.3%) students scored from 6.5 to 10 marks, out of 10 marks allocated to the question. The analysis indicates average performance of the students in this question; considering that 9,092 (44.8%) students scored from 3 to 10 marks. Figure 4 illustrates the students’ scores in the question.



***Figure 4: The Students Performance in Question 4***

The performance in this question was average as shown in Figure 4. That is, 44.8 percent of the students scored from 3 to 10 marks. This suggests that the students did not have high mastery of the subject matter of Agricultural Science Laboratory topic.

The students who did well in this question provided correct responses to almost all parts of the question, except part (b), where they did not exhaust all the characteristics of a good agricultural science laboratory. This justifies that the students had average knowledge of the subject matter.

In part (a) (i), the majority of the students, gave a correct meaning of agricultural science laboratory and the importance of knowing the safety practices in a workshop. This indicates that they had good understanding of the topic of Agricultural Science Laboratory. Extract 1.1 represents good responses to the question.

4. (a) (i) What do you understand by agricultural science laboratory?  
 Is the special room or building where agricultural experiment are conducted or done.
- (ii) Why is it important to know the safety practices in the workshop?  
 so as to avoid accident which may occur in the workshop like falling down.
- (b) State six characteristics for a good agricultural science laboratory.
- (i) it should have enough space for carrying out experiment
  - (ii) It should have enough windows and doors to allow good ventilation
  - (iii) It should have a source of light
  - (iv) it should have a source of water
  - (v) It should have storage room for keeping apparatus and other important instrument
  - (vi) It should have fire extinguisher and it's floor should be concrete not slippery floor.

Extract 1.1 is a sample of responses from students who did well in the question. In this sample, the student provided correct responses to all parts of the question, which proves that he/she had adequate knowledge of the subject.

A few of the students gave a correct meaning of agricultural science laboratory in part (a)(i). However, some of the students incorrectly responded to the question by outlining the importance of agriculture such as: it *provides raw materials and income to the people* instead of explaining the meaning of agricultural science laboratory. Likewise, in part (a) (ii), the students failed to give the importance of knowing the safety practices in a workshop. They thus presented the safety precautions in the agricultural science laboratory instead of explaining the importance of knowing such safety practice in workshop.

Furthermore, a few of the students provided correct characteristics of a good agricultural science laboratory in part (b), while the majority of them gave incorrect responses such as *has windows and has floor*. Incorrect responses

from the students exhibit that they lacked knowledge of the topic of Agricultural Science Laboratory. Extract 1.2 is a sample of poor responses in the question.

4. (a) (i) What do you understand by agricultural science laboratory?

Is the branch of science which deal with are  
livestock keeping

- (ii) Why is it important to know the safety practices in the workshop?

Is the workshop masonry  
It help to workshop of the plumbing  
It help to Carpentry  
It used for Metallurgy

- (b) State six characteristics for a good agricultural science laboratory.

(i) goat

(ii) Cow

(iii) sheep

(iv) Chackling

(v) Carpentry

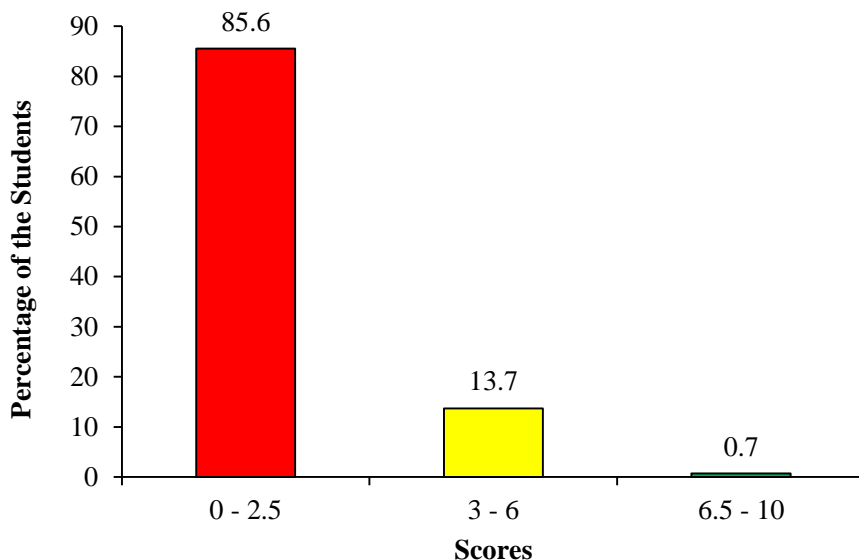
Extract 1.2, is a sample of incorrect responses to all parts of the question, which suggests low mastery of the subject matter.



### 2.2.2 Question 5: The Farm Workshop

This question had two part (a) and (b). The students were required to (a) (i) Give the meaning of the term “carpentry” (ii) Outline three safety practices to consider when using sharp edged tools, and (b) State the use of the following farm workshop tools: (i) Cross-cut saw (ii) Tenon saw (iii) Coping saw (iv) Bow saw (v) Rip saw and (vi) Hack saw.

The question was attempted by 20,311 (100%) students. In this question, 17,377(85.6%) students scored from 0 to 2.5 marks; 2,785(13.7%) students scored from 3 to 6 marks and only 149 (0.7%) students scored from 6.5 to 10 marks, out of 10 marks allocated to the question. The analysis shows that 2,934 (14.4%) students scored from 3 to 10 marks; signifying poor performance in the question. Figure 5 illustrates the students’ scores in the question.



***Figure 5: The Students’ Performance in Question 5***

As Figure 5 illustrates, the performance of the students in this question was generally poor; as only 14.4 percent of the students scored from 3 to 10 marks. This implies they had inadequate knowledge and practical skills in the farm workshop. The majority of the students who performed poorly in this question failed in almost all parts of the question, except part (b), where a few of them managed to give correct functions of a few of the named tools.

In part (a) (i), these students failed to give a correct meaning of the term “carpentry”. Their incorrect responses were such as *carpentry is the person who studies wood in farm workshop* and *carpentry is the process of cutting a piece of metal*.

In part (a) (ii), the majority of the students also failed to outline three safety precautions necessary to consider when using sharp edged tools. Examples of incorrect responses they provided were such as: *safety gears protect safety house* and *protect sharing of sharp object such as razor blade and knife*. In this part, some of the students did not understand the requirements of the question and thus gave general safety precautions in the farm workshop, instead of specific safety precautions to take when using sharp edged tools.

In part (b), the students who performed poorly provided incorrect functions of the named tools. Examples of such incorrect responses by the students; as functions of the named farm workshop tools, are: (i) Cross-cut saw is *used for cutting metal in any direction*; (iii) Coping saw is *used for cutting wood in both direction*; (iv) Bow saw is *used to cut wood across the grain*; and (vi) hacksaw is *used for driving in and out chisel*. A few students gave the correct functions for (ii) Tenon saw and (v) Rip saw.

Generally, many of the students demonstrated inadequate knowledge of the farm workshop tools and lack of adequate practical skills in the content. Extract 2.1 is a sample of poor responses in the question.

5. (a) (i) What is meant by the term 'carpentry'?
- ..... is the treatment egg development into incubator .....
- (ii) Outline three safety precautions necessary to consider when using sharp edged tools.
- ..... improve flammable liquid .....
  - ..... fire extinguisher should be available .....
  - ..... machinery care-free .....

(b) State the use of the following farm workshop tools.

- (i) Cross cut saw..... Changing direction of line pipe
- (ii) Tenon saw..... Cutting brace
- (iii) Coping saw..... connect two place and pipe
- (iv) Bow saw..... is used for cutting trees
- (v) Rip saw..... It used for Making body temperature
- (vi) Hack saw..... It used for cutting trees

Extract 2.1 is a representative of students who performed poorly in this question. It demonstrates inadequate knowledge and practical skills in farm workshop.

On the other hand, the students who performed well in this question defined the term “carpentry” correctly in part (a) (i). They also correctly outlined the safety precautions to consider when using sharp edged tools in part (a) (ii), though not exhaustively.

Likewise, in part (b), they managed to give correct functions of most of the named types of saws; except for the functions of (iii) Coping saw and (iv) Bow saw which seemed uncommon to them. Good responses given by the majority of the students in this group indicate that they had good knowledge and practical skills in farm workshop. Extract 2.2 is a sample of good responses from such students.

5. (a) (i) What is meant by the term 'carpentry'?
- Carpentry is all activities deals with wood work. example making furnitures
- (ii) Outline three safety precautions necessary to consider when using sharp edged tools.
- It should be used with maximum carefully to avoid cutting our body.
  - It should be kept in a good position and well arranged
  - wear protective gloves to avoid cutting our fingers
- (b) State the use of the following farm workshop tools.
- (i) Cross cut saw. Used for sawing across the grain
- (ii) Tenon saw. Used for cutting wood in any direction
- (iii) Coping saw. Used for making curves on wood
- (iv) Bow saw. Used for making curves on wood surface
- (v) Rip saw. Used for sawing along the grain
- (vi) Hack saw. used for cutting cold metal

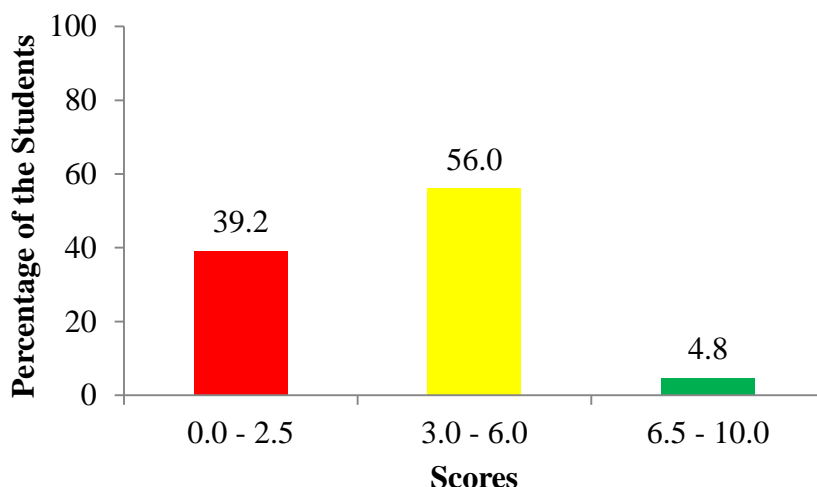
Extract 2.2, is from the student with adequate knowledge and practical skills in farm workshop. He/she provided correct responses in all parts of the question.

### 2.2.3 Question 6: Factors Affecting Livestock Production and Poultry Farming

The question comprised of two parts (a) and (b). The students were required to: (a) Enumerate six general methods of controlling livestock diseases and (b) Examine four importance of keeping poultry.

The question was attempted by 20,310 (100%) students; whereby, 7,970 (39.2%) students scored from 0 to 2.5 marks; 11,374 (56%) students scored from 3 to 6 marks; and 966 (4.8%) students scored from 6.5 to 10 marks, out of 10 marks allocated to the question.

The students' performance in this question was average; in the sense that 12,340 (60.8%) students scored from 3 to 10 marks. The distribution of the candidates' score is shown in Figure 6.



**Figure 6: The Students' Performance in Question 6**

Figure 6 depicts that the performance of the students in the question was average. The distribution of scores shows that 60.8 percent of the students scored from 3 to 10 marks. Average performance of the students in the question was caused by possession of partial knowledge of the methods of controlling livestock diseases.

The students who had good performance in the question provided correct importance of keeping poultry in part (b). In part (a), the majority of the students did not provide all the needed methods for controlling livestock diseases. The methods they were expected to give include: *proper disposal of carcass, prophylaxis by the use of drugs on routine basis and use of antiseptics and disinfectants to kill germs in animal houses*. Extract 3.1 is response from a student who did well in the question.

6. (a) Enumerate six general methods of controlling livestock diseases.

- (i) Provision of clean pastures and drinking water to the livestock.
- (ii) Vaccination of livestock or provision of veterinary drugs to livestock.
- (iii) Dipping livestock to avoid external parasites like ticks.
- (iv) Drenching livestock to avoid internal parasites on livestock.
- (v) Cleaning of the livestock houses gradually to avoid spread of diseases.
- (vi) Infected livestock should be separated from others as they can spread that disease to others.

(b) Examine four importance of keeping poultry.

- (i) Poultry are source of food as they provide eggs and meat when slaughtered.
- (ii) Poultry keeping create employment opportunities in rearing of poultry.
- (iii) Poultry keeping provide income to the farmer. This is when the farmer sells poultry products like eggs.
- (iv) Poultry faeces are good manure for plant growth in farms.

Extract 3.1, is from a student who gave correct responses to all parts of the question; signifying good understanding of the methods of controlling livestock and the importance of keeping poultry.

Contrary to the students who performed well in the question, those who performed poorly gave wrong responses to part (a) of the question. They failed to enumerate the methods used to control livestock diseases. Examples of incorrect responses given were: *biological control*, *chemical control*, *mechanical control*, *cultural control* and *legislative methods*; which are the general methods of controlling either weeds or pests.

In part (b), the majority of the students gave only a couple of importance of keeping poultry correctly; showing that they had partial knowledge of the subject matter. Extract 3.2 illustrates such poor responses in the question.

6. (a) Enumerate six general methods of controlling livestock diseases.

- (i) Occurrence of disease and pest.
- (ii) Presence of exotic breeds.
- (iii) Death for plant.
- (iv) Experiment for death of plant.
- (v) Problem. Discuss problem of
- (vi) Observation.

(b) Examine four importance of keeping poultry.

- (i) Help to understand the keeping of poultry.
- (ii) Help to understand problem of keeping poultry.
- (iii) To understand solve of poultry.
- (iv) Help to solve problem of poultry.

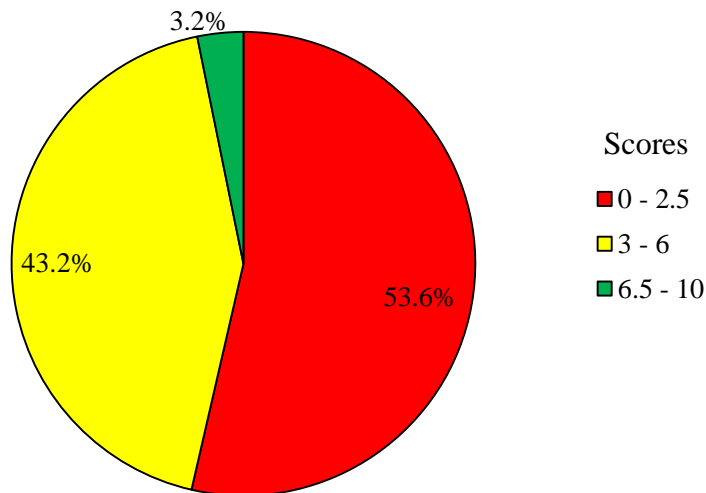
Extract 3.2 is a sample of the responses which represent the lack of knowledge of the methods of controlling livestock diseases and the importance of keeping poultry.

## 2.2.4 Question 7: Agricultural Development in Tanzania and Factors Limiting Crop Production in Tanzania

The question composed of three parts (a), (b) and (c). The students were required to: (a) Give the meaning of crop production (b) Explain in brief economic problems facing farmers in Tanzania and (c) Identify three characteristics of rainfall that makes it to be a drawback in agriculture.

This question was attempted by 20,310 (100%) students, of which, 10,878 (53.6%) students scored from 0 to 2.5 marks; 8,783 (43.2%) students scored from 3 to 6 marks; and 649 (3.2%) students scored from 6.5 to 10 marks, out of 10 marks in the question. The general performance in this question was

average; due to the fact that 9,432 (46.4%) students scored 3 to 10 marks. Figure 7 shows the distribution of the students' scores.



***Figure 7: The Students' Performance in Question 7***

In reference to Figure 7, the performance in this question was average; as 46.4 percent of the students scored from 3 to 10 marks. The students performed well in part (a) and (b). Part (c) of the question was not well attempted by the majority of the students.

The students who performed well showed good understanding of the meaning of crop production and economic problems facing farmers in Tanzania. Most of the correct responses were in both part (a) and (b). However, the majority of those who failed to identify the characteristics of rainfall did not meet the requirements of the question. They rather identified factors that determine the availability of rainfall such as temperature, humidity and moisture. An example of a good response to the question is shown in Extract 4.1.



7. (a) What is meant by crop production?

Crop production is the growing of plant for food and other purpose.

- (b) Briefly explain five economic problems facing farmers in Tanzania.

- (i) Lack of capital  
- Some people have no capital for this economic.
- (ii) Poor market  
- Some area have no market people they dig and no market.
- (iii) Lack of transportation and communication  
- Some area and people have no communication and transportation so is a problem.
- (iv) Poor tools  
- Some of people have no tools and skilled labour.
- (v) Lack of employment  
- There are place there is no employment in the society so is a problem.

- (c) Identify three characteristics of rainfall that makes it to be a drawback in agriculture.

- (i) Rainfall is seasonal
- (ii) Rainfall is not well distributed
- (iii) Rainfall is unreliable

Extract 4.1 is a response from a student who provided correct responses, except in part (b), whereby, *poor market* and *lack of employment* were given as the answers.

On the other hand, the students with poor performance in this question showed poor mastery of contents in part (b) and (c). In part (a) the majority of the students gave incomplete meaning of crop production. This shows that they had partial understanding of the meaning of crop production.

Likewise, in part (b), the students gave incorrect economic problems facing farmers in Tanzania. Examples of such responses were: *lack of co-operation between males and females*, *lack of raw materials* and *lack of government support*. Moreover, the students failed to identify the characteristics of rainfall that makes it a drawback in agriculture. Examples of the incorrect responses given were such as *acidic rainfall*, *leaching*, *irrigation* and *flooding*. All these incorrect responses justify the incompetence of the students in the subject matter assessed. Extract 4.2 exemplifies poor responses to the question.

7. (a) What is meant by crop production?

It is the different types of crops which are planted year on the field year after year or season after season.

(b) Briefly explain five economic problems facing farmers in Tanzania.

(i) Climatological factor.

(ii) Biological factor.

(iii) Chemical factor.

(iv) Mechanical factor.

(v) Institutional factor.

(c) Identify three characteristics of rainfall that makes it to be a drawback in agriculture.

(i) Climatological factor.

(ii) Soil erosion.

(iii) Outbreak of diseases and pests also crop diseases.

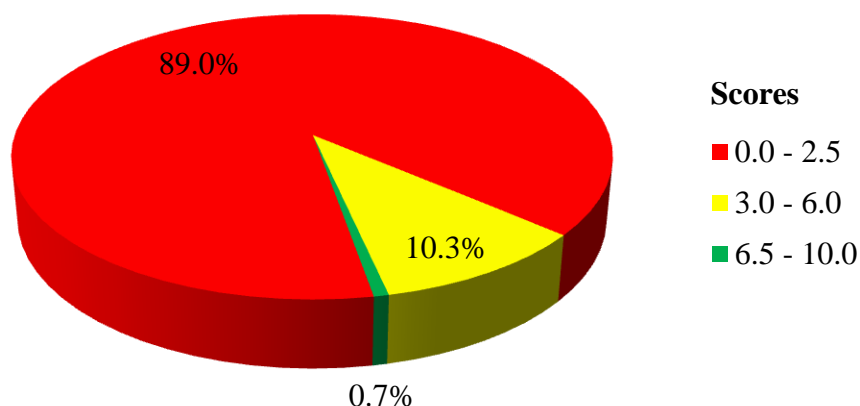
Extract 4.2 is a sample of poor responses to the question. It demonstrates that the student had low knowledge of this topic.

### 2.2.5 Question 8: Price and its Determinants

This question constituted part (a) and (b). The students were required to (a) (i) Define the term “price” (ii) Name six price determinants (iii) Elaborate how the forces of supply and demand may influence the price of an agricultural good and (b) Differentiate between elasticity of demand and elasticity of supply

The question was attempted by 20,311 (100%) students, out of which 18,075 (89.0%) students scored from 0 to 2.5 marks; 2,091 (10.3%) students scored from 3 to 6 marks; and only 145 (0.7%) students scored from 6.5 to 10 marks out of 10 marks allotted to the question.

The analysis shows poor performance in the question; going by the fact that only 2,236 (11.0%) students scored from 3 to 10 marks. Figure 8 represents the students' scores in the question.



***Figure 8: The Students' Performance in the Question 8***

With reference to Figure 8, the performance of the students in this question was generally poor. That is, only 11.0 percent of the students scored from 3 to 10 marks. This poor performance is attributed to inadequate knowledge of the concepts of price and its determinants among the students. The students who did poorly in the question provided incorrect responses to almost all parts of the question; except in part (a) (i), in which, the majority of them correctly defined the term price.

In part (a) (ii), the students failed to name the price determinants. The majority of them outlined the functions of price, instead of the price determinants. In other words, they failed to meet the requirement of the question. In part (a) (iii), some of the students defined the two terms separately and incorrectly; instead of elaborating how the forces of supply and demand influence a price of an agricultural good.

Similarly, in part (c), the students failed to differentiate between elasticity of demand and elasticity of supply. One of the students, for example, gave incorrect graphical representation of elasticity of demand and elasticity of demand instead of distinguishing the terms. Extract 5.1 is an example of such poor responses in the question.

8. (a) (i) Define the term 'price'.

price is the quantity of good and services of the demand

- (ii) Name six price determinants.

- Change in price
- Pest and disease occurrence
- Change of technology
- Change in price and another agricultural service
- Change in climate
- Change in soil

- (iii) Elaborate how forces of supply and demand may influence price of an agricultural good.

Because supply. This is the one of the curve of the agricultural and demand. It good & quantity of the soil and demand and soil demand. This is another agricultural good. Why because it is service it is not.

- (b) Differentiate between elasticity of demand and elasticity of supply.

Elasticity demand. This is good services and quantity of demand and while Elasticity supply is the quantity of goods and services of the supply.

Extract 5.1, is from a student who had low knowledge of the subject matter. He/she gave incorrect responses to all parts of the question.

Adequate knowledge of the content of the topic was demonstrated by a few of the students. In part (a)(i), such students correctly defined the term price and managed to name the types of price determinants in part (a) (ii). However, the majority of them did not come up with all the targeted price determinants. In addition, how forces of supply and demands influence the price of agricultural goods were well elaborated by the majority of such students.

In part (b), the students correctly distinguished elasticity of demand from elasticity of supply. The responses given by the students in this group signify

possession of adequate knowledge of the topic of Price and its Determinants. Example of good responses in this question is indicated in Extract 5.2.

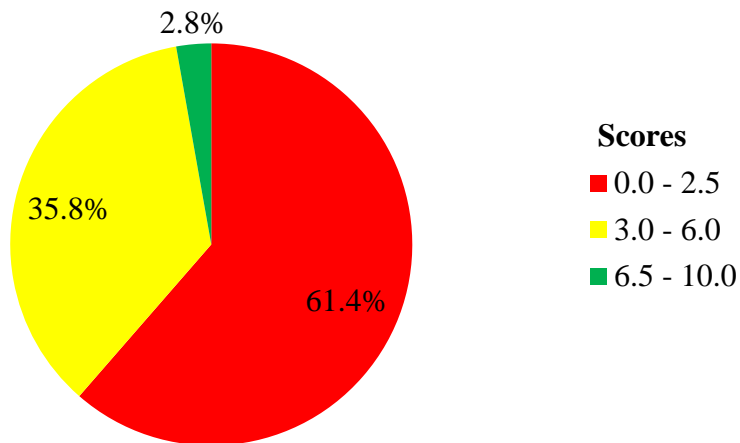
8. (a) (i) Define the term 'price'.  
This can be defined as the measure <sup>of</sup> value - per unit goods or service under a given market condition.
- (ii) Name six price determinants.
- Supply
  - Demand
  - Fixation by the government
  - Government levies.
  - Utility
  - Inflation.
- (iii) Elaborate how forces of supply and demand may influence price of an agricultural good.
- ⇒ Supply and demand may influence price - because If supply is low price is high and If demand is high price is low.
- (b) Differentiate between elasticity of demand and elasticity of supply.
- ⇒ Elasticity of demand - is the measures that - shows the quantity of goods or services demanded change when the price of goods or service change. while Elasticity of supply - is the measures that show the quantity of goods or service <sup>supplied</sup> change when the price of goods or service change.

Extract 5.2 is from a student who provided correct responses to almost all parts of the question; except part (a) (iii) concerning the influence of demand on the price of an agricultural good.

### 2.2.6 Question 9: Soil Formation

The question consisted of part (a) and (b). The students were required to (a) (i) Distinguish soil from soil profile (ii) Briefly explain the importance of soil profile in agriculture and (b) Name four horizons which are found in soil profile and in each item state its characteristics.

This question was attempted by 20,311(100%) students, of which,12,465 (61.4%) students scored from 0 to 2.5 marks, 7,276 (35.8%) students scored from 3 to 6 marks and 570 (2.8%) students scored from 6.5 to 10 marks, out of 10 marks allocated to the question. The performance of the students in the question was therefore average; as 7,846 (38.6%) students scored from 3 to 10 marks. Figure 9 depicts the students' scores in the question.



***Figure 9:The Students' Performance in Question 9***

In accordance to Figure 9, the distribution of the students' scores reveals average performance in the question. That is, only 38.6 percent of the students scored from 3 to 10 marks. This suggests that the majority of the students had partial knowledge of the concept of soil profile.

Most of the students who performed well in this question were able to respond correctly to part (a) (i) and (b) of the question but failed to respond correctly to part (a) (ii).

In part (a) (i), the students correctly distinguished soil from soil profile. Similarly, they managed to name the horizons of the soil profile and gave their characteristics in part (b). Correct responses to the question indicate that the students had good understanding of the meaning of soil, soil profile as well as the horizons in the soil profile.

However, in part (a) (ii), the majority of the students failed to explain the importance of soil profile in agriculture. Most of them explained the physical characteristics of soil such as aeration, water holding capacity and infiltration instead of explaining how the depths of the soil profile influence its physical and chemical properties. With this observation, the students seemed to lack knowledge of the importance of soil profile in agriculture. Good responses in the question are exemplified in Extract 6.1.

9. (a) (i) Distinguish soil from soil profile.
- Soil - is the upper thin layer <sup>of the earth crust</sup> in which plant and animal lives WHILE Soil profile - is the vertical section of the soil particles to the underlying rocks.
- (ii) Briefly explain the importance of the soil profile in agriculture.
- (i) It improve soil aeration.
  - (ii) It improve root penetration.
  - (iii) It improve soil structure.
  - (iv) It provide seed germination hence soil are important for plant grow.
  - (v) It influence soil formation.
- (b) Name four horizons which are found in a soil profile and in each state characteristic.
- (i) "O" Horizon - horizon of organic matter
  - (ii) "A" Horizon - horizon of Eluviation.
  - (iii) "B" Horizon - horizon of Illuviation
  - (iv) "C" Horizon - horizon of little weathering.

Extract 6.1 is a sample of good responses in the question. The student provided correct responses to all parts of the question.

The students, who performed poorly in this question, provided partially correct responses to part (a) (i) and (b) and failed to explain the importance of

soil profile to agriculture in part (a) (ii). The majority of them defined soil but failed to distinguish soil from soil profile; instead they defined the two terms separately.

In part (b), most of the students managed to name a few horizons in the soil profile but could not state the characteristics of each horizon. All these responses imply that the students had inadequate knowledge of the concept of soil profile.

In part (a) (ii), some of the students failed to understand the requirements of the question. Thus, most of them gave the importance of soil as: *providing nutrients and supports to plants*; which are incorrect. Extract 6.2 represents a sample of poor responses to the question.

9. (a) (i) Distinguish soil from soil profile.
- Soil: Is the thin top layer eaten off  
cut
- Soil Profile is the vertical of soil  
profile in which or is the vertical  
substance in the soil
- (ii) Briefly explain the importance of the soil profile in agriculture.
- It increases exchanged foreign  
It reduce soil erosion  
It provide capital  
It provide employment  
It provide soil catena
- (b) Name four horizons which are found in a soil profile and in each state its characteristic.
- (i) It Provide Capital
- (ii) It Provide employment
- (iii) It Provide Soil erosion
- (iv) It increases soil exchanged foreign

In Extract 6.2, the student lacked knowledge of the concept of soil profile, which resulted into providing incorrect responses to all parts of the question.



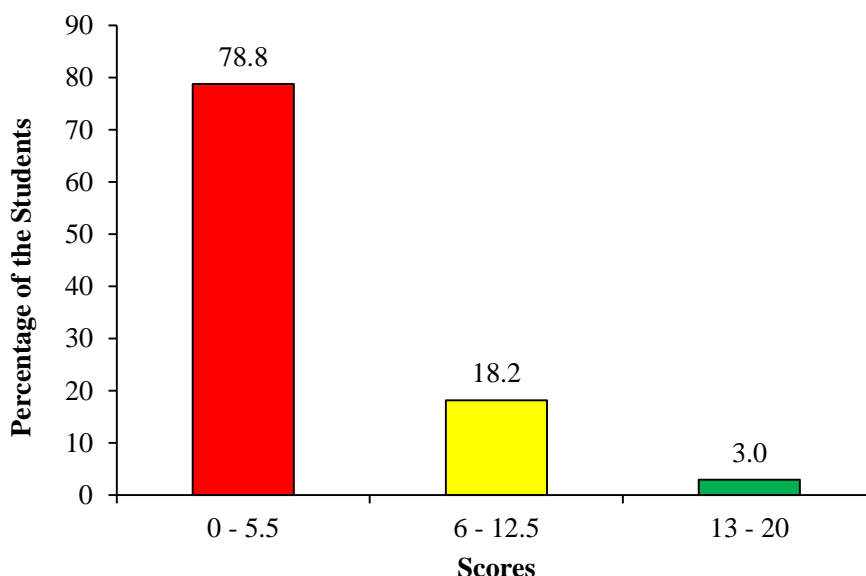
## 2.3 SECTION C: ESSAY TYPE QUESTION

### 2.3.1 Question 10: Crop Protection

In this question, the students were required to write an essay explaining five general crop protection methods in controlling weeds and give three operations that a farmer should adopt to control weeds mechanically.

The question was attempted by 20,308 (100%) students, of which, 15,996 (78.8%) students scored from 0 to 5.5 marks; 3,707 (18.2%) students scored from 6 to 12.5 marks; and 605 (3.0%) students scored from 13 to 20; out of 20 marks allocated to the question.

The data shows that the performance of the students in the question was poor; as only 4,312 (21.2%) students scored from 6 to 20 marks. Figure 10 illustrates the scores of the students in the question.



***Figure 10: The Students' Performance in Question 10***

Figure 10 reveals poor performance of the students in the question, going by the fact that only 21.2 percent of the students scored from 6 to 20 marks.

The poor performance of the students in the question is attributed to inadequate knowledge of weeds control methods, poor command of the English language and poor essay writing skills among the students.

It was observed that most of them failed to identify the methods and the operations required to control weeds mechanically and could not explain weeds control methods. Some of them only managed to name a few methods of controlling weeds such as, chemical and mechanical methods, yet failed to explain them.

Failure to explain points is attributed to poor command of the English language. Furthermore, the majority failed to organize their essays into introduction, main body and conclusion. In addition, they appeared to have responded to the question without concentrating on neither its requirements nor the principles of essay writing, which caused them to loose marks. Extract 7.1 is from a student who performed poorly in the question.

10. Explain the five general crop protection methods in controlling weeds and give three operations that a farmer should adopt to control weeds mechanically.

**Crop rotation** - is the system of growing different crop on the same piece of land in successive year after year.

**Weed** - is the unwanted

**Mulching** - is the covering of the soil surface with dry grasses.

**Price** - is the measure of value of good in a given market condition.

**Soil structure** - is the arrangement of the soil within the soil.

**Soil** - is the thin upper layer of the earth crust formed from the parent material in which living organism.

i/ clay soil

ii/ loam soil

iii/ sand soil.

**Horticulture** - is the production of vegetable fruits and flower.

i/ Poto - Pomology ii/ olericulture iii/ floriculture.

**Humus** - is the remains of plant and animal when died off and when decompose by bacteria.

**Soil fertility** - is the ability of the soil to produce nutrient for plant growth.

**Fertilizer rates** - is the quantity of fertilizer to apply on the farms.

**Manufacturing Inorganic fertilizer** - Are the fertilizer Manufacturing from the industries.

**Monocropping** - is the action of growing one crop in a field through the farming.

Intercropping-Is the growing of two or three  
 crop on the same piece of land.  
 Soil catan cateng.  
 Soil fertility.  
 Soil formation-Is the evolution of the soil  
 from the parent material.  
 It provide employment.  
 Liming-Is the application of the agriculture  
 lime to an acidic soil to reduce soil  
 acidity.  
 It provide capital  
 It provide employment.  
 To Maintaine soil fertility.  
 It help in soil conservation.  
 To improve soil structure.  
 Digability.  
 Spacing-Refers to the distance between successive  
 rows and individual plant within each  
 rows.  
 Wet-vegetative growth.  
 Soil fertility.  
 Amount of rainfall.  
 farm mechanization.

Extract 7.1, is from a student who demonstrated lack of knowledge of weeds  
 controlling methods. He/she provided irrelevant answers to the question.  
 The student also failed to organize his/her essay into three parts, namely  
 introduction, main body and conclusion.

Contrarily, the students who did well in this question had adequate knowledge  
 of weeds controlling methods, good command of the English language and  
 essay writing skills. Most of them managed to identify and explain the general  
 methods of controlling weeds and the operations that farmers should adopt to  
 control weeds mechanically. However, some of the students did not include  
 legislative as one of the methods of controlling weeds.

Moreover, students in this group demonstrated good command of the English  
 language; going by how they explained their points in detail. They also  
 managed to organize their essays into the three parts and hence scored high

marks. However, some of them had a problem of concluding their essays. Example of a good response in the question is shown in Extract 7.2.

10. Explain the five general crop protection methods in controlling weeds and give three operations that a farmer should adopt to control weeds mechanically.

#### ESSAY OF CROP PROTECTION METHODS OF CONTROLLING WEED

~~required~~ Weed is any plant which is growing in field or place that does not required. Crop protection is the science and practice of managing plant disease, weed and other pest that damage the agriculture crops and forestry. There are different methods that are used in crop protection as I have mentioned below which used in controlling weed :-

Chemical Weed Control Methods: This involve the use of weed killer or herbicides to control weed in the farmer. The farmer use this method mainly for controlling weed that are more difficult to control. Such weeds are Wild figger, Millet and Kikuyu grass. By using this method is easily to control them.

Biological Weed Control Method: This refers to the deliberate use of living organism to control a target weed. The farmer use this method to control weed in the farm by introducing an animal that will eat the required weed only in the farm and leave the crop safe too.

Cultural Weed Control Method: This involve create conditions which are unfavourable for survival of weed in the farm. They include timely planting, timely harvesting, Top dressing and Crop rotation which are done mainly for removing weeds in the farm.

Legislation and Quarantine Weed Control Method: These are the laws established by organs in the authorities to eradicate or minimize the importation that may be contaminated with weed. This is rely heavily on government to resist the importation of planting material that have weed inside.

Mechanical Weed Control Method: These involve the use of mechanical tools to control weeds. This methods are performed mainly by using mechanical or physical methods. They include slashing and mowing.

The operation that should be adopted by a farmer in order to control weed mechanically are as I will mentioned below:

Uprooting: This involve removal of weed from the farm by uprooting it by using hands. Through this method a farmer can remove weed from the farm and leave crops safely.

Slashing: This involve the use of slasher to removing weeds from the farm. The slasher is the device with long thin metal and sharpen into end edges that used to remove weed and other unwanted material from the farm.

Tillage or Cultivation: The tillage involve cultivating of land in the farm before you have planted any plant so that to eradicate weed firstly.

In conclusion, I want to advice the farmers in Tanzania to use this type of weed control because is so easy and need no advanced knowledge.

Extract 7.2 is a sample of good responses in the question. The student showed mastery of weeds controlling methods and organized his/her essay properly. He/she also used good English in responding to the question.

### **3.0 THE PERFORMANCE OF THE STUDENTS IN EACH TOPIC**

This section shows how the students performed in different topics. The performance in a topic is described as good, average or poor depending on the number of students who scored an average of 30 marks and above. If the percentage of students who scored 30 marks and above ranges from 0 to 29, the performance is poor, if it ranges from 30 to 64, the performance is average and if it is from 65 to 100; the performance is good. The students' performance in different topics in 2018 FTNA is shown in Appendix I whereby, green colour portrays topics with good performance; yellow colour indicates topics with average performance, while red colour denotes topics in which the students performed poorly.

The analysis shows that the students had good performance in a True or False question (91.8%) and multiple choice question (86.4%). However, the analysis shows that the performance of the students in True or False items question in the 2018 FTNA has decreased a little bit compared to the performance in the same in the performance in the same type of questions in the 2017 FTNA. The performance of the students in multiple choice items in the 2018 FTNA was also generally good and even increased a little bit compared to the 2017 FTNA. Moreover, matching item questions maintained average performance in both the 2017 FTNA and the 2018 FTNA. However, the essay type question which was based on the topic of Crop Protection and Principles of Crop Production remained poor in the 2018 FTNA and 2017 FTNA respectively.

The topics in which students had average performance include: Factors Affecting Livestock Production and Poultry Farming (60.8%), First Aid (in the Matching item question) (47%), Agricultural Development in Tanzania and Factors Affecting Crop Production in Tanzania (46.4%), The Agricultural Science Laboratory (44.8%) and Soil Formation (38.6%). However, the students performed poorly in the topics of Crop Protection (21.2%), Farm Workshop (14.4%) and Price and Its Determinants (11%).

Moreover, the topics of Farm Workshop from the field of Agricultural Mechanics and Price and Its Determinants from the field of Farming Business Economics maintained poor performance in the 2018 FTNA. The same was for the topics of Farm Workshop from the field of Agro Mechanics

and Factors of Production from the field of Farming Business Economics in 2017 FTNA.

The performance in the topics from the field of Crop Production increased in the 2018 FTNA to average, compared to the 2017 FTNA. Moreover, the performance of the topics from the field of Fundamentals of Agriculture has decreased to average in the 2018 FTNA, compared to the 2017 FTNA. There was also an increase of the performance in the topics of Factors Affecting Livestock Production and Poultry Farming from poor in the 2017 FTNA to average in the 2018 FTNA. Further, the performance in the topic of Soil Formation from the field of Soil Science increased from poor in the 2017 FTNA to average in the 2018 FTNA. The comparison of the performance in 2018 FTNA and 2017 is summarized in Appendix II.

## **4.0 CONCLUSION AND RECOMMENDATIONS**

### **4.1 Conclusion**

The students' general performance in 2018 FTNA in the subject was average. The analysis indicates that 6,818 (33.67%) students passed the assessment, while 13,429 (66.33%) students failed. However, there is an increase of 9.72 percent pass in 2018 FTNA compared to performance in 2017 FTNA.

The analysis also revealed that the students who did well in their assessment demonstrated adequate knowledge in different topics and adequate practical skills. Good English command also enabled them to understand the requirements of the questions and hence responded to the question in detail. Good essay organizational skills also enabled such students to perform well in the essay question.

On the other hand, several factors attributed to students' poor performance in their assessment. These factors include inadequate knowledge of the students in different topics; going by the fact that they provided irrelevant responses. Most of the students also demonstrated inadequate practical skills. Going by how they failed to show actual experience. Moreover, the provision of irrelevant answers by some of the students proves that they did not comprehend the requirements of the questions. Similarly, most of the students failed to elaborate points required by the questions because of the low command of the English language. The effect of this factor was more evident in the questions which required them to give detailed information, example in essay questions.



Furthermore, failure to organize essays into the three important parts namely, introduction, main body and conclusion were evident in some of the students' responses. The finding implies a need to teach the students writing compositions emphatically.

## **4.2 Recommendations**

It was found in the analysis that several factors contributed to students' poor performance in the assessment. In this regard, efforts are needed to improve the performance of form two students in future assessments. Some recommendations for improvement are:

- (a) teachers should be innovative and use techniques and strategies that suit different types of topics and learners
- (b) teachers should make effective use of the enabling infrastructures such as farm workshops in the teaching that involves practical sessions. This will enable students to acquire practical skills
- (c) teachers should set standard tests and examinations in order to acquaint students with assessment questions and formats
- (d) teachers should orient students on how to respond to different types of questions, especially the essay type questions
- (e) students should carefully read assessment questions in order to understand their requirements clearly before attempting them
- (f) students should have a habit of reading books (subject reference books) to enable them acquire knowledge and improve their command of the English language.
- (g) teachers and students should adopt and use information and communication technology to facilitate the teaching and learning process. They should equally acquire and use relevant materials in teaching and learning

Finally, the findings and recommendations in this report are based on the analysis of students' items responses of the 2018 FTNA in the Agricultural Science. The feedback is thus valuable to researchers and educational stakeholders in strengthening Tanzania's education system.

## Appendix I

### Performance of the Students in each Topic in the 2018 FTNA Agricultural Science

SN	Topic/Sub-Topic	Number of Question	Percentage of the Students who Scored the Average of 30% or Above	Comments
1.	True or False Items (Agricultural Science Laboratory, Farm Workshop, Principles of Crop Production, Horticultural crop Production, Poultry Farming)	1	91.8	Good
2.	Multiple Choice Items (First Aid, Factors Affecting Livestock Production in Tanzania, Farm Workshop, Principles of Crop Production, Factors of Production, Soil Formation, Farm Power, Farming Systems.	1	86.4	Good
3.	Factors Affecting Livestock Production and Poultry Farming	1	60.8	Good

<b>SN</b>	<b>Topic/Sub-Topic</b>	<b>Number of Question</b>	<b>Percentage of the Students who Scored the Average of 30% or Above</b>	<b>Comments</b>
4.	Matching Items (First Aid)	1	47	Average
5.	Agricultural Development and Factors Limiting Crop Production in Tanzania	1	46.4	Average
6.	Agricultural Science Laboratory	1	44.8	Average
7.	Soil Formation	1	38.6	Average
8.	Crop Protection	1	21.2	Weak
9.	Farm Workshop	1	14.4	Weak
10.	Price and Its Determinants	1	11	Weak

## Appendix II

### Comparison of the Students' Performance in Each Topic/Field in FTNA between 2017 and 2018

S/N	2018			2017		
	Topic/Sub Topic	Percentage of the Students who Scored the Average of 30% or Above	Comments	Topic/Sub Topic	Percentage of the Students who Scored the Average of 30% or Above	Comments
1.	True or False Items (Agricultural Science Laboratory, Farm Workshop, Principles of Crop Production, Horticultural crop Production, Poultry Farming)	91.8	Good	True or False Items (Principles of Livestock Production, Physical Properties of soil, The Farm Workshop, Price and Its Determinants, Cropping Systems and Planting Patterns)	96.09	Good
2.	Multiple Choice Items (First Aid, Factors Affecting Livestock Production in Tanzania, Farm Workshop, Principles of Crop Production, Factors of Production, Soil Formation, Farm Power, Farming Systems.	86.4	Good	Multiple Choice Items (The Farm Workshop, Tanzania Ecological Zones Related to Agricultural Production, Principles of Crop Production, Principles of Livestock Production, Physical Properties of soil, Price and Its Determinants,	75.59	Good

S/N	2018			2017		
	Topic/Sub Topic	Percentage of the Students who Scored the Average of 30% or Above	Comments	Topic/Sub Topic	Percentage of the Students who Scored the Average of 30% or Above	Comments
				Horticultural Crops Production, Poultry Farming)		
3.	Livestock Production (Factors Affecting Livestock Production and Poultry Farming)	60.8	Average	Livestock Production (Factors Affecting Livestock Production and Poultry Farming)	26.95	Weak
4.	Matching Items (First Aid)	47.0	Average	Matching Items (The Farm Workshop)	47.23	Average
5.	Crop Production (Factors Limiting Crop Production in Tanzania)	46.4	Average	Crop Production (Cropping Systems and Planting Patterns)	25.62	Weak
6.	Fundamentals of Agriculture (Agricultural Science Laboratory)	44.8	Average	Fundamentals of Agriculture (Agricultural Development in Tanzania)	72.14	Good
7.	Soil Science (Soil Formation)	38.6	Average	Soil Science (Soil Constituents and Soil Formation)	24.92	Weak
8.	Essay Question - Crop Production (Crop Protection)	21.2	Weak	Essay Question - Crop Production (Crop Principles of Crop Production)	12.91	Weak
9.	Agro-Mechanics (Farm Workshop)	14.4	Weak	Agro-Mechanics (Farm Workshop)	10.04	Weak

S/N	2018			2017		
	Topic/Sub Topic	Percentage of the Students who Scored the Average of 30% or Above	Comments	Topic/Sub Topic	Percentage of the Students who Scored the Average of 30% or Above	Comments
10.	Farming Business Economics (Price and Its Determinants)	11	Weak	Farming Business Economics (Factors of Production)	11	Weak

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