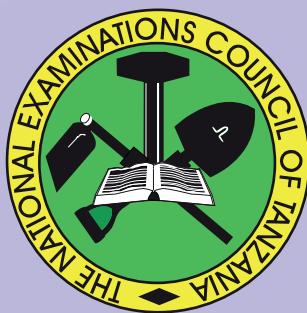


**THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA**



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

**013 GEOGRAPHY**

**THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA**



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

**013 GEOGRAPHY**

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## **FOREWORD**

The National Examinations Council of Tanzania would like to issue this report on the performance of students in Geography Subject Form Two National Assessment (FTNA) of 2018. The report has been prepared in order to provide feedback to students, teachers, parents, policy makers, stakeholders and community as whole about the performance of students in this subject.

The Form Two National Assessment is a formative evaluation which, apart from other things, portrays effectiveness and efficiency of the education system in general. In addition, the score obtained from this assessment is used as part of continuous assessment in the Certificate of Secondary Education Examination (CSEE).

Basically, the students' responses to the questions are the strong indicators of what the education system was able or unable to offer to the students. The report analyses the performance of the students and provides the reasons behind students' good or poor performance in each question. The feedback provided in this analysis will enable educational administrators, school managers, teachers and students to identify proper measures to be taken in order to improve students' performance in future assessments administered by the Council. The feedback will also help teachers and other education stakeholders to find appropriate measures of assisting students in challenging topics and concepts before they sit for the Certificate of Secondary Education Examination (CSEE).

The National Examinations Council of Tanzania will highly appreciate comments and suggestions from teachers, students and the public at large that can be used for improving future students' item response analysis reports.

Finally, the Council would like to express sincere appreciation to all examiners, shareholders and stakeholders who participated in preparing this report.



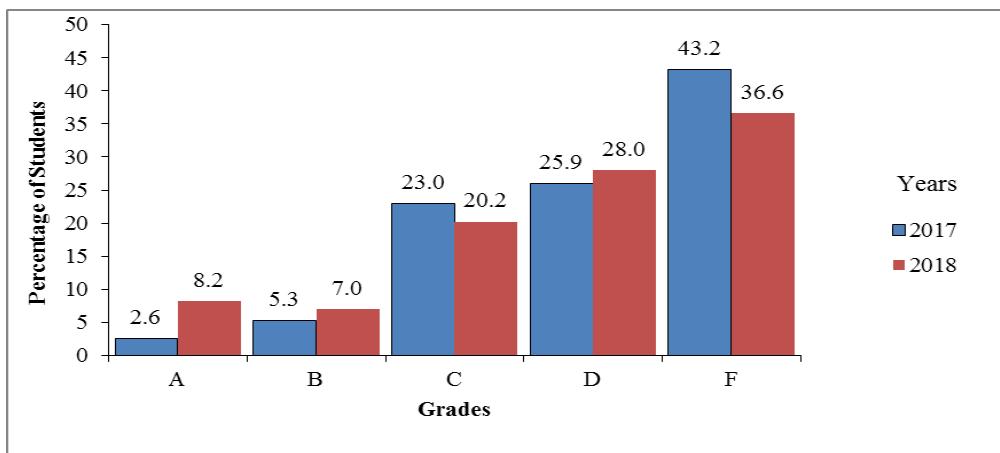
Dr. Charles E. Msonde  
**EXECUTIVE SECRETARY**

## 1.0 INTRODUCTION

This report is focused on the analysis of the students' item response for Form Two National Assessment (FTNA) in Geography subject for the year 2018. In this report, three categories of performance have been expressed in the following ways; the performance is termed to be good if the students score from 65 to 100 percent, average if the scores range from 30 to 64 and poor if the scores range from 0 to 29 percent. These categories are indicated by colours: green indicates good performance, yellow stands for an average performance and red denotes weak performance.

The assessment paper had three sections: A, B and C. Section A consisted of three compulsory questions. Question 1 carried 10 marks, question 2 carried 5 marks and question 3 carried 10 marks. The total marks for section A were 25. Section B consisted of 3 questions: questions 4, 5 and 6 and each carried 15 marks. The total marks for section B were 45. Section C had 4 optional questions and students were required to answer any two. Each question in this section carried 15 marks, making a total of 30 marks.

The number of students who sat for FTNA in November **2018** was **505,631** out of these, **63.37** percent passed and **36.6** percent failed by scoring grade F. This performance shows an increase by **6.57** percent compared to the **2017** FTNA performance in which **56.80** percent out of **485,608** students passed and **43.2** percent failed, as shown in the figure 1.



**Figure 1:** Comparison of Students' Performance in FTNA 2017 and 2018.

This report analyses each question by giving an overview of what the students were required to do, the general performance and the reasons for their performance. Finally, it provides a conclusion, recommendations and an attachment which shows the percentage of students' scores in each question. It is expected that through this report, necessary measures will be taken in order to improve the teaching and learning of Geography subject in Secondary schools.

## **2.0 ANALYSIS OF STUDENTS' PERFORMANCE IN EACH QUESTION**

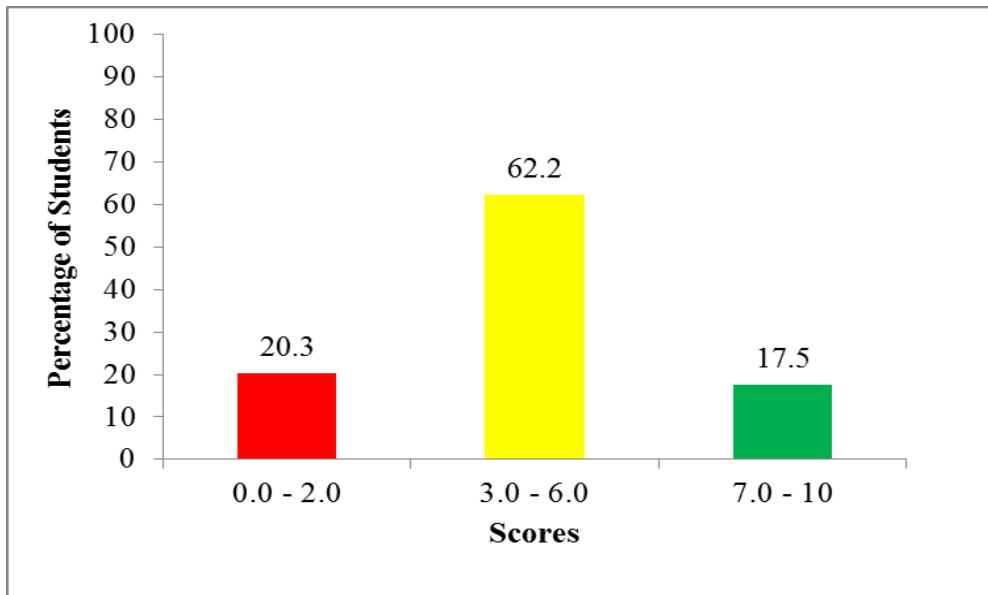
### **2.1 SECTION A: OBJECTIVE QUESTIONS**

There were three compulsory questions in this section. Question 1 consisted of 10 multiple-choice items carrying a total of 10 marks, while question 2 consisted of 5 matching items which carried a total of 5 marks. Question 3 had 10 true-false items, each carrying 1 mark and thus making a total of 10 marks.

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

The multiple choice items aimed at testing the students' knowledge of Physical, Human, Practical and Mathematical Geography. The students were required to choose one correct answer among the four given alternatives.

The question comprised of ten (10) multiple choice items set from Physical, Human, Practical and Mathematical Geography which covers form one and two syllabi. Students were required to choose the correct answer among the given alternatives. It was attempted by 505,631 (100%) students, whereby 20.3 percent scored from 0 to 2 marks of which 1.3 percent scored 0 mark, 62.2 percent scored from 3 to 6 marks and only 17.5 percent scored higher marks from 7 to 10 marks. Figure 2 illustrates the percentage of students' performance in question 1.



**Figure 2:** The Percentage of Students' Performance in Question 1.

Generally the performance in this question was good since the percentage of students who scored 30 percent and above was 79.7 percent. This performance indicates that, these students acquired sufficient knowledge in The topics of: *Solar System, Major Features of the Earth's Surface, Weather, Climate, Map Work and Sustainable Use of Forest Resources*. Extract 1.1 shows a sample of a good response from a student who got the ten responses correctly.

## Extract 2.1

### SECTION A (25 Marks)

Answer all questions in this section.

1. For each of the items (i)-(x), choose the correct answer from the given alternatives and write letter in the box provided.
- (i) The furthest position from the sun in the orbit of the earth is called  
A Equinox                      B Aphelion  
C Perihelion                    D Solstice                   B
- (ii) Which type of mountains results from the eruption of molten rocks from the earth interior?  
A Volcanic mountain.         B Block mountain.  
C Residual mountain.         D Fold mountain.             A
- (iii) Which one of the following instrument is **not** the component of a weather station?  
A Rain gauge.                   B Wind vane.  
C Microscope.                   D Stevenson screen.             C
- (iv) The time which is recorded along the same meridian is called  
A Local Mean Time            B Greenwich Mean Time  
C Great Mean time            D Standard Time.               A
- (v) Which type of climate among the following is different from the other?  
A Mediterranean.              B Savanna.  
C Hot desert.                   D Equatorial.                 C
- (vi) Which scale is the largest among the following?  
A 1:25,000.                    B 1:1,500,000.  
C 1:50,000.                    D 1:10,000.                 D
- (vii) Which one of the following features are correct set of the ocean floor?  
A Ridge, basin, plateau and waterfall.  
B Continental shelf, basin and waterfall.  
C Trench, continental shelf and continental slope.  
D Horst, plain and volcano.     C

(viii) A ship move to the west and cross the International Date Line, what happen in regard to time gained or lost?

- A No time is gained or lost      B One whole day is lost  
C One whole day is gained      D One whole day is repeated.

B

(ix) The height above the sea level is called

- A Altitude      B Contour  
C Latitude      D Ocean.

A

(x) Which one among of the following is **not** an importance value of forest?

- A Support life of varied species. B Modify climate.  
C Accelerates soil erosion. D Home for animals and birds.

C

Extract 1.1. A sample of correct responses.

Analysis shows that 20.3 percent of the students performed poorly. These students failed to provide the correct responses in 7 to 10 items in this question. The failure of these students indicates that some of them lacked sufficient knowledge on the subject matters, while others were unable to understand the demands of the question. Extract 1:2 shows a sample of poor responses from one of the students' script.

## Extract 1.2

### SECTION A (25 Marks)

Answer all questions in this section.

1. For each of the items (i)-(x), choose the correct answer from the given alternatives and write its letter in the box provided.

(i) The furthest position from the sun in the orbit of the earth is called

- A Equinox                      B Aphelion  
C Perihelion                    D Solstice

BA

(ii) Which type of mountains results from the eruption of molten rocks from the earth interior?

- A Volcanic mountain.         B Block mountain.  
C Residual mountain.         D Fold mountain.

BC

(iii) Which one of the following instrument is **not** the component of a weather station?

- A Rain gauge.                  B Wind vane.  
C Microscope.                  D Stevenson screen.

CA

(iv) The time which is recorded along the same meridian is called

- A Local Mean Time            B Greenwich Mean Time  
C Great Mean time            D Standard Time.

BA

(v) Which type of climate among the following is different from the other?

- A Mediterranean.             B Savanna.  
C Hot desert.                  D Equatorial.

AA

(vi) Which scale is the largest among the following?

- A 1:25,000.                    B 1:1,500,000.  
C 1:50,000.                    D 1:10,000.

CA

(vii) Which one of the following features are correct set of the ocean floor?

- A Ridge, basin, plateau and waterfall.  
B Continental shelf, basin and waterfall.  
C Trench, continental shelf and continental slope.  
D Horst, plain and volcano.

CA

(viii) A ship move to the west and cross the International Date Line, what happen in regard to time gained or lost?

- A No time is gained or lost      B One whole day is lost  
C One whole day is gained      D One whole day is repeated.

AB

(ix) The height above the sea level is called

- A Altitude      B Contour  
C Latitude      D Ocean.

BC

(x) Which one among of the following is **not** an importance value of forest?

- A Support life of varied species.      B Modify climate.  
C Accelerates soil erosion.      D Home for animals and birds.

DB

Extract 1.2: is a sample of poor responses from the student who failed to understand the demands of the question. She/he provided two alternatives instead of choosing one correct alternative.

The following were some strengths and weaknesses observed in the students' responses in each item.

In item (i) the students were required to identify the furthest position from the Sun in the orbit of the Earth. The students who chose the correct answer B. *Aphelion* had sufficient knowledge and skills on the concept of Solar System. They were able to differentiate between *aphelion* and *perihelion*, where by aphelion means the furthest position from the sun in the orbit of the earth, while C, Perihelion refers to the nearest position from the sun in the orbit of the earth. The students who chose A. *Equinox* lacked knowledge of the *aphelion* concept as *equinox* implies equal day and night at all latitudes. Furthermore, the students who opted for D, *Solstice* lacked knowledge of the concept, as solstice means time in a year when the sun is directly overhead at noon over the Tropic of Cancer or the Tropic of Capricorn and it occurs around 21<sup>st</sup> June and 22<sup>nd</sup> December.

Item (ii) required the students to identify the type of mountain which results from the eruption of molten rocks from the earth's interior. The students who chose the correct answer A *Volcanic Mountain* were knowledgeable on the concept of volcanic mountains. These mountains are formed from the piling up and cooling of hot molten lava and ashes that are thrown out from the earth's interior after volcanic eruption. On the other hand, students who chose

B *Block Mountain* failed to understand that Block Mountains are formed when a movement in the earth's crust forces the rocks to move up. These results in enormous cracks or faults which are formed when the sets of faults run parallel to each other and the ground is forced up. Moreover, students who opted for C *Residual Mountain* lacked the knowledge of volcanic mountain as residual mountains are formed due to prolonged denudation involving removing weaker rocks from the land. Those students who chose D *Fold Mountain* were incorrect because this is formed due to wrinkling of the earth's crust.

Item (iii) demanded the students to identify the instrument which is not a component of weather station. The students who chose the correct answer C *Microscope* had relevant knowledge of the components of weather station. *Microscope* is an instrument used for viewing very small object such as mineral samples or plant cells, and not one of the components of weather station. The students who opted for the incorrect answers A, *Rain gauge*, B *Wind Vane* and D *Stevenson Screen* lacked knowledge of components of weather station.

Item (iv) required the students to identify the time recorded along the same meridian. The students who chose the correct answer A *Local Mean Time* were knowledgeable about longitude and time. Local time is a time recorded along the same longitude; in real sense all meridians are lines of longitude. The analysis shows that students who opted for alternative B, C, D and E lacked knowledge of longitude and time. The students who opted for B *Greenwich Mean Time* failed to differentiate the time recorded along the same meridian and that which is recorded along Greenwich meridian. Those students who selected response C *Great Mean Time* lacked knowledge of the subject matter as the term is not related to the subject time zones. In other hand, those students who chose distractor D *Standard Time* lacked knowledge as standard time is the adopted time over a country or part (zone) of a country (time zone), and used for the whole area in order to avoid the inconveniences resulting from the use of local time.

Item (v) required the students to identify the type of climate which is different from the climates given in the item. The students who opted for the correct answer C *Hot Desert* had knowledge of the type of climate found in the Western margins of landmasses located between latitude  $20^{\circ}$  and  $30^{\circ}$  North and South of the Equator. It is characterized by little rain, high diurnal

temperatures and strong wind in some cases, for example the Sahara, Kalahari, Namibia, California and Atacama. The students who opted for A *Mediterranean* lacked the understanding of hot desert climate. Mediterranean climate experiences rain during winter season and dry season during summer. Similarly, B *Savannah* is referred to Tropical Continental climate which is found between  $5^{\circ}$  and  $20^{\circ}$  North and South of the Equator. Furthermore, the students who opted for A, B and D were not aware that Mediterranean and Savannah climates have some of the characteristics of Equatorial climate. In real sense *Equatorial* climate is characterized by high temperature, heavy rain fall and low annual range of temperature between  $2^{\circ}\text{C}$  - $3^{\circ}\text{C}$ , which resembles in some cases with *Mediterranean* and *Savannah*" contrary to hot desert.

Item (vi) required the students to identify the largest scale of a map among others. Those students who chose correct answer D "1: 10,000" had knowledge on the ways of expressing scale on a map and their features. The students who chose the incorrect answer A "1:25,000" lacked knowledge and skills of classifying scales according to their sizes, as when the denominator is large it implies a small scale and if the denominator is small, it implies a large scale. Essentially the larger the denominator the smaller the area. Also the students who chose B 1:500,000 and C 1:50,000 were attracted by the big denominators; hence they failed to understand the ruling principle of denominator and numerator which are expressed in mathematical language.

Item (vii) required students to provide the correct set of the ocean floor features. The students who chose the correct answer C *Trench, Continental Shelf, Continental Slope*, were knowledgeable on the ocean floor features like oceanic island and oceanic ridge, deep sea and ocean plain. The students who opted for incorrect answer A *Ridge, Basin, Plateau and Waterfall* lacked the knowledge about the ocean floor features. They were not able to differentiate the features found on the earth's surface like ridges, basins, plateaus and waterfalls and those found in the ocean floor like trench, continental shelf and continental slope. Also students who chose distractor B *Continental Shelf, Basin and Waterfall* were having poor knowledge about ocean floor features since basin and waterfall features are not found in the ocean. Lastly, those students who opted for D *Horst, Plain and Volcano* lacked knowledge on features of ocean floor because horst and plain are features formed on the surface of the earth while volcano is the molten materials.

Item (viii) demanded students to identify what happens in regard to time gained or lost when a ship moves to the West and crosses the International Date Line. The students who chose the correct answer B *One whole day is lost* were having sufficient knowledge about the International Date Line (IDL), since if one travels Eastwards and crosses the date line, will gain a day. If one travels Westwards across the line, one will lose a day. The students who opted for A *No time is gained or lost* lacked knowledge on the functioning of International Date Line. Similar to those who opted for distractors C and D *One whole day is gained* and *one whole day is repeated* respectively all lacked knowledge about longitude and time.

Item (ix) required the students to identify the term which describes the height above the sea level. The students who chose the correct answer A *Altitude* were conversant with term asked. Since altitude is a height of a place on the earth's surface or in the atmosphere, above mean sea level. The students who chose the distractor B *Contou* misinterpreted the two terms or concepts (altitude and contour). Contours are the lines drawn on a map joining all places with the same height above the sea level. The students who were attracted by C *Latitude* were also having insufficient knowledge about the latitude. Latitude is angular distance North or South of the Equator measured in degrees, minutes and seconds. Moreover, the students who opted incorrect answer D *Ocean* had inadequate knowledge on the topic of the major features of the earth's surface. The Ocean is a large body of water which occupies 71% of the earth's surface, examples of oceans are Indian Ocean, Atlantic Ocean and Pacific Ocean.

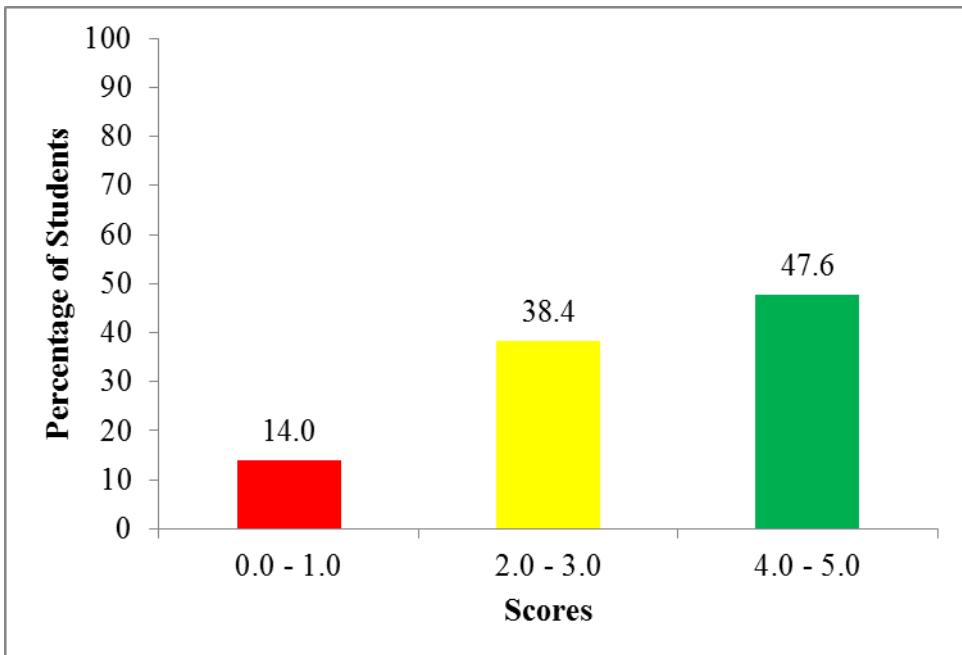
Item (x) demanded the students to identify a statement which is not an importance value of forests. The students who opted for the correct answer C “*Accelerate soil erosion*” were knowledgeable of the importance values of forests. A forest is a continuous growth of trees and under growths covering extensive areas of land; they can be natural forests or planted forests. One among the values of forests is to control soil erosion. Those who chose other distractors A “*support life of varied species*”, B “*modify climate*”, and D “*home for animals and birds*” lacked the knowledge on the values of forests in the society, since all the three alternative statements describe the importance value of forests to man and other species. The students who chose any of these alternatives had insufficient knowledge of the subject matter and the requirements of this question.

## 2.1.2 Question 2: Matching Items

The question was compulsory and it required the students to match the five items in **List A** with the correct responses from **List B** by writing a letter of the correct answer in the space provided. **List A** contained descriptions of solar system concepts while **List B** consisted of solar system concepts. Each item carried 01 mark, making a total of five (5) marks.

<b>LIST A</b>	<b>LIST B</b>
(i) A time where a date is changed or where calendar days begin.	A Great circle
(ii) The time when the length of a day and night are equal overall places on the earth's surface.	B Solar system
(iii) The phenomena which occurs when the moon pass between the sun and the earth.	C Solar eclipse
(iv) The arrangement of the planets and solid objects in space in relation to the sun.	D Moon eclipse
(v) The lines used in plotting routes for ship crossing large stretches of ocean water and aircraft.	E Revolution of the sun
	F International Date Line
	G Equinox

The question was attempted by 505,623 (99.9%) students out of which 14 percent scored from 0 to 1 mark of which 3.9 percent scored 0 mark, 38.4 percent scored from 2 to 3 marks, 47.6 percent scored from 3.5 to 5 marks and ten students skipped the question. The performance of students in this question was generally good as 86 percent scored 30 percent and above. Figure 3 illustrates the students' performance in this question.



**Figure 3: The Percentage of Students' Performance in Question 2**

Item (i) required students to match the descriptions of a line where a date is changed, or where calendar days begin with the correct concept. The students who managed to choose correct response F *International Date Line* had sufficient knowledge on the concept of International Date Line (IDL). The students who opted for A *Great circles* failed to realize that great circles can refer to all meridians and the equator, while *International Date Line* only follows the 180 degree of meridian. Moreover, the students who chose *Revolution of the Sun* were attracted by it because it causes varying length of day and night at different times of the year and seasons of a year. Those who chose B *Solar system*, C *Solar Eclipse*, D *Moon Eclipse* and G *Equinox* had insufficient knowledge of the term which refers to a line where a date is changed or where calendar days begin, thus they chose any of these responses by guessing.

Item (ii) demanded students to identify the time when the length of the day and night are equal over all places on the earth's surface. The correct response G *Equinox* was chosen by the students who had adequate knowledge of the concept of the apparent movement of the overhead sun. In real sense, the great circle is an imaginary circle on the earth's surface that has the same circumference; also it refers to all meridians and the equator. The students who chose incorrect responses failed to distinguish

the diverse functioning of all meridians and the equator. Moreover, the students who had inadequate knowledge chose irrelevant distractors by guessing.

Item (iii) required the students to identify the phenomena which occurs when the moon passes between the sun and the earth, thereby totally or partially blocking the sunlight. The correct response C *Solar eclipse* was matched correctly by the students who had sufficient knowledge on the incidence of the moon passing between the sun and the earth. However, those students who chose D *Moon eclipse* failed to differentiate between solar eclipse and moon eclipse. In real sense, moon (lunar) eclipse occurs when the earth passes between the moon and sun, thus casting its shadow on the moon. Moreover, due to limited knowledge on solar eclipse, some students chose unrelated responses.

Item (iv) required the students to identify the concept which describes the arrangement of the planets and solid objects in the space in relation to the distance from the sun. Some students managed to match the correct option B *Solar System*, since they were conversant with the concept of solar system in general. However, some were attracted by the distractor C *Solar eclipse*. They failed to differentiate the concepts of solar system and solar eclipse as the incident occurs when the moon passes between the earth and the sun, thus casting its shadow over the earth. Furthermore, students who chose distractor A *Great Circles*, D *Moon eclipse*, E *Revolution of the Sun*, F *International Date Line* and G *Equinox* lacked knowledge of solar system and its components.

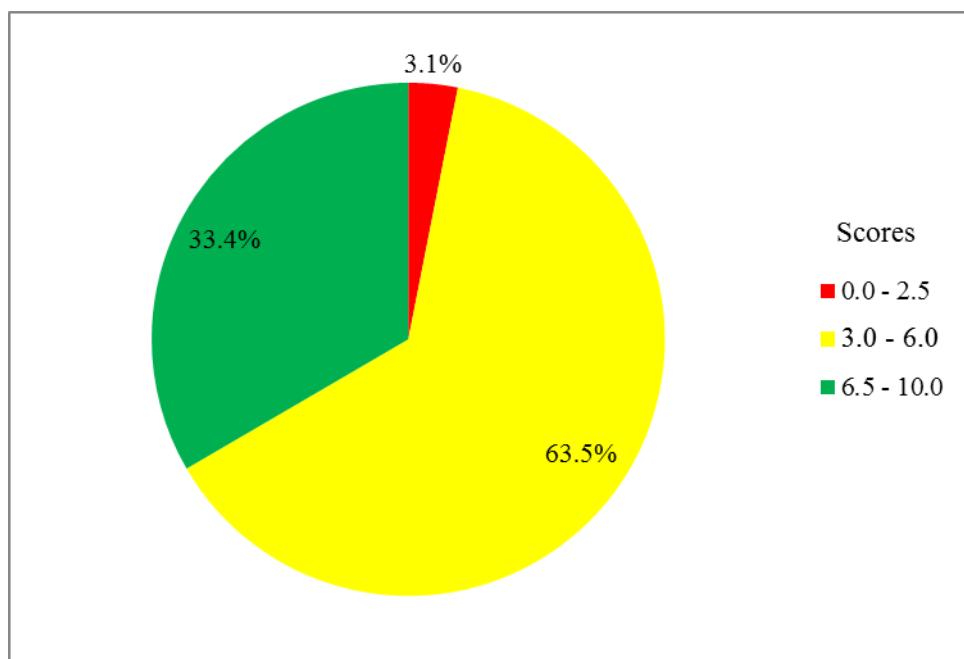
Item (v) required the students to identify the lines used in plotting routes for ship crossing large stretches of ocean waters and aircraft. The students who managed to choose the correct response A *Great circles* had sufficient knowledge on the concept of great circle; which is an imaginary circle on the earth's surface that has the same circumference as the earth where ships and aeroplane use as their route ways to guide their paths. However, some students who opted for the distractor F *International Date Line*, failed to figure out that the concept, means imaginary line across the globe from North Pole to South Pole where the clock is adjusted 24 hours ahead or backwards upon crossing. Other related choices such as B *Solar System*, C *Solar eclipse*, D *Moon eclipse*, E *Revolution of the Sun*, and G *Equinox*

were chosen by the students who failed to relate the concepts with correct descriptions.

### 2.1.3 Question 3: True and False Items

The question was also compulsory and it consisted of ten (10) True or False items (i-x). Each item carried one (1) mark, making a total of ten (10) marks. The items were set from various topics of form one and two syllabi. The students were required to write **TRUE** if the statement given was correct or **FALSE** if the statement was not correct.

The question was attempted by 505,625 (99.9%) students, of which 3.1 percent scored from 0 to 2.5 marks, 63.5 percent scored from 3 to 6 marks, 33.4 percent scored from 6.5 to 10 marks, and 8 students skipped the question. The analysis shows that students' performance in this question was good as 96.9 percent of the students scored 30 percent and above. Figure 4 illustrates the students' performance in this question.



*Figure 4: The Percentage of Students' Performance in Question 3.*

Figure 4 shows that 96.9 percent of all the students were able to score 3 marks and above of all the marks allocated in question 3. These students showed appropriate knowledge of the subject matter. Furthermore, these students understand the demands of the questions asked. The items which were not

answered correctly by most students were item (i) and (vii). This might be due to the fact that these questions were in negative statements hence they might have confused them. Extract 3.1 shows a sample of good responses.

### Extract 3.1

3. In each of the following items (i-x), write **True** if the statement is correct or **False** if the statement is not correct.
- (i) Industrialization is **not** an agent of environmental pollution. **FALSE**.....
  - (ii) One among the major characteristics of equatorial climate is high temperature and heavy rainfall throughout of the year. **TRUE**.....
  - (iii) The continent that is crossed by both tropics of Cancer and Capricorn is Africa. **TRUE**.....
  - (iv) The side of mountain that faces the direction of the wind is known as Leeward side. **FALSE**.....
  - (v) Asteroids are solid heavenly bodies revolving around the sun mostly between Mars and Jupiter. **TRUE**.....
  - (vi) Lake Victoria, Kyoga, Superior and Chad are among the Rift valley lakes. **FALSE**.....
  - (vii) Population pressures especially in big cities in Tanzania do **not** accelerates the improvement of social services **FALSE**.....
  - (viii) The use of solar energy minimizes environmental degradation. **TRUE**.....
  - (ix) Representative Fraction (RF) is a way of expressing the scale of map by the use of word statement. **FALSE**.....
  - (x) Equinoxes means equal day and night hours at all latitude. **TRUE**.....

Extract 3.1 A sample of a good responses from one of the students.

Responses from the students who scored 0 mark showed lack of knowledge in the subject matter, misconceived the demands of the question due to incompetence in English language. For example one student provided correct responses in all parts by using Kiswahili Language, while the medium of instruction in Geography subject is English Language. Extract 3.2 shows a sample of student's responses who provided correct responses by using Kiswahili language.

### Extract 3.2

3. In each of the following items (i-x), write **True** if the statement is correct or **False** if the statement is not correct.
- (i) Industrialization is **not** an agent of environmental pollution. ....*Si kweli*.....
  - (ii) One among the major characteristics of equatorial climate is high temperature and heavy rainfall throughout of the year. ....*Kweli*.....
  - (iii) The continent that is crossed by both tropics of Cancer and Capricorn is Africa. ....*Kweli*.....
  - (iv) The side of mountain that faces the direction of the wind is known as Leeward side. ....*Si kweli*.....
  - (v) Asteroids are solid heavenly bodies revolving around the sun mostly between Mars and Jupiter. ....*Kweli*.....
  - (vi) Lake Victoria, Kyoga, Superior and Chad are among the Rift valley lakes. ....*Si kweli*.....
  - (vii) Population pressures especially in big cities in Tanzania do **not** accelerates the improvement of social services. ....*Si kweli*.....
  - (viii) The use of solar energy minimizes environmental degradation. ....*Kweli*.....
  - (ix) Representative Fraction (RF) is a way of expressing the scale of map by the use of word statement. ....*Si kweli*.....
  - (x) Equinoxes means equal day and night hours at all latitude. ....*Kweli*.....

Extract 3.2 shows a sample of the student's responses who provided correct responses by using Kiswahili Language instead of English Language.

The following were some strengths and weaknesses observed in the students' responses to this question:

In item (i) the statement given was: *Industrialization is not an agent of environmental pollution*. It intended to test the knowledge of students if they understand the causes of environmental pollution. The correct responses was *FALSE* as was chosen by students with sufficient knowledge on the negative impacts of manufacturing industries, and were able to understand the demands of the question. In real sense, manufacturing industries have been known to cause environmental pollution through emission of gases. The gas may lead to the formation of acid rain which

corrodes roofs and poisons soils. Water released from sewage systems, oils outflow and toxic chemicals pollute the environment. Moreover, the students who wrote *TRUE* lacked the knowledge of negative effects of industrialization and the major causatives of environmental pollution and they misconceived the demands of the question.

Item (ii) was intended to test the students' knowledge in identifying characteristics of equatorial climate. The statement was: *One among the major characteristics of equatorial climate is high temperature and heavy rainfall throughout the year.* The correct response was *TRUE* which was chosen by students who had adequate knowledge of the major features of equatorial climate. The climate is characterised by average daily temperature (about  $27^{\circ}\text{C}$ ), annual range of temperature is about  $2^{\circ}\text{C}$  to  $3^{\circ}\text{C}$ , and there is no distinct dry seasons. The students who wrote *FALSE* showed lack of knowledge of the characteristics of equatorial climate.

Item (iii) tested students' knowledge of the position of Africa continent. The statement was: *The continent that is crossed by both Tropics of Cancer and Capricorn is Africa.* The students who wrote the correct answer *TRUE* had sufficient knowledge of the African continent which extends from  $35^{\circ}\text{S}$  and  $37^{\circ}\text{N}$ , and therefore crossed by both tropics of cancer  $23^{\circ}\text{N}$  and Capricorn  $23^{\circ}\text{S}$  located in South or North of the Equator respectively. The students who wrote *FALSE* had insufficient knowledge on the two tropics and African continent as a whole.

Item (iv) aimed at testing knowledge of student on relief or orographic rain formation. The statement given was: *The side of mountain that faces the direction of wind is known as Leeward side.* The students who had knowledge of the correct term (windward side) provided the correct answer *FALSE*. Moreover, the students who wrote *TRUE* lacked reliable knowledge of the concept *Leeward* which refers to the side of the mountain which does not face the direction of the winds, thus moist wind deviates upward which make it difficult for the area to get rainfall.

Item (v) aimed to test students' knowledge of *asteroids* as heavenly bodies. The statement given was: *Asteroids are solid heavenly bodies revolving around the sun mostly between Mars and Jupiter.* The correct answer was *TRUE* which was chosen by knowledgeable students who were conversant

with the asteroids descriptions. The students who wrote *FALSE* showed insufficient knowledge about heavenly bodies in the solar system.

Item (vi) tested the knowledge of students on the features of the earth's surface especially the basins and rift valleys. The statement given was: *Lake Victoria, Kyoga, Superior and Chad are among the Rift valley lakes.* The students who wrote *FALSE* were familiar with the topic on the major features of the Earth's surface, specifically basins and rift valleys. The basin is a broad shallow saucer-shaped depression enclosed by high land with or without an outlet to the sea like Victoria basin, Chad basin and Kalahari basin, while rift valley is formed when the ground between two sets of faults sink down of the crust, or depressed between parallel faults. Also trenches which are formed by rift valleys when filled with water may form rift valley lakes like, Lake Tanganyika in Tanzania. The students who wrote incorrect answer *TRUE* seemed to have inadequate knowledge on the major features of the earth and its land forms particularly basins and rift valleys.

Item (vii) tested knowledge of students on identifying the impact of population pressures in big cities. The statement was given that: *Population pressures especially in big cities in Tanzania do not accelerate the improvement of social services.* The correct answer chosen by the students who had reliable knowledge of the subject matter was *FALSE*. In real sense, population pressure in big cities is one among the driving forces that *accelerate the improvement of social services*, contrary to the negative statement of this item. The students who provided the incorrect answer "*TRUE*" some of them lacked knowledge on the influence of population pressure in the improvement of social services in big cities in Tanzania, while others misconceived the demands of the question.

Item (viii) tested the knowledge of students in environmental friendly energy resources. The statement stated that: *The use of solar energy minimizes environmental degradation.* The students who provided the correct answer *TRUE* had sufficient knowledge of the importance of solar energy as one of the environmental friendly energy resources to human being and other species on the earth. Solar energy is the energy harnessed from the sunrays to execute diverse activities such as producing electricity, which can be used for domestic and industrial activities. The students who wrote *FALSE* lacked knowledge of the positive effects of solar energy use.

Item (ix) tested the knowledge of students in different ways of expressing scales of a map. The statement was: *Representative Fraction (RF) is a way of expressing the scale of the map by the use of word statement.* The students who wrote *FALSE* were knowledgeable about the ways of expressing scales on the map by the use of words which is termed as “statement scale”, contrary to the statement of the question. Moreover, the students who wrote *TRUE* had insufficient knowledge of the classification of scales on the basis of the way they are expressed.

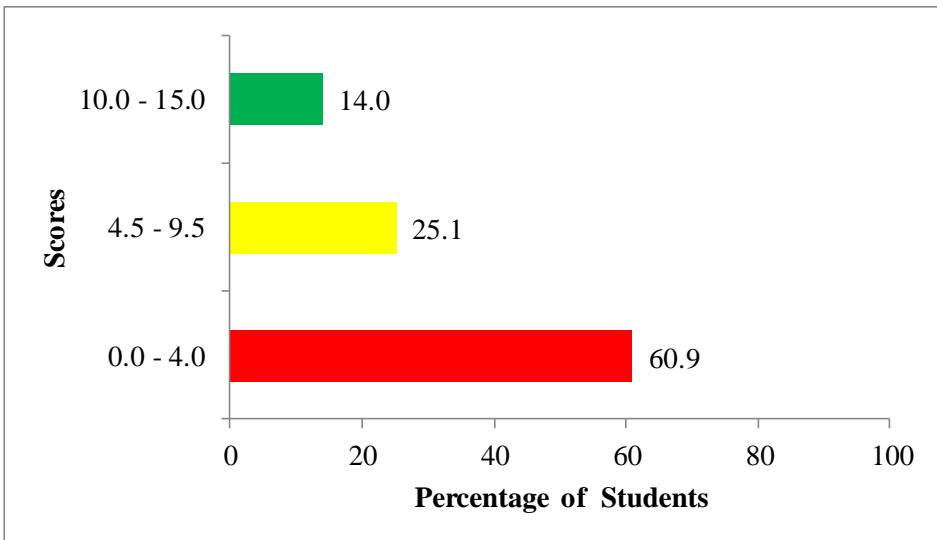
The last item (x) was aimed to test students’ knowledge of equinox. The statement was: *Equinox means equal day and night hours at all latitude.* The correct answer was *TRUE* which was selected by students who had enough knowledge of the time (date). Equinox occurs when the sun is directly overhead at the equator at noon around March 21<sup>st</sup> and September 23<sup>rd</sup>. The students who wrote *FALSE* lacked knowledge of the concept and its effects.

## 2.2 SECTION B: SHORT ANSWER QUESTIONS

### 2.2.1 Question 4: Human Activities

This question had four main parts (a), (b), (c) and (d). The students were required to: (a) briefly explain the concept of human activities, (b) name four types of primary human activities (c) differentiate between primary and secondary human activities giving two examples and (d) name six benefits of livestock keeping in Tanzania. Marks allocated for each part were (a) 2, (b) 4, (c) 3, and (d) 6 making a total of 15 Marks.

The question was attempted by 505,603 (99.9%) students of which 60.9 percent scored from 0 to 4 marks of which 27.6 percent scored 0 mark, 25.1 percent scored from 4.5 to 9.6 marks, 14 percent scored from 10 to 15 marks and 0.1 percent skipped this question. The performance of the students in this question was generally poor as 60.9 percent scored below 30 percent. Figure 5 illustrates the students’ performance in this question.



**Figure 5:** The Percentage of Students' Performance in Question 4.

Figure 4 shows that 60.9 percent of all the students who attempted this question scored below 04 marks out of 15 allocated to this question.

The students (27.4%) who scored 0 mark lacked the knowledge of the subject matter, while others misinterpreted the requirements of the item, thus provided irrelevant answers. Part (a) tested the knowledge of students on the concept of human activities. The item required the students to briefly explain the concept of human activities. The examples of some incorrect responses from the students were such as:

- (i) “Human activities is the agriculture activity that involves the cultivation of crops and keeping of animals and the other”
- (ii) “Human activities are pastoral farming and livestock keeping”.
- (iii) “Human activities is the environmental degradation”
- (iv) “Human activities is the transfer of information from one place to another”
- (v) “Human activities are all crops”

These responses reveal that there was misinterpretation of the item demands as some students defined the concept of agriculture, other listed the terms related to human activities, and others listed the types of human activities. In part (b), the students provided wrong names of the four types of primary human activities. For example, one student wrote: “Teacher, Pupils, School and

*officer*", and the other mentioned types of livestock keeping systems such as *pastoralism, sedentary, ranching and nomadism*.

In part (c), the students failed to differentiate primary activities from secondary activities. For example, one student provided the difference between small scale agriculture and large scale agriculture. Others just copied some statements from alternatives given in question 1 and wrote them as their responses.

In part (d), some students presented unrelated concepts which did not refer to the benefits of livestock keeping in Tanzania. For example, one student provided the following responses; "*The lines used in plotting routes for ship crossing large stretches of ocean waters and aircraft*", "*the arrangement of the planets and solid objects in space in relation to the sun*", "*the line where a date is changed or where calendar days begin*" The student copied the items in question 1, 2 and 3 and wrote them as answers. Extract 4.1 is sample of irrelevant responses from the student.

### Extract 4.1

4. (a) Briefly explain the concept of human activities.

.....Human activities.....is any activities which enable.....  
.....human life.....

- (b) Name four types of primary human activities.

(i) Mental primary human activities

(ii) Physical primary human activities

(iii) Works of primary human activities

(iv) Sedentary primary human activities

- (c) Giving two examples, differentiate between primary and secondary human activities.

Primary and secondary

It the good of human are human is stage  
of the human ana parer  
nile and pen Book and work

- (d) Name six benefits of livestock keeping in Tanzania.

(i) Availability of Capital (Bush fallowing)

(ii) Availability of raw material

(iii) Availability of labour

(iv) For Good transport and communication system

Extract 4.1 is a sample of responses from the student who provided irrelevant answers in all parts of the question; furthermore the student was poor in English language.

Further analysis shows that the students who scored from 0.5 to 4 marks failed to respond correctly as required to most of the items due to lack of knowledge of terminologies tested, misconceived the demands of the question and poor

proficiency in English Language. Some students who scored few marks responded on few items. For example, in item (a) they wrote the meaning of work which is *the activity involving physical effort; or it refers to any task done by man*. instead of providing the concept of human activities which is, *any activity which a person does to his own purpose. Example of human activities are agriculture, fishing, mining, industry etc.*" Moreover, in item (c), some students failed to differentiate primary from secondary activities, while others failed to provide examples of primary and secondary activities. In item (b), some students named few correct types of primary activities, while others mixed correct and incorrect responses.

Additionally, the students' responses indicate that those who had average scores of 4.5 to 9.5 marks managed to answer some items of the question correctly especially in item (a) and (b). In item (a), some students were able to explain the concept of human activities correctly, while others gave partial explanations. In item (b), some students provided few correct responses while others left some blanks without giving any responses. In item (c), some students failed to give two examples of primary and secondary human activities while others managed. Furthermore, most students in item (d) were able to provide correctly six benefits of livestock keeping in Tanzania. For example, most of them named six benefits as: "*helps to get beef or meat, getting milk, getting income, skin of cattle, making utensils from bones of cattle, provision of food, employment to some labour, provision of basic requirement and source of foreign currency*".

On the other hand, the students who scored higher marks (10 to 15) had good knowledge of the subject matter, and understood the demands of the question. In item (a), the students managed to explain the concept of human activities such as: *The activities performed by human to earn their living. Human activities are categorised into three types which are primary human activities which involve extraction of raw materials from their source, secondary activities which involve converting raw materials into finished goods and tertiary activities which involve the provision of services. Examples of activities are mining, agriculture and trade.* In items (b), students named four types of primary human activities such as "*mining, agricultural, fishing and forestry*". In item (c), students managed to give two examples as well as the differences between primary and secondary human activities: *primary activities are activities which involves extraction of raw materials directly from their nature, example, mining which involves extraction of minerals directly*

from their deposits (mines) and agriculture which involves cultivation of crops from the land. Furthermore, secondary activities involve transformation of raw materials into finished goods. For example, changing cotton fibre as raw material into clothes which is a finished good. Converting pyrethrum flowers into insecticides which is used to kill insects such as mosquitoes, cockroach. Secondary activities involve manufacturing industry which transforms raw materials into finished goods. Similarly, students in item (d) gave six benefits of livestock keeping in Tanzania correctly. Extract 4.2 is a sample of response from the student who managed to provide correct answer in this question.

#### Extract 4.2

4. (a) Briefly explain the concept of human activities.

Human activities are the activities that are done by people which is a source of income to the person and the country. There are different forms of human activities these include agriculture, mining and industries.

- (b) Name four types of primary human activities.

(i) Mining deals with extracting minerals from the ground.

(ii) Fishing deals with catching of fish from their source for usage.

(iii) Farming deals with cultivating crops from the ground.

(iv) Livestock keeping deals with keeping of animals for the products that they produce.

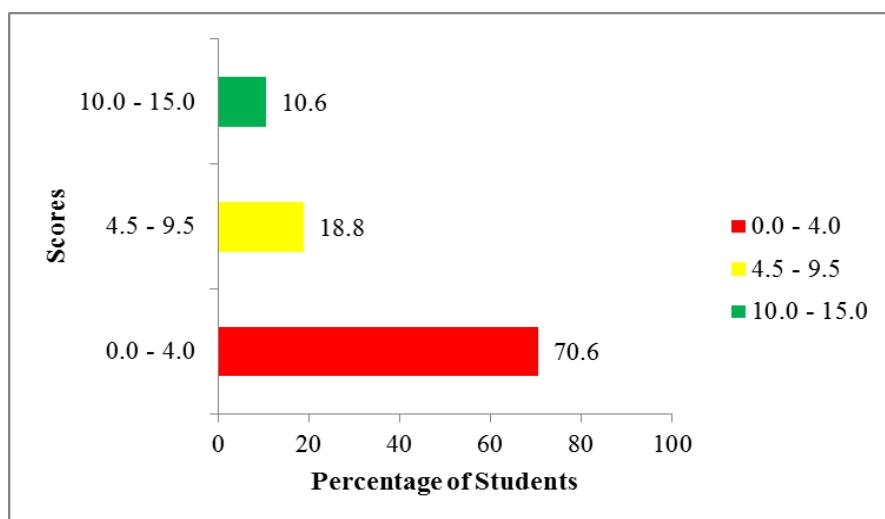
- (c) Giving two examples, differentiate between primary and secondary human activities.
- Primary human activities are those that involve the extracting of raw materials from the original place such activities include mining and fishing. While the secondary activities are those that modify the raw materials to finished goods that can be used in different areas such activities include manufacturing industries and mining industry and textile industry
- (d) Name six benefits of livestock keeping in Tanzania.
- (i) Production of food to the societies. Example meat and milk which are very nutritious
  - (ii) Source of income to the society due to the selling of the livestock
  - (iii) Source of employment to people. Those which take care of the livestock when grazing
  - (iv) Leads to development of other sectors such as Tourism
  - (v) Source of foreign exchange. Some of the products are sent to other nation for sale

Extract 4.2 is a response from the student who provided relevant answer in all parts of the question

## 2.2.2 Question 5: Map Work

This question was compulsory and tested students' skills in map reading. The question had five items (a), (b), (c), (d) and (e). In item (a) the students were required to name the type of map scale which was used to present the map. Students in item (b) were required to mention three ways which can be used to measure the distance of the road on the sketch map. In item (c), students were required to describe three important basic components of the map. In item (d) students were to convert the given scale into a statement scale, and in item (e) students were required to mention three methods which can be used to calculate the area of the forest shown on the sketched map. The marks allocated for each item were (a) 01, (b) 4.5(c) 03 (d) 02 and (e) 4.5 making a total of 15 marks.

The analysis showed that the question was attempted by 505,610 (99.9%) students. It ranked the second in terms of poor performance as only 29.4 percent of the students who opted for it scored 30 percent and above, 70.6 percent scored from 0 to 04 marks, 18.8 percent scored from 4.5 to 9.5 marks, 10.6 percent scored from 10 to 15 marks. Figure 6 illustrates the students' performance in this question.



**Figure 6:** The Percentage of Students' Performance in Question 5.

Figure 5 shows poor performance in this question as 70.6 percent of all the students scored 0 to 4 marks.

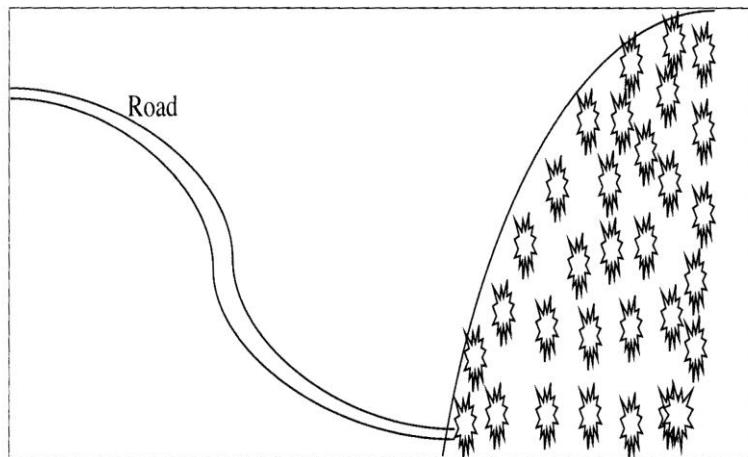
The students who scored 0 marks some had poor knowledge and skills in map work topic while others failed to understand the demands of the question. For example, in item (a), some failed to name the types of scale which was used to represent the map. They provided irrelevant responses such as *small scale, large scale and medium as well linear and statement scale*, contrary to the demands of the items.

In items (b) the students were not able to mention three ways which can be used to measure the distance of the road on the sketch map instead they mentioned irrelevant answers such as *Longitude, Latitude, International Date Line and Equinox*. Others provided ways of representing scale on the map such as *statement scale, linear scale and ratio scale*.

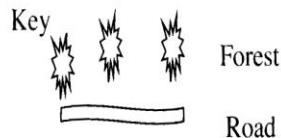
In item (c) most of the students failed to described three basic important of the components of a map. For example, one student provided incorrect responses such as; *small scale, medium and large scale* which are types of scale while others copied some words from the question paper such as *continental shelf, continental slope and waterfall*" and wrote them as responses. Items (d), tested the ability of the students to convert scales of a map given, this part was skipped by most of the students as it required application of mathematical skills. Most students failed to convert the given scale to statement scale correctly possibly due to incompetence in applying mathematical skills. Extract 5.1 is a sample of response from the student who provided irrelevant answers in this question.

### Extract 5.1

5. Study the sketch map provided and answer the questions that follow:



Scale 1:50,000



(a) Name the types of scale which has been used to represent this map.

Medium scale.....  
.....  
.....

(b) Mention three ways which can be used to measure the distance of the road in the sketch map..

(i) Representative Fraction.....  
.....  
.....

(ii) Statement Scale.....

(c) Briefly describe three important basic components of a map.

(i).....peace of paper.....

(ii).....To calculate area on the map.....

(iii).....Statement scale.....

(d) Convert the given scale into a statement.

Liner scale.....

Statement scale.....

Representative scale.....

(e) Mention three methods which can be used to calculate the area of the forest shown on the sketched map.

(i).....To calculate area on the map.....

(ii).....To calculate distance on the map.....

(iii).....To Used to draw map.....

Extract 5.1 is a sample of responses from the student who provided incorrect answers in this question.

Further analysis from the students' responses shows that the students who scored 0.5 to 4 marks failed to respond correctly to some parts of the question due to inadequate knowledge. For example, item (a) some student managed to name the correct type of scale which was used to represent map such as: *Representative Fraction (RF) Scale*", in item (b), the student mentioned three ways which can be used to measure the distance of the road on the sketch map such as "*by the use of paper method and by using a pair of divider*". In item (c), most students showed partial knowledge of basic

map components as they provided few correct responses. In item (d), some students were able to convert the ratio scale to a statement scale correctly, while others failed to due to inadequate skills in map scale conversion. In item (e), most students failed to respond correctly as required to all the needed points as a result they scored few marks.

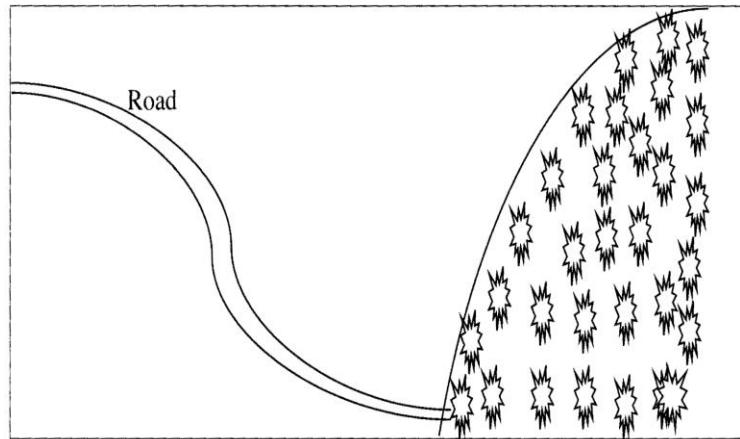
Moreover, the students' response indicates that those who scored from 4.5 to 9.5 marks were able to give correct responses in some items of the question. For instance in item (a), some of them managed to name the correct type of scale which was used to represent the conveyed map, while others skipped or gave incorrect answers. Moreover, in item (b) most students mixed correct and incorrect answers out of three ways which can be used to measure the distance of the road on the sketch map such as "*bearing, pair of divider, latitude and longitude*". In item (c), some students described three important basic components of a map correctly such as "*title, key, margin, north direction and scale which help to identify what has been represented on a map.*" In item (d), only few students managed to convert the given scale into a statement scale. In item (e), most students mentioned all the three methods which could be used to calculate the area of the forest shown on the sketched map such as *by using division, by using square, and using a string*.

The students who relatively scored higher (10 to 15 marks) had adequate knowledge of the subject matter as they were able to understand the sketch map, and answered well all the questions provided. For example, in item (a) they provided correct answers such as "*The type of scale used to represents the sketch map provided is Representative Fraction (RF)*". In item (b), they were able to mention three ways which can be used to measure the distance of the road on sketch map, such as "*by using a string, by using a piece of paper and a pair of divider*" as well as in item (c) where they described three important basic components of the map such as "*key, title and scale*" correctly. In item (d) the students managed to convert the given scale into a statement such as; *one centimeter on the map represents a half kilometer on the ground*. Nevertheless, in item (e) the students gave all the three methods which can be used to calculate the area of the forest shown on the sketched map such as "*division method, square method and strip method*" "correctly.

Variations of the students' scores in this question depended on their ability in responding. Extract 5.2 is a sample of good responses.

### Extract 5.2

5. Study the sketch map provided and answer the questions that follow:



Scale 1:50,000

Key



Forest



Road

- (a) Name the types of scale which has been used to represent this map.

.....  
.....  
.....

- (b) Mention three ways which can be used to measure the distance of the road in the sketch map.

(i).....  
.....

(ii).....  
.....

(iii).....  
.....

- (c) Briefly describe three important basic components of a map.
- Title or Heading - which represent what is the map about. It explains in short the contents of the map.
  - Key: Explains more about features represented on a map using different signs, symbols and also colours or shapes.
  - Scale: Is the ratio between the map distance and the Ground distance. It can be represented by Statement, Linear or Representative fraction.

- (d) Convert the given scale into a statement.

$1\text{km} = 100,000\text{cm}$  : One centimeter on the ground  
 $? \times 5000\text{cm}$  represents zero point five  
 $\frac{5000}{10000} = 0.5\text{km}$ . Kilometers on the ground

- (e) Mention three methods which can be used to calculate the area of the forest shown on the sketched map.

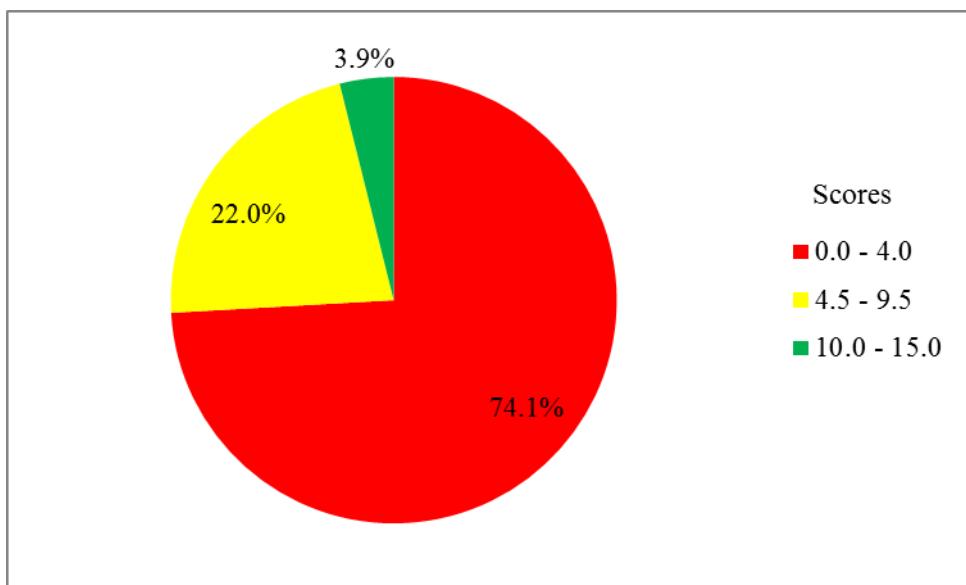
- By striping method - It involves drawing of rectangles on the area to be measured.
- By division method - It involves dividing the area into regular shapes or figures.
- By tracing method - It involves finding the area using grid boxes.

Extract 5.2 is a sample of a good response from the student who provided relevant answers in all the five items of the question.

### 2.2.3 Question 6: Climate

The question consisted of five (5) parts in which the students were required to study the climatic table provided: (a) suggest the type of climate of station Y, (b) calculate the daily mean temperature (c) find the mean annual temperature (d) find the annual rainfall for station Y, and (e) mention any four crops that can be grown in station Y. The total marks allocated for this question were 15.

The question was attempted by 505,484 (99.99%) students, and it was among the questions with poor performance in this paper. The analysis of the students' performance shows that only 25.9 percent of the students who attempted it scored 30 percent and above. The analysis of students' performance shows that 74.1 percent scored from 0 to 4 marks, 22 percent scored from 4.5 to 9 marks, 3.9 percent scored from 10 to 15 marks, and 0.1 percent skipped it. Figure 7 illustrates the performance.



**Figure 7:** The Percentage of Students' Performance in Question 6.

The students (29.4%) who scored 0 mark showed lack of knowledge on the subject matter as they failed to provide correct answers in all items of the question.

In item (a) they failed to suggest the relevant type of climate for station Y. For example, one student copied climatic data from the climatic table provided and presented them as answers such as, *Tempo<sup>0</sup>C 26 and Rainfall (mm)*.

Moreover, the incorrect responses provided were characterized by grammatical errors.

Item (b), (c), and (d) aimed at testing students' mathematical skills in calculating daily mean temperature, mean annual temperature and annual rain fall for station Y by using climatic data provided in the climatic table. Majority of students failed to supply correct answers, while others skipped the items. This indicates that the students lacked mathematical skills required to compute and provide relevant responses in items (b), (c) and (d).

Moreover, item (e) was meant to test the students' knowledge on crops grown in different climatic regions. Analysis of students' performance revealed that some of these students lacked knowledge of the subject matter, while others misconceived the items demands and gave irrelevant responses. For instance, one student mentioned types of minerals such as *coal, minerals, petroleum and iron* instead of correct crops grown in that area like: *banana, coffee, rice, yams cocoa, palm, rubber tea and maize*. Extract 6.1 shows poor responses from the student.

## Extract 6.1

6. Study the following climatic table and answer the questions that follow.

Station Y	J	F	M	A	M	J	J	A	S	O	N	D
Month	22.5	25	25	25.5	25.5	25.5	25.5	25.5	26.1	26.1	26.1	26.1
Temp. $^{\circ}$ C	198	340	431	350	280	230	160	71	15	12	15	66

(a) Suggest the type of climate of station Y..... Mediterranean climate.....

(b) Calculate the daily mean temperature.

$$\begin{array}{r} \text{Soln.} \\ \text{HT - LT} \\ 26.1 - 22.5 \\ \hline 3.6 \end{array}$$

The daily mean temperature is  $3.6^{\circ}\text{C}$ .

(c) Find the mean annual temperature.

$$\begin{array}{r} \text{Soln.} \\ \text{HT - LT} \\ 26.1 - 22.5 \\ \hline 3.6 \end{array}$$

The mean annual temperature is  $3.6^{\circ}\text{C}$ .

(d) Find the annual rainfall for station Y.

$$\begin{array}{r} \text{Soln.} \\ \text{HR - LR} \\ 431 - 12 \\ \hline 419 \end{array}$$

The annual rainfall for Station Y = 419 mm.

(e) Mention any four crops that can be grown in station Y.

- i) Coal
- ii) Mineral salt
- iii) Petroleum

Extract 6.1 is a response from the student who provided irrelevant answers in all the items of the question.

The students who scored from 0.5 to 4 marks had partial knowledge of some items of the question. In item (a), some students gave correct answers by suggesting the type of climate for station Y as “*Equatorial climate*”, while others provided wrong answers.

In items (b), (c), and (d), some students managed to calculate the daily mean temperature, mean annual temperature and annual rainfall correctly. However, others misconceived the item’s demands hence they supplied wrong answers. For example, instead of calculating the daily mean temperature some calculated mean annual temperature.

In item (e), most students managed to mention few correct crops that can be grown in station Y, these students mixed correct and incorrect answers for the crops which are grown in Station Y. Some students’ responses were “*maize, banana, cassava and millet*”, “*cotton, millet, coffee and maize*”, “*maize, rice, wheat and yams*”.

More analysis indicates that the students who scored from 4.5 to 9.5 marks had moderate knowledge of the subject matter and reliable mathematical skills which enabled them to provide correct answers to some item of the question in (a), (b), (c) and (d). In addition, students’ responses showed in item (e) that, some students managed to mention either two or three crops that can be grown in station Y, while other mixed correct and incorrect responses.

Students who scored from 10 to 15 marks showed sufficient knowledge and skills on the subject matter tested. They were able to provided correct responses in item (a) by suggesting the correct type of climate for station Y that is “*equatorial climate*”. In item (b), (c), (d), some students managed to calculate “*daily mean temperature*”, “*mean annual temperature*” and “*annual rainfall for station Y*” correctly. Other students could not provide all correct responses. However, in item (e) they managed to mention all four crops that can be grown in station Y such as “*rubber, cocoa, palm oil, banana, cassava, sugarcane and maize*”. Extract 6.2 is a sample of relevant response in this question.

## Extract 6.2

6. Study the following climatic table and answer the questions that follow.

Station Y												
Month	J	F	M	A	M	J	J	A	S	O	N	D
Temp. $^{\circ}$ C	22.5	25	25	25.5	25.5	25.5	25.5	25.5	26.1	26.1	26.1	26.1
Rainfall (mm)	198	340	431	350	280	230	160	71	15	12	15	66

(a) Suggest the type of climate of station Y..... Equatorial Climate

(b) Calculate the daily mean temperature.

$$\text{Daily mean} = \frac{\text{The highest temperature} + \text{The lowest Temperature}}{2}$$

$$= \frac{26.1 + 24.3}{2}$$

$$= \frac{48.6}{2}$$

$$= 24.3$$

$$= 24.3^{\circ}\text{C}$$

(c) Find the mean annual temperature.

Soln: all Sum of temperature divide by 12

$$25 + 25 + 22.5 + 25.5 + 25.5 + 25.5 + 25.5 + 25.5 + 26.1 + 26.1 + 26.1 + 26.1 = 304.4$$

$$12 \overline{)304.4} \quad 304.4 \quad 12 = 25.366$$

$$- 248 \quad \quad \quad - 248 \quad = 25.37^{\circ}\text{C}$$

$$96 \quad \quad \quad 96 \quad 96$$

(d) Find the annual rainfall for station Y.

Soln: All the total rainfall In the year:

$$15 + 15 + 12 + 16 + 71 + 160 + 230 + 340 + 198 + 431 + 350 + 280 = 2168\text{mm}$$

$$\therefore = 2168\text{mm}$$

(e) Mention any four crops that can be grown in station Y.

Sugarcane, Maize, Cassava, banana

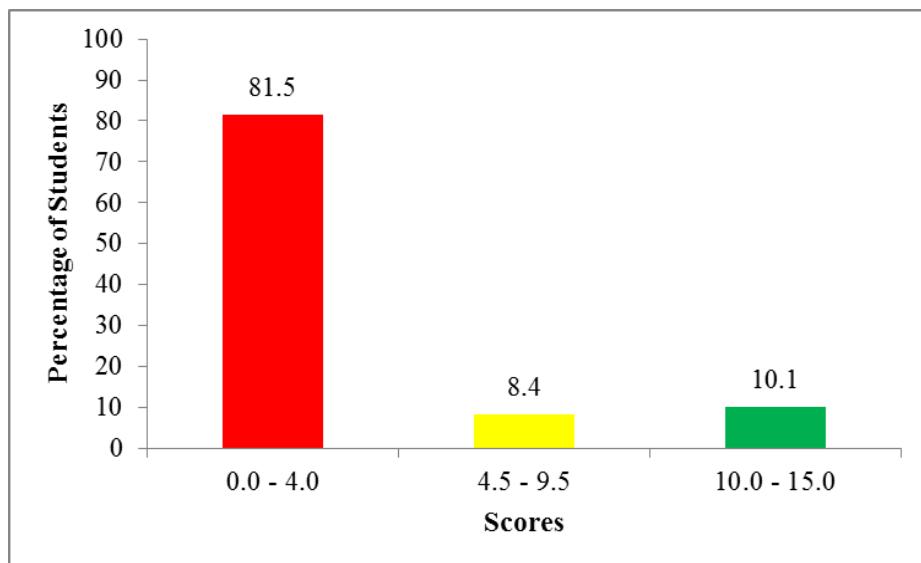
Extract 6.2 A sample of responses from the student who provided correct answers to all items (a), (b), (c), (d) and (e).

## 2.3 SECTION C: REGIONAL FOCAL STUDIES

### 2.3.1 Question 7: Water Management for Economic Development

The question required the students to describe any six consequences of water shortage to the communities.

This was the least opted question since only 103,386 (20.4%) of the students attempted it. Statistical analysis revealed that 81.5 percent of student scored from 0 to 4 marks of which 62.2 percent scored 0 mark, 8.4 percent scored from 4.5 to 9.6 marks, and 10.1 percent scored from 10 to 15 marks. The performance of students in this question was also poor as 81.5 percent scored below 30 percent. Figure 8 illustrates the performance in this question.



**Figure 8:** The Percentage of Students' Performance in Question 7

The students who scored 0 mark had poor knowledge of the subject matter. This was evidenced by irrelevant responses they provided contrary to the requirements of the question. Some of these students could neither write the introduction, main body nor conclusion in their responses, while others provided the wrong responses. Furthermore, some students copied some sentences from other questions and wrote them as answers to the question instead of describing the consequences of water shortage to the communities. Others skipped the question. Extract 7.1 is a sample of a response from the student who misinterpreted the question.

### Extract 7.1

7.1 Water shortage - It is the problem of water without any ample supply and that include in transport in agriculture etc.

There are importance of water shortage in a tandem that are include,

It is used in transport - water shortage it is used in developed or transport that include ship, boat and boats and the water used to transport goods or people from one place to another through water.

It is used in irrigation - water are very important because it is used in irrigation of an agricultural for example of agriculture the sugar cane, millet, maize... and so on.

It is used in domestic - that include the washing clothes, taking bath, cooking, drinking, to clean the houses, the water used in many industries and at home.

It is used in cooling machines - The water is used in many activities in manufacturing industries also water in industries it is used in production of goods also water it is used.

Extract 7.1 is sample of an irrelevant response from script of a student in this question.

The students who scored 0.5 to 4 marks showed partial knowledge of the subject matter as they were able to provide the correct introduction and few consequences of water shortage to the communities. Their responses revealed lack of essay writing skills and insufficient knowledge on the concept tested as well as poor mastery of English Language. However, the majority of these students scored 0.5 to 1 mark in the introductory part, but they failed to answer the question accordingly. Some of their responses shows misinterpretations of the question because they described irrelevant points such as “it is used for irrigation, it is used for domestic purpose, it is used for electric power, it is used in transport and it is used in cooling engine of machines”. Others provided unrelated responses which were neither uses nor consequences of water shortages to the communities like “dropout of school of children, failure in

*exams to girls children, loss of time to keep girl children cleanliness”, attack by wild animals which can cause death or damage and” cause fired or exhausted”.*

On the other hand, the students who scored average marks (4.5 to 9.5) understood the requirements of the question, and had some knowledge on the topic tested: “Water Management for Economic Development”. The analysis from students’ scripts showed that some students were able to point out most of the consequences of water shortage correctly, but they failed to describe them in accordance with the demands of the question. For example, one student mentioned consequences of water shortage as: *decrease in hydroelectric power generation*, yet the descriptions provided were based on how hydroelectric power is formed. Another student mentioned decrease of agricultural production, but the descriptions based on the types of agriculture, instead of how water shortage affects agriculture. However, most of these students adhered to essay writing skills.

Further analysis shows that the responses of the students who scored from 10 to 15 marks were characterized by relevant descriptions of points. The students responses in this group indicated that they had good essay writing skills, adequate knowledge of the topic of “Water Management and for Economic Development”, and they were able to understand the demands of the question. Example of the students responses; *“decline of agricultural activities, decline of industrial activities, decline of hydro-electric power plants, stagnation of construction activities and poor health among the members of the community”*. One student responded differently with the same ideas such as *“decline of the human activities, decline of industrial sector, decline in production of electricity, loss of bio diversities, decline of water transport system and conflicts for the sources of water among the members of community”*. However, the variation of the scores was determined by relevant descriptions of the points. Extract 7.2 is a sample of a good response in this question.

## Extract 7.2

7. Describe six consequence of water shortage to the communities.

Water is a basic requirement needed by human beings for various purposes. And its purposes vary depending on the area it is used for. For example, navigation, fishing, salt making, generation of hydroelectric power and others such as irrigation; hence its shortage is different from society to society. Water is obtained from the sources such as oceans, lakes, rivers, dams, wells, springs and underground water. The following are consequences of water shortage to the community:-

Long distance walking in search for water. For example a village could be located ten kilometres from a water source. This means they either have to buy water at a very higher price or go for a long distance searching for water. This leads to female children dropping out of school so as to go and fetch water for household chores, marriage misunderstandings because women take too long on their way, but also learning of bad morals due to meeting with various new people.

Conflicts between nomads and farmers, or farmer and pastoralists. Nomads and pastoralists both keep domestic animals especially cattle, goats and sheep. Due to the shortage of water farmers are forced to irrigate their farms regularly. Once the livestock need water to drink the herds will take them near the river where the animals can destroy the irrigation canal, pollute

7. the water or go into the farms of other people and tend to destroy their crops. This leads to arguments and conflicts between farmers and nomads.

Decline of fishing industry: This is the industry that deals very much with exploiting, processing and transporting fish as a source of income activity. Fish are water organisms that depend everything from the water sources for their survival. Hence increase of various human activities which lead to the shortage of water, it is likely for the fish to decline and hence the industry declines at large, this leads to nation loss and under development.

Decline of hydro-electric power activities: This is the type of power generated from the energy of moving water. On a water fall, water is directed in the power house which contains turbines. The higher and the more the energy of the moving water the faster the turbines rotate, the higher electricity produced. Hence shortage of water leads to low water regimes in the water sources thereby reducing the amount of electricity produced by the transmission system. This leads to electricity deficiency in the society.

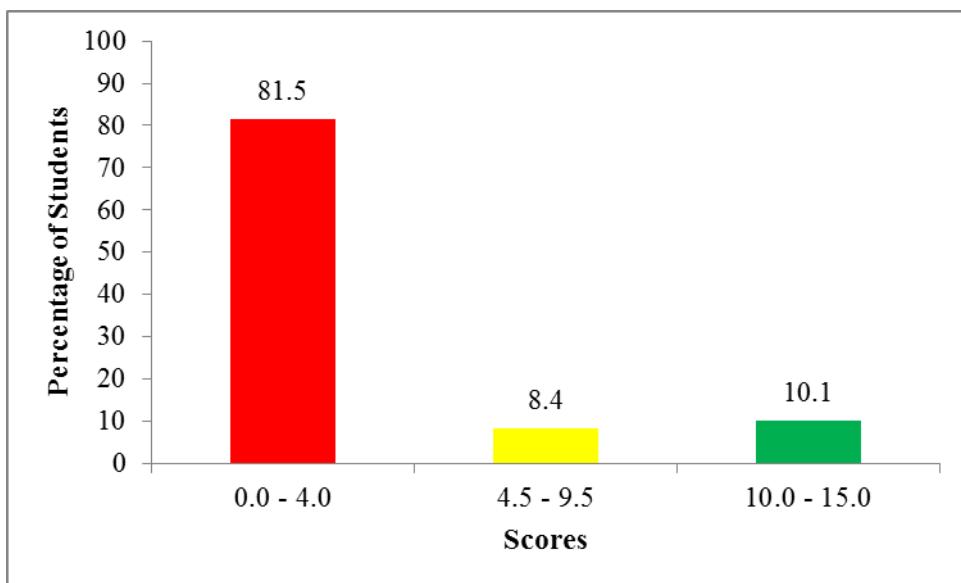
Decline of various industrial processes: There are many industrial processes that depend on the presence of enough water supply to be run effectively. For example mining industry needs water to purify the minerals, hence shortage of enough water supply means decline of the mining industry. Machine parts get hotter as they operate, hence they need water to be cooled, but also some manufactured goods such as biscuits and cakes need to be mixed with water. Therefore water shortage leads to their decline.

Extract 7.2 is a sample of good responses from the student who did well in question 7.

### 2.3.2 Question 8: Sustainable Mining

The question assessed students' ability to explain five problems caused by mining industry in Tanzania.

This question was opted for by a good number of students 319,699 (63.2%) of which 68.1 percent scored from 0 to 4 marks, 19.9 percent scored from 4.5 to 9.5 marks, and 12.2 percent scored from 10 to 15 marks. The performance of the students in this question was poor as 81.6 percent scored below 30 marks. Figure 9 illustrates the students' performance in this question.



**Figure 9:** The Percentage of Students' Performance in Question 8.

Lack of concentration in identifying the needs of the question, and poor knowledge of the subject matter made a total of 107,242 (33.5%) students to score 0 mark. The analysis of the students' responses shows that they misconceived the question demands hence provided irrelevant responses. For example, one of the students explained the importance of mining instead of problems caused by mining activities. Another explained the problems facing mining activities such as *low technology, shortage of power, lack of capital, skilled labour and poor infrastructure system*. Furthermore, some students in this group had poor essay writing skills as well as poor English Language proficient. Extract 8.1 is a sample of irrelevant response from a script of students in this question.

### **Extract 8.1**

8/ Explain five problems caused by mining industry in Tanzania.

I/ poor Skills Labour.....

II/ Poor transport and communication System.....

III/ Poor government policies.....

IV/ Poor storage facilities.....

V/ Poor market Support.....

Extract 8.1 is a sample of a response from the student who misinterpreted the demands of the question He/ she listed problems facing mining activities instead of problems caused by mining activities. Furthermore the student showed poor essay writing skills with poor English language command.

Similarly, the students who scored from 0.5 to 4 marks showed insufficient knowledge of the subject matter. For example, some were able to give relevant introductions and outlined few correct responses as per question and others mixed incorrect and correct responses. Moreover, some students managed to provide relevant introductions though they explained irrelevant points while others provided few relevant points with relevant conclusion. Extract 8.2 is a sample of a poor response from the student with correct introduction but irrelevant points in this question.

## Extract 8.2

- 8) Mining is the process of extracting mineral from the ground. There are two types of mining metal mineral and non-metal mineral. The following are the problem caused by mining industry.
- ..... poor technology, people live in Tanzania this service is low so me I say poor technology is the one of problem caused by mining industry in Tanzania.
- ..... lack of capital, In Tanzania this is the big problem caused by mining industry in Tanzania so me I say this is the one of problem caused by mining industry in Tanzania.
- ..... poor transport and communication system, In Tanzania this is the problem caused by mining industry in Tanzania poor transport and communication system so me I say this is the one problem caused by mining industry in Tanzania.
- ..... poor market, In Tanzania this is the problem caused by mining industry in Tanzania poor market in tanzania there is lack of market so this is the one of the problem.
- ..... lack of skilled labour, In Tanzania this service is low so me I say lack of skilled labour is the one of the problem cause by mining industry in Tanzania.
- ..... Therefore, Good technology, Good capital, Good transport and communication system, Good market, Good skilled labour.

Extract 8.2 shows a response from a script of the student who provided correct introduction, but failed to understand the demands of the question hence he/she explained problems facing mining activities instead of problem caused by mining activities.

On the other hand, the students who scored average (4.5 to 9.5) marks had little knowledge about the concept of sustainable mining particularly the problems caused by mining industry; thus they were able to respond partially to the question. The analysis of students' responses showed that some of them were able to provide few correct points such as: "*soil erosion, deforestation, land degradation and environmental pollution*". Others provided similar points in different language like "*land pollution and environmental pollution*". Moreover, some weaknesses which hindered them to score higher marks include inadequate explanations in some points, and failure to exhaust the required number of points.

Nevertheless, few students (10.1%) who scored higher marks (10 to 15) had adequate knowledge of the subject matter, and were able to explain the required number of points with vivid examples and considered all steps of essay writing. The accuracy of their responses varied, for example, those who scored above 12 marks were conversant with the topic tested (Mining Industries) and explained the problems caused by mining activities, such as "*death of the people, land degradation; destruction of some biodiversity, air pollution, destruction of wild animals habitat*". Other students also added *land degradation; contamination of water causes diseases, spread of diseases, air and noise pollution, environmental pollution, destruction of the natural landscape of an area, deforestation and spread of diseases*". Extract 8.3 illustrates the case.

### Extract 8.3

8. Explain five problems caused by mining industry in Tanzania.

#### 8. EXPLAIN PROBLEMS CAUSED BY MINING INDUSTRY.....

Mining... Is the extraction of minerals or precious... stone from... the ground. There... are two types of Minerals which... are... Metallic and Non-metallic, the metallic Include Gold,... Iron and Silver while Non-metallic Include Oil, Gas,... Salt, Diamond and Asbestos. There... are three methods of... Mining... which... are... Open cast or Strip or Surface mining... which... involves... extraction of Minerals... found in Upper layer of the... Soil and the other is Underground or Shaft mining... involving... extraction of minerals from deep... of the earth... they... Include... Gold extraction... and the last method... of Mining is Alluvial... or... placer... mining... method... involving... panning... In... river... beds for... Instance... In... Diamond... extraction... the following... are... the... Problems... caused... by... mining... Industry...:-

Diseases... A disease... Is... an abnormal condition of the body... When... the Mining... process... is... done... there... are... some... holes... left... due... to... mining... activities... and... So... when... rainfall... comes... the... holes... will... be... filled... with... water... which... encourages... Mosquitoes... to... lay... their... eggs... and... thus... Malaria... disease... rises... rapidly... but... also... there... are... other... diseases... such... as... Typhoid... which... are... harmful...:-

Accidents... These... are... an... unexpected... Events... causing... Injury... or... death... There... are... some... mining... methods... Such... as... Underground... Shaft... method... are... harmful... Since... they... may... be... destroyed... at... any... time... for... example... if... floods... occur... or...

even when the rocks above them fall on them for example. In a certain year in Tanzania an Accident occurred due to Mining activity and covered almost 10 people who luckily enough some were saved alive. So Mining leads to Accidents.

Environmental pollution: Pollution is the addition of unwanted substance on land, water and air. Mining leads to Pollution. Since some mining methods include use of chemicals which affect the land in one way or the other but also on water and even on air due to the Smokes of the Machines used to extract the minerals. So it leads to Environmental pollution.

Destruction of landscape: A landscape is the view of an area or a surrounding. Mining works destroys the landscape or the beautiful Scenery of an area for example. If minerals were discovered at a certain area then after the mining activity it looks ugly due to the holes dug when mining so an area loses its beautiful Scenery as before.

Removal of FLORA and FAUNA: Animals and plants are forced to be removed for example. An area is discovered that it contains minerals and its a forest the trees are forced to be cut down so species of trees reduces but also other species are lost without forgetting animals such as snakes shift away due to the noises produced in mining area. So species of plants and animals reduces.

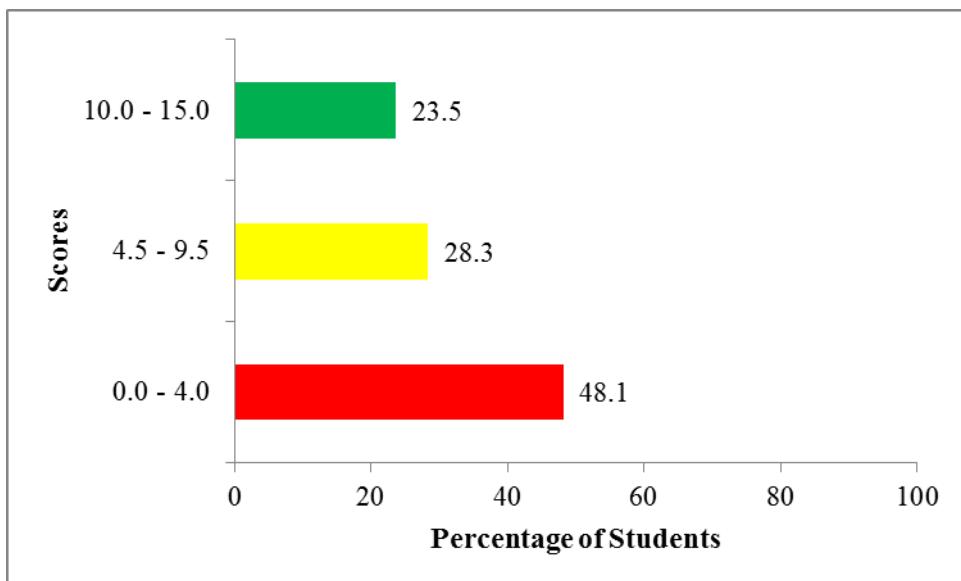
Conclusively, mining Industry is a sober Industry since it drains a lot of Capital for its establishment rather than using it in other sectors also its exhaustive and once minerals are over they can't be replanted. So mining Industry is lossful.

Extract 8.3 shows a response from a script of the student who explained a relevant answer.

### 2.3.3 Question 9: Agriculture

In this question the students were required to describe six characteristics of small scale agriculture.

Data analysis showed that this was the most attempted question as 328,584 (65%) of students opted for it, and the performance was generally good as 51.8 percent scored 30 percent and above. Moreover, analysis of performance showed that 76,302 (23.2) scored 0 mark, 48.1 percent scored from 0 to 4 marks, 28.3 percent scored from 4.5 to 9.5 marks, 23.4 percent scored from 10 to 15 marks and 35 percent skipped it. Figure 10 illustrates the students' performance in this question.



**Figure 10:** The Percentage of Students' Performance in Question 9

Analysis of the students' performance indicates that students who scored high marks (10 to 15) adhered to the demands of the question and demonstrated to have adequate knowledge of the topic. The question was performed well due to the fact that small scale agriculture is practiced by the majority of Tanzanians, and students were aware of its characteristics. These students provided relevant introductions, described the required points correctly and ended with relevant conclusions. They provided the required points such as "*small scale agriculture is practiced in small plots, it is done for subsistence, use of simple tools, several crops are planted on the same plot of land, low quality of products and it involves the use of*

*poor methods.* However, there were differences in the quality of their explanations which caused variations of their marks. Extract 9.1 is a sample of the correct response in this question.

### Extract 9.1

#### 09. CHARACTERISTICS OF SMALL SCALE AGRICULTURE.

Small scale agriculture is the agriculture that takes place on a small piece of land usually not more than five hectares. It is mainly for use. It involves small gardens. It is highly applied in rural areas but also in urban centres. This is mainly for use and not for commercial purposes. It is mainly for sustaining the needs of single family and not the whole family. The following are the characteristics of the small scale agriculture:-

It takes place on a small area usually not more than five hectares. This involves small lands that cannot be used for plantations and estates. These lands are always fertile for them to grow food crops for example carrots, beans and cabbages. This is why it is practised mainly in rural areas.

It is mainly for use and not for sell. The production of these small scale agriculture is mainly for use since it is there to sustain the needs of the small group of people and not large group of people like the whole nation so they mainly use for their families and other very small number of people.

It involves the use of low technology for example the use of tools for digging like hoes there are of low technology to compare those which are used in plantation

like tractors this small scale agriculture cannot manage to have such a thing to use for cultivation and hence have very small tools such as hoes which may take a long time to finish the work of cultivation.

It uses family labour. In small scale agriculture the family labour is the one used. Usually the farmer or the owner of the farm cannot afford to employ someone who will also need payment to work for him cause even the products are of low quality and quantity for himself now to pay will be like he or she is buying from that one.

There is low production. This is due to the use of traditional breeds which in turn gives low yields compared to modern breeds but also can be due to the use of simple tools of production like hoes which take time for the work to be done effectively and efficiently at a short period of time.

There is no or small use of chemicals like modern fertilizers but simple like animal manure and hence it is more safe to use the products of small scale agriculture than from large scale agriculture and also do not pollute land with chemicals compared to large scale agriculture which uses large amount of chemicals.

Conclusively the government should also support small scale agriculture since because it involves the use of even small lands (fertile) which estates and plantations cannot use and also the people in many areas can practise this form of agriculture for themselves without depending them from other countries to our countries.

Extract 9.1 is a sample of the correct response.

Analysis from the scripts of the students who scored from 4.5 to 9 marks revealed that, majority of them were able to mention almost all the points correctly, but failed to give correct descriptions to most of the points. Others described similar points in different ways. For example, “*it is practiced in small plot of land*” is similar to “*it normally covers small area*”, and “*there is a little use or no use of fertilizers*” is similar to “*it does not depend on application of pesticides*”. Others provided insufficient explanations which could not deserve high scores. Further analysis from students’ responses demonstrated a poor command of English Language while describing characteristics of small scale agriculture.

In a similar way, the students who scored 0.5 to 4 marks, some provided correct introductions and outlined the points, but they failed to give proper descriptions. Others misconceived the demands of the question hence provided irrelevant points to the question. For example some students provided correct points but they failed to give correct descriptions, the correct points were such as: “*low level of science and technology, low production. labour power is provided by family members, the use of organic manure to improve fertility, it is mostly mixed cropping, it is most subsistence, food crops are mainly grown, the farms are small in size and simple technology is used*”. Extract 9.2 is a sample of response from the student who provided correct introduction but misunderstood the demand of a question.

## Extract 9.2

Small scale agriculture is an agriculture that takes small area and it needs a lot of profit. Small scale agriculture is an agriculture which does not need a lot of capital to conduct it. Small scale agriculture also has several characteristics which are as follows:

Availability of markets: When starting owning a business you find market in order to produce or make a product that people should like it.

Availability of transport and communication system: Transport and communication system also is needed in transporting goods from different country or region in the world.

Availability of capital: Also small scale agriculture needed capital in order to conduct your business smoothly.

Availability of skilled and unskilled labour: Availability of skilled labour helps to know how work is done in order to earn some income.

Availability of water supply: Small scale agriculture it needs water in irrigating the farming in order to harvest a lot of crops.

Availability of land: Small scale agriculture also should have area or land to seedling the crops in order to grow in many so that you earn some income.

Therefore, the following were some of characteristics of small scale agriculture in order to conduct this agriculture should have an area to do the business and others.

Extract 9.2 is a sample of the students' responses who provided correct introduction but he/she explained factors for the development of agriculture instead of characteristics of small scale agriculture.

A total of 76,302 (23.2%) students scored a 0 mark in this question due to lack of knowledge on the subject matter, and poor language proficient which resulted into misunderstanding of the demands of the question. The students' irrelevant responses were unclear concepts of the characteristics of small scale agriculture, and they outlined the points instead of describing. For instance, one student defined the term small scale agriculture as, *the keeping animal and across of small agriculture keeping, the following livestock keeping and animal and used to represent of map in scale Agriculture*. Other students provided the definition of large scale agriculture instead of small scale agriculture: *The farming system which takes place in large area*. Furthermore, some of the students also copied some sentences from the question paper and wrote them as answers to the question, while others just copied the question and left it unanswered. This justifies their poor understanding of the concept tested. Extract 9.3 indicates irrelevant responses.

### Extract 9.3

9. Describe six characteristics of small scale agriculture.

1. Small Scale Agriculture Is the types Of Agric  
ture It Use Short Area: This is The  
Characteristics Of Small Scale Agriculture.  
It easy To generate Example Machine  
It Is not expensive for Use  
It Is Environment friendly because It Use  
Short Area for Agriculture  
It Improve Standard Of living

Extract 9.3 is a sample of poor responses from the student who provided incorrect introduction of small scale agriculture and outlined unrelated and unclear concepts related to the question.

### 2.3.4 Question 10: Solar System.

The question required the students to elaborate five advantages of developing solar system in Tanzania. The question was set from *Solar System* topic.

This was among the questions which was attempted by very few students, 161,864 (32%), and it was also among the poorly performed questions. A total of 71.4 percent scored from 0 to 4 marks of which 49,293 (30.5) scored 0 mark, 21.1 percent scored from 4.5 to 9.5 marks, 7.4 percent scored from 10 to 15 marks and 68 skipped the question. Figure 11 illustrates the percentage of candidates performance in question 10.

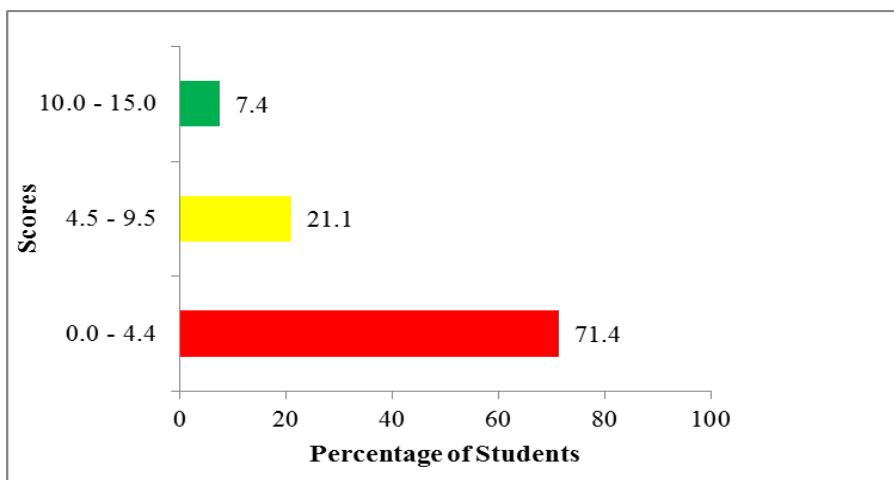


Figure 11: *The Percentage of Students' Performance in Question 10*

Figure 11 shows that 71.4 percent of the students who attempted this question scored below 4.5 marks out of the 15 marks allocated to this question.

A total of 104,134 (71.4%) students who scored a 0 mark in this question diverged from the demands of question and failed to interpret its requisites. However, others showed lack of knowledge of the subject matter. Majority of the students misconceived the demands of the question, hence they failed to give correct elaborations. For instance, one student outlined the names of heavenly bodies in the solar system such as: *comets, asteroids, meteorites and natural satellites*. Moreover, the responses provided by some students in this group were in outline forms instead of essay, while others were not

able to express themselves in English Language. Extract 10.1 illustrates poor responses.

### Extract 10.1

Ans:10. The following are advantages of solar energy in Tanzania;  
Solar energy produce hydro electric power (HEP) for domestic purpose and economic purpose. Example when the electricity is off, they use HEP for the light in industries, mining projects, river basin projects etc.  
Reduce on raping of girls while going to fetch water at wells or rivers and lakes; when a girl is send to fetch water some of men ambush her and they rape her.  
So solar energy help on providing constructions of pipes in order to give water so that people do not go far for the water.  
Provide light for the day; it used to help on harvesting a crop at good ways; gives some of energy in crops so that they can provide health in the human bodies.

Extract 10.1 is a sample of an incorrect response from a script of the student who explained concepts of solar system but failed to elaborate its connection to the requirement of the question.

Furthermore, the students with the average scored (0.5 to 4) marks had insufficient knowledge of the subject matter, thus they understood the demands of the question. Some students only managed to define the concept of solar system, while others mixed correct and incorrect advantages of developing solar system such as: provision of vitamin D, light energy for plants, drying grains, development of industries, development of agriculture, fertile soil, planets, asteroids and the moon, solar system is the arrangement of planets and solid objects in space in relation to the sun, they are support of various species, they produce energy which is used in cooking, they are bad get or charcoal.

In addition, the students who scored from 4.5 to 9.5 marks had some strengths and weaknesses in their responses which indicate limited

knowledge of the subject matter as they were able to point out correct points with relevant introduction. However, they were incapable of scoring high marks due partial explanation. For example, one of the student's responses were such as: "*it conserves the environment, it produces less expensive energy, it helps to encouraging other development, helps massive production and provision of social service*". On the other side, majority of them provided inadequate elaborations while others, ignored some of the advantages of developing solar system which adversely affected their performance hence scored less than 9.5 marks.

The students who scored from 10 to 15 marks (7.4%) demonstrated better understanding of the question, as they were able to write relevant introduction and provided comprehensive elaborations of the main points of developing solar system. Such responses were: *minerals, through the planet people can get minerals such diamond, gold and others which can be sold and get foreign currency, fertile soil; people can use fertile soil for agriculture, vegetation; through planet earth people can get energy, water; through planet earth as one of component of solar system, provides water which is used for agriculture activities and transportation, air; through planet earth people get fresh air, tourist attraction are the case of meteors found in Mbozi-Songwe then development of science and technology, space exploration for example taken by NASA*". Moreover, most students in this group were able to express themselves in English language and had essay writing skills. Extract 10.2 indicates a sample from a script of the student who provided relevant response in this question.

10. Solar system this is the arrangement of planets and other solid object in space in relation to their position from the sun. solar system comprises of many things include planet, Asteroids, Comets, meteors and meteors all these are some the component through solar system we benefit allot and the following are advantages of developing solar system in Tanzania.

Generation of electricity in our country. Through solar system we have get the electricity from the sun by using the solar panels which traps the radiation of the sun and from their we can get energy to different things like provision of light and heat also running small device like radios.

Through solar system it has contribute to tourism activity in our country. By the solar system help it has led to formation of craters in our country a good example Ngoro ngoro crater which you know among of the tourism attraction which help in development of our country.

Through solar system we can transport from one place to another by the source of the solar system which has led to formation of water bodies through rainfall it has contributed to navigation (water transport) from one place to another especially the place where there is like almost covered areas with water.

### Extract 10.2

10. Habitat of natural water organism/creatures through solar system where the place of water have increased and led to habitants of some water creature or organism like fish which has promoted to fishing activities in our country, and through that we benefit from that.

Domestic use purposes. through solar system we human being we can perform different activities where we get to live well and healthy in our living there are activities which are mostly conducted at our home place like washing, cooking, bathing and for agriculture activities through the provision of water.

More in more those are some of the advantages which solar system has led to the development of our Country Tanzania were we have atleast step forward in development especially in fuel power where we know use solar energy to contribute our activities at home which has replaced the wood produced from cutting of the trees.

Extract 10.2 A sample of responses from the student who managed to give a relevant introduction, and elaborated five advantages of developing solar system in Tanzania correctly.

## **SUMMARY OF THE QUESTIONS ANALYSIS IN GEOGRAPHY FORM TWO NATIONAL ASSESSMENT (FTNA) 2018**

S/N	PERFORMANCE	QUESTION NUMBER						
		1	2	3				
1	Well performed Questions	1	2	3				
2	Moderate performed Questions	4	8	9				
3	Poorly performed Questions	5	6	7	10			
4	Most attempted Questions	1	2	3	4	5	6	9
5	Least attempted Questions	7	8	10				

### **3.0 ANALYSIS OF STUDENTS' PERFORMANCE IN EACH TOPIC**

The analysis of the students' performance in FTNA 2018 in each topic shows that students had *good* performance in 9 topics out of 11 topics as they scored 65 marks and above. Those topics include *Manufacturing Industries, Map Work, Sustainable Use of Forest, Climate, Weather, Major Features of the Earth's Surface, Human Activities, Agriculture and The Solar System*. On the other hand, the topic of Sustainable Mining (31.9%) had average performance and only topics of *Water Management for Development* (18.5%) had a weak performance. (See figure and *appendix*).

### **4.0 CONCLUSION**

The analysis of individual questions shows that the general performance of the Geography in the Form Two National Assessment FTNA 2018 was good. The level of performance has been improved in relation to that of 2017. Many students answered the questions correctly though few students had poor performance in one topic (Water Management for Development), marked by red colour in the appendix. The reason which contributed to low performance in this topic as well question 5, 6 and 10 (set from the topics of map work, climate and solar system) was misinterpretation of the demands of the question, lack of knowledge of the topic tested, insufficient skills to apply formulas and concepts in answering the questions, inability to express themselves in English Language and poor transfer of knowledge.

## **5.0 RECOMMENDATIONS**

In order to maintain /improve the performance of the students in the Geography subject assessments, the examiners suggest the following:

- (a) Teachers are advised to guide the students on how to identify the task/requirement in the given question.
- (b) Teachers should make sure that all topics are well covered so as to enable students acquire the intended skills and knowledge in the syllabus. For example teacher should make sure that the *Map Works* and *Major Features of the Earth's Surface*, *The Solar System* and other topics are taught by using relevant teaching aids so as to enable the students acquires the intended knowledge.
- (c) Teachers should guide students to go through books prepared by the National Examination Council of Tanzania (NECTA); the Students' Items Response Analysis (SIRA) which suggests how to identify and articulate questions requirement.
- (d) School remedial programmes should be emphasized especially to the National examination classes (that is Form II and Form IV) to enable teachers and students to cover the Syllabi and set time for revision of all the topics.
- (e) Schools should encourage use English Language by establishing special programmes which instill effective use in English Language such as essay writing competitions and challenging debate in the prevailing academic subjects.
- (f) Geography seminars should be conducted so as to enable teachers to build the capacities and share experiences in various Geography topics.

## Appendix

### Summary of the Students Performance in each Question

S/N	Topic	Question Number	Percentage of students who scored 30% and above	Remarks
1.	Manufacturing industries, Climate, Major Features of the Earth's Surface, Solar System, Map Work, Agriculture, Human Activities.	3	96.9	Good
2.	Solar System	2	86	Good
3.	The Solar System, Major Features of the Earth's Surface, Weather, Climate, Map work, Sustainable use of Forest Resources	1	79.7	Good
4.	Agriculture.	9	51.9	Average
5.	Human Activities	4	39.1	Average
6.	Sustainable Mining	8	31.9	Average
7.	Map Work	5	29.4	Weak
8.	Solar system	10	28.6	Weak
9.	Climate	6	25.9	Weak
10	Water Management for Economic Development	7	18.5	Weak

