THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

STUDENTS' ITEM RESPONSE ANALYSIS REPORT ON THE FORM TWO NATIONAL ASSESSMENT (FTNA) 2024

GEOGRAPHY

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013 GEOGRAPHY

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FOREWORD

This report presents Students' Item Response Analysis (SIRA) on the Form Two National Assessment (FTNA) for Geography subject, which was conducted in November 2024. The report aims at providing feedback to all stakeholders in education on the factors that contributed to the students' performance in Geography.

The Form Two National Assessment (FTNA) is a formative evaluation that intends to monitor students' learning in order to provide feedback to teachers, students, and other stakeholders in education in order to improve teaching and learning.

The students who attained high scores identified the requirements of the questions, had adequate knowledge of the subject content, possessed skills in computing, and had good mastery of the English language and essay writing skills. However, the students with poor performance failed to understand the demand of the questions, having poor understanding of the subject matter and language skills. This report will help students to identify their strengths and weaknesses so that, they can improve their learning before sitting for their Certificate of Secondary Education Examination (CSEE). It will also help teachers identify the challenging areas and take appropriate measures to enhance teaching and learning.

The National Examinations Council of Tanzania (NECTA) expects that the feedback provided in this report will shed light on education stakeholders so that they can take proper measures to improve teaching and learning of the Geography subject.

The Council appreciates the contribution of all those who participated in the preparation of this report.

Dr. Said Ally Mohamed
EXECUTIVE SECRETARY

1.0 INTRODUCTION

This report analyses the students' performance in the Geography subject (FTNA) conducted in November 2024. The assessment measured competences as per the Geography syllabus of 2005.

It consisted of ten (10) questions, which were divided into three sections: A, B and C. The students were required to attempt all the questions. Section A consisted of two (2) objective questions. Section B had seven (7) short-answer questions. Section C had one (1) essay question.

This report divides the analysis of students' performance into three categories: good, average, and weak, indicated by green, yellow, and red colours respectively. That means, in each question, the performance is regarded as good if the scores range from 65 to 100 percent, average if the scores range from 30 to 64 percent, and weak if the scores range from 0 to 29 percent.

It also includes the details for each question, the percentage of students that attempted each question, their scores, and the possible reasons for their performance. Extracts from the students' scripts, graphs showing the distribution of students' scores, and appendices have been used for illustration.

The results are presented in five grades: A, B, C, D and F. These grades are assigned to students based on the following intervals: 75–100 (excellent), 65 to74 (very good), 45 to 64 (good), 30 to 44 (satisfactory), and 0 to 29 (fail), respectively. Those students who achieved grades ranging from A to D (30 and above) are considered to have achieved a pass while grade F is for fail.

In 2024, 797,124 students sat for the FTNA in Geography subject. Out of whom 465,968 (58.51 %) students passed and 331,156 (41.49 %) failed. The analysis indicated that the performance of the students in 2024 has increased by 4.73 percent compared to the FTNA 2023, in which 53.78 percent of the students passed and 46.22 percent failed.

2.0 ANALYSIS OF STUDENTS' PERFORMANCE FOR EACH QUESTION

2.1 SECTION A: OBJECTIVE QUESTIONS

This section consisted of two questions with 15 marks. Question 1 consisted of 10 multiple-choice items carrying 10 marks while question 2 consisted of 5 matching items that carried 5 marks.

2.1.1 Question 1: Multiple Choice Items

This question aimed at testing the students' knowledge on; *The Solar System*, Agriculture, Weather, Transport, Sustainable Use of *Forest Resources, Map Work, Manufacturing Industry and Mining Industry*. Students were instructed to choose the correct answer out of the four given alternatives. Each item carried 01 mark that make 10 marks.

A total of 787,124 (100%) students attempted this question. The analysis indicates that, 137,507 (17.30%) scored 0 to 2 marks, signifying weak performance, 526,233 (65.97%) scored 3 to 6 marks, which is average performance and 133,384 (16.73%) students scored 7 to 10 marks, which is good performance. In general, the performance was good as 82.70 percent of the students scored from 3 to 10 marks. Figure 1: Illustrates the percentage of students' performance for this question.

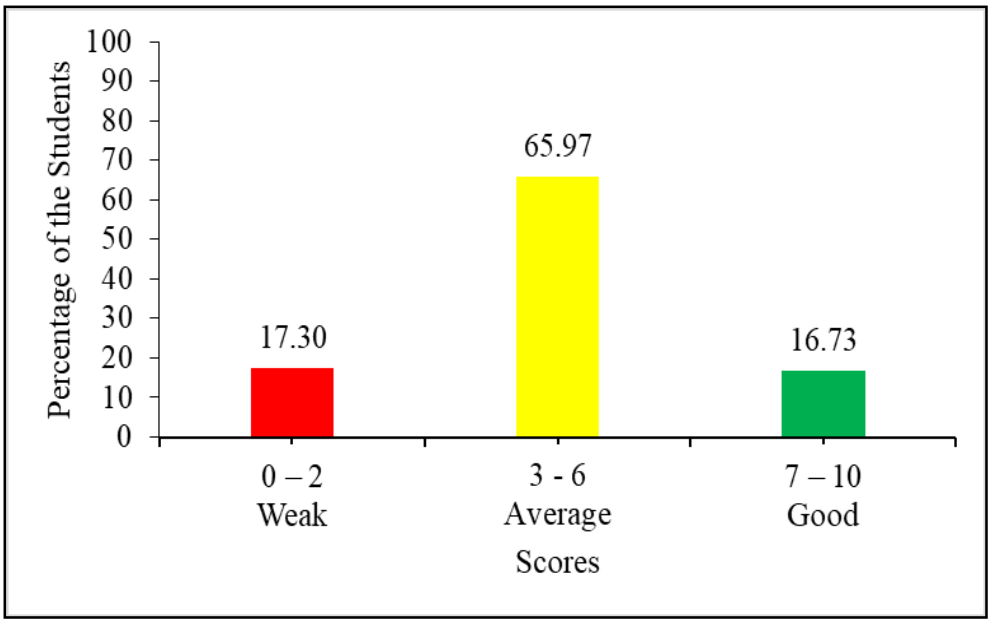


Figure 1: Students' performance for question 1

The following is the analysis of students' responses for each item.

(i) What happens when the Earth casts its shadow on the moon's surface?

A	*Day and night*	*B*	*Solar eclipse*
C	*Lunar Eclipse*	*D*	*Eclipse*

The correct response for this item is C, *Lunar Eclipse*. Students who chose this option showed an understanding on the effects of the revolution of the Earth around the sun and tilting on its axis. On the other hand, those who chose distractor A, *Day and Night*, were not aware of the fact that day and night occur when the Earth rotates on its own axis. Those who opted for distractors B, *Solar Eclipse*, and D, *Eclipse*, revealed general understanding of the effects of Earth's revolution, but failed to identify specifically what happens when the earth casts its shadow on the moon surface.

(ii) A process of moving with livestock from the highland during the summer to the low land during the winter season is known as

A	*Semi - nomadism*	*B*	*transhumance*
C	*Shifting cultivation*	*D*	*nomadism*

The correct response for this item is *B*, *transhumance*. The students who selected the correct response had adequate knowledge of the livestock keeping, especially types of livestock keeping. Those who chose distractors *A*, *Semi – nomadism* and *D*, *nomadism,* showed general understanding on the types of livestock keeping but lacked the ability to identify characteristics of them. Those students were not aware that *Semi-nomadism is a transition between total nomadism and sedentary animal keeping* while *Nomadism is the continual movement of pastoralists with large numbers of animals from place to place in search of pasture and water.* Furthermore, the students who opted for alternative *C, shifting cultivation* posed a knowledge on the concept of agriculture, but failed to recall that, *shifting cultivation is a method of agriculture consisting of clearing and cultivating a plot of land exhausting its fertility and then moving to a new location.*

(iii) Agriculture officer at Mtakuja village advised farmers to reclaim their unproductive land. What is the possible outcome in the area?

A	*Land degradation*	*B*	*Decrease in production*
C	*Soil erosion*	*D*	*Increase in production*

The correct response for this item is *D, Increase in production.* The students

who selected this response were familiar with the outcome of land reclamation. Conversely, the students who chose distractors *A, Land degradation* and *C, Soil erosion* were not aware about the consequences of land reclamation because, *Land degradation is the reduction of a land surface by agents of erosion* while *Soil erosion is the removal of the top layers of soil by different agents such as running water which degrade the land*. They were not able to recall the methods used to protect the land from practices that cause degradation. Those who chose distractor *B, "Decrease in productivity"* did not understand the concept of reclaiming their unproductive land.

(iv) *Mwana is living in a zone lying between latitudes 10 North and 10 South of the Equator and she always experience distinct atmospheric circulation system of high and low pressure. Which global pressure belt belongs to that area?*

A Equatorial low pressure belt *B Subtropical high pressure belt*
C Subpolar low pressure belt *D Polar high pressure belt*

The correct response for this item is A, *Equatorial low-pressure belt*. The students, who selected it, had good knowledge about global pressure system belts which are characterized with high or low pressure. Contrarily, those who chose distractors B, *Subtropical high-pressure belts*, C, *Subpolar low-pressure belts* and D, *Polar high-pressure belts*, were aware of atmospheric pressure belts but failed to identify specific characteristics of global pressure belts. As, Subtropical high pressure belt lies 30^0 North and South of the equator, Subpolar low pressure belt is located between 60^0 North and South of the equator while Polar high pressure belt is located between 90^0 North and South of the equator.

(v) *Which type of transport is **not** affected by physical barriers?*

A Land transport *B Road transport*
C Air transport *D Pipeline transport*

Alternative C, *Air transport*, is the correct response to this question. The students who selected it had adequate knowledge of the main types of transportation systems and their characteristics. On the other hand, those who chose distractors A, *Land transport*, B, *Road transport*, and D, *Pipeline transport*, had general understanding on various types of transport but failed to recall the physical obstacles, such as; vegetation, mountains, rivers, as well as lakes, and how they can or cannot hinder transportation system.

(vi) Identify the correct arrangement of the planets

A Mercury, Venus, Mars and Earth
B Venus, Mercury, Mars and Earth
C Mercury, Venus, Earth and Mars
D Mars, Mercury, Venus and Earth

The correct response for this item is option *C*, *Mercury, Venus, Earth and Mars*. The students, who selected this option, demonstrated adequate level of understanding on the position of all planets in the solar system. On the contrary, those who chose distractors *A, Mercury, Venus, Mars and Earth*, *B, Venus, Mercury, Mars and Earth and D*, *Mars, Mercury, Venus and Earth,* had general knowledge of the planets but were not competent in identifying the arrangement of each planet from the sun.

(vii) In Western Europe, forests shed their leaves during Autumn. Which type of forest is found in that area?

A Mangrove forest *B Deciduous forest*
C Tropical Monsoon *D Equatorial forest*

The correct answer to this question is *B*, *Deciduous forest.* The students who opted for it were aware of the natural forests and their characteristics. Those who chose distractor *A*, *Mangrove forest, C,* Tropical *Monsoon and D, Equatorial forest* had general knowledge about types of natural forests but failed to identify the correct characteristics of them.

(viii) You have been given a topographical map with representative fraction scale of 1:50,000. Which one is its correct statement scale?

A One centimeter represents one kilometre
B One kilometre represents two centimetre
C Two centimetre represents half kilometre
D One centimetre represents half kilometre

The correct response for this item is option *D*, *One centimeter represents half kilometer*. The students who chose the correct response, demonstrated good knowledge on ways of expressing scale by using statement, particularly on how to convert a representative fraction/ratio scale into a statement scale. Those who opted for distractors *A, One centimeter represents one kilometers, B, One kilometre represents two centimetre* and *C, Two centimetre represents half kilometre,* generally understood how to use statement scales to express map scales but couldn't convert representative fraction/ratio.

(ix) Form Two students visited Coca-Cola Company Limited in Dar es Salaam for a study tour. Identify the type of industry they visited?

A Chemical industry *B Metallurgical industry*

C Beverage industry *D Textile industry*

In this item, the correct response is *C*, *Beverage industry*. Students who selected this response, had adequate knowledge on the types of manufacturing industries and the products produced by each type. Contrarily, those who opted for alternative A, *Chemical industry, B, Metallurgical industry* and *D, Textile industry* had general knowledge about types of manufacturing industries but were not able to identify the products produced by such industries. As, *Chemical industry produces acids, gases, medicine, paints, pesticides, alkalis, soaps and fertilisers; Metallurgical industry produces iron and steel* while *Textile industry produces clothes.*

(x) Buzwagi and Shinyanga gold miners prefer mining by drilling the ground vertically. What method of mining do they prefer?

A Placer mining *B Underground mining*

C Surface mining *D In-situ mining*

The correct response for this item is option *B*, *Underground mining.* The students who chose the correct response demonstrated an adequate knowledge of the different ways of mining based on their location. Those who chose distractors *A*, *Placer mining*, *C, Surface mining* and *D, In-situ mining,* failed to recognize *placer mining involves mining minerals which are found in river valleys, surface mining involves mining minerals which occurs close to the earth's surface while in situ mining involves dissolving mineral resources in place then processing it at the surface without moving rock from the ground.*

2.1.2 Question 2: Matching Items: The Solar System

The question comprises of five premises from the concept of the Shape of the Earth. The question required students to match the description of the evidence, which showed sphericity of the Earth in **List A,** with the corresponding correct evidence in **List B** by writing correct responses below the item number in the answer sheet provided. Each premise carried one mark, which makes five (05) marks. The question was as follows:

Match the description of the evidence that the Earth is spherical in **List A** with the corresponding correct item in **List B,** by writing a correct response below the item number in the table provided.

List A	***List B***
(i) The flag, smoke and chimney will be seen first before the whole boat.	*A Lunar eclipse*
(ii) Returning to the same point after going around the world.	*B Earth's curved horizon*
(iii) Taken by satellite from the air showing that the Earth is curved.	*C Circumnavigation of the Earth*
(iv) A place where the sky and the land appear to meet and look circular from a high altitude.	*D Ship visibility*
(v) The whole world will have day and night at the same time if the Earth was flat.	*E Changing position of polar star*
	F Sunrise and sunset
	G Aerial photographs

The analysis of the students' performance indicated that 797,124 (100%) students responded to this question. Further analysis indicated that, out of those students, 396,727 (49.77%) scored 0 to 1 mark, which is a weak performance; 271,706 (34.09%) scored 2 to 3 marks, which is average performance; and 128,691 (16.14%) scored 4 to 5 marks, which is good performance. The general performance was average as 50.22 percent of the students scored 2 to 5 marks. A representation of the students' performance for question 2 is shown in Figure 2.

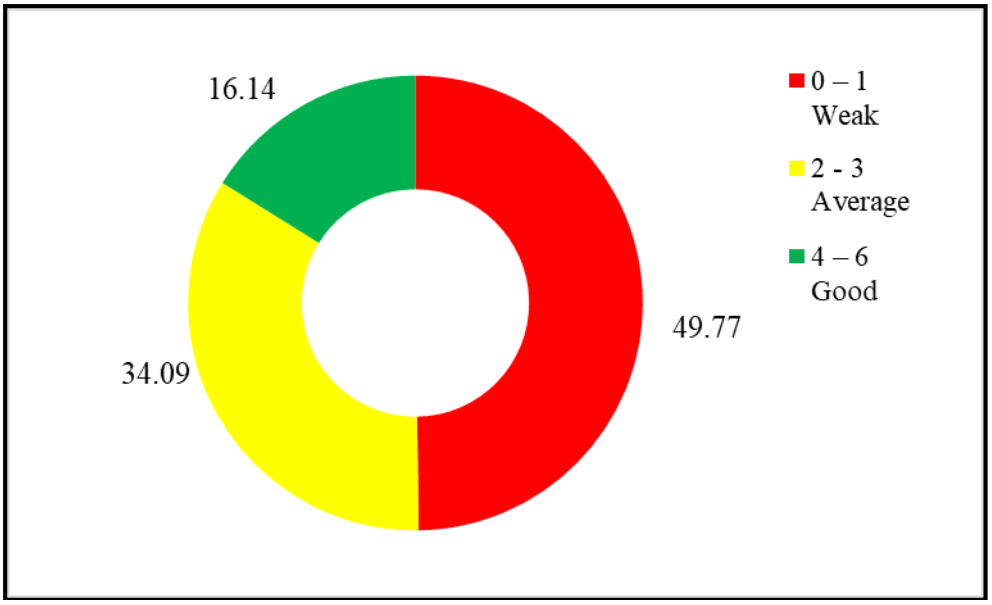


Figure 2: *Students' Performance for Question 2*

Students with good performance demonstrated adequate knowledge about the shape of the Earth. They accurately identified the evidence that supports the Earth's spherical shape. The correct response in this question was (i) *D, Ship visibility,* (ii) *C, Circumnavigation of the Earth, (iii) G, Aerial photographs, (iv) B, Earth's curved horizon, (v) F, Sunrise and sun set.*

The students who had average performance matched evidences of the Earth's shape by mixing correct and incorrect responses, which led them to score average marks. This indicated that, they had moderate knowledge of the evidences of the shape of the Earth. On the other hand, students with weak performance showed limited knowledge of the evidences that support the spherical shape of the Earth.

2.2 SECTION B: SHORT ANSWER QUESTIONS

This section had seven compulsory short answer questions that carried 10 marks each. The analysis of each question is as follows:

2.2.1 Question 3: Agriculture

This question tested the students' understanding of the concept of livestock keeping. It had three parts (a), (b), and (c), of which the students were required to read the statement that was provided and then respond to the

questions accordingly. The statement was, *Mr. Stocks is a citizen of the Netherlands engaging in keeping a large number of livestock in an extensive area by using advanced technology.*

Identify the scale of production of the livestock keeping practiced by Mr. Stocks.

(a) Name two possible products that are obtained from his livestock.

(b) Describe four characteristics of the type of livestock keeping practiced by Mr. Stocks.

A total of 797,124 (100%) students attempted this question. The analysis revealed that 534,318 (67.03%) students performed poorly by scoring 0 to 2.5 marks, 131,141 (16.45%) had average performance as they scored from 3 to 6 marks while 131,665 (16.52%) had good performance as they scored from 6.5 to 10 marks. The general performance for this question was average, because 32.97 percent scored 3 to 10 marks. Figure 3 illustrates the students' performance for question 3.

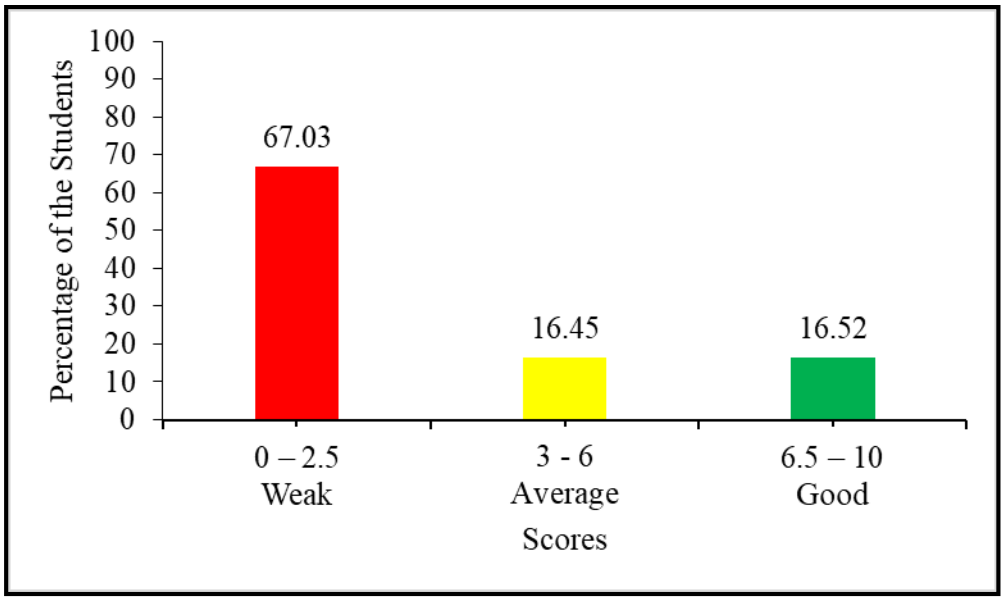
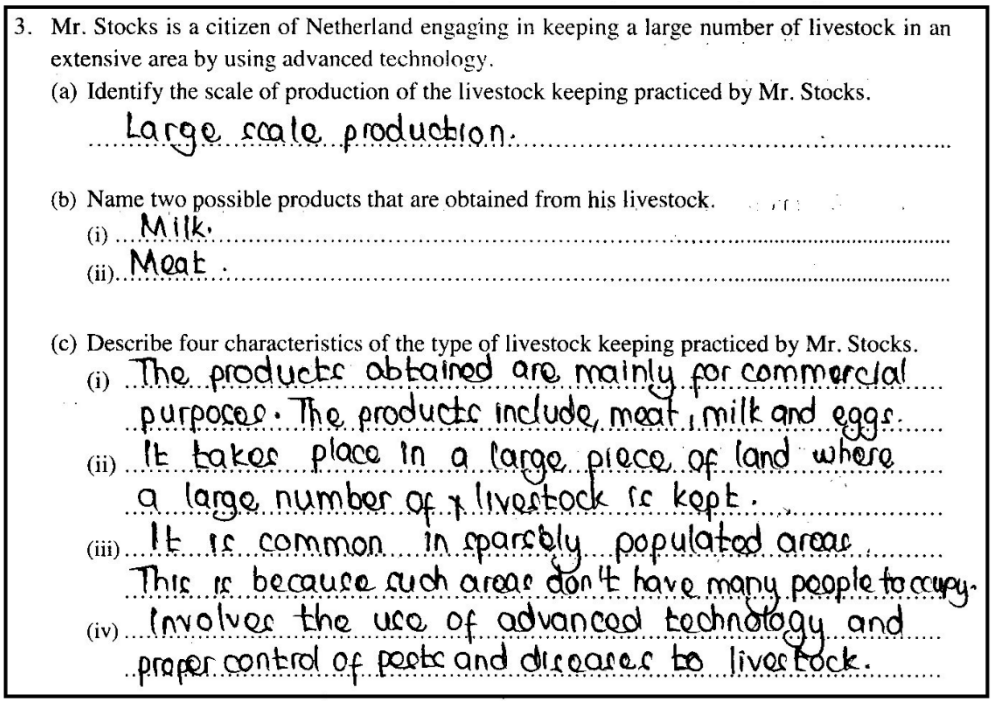


Figure 3: *Students' Performance in Question 3*

A total of 131,665 (16.52%) students who performed well had adequate knowledge about livestock-keeping practices. For instance, in part (a), they identified the scale of production of the livestock keeping practiced by Mr. Stocks as *large scale livestock keeping.* Moreover, in part (b), they named

two possible products that are obtained from his livestock keeping as, *beef/meat, dairy/milk, hides/skin/leather, bone, horns, manure* and *wool*. Also, in part (c) they described four characteristics of the type of livestock keeping conducted by Mr. Stocks as; It *takes place in an extensive area of land, advance technology is used for the care of the livestock, there is pests and diseases control, there is use of skilled labourers, there is a need of high capital to run the livestock, one type of animal is kept for quality control, cross breading is common, it is owned by government, companies or wealth individuals, it is practiced in remote areas and production is for sale.* Their responses implied that, they interpreted well the demand of the question. Nevertheless, the variation of marks was influenced by the strengths of their responses. Extract 3.1 illustrates a sample of students' good responses for question 3.


3. Mr. Stocks is a citizen of Netherland engaging in keeping a large number of livestock in an extensive area by using advanced technology.

(a) Identify the scale of production of the livestock keeping practiced by Mr. Stocks.

Large scale production.

(b) Name two possible products that are obtained from his livestock.

(i) Milk.

(ii) Meat.

(c) Describe four characteristics of the type of livestock keeping practiced by Mr. Stocks.

(i) The products obtained are mainly for commercial purposes. The products include, meat, milk and eggs.

(ii) It takes place in a large piece of land where a large number of livestock is kept.

(iii) It is common in sparsely populated areas. This is because such areas don't have many people to carry.

(iv) Involves the use of advanced technology and proper control of pests and diseases to livestock.

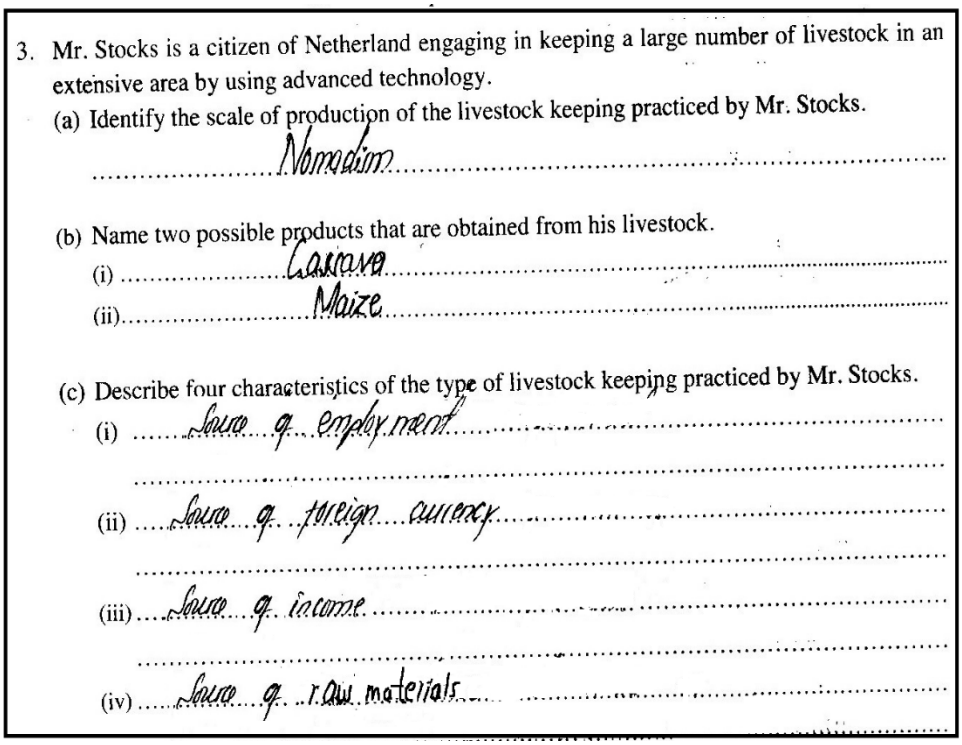
Extract 3.1: A sample of correct responses for question 3

On the other hand, a total of 131,141 (16.45%) students with average scores had a moderate knowledge regarding to livestock keeping practices. For instance, in part (a), some students identified correctly the scale of production of the livestock keeping practiced by Mr. Stocks as large scale livestock keeping. In part (b), they named only one product while in part (c) they wrote

two out of four characteristics of the livestock keeping practiced by Mr.Stock. Some of them in part (a) identified the scale of production correctly while in part (b) and (c) they mixed up correct and incorrect responses. Example of incorrect response in part (b) was *shoes* instead of *skin*. The student failed to realise that shoes are the products obtained from animal's skin. An example of incorrect responses in part (c) were; *production is for food* and *it is own by individuals.* Those students were not aware that, under large scale livestock keeping, production is for sale. Also, on the case of ownership, the individuals should be wealth individuals and not any individual.

The Majority of students (67.03%) demonstrated weak performance since they lacked sufficient knowledge of the livestock keeping practices. In this category, some students in part (a) provided incorrect responses. In part (b), they mentioned only one product while in part (c) they misinterpreted the question by providing responses contrary to the demand of the question. For instance, one student in part (a) wrote *ranching* instead of *largescale livestock keeping.* The student failed to recall that, *ranching is part of commercial livestock keeping mostly practiced in more remote areas where land is extensive and population density is low.* In part (b) the student provided only one correct response while in part (c) they mentioned; *pastoralists move in groups; a group involves a chief or elders* and a *large herd tends to cause overgrazing.* Limited knowledge on the subject matter, caused the student not to recognise that, these are the characteristics of nomadic pastoralism.

Some of the students described responses such as, *source of raw materials, source of government revenue, source of employment,* and *stimulates development of transport and communication* in part (c) contrary to the demand of the question. Those students were not aware that, those are the advantages of commercial livestock keeping. Those responses implied that; the students were not conversant with the concept of large scale livestock keeping. Extract 3.2 illustrates a sample of incorrect responses for question 3.


3. Mr. Stocks is a citizen of Netherland engaging in keeping a large number of livestock in an extensive area by using advanced technology.

(a) Identify the scale of production of the livestock keeping practiced by Mr. Stocks.

Nomadism

(b) Name two possible products that are obtained from his livestock.

(i) Cassava

(ii) Maize

(c) Describe four characteristics of the type of livestock keeping practiced by Mr. Stocks.

(i) Source of employment

(ii) Source of foreign currency

(iii) Source of income

(iv) Source of raw materials

Extract 3.2: A sample of incorrect response for question 3

In extract 3.2, the student named *Nomadism* instead of *largescale livestock keeping* in part (a). In part (b) the students wrote *cassava* and *maize* instead of *beef/meat, dairy/milk, hides/skin/leather, bones, horns, manure* and *wool* while in part (c) the student mentioned advantages of livestock keeping instead of characteristics of largescale livestock keeping which are *source of employment, source of foreign currency, source of income and source of raw materials.*

2.2.2 Question 4: The Major Features of the Earth's Surface

The major features of the Earth's surface topic, particularly the concept of a continent, served as the basis for this question. It had three parts (a), (b), and (c), of which the students were required to respond to the questions that followed.

(a) What do you understand by the term continent?
(b) Mention seven continents of the world.
(c) Identify the smallest and largest body of salt water surrounding the continents.

A total of 797,124 (100%) students attempted this question. The analysis of the data indicated that 223,795 (28.08%) scored from 0 to 2.5 marks, that demonstrate a weak performance, 314,399 (39.44%) scored 3 to 6 marks, which is average performance, whereas 258,930 (32.48%) scored 6.5 to 10 marks, which is good performance. The general performance of students was good, as 71.92 percent scored 3 to10 marks. Figure 4 summarizes the students' performance for question 4.

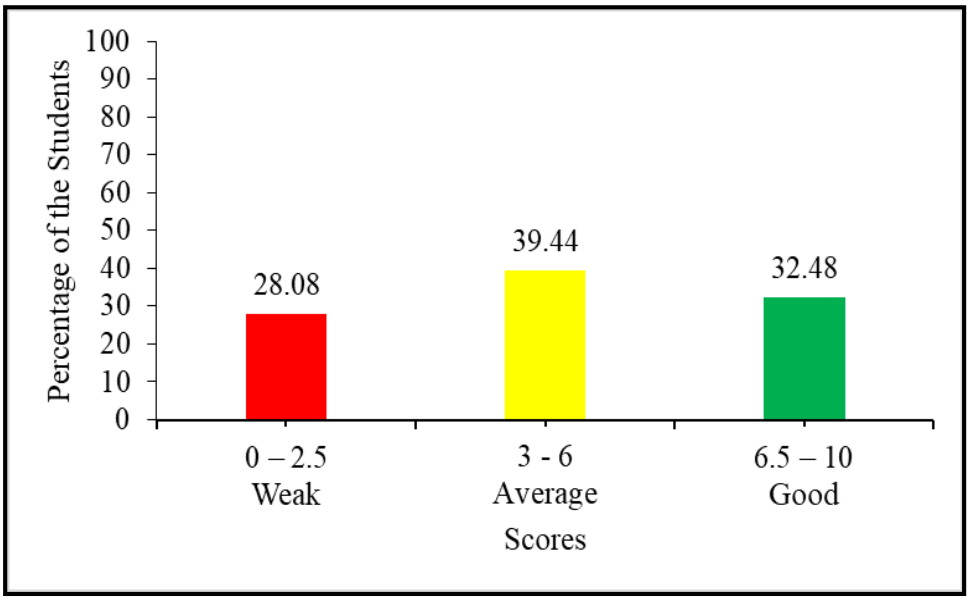
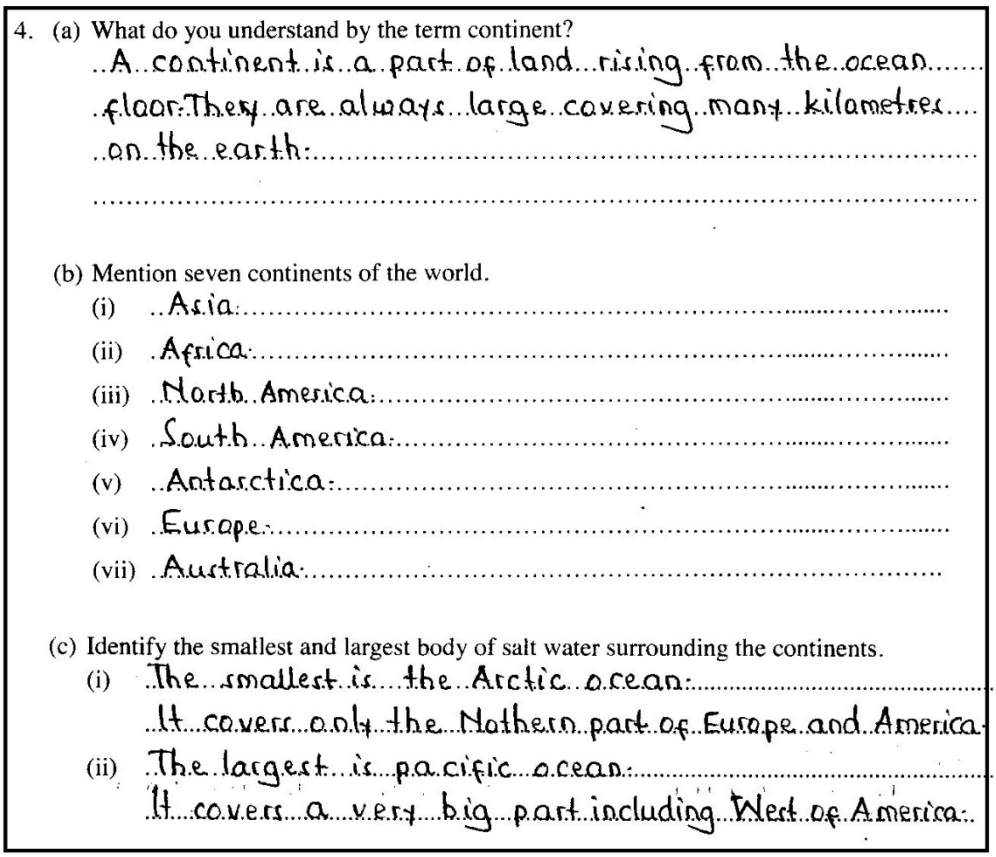


Figure 4: *Students' performance for Question 4*

The analysis revealed that, 258,930 (32.48%) students with good performance had adequate knowledge of the major features of the earth's surface especially on the concept of the continents. For instance, in part (a) some students provided good definition of continent as; *a major land mass rising from the ocean floor*. In part (b) they mentioned correctly seven continents of the world such as; *Asia, Africa, North America, South America, Antarctica, Europe* and *Australia.* In part (c) they identified the smallest body of salt water surrounding the continents as *Arctic* and largest salt water as *Pacific Ocean*. Their marks varied due to strengths of their responses. Extract 4.1 illustrates a sample of correct response for this question.


4. (a) What do you understand by the term continent?

A continent is a part of land rising from the ocean floor. They are always large covering many kilometres on the earth.

(b) Mention seven continents of the world.

(i) Asia
(ii) Africa
(iii) North America
(iv) South America
(v) Antarctica
(vi) Europe
(vii) Australia

(c) Identify the smallest and largest body of salt water surrounding the continents.

(i) The smallest is the Arctic ocean. It covers only the Nothern part of Europe and America.

(ii) The largest is pacific ocean. It covers a very big part including West of America.

Extract 4.1: A sample of correct responses for question 4

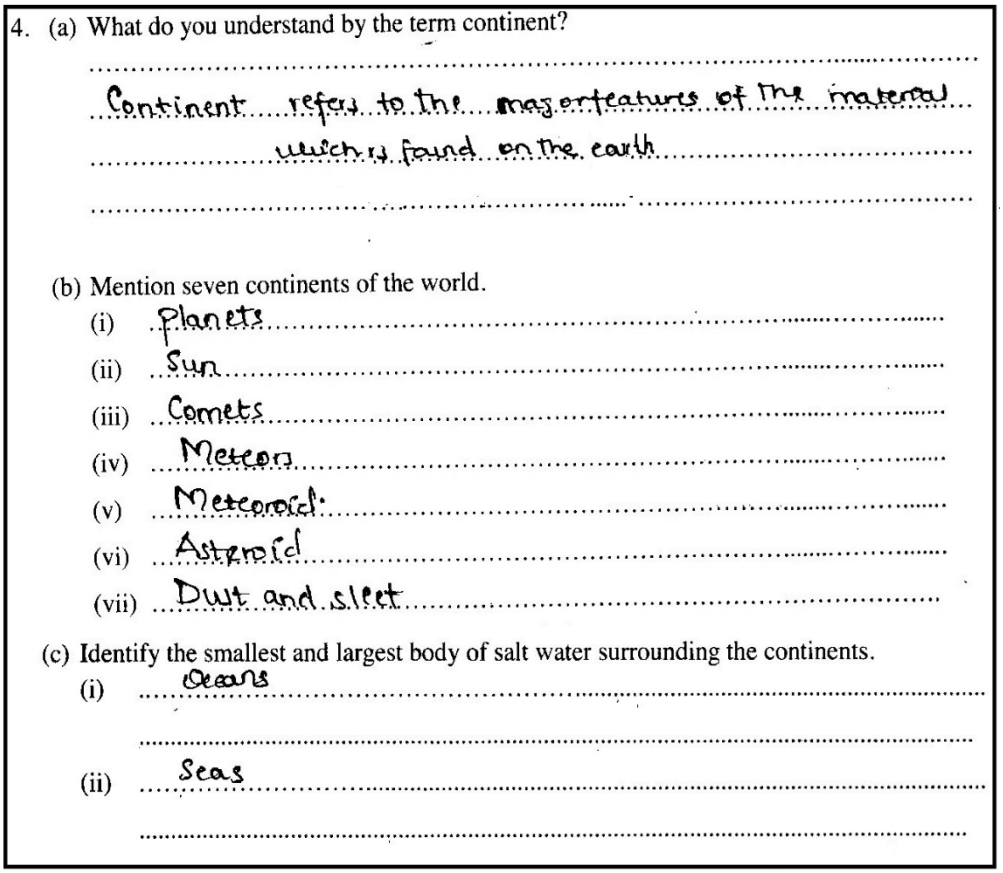
However, 314,399 (39.44%) students with average performance revealed moderate levels of knowledge on the major features of the earth's surface, especially on the concept of the continent. For instance, in part (a), some students defined correctly the term continent. In part (b), they mixed up correct and incorrect responses while in part (c), they identified correctly the smallest and largest body of salt water surrounding the continents. Some of them, provided correct responses in part (a) and (b) while in part (c), they wrote incorrect responses. For instance, one student wrote *sea* and *ocean in* part (c). Probably, the student was attracted by word *smallest* and *largest* body of water. As sea is smaller in size than ocean. The student failed to recall that ocean is the only largest body of salt water surrounding the continents.

Others defined inadequately the term continent in part (a). In part (b) they mentioned few continents of the world, while in part (c) they mixed up correct and incorrect responses. An example of incorrect response was the

Atlantic Ocean in part (c). The student failed to recall relative sizes of the world major oceans because, the Atlantic is the second largest ocean. So far, their scores varied depending on the strengths of their responses.

A total of 223,795 (28.08%) who had weak performance, lacked knowledge on the major features of the earth's surface particularly on the continents of the world. Some students provided inadequately definition of continent in part (a). In part (b) they misinterpreted the question by providing responses contrary to the demand of the question whereas in part (c) they mixed up correct and incorrect responses. For instance, one student wrote in part (b), *mountains, hills, plains, plateaus, basins* and *valleys.* The student did not understand that, these are the major features of the continents while, in part (c) they identified *lake* as the smallest body of salt water. The student failed to realise that a lake is a body of water occupying a hollow in the earth's surface. It is not surrounding the continents but only a part of the land. Another student wrote in part (a), *it is the topographic feature of the earth's surface.* The student provided the meaning of landform instead of *continent*. The student did not recall that *continent* and *earth's surface* are related terms.

Similarly, another student in part (c), wrote *Mediterranean Sea, Indian Ocean, Red Sea* and *Atlantic Ocean* instead of mentioning the major continents. These responses implied that, the student was not aware of the characteristics of the major water bodies in the world. *As Mediterranean* and *Red sea* are examples of *seas* surrounded in whole or part by land. *Atlantic* is the second and *Indian* is the third ocean in size surrounding the landmass of the earth. Therefore, it indicated that the student had limited knowledge of the relative size of the world's major oceans. Another student mentioned oceanic features such as; *mid oceanic ridge, ocean deep, oceanic island, abyssal hill, abyssal plain, continental rise* and *continental slope* instead of *continents* in part *(b)*. Extract 4.2 demonstrated a sample of such incorrect response for this question.


4. (a) What do you understand by the term continent?

Continent refers to the major features of the material which is found on the earth

(b) Mention seven continents of the world.

(i) Planets

(ii) Sun

(iii) Comets

(iv) Meteor

(v) Meteoroid

(vi) Asteroid

(vii) Dust and sleet

(c) Identify the smallest and largest body of salt water surrounding the continents.

(i) Oceans

(ii) Seas

Extract 4.2: A sample of incorrect response for question 4

In extract 4.2, the student wrote an incorrect meaning of the term continent instead of the correct meaning of continent in part (a). In part (b) the student mentioned the components of the solar system which are; planets, the sun, comets, meteors, meteoroids and asteroids instead of continents of the world which are; Asia, Africa, North America, South America, Antarctica, Europe and Australia while in part (c) the student wrote *oceans* and *seas* instead of *Arctic Ocean* and *Pacific Ocean*.

2.2.3 Question 5: Weather

The question tested the students understanding of the concept of weather. The students were required to read the given statement and then respond to the question that followed. The statement was:

On 31st December 2020, a meteorologist in a weather station recorded a temperature of Dar es Salaam as 36^0 Centigrade. (a) Describe three factors, which affect the element of weather recorded in the station.

A total of 797,124 (100%) students attempted this question. The analysis of the data, indicated that 511,756 (64.20%) students had weak performance as they scored from 0 to 2.5 marks, 235,433 (29.54%) students had average performance as they scored 3 to 6 marks, whereas 499,35 (6.26%) had good performance as they scored 6.5 to 10 marks. The general performance on students on this question was average, because 36.02 percent of them scored from 3 to 10 marks. Figure 5 summarizes the students' performance for question 5.

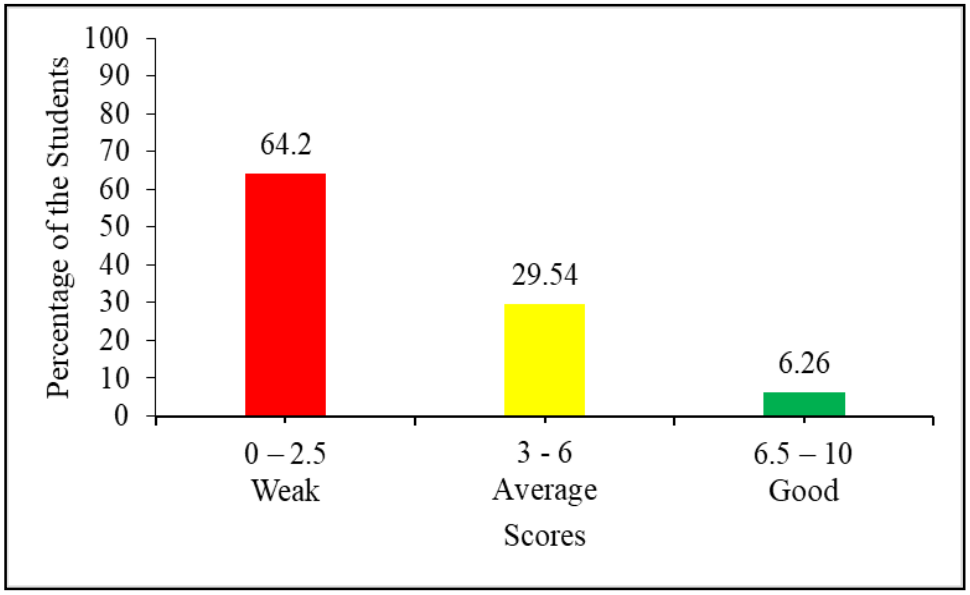
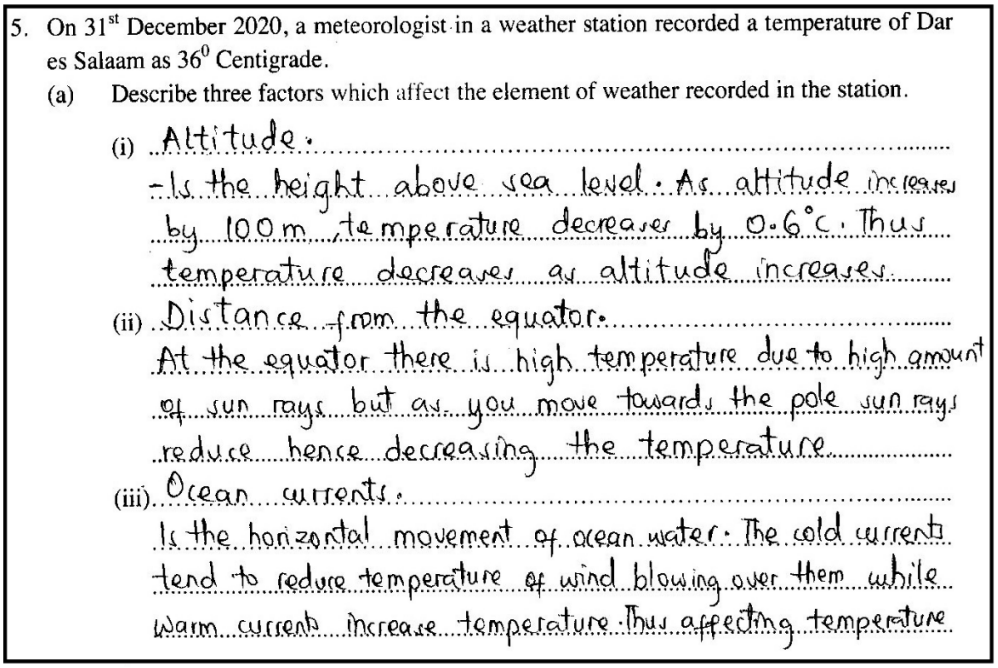


Figure 5: *Students' performance for Question 5*

Further analysis showed that, 49,935 (6.26%) students scored higher marks, because they had sufficient knowledge about weather, particularly on factors affecting the element of weather as well as on measuring and recording weather of places. The correct factors which affect the elements of weather recorded in the station are; *ocean currents, aspect, length of the day, latitude, wind, cloud cover, distance from the sea, altitude, nature of the land surface, vegetation covers* and *human activities.* However, the variation of their marks was influenced by the strengths of their responses. Extract 5.1 is a sample of correct response for question 5.


5. On 31st December 2020, a meteorologist in a weather station recorded a temperature of Dar es Salaam as 36^0 Centigrade.

(a) Describe three factors which affect the element of weather recorded in the station.

(i) Altitude.
-Is the height above sea level. As altitude increases by 100m, temperature decreases by 0.6°c. Thus temperature decreases as altitude increases.

(ii) Distance from the equator.
At the equator there is high temperature due to high amount of sun rays but as you move towards the pole sun rays reduce hence decreasing the temperature.

(iii) Ocean currents.
Is the horizontal movement of ocean water. The cold currents tend to reduce temperature of wind blowing over them while warm currents increase temperature. Thus affecting temperature.

Extract 5.1: A sample of correct responses for question 5

On the other hand, 235,433 (29.54%) students with average performance, possessed moderate knowledge on weather, as they were able to provide few factors, which affect the element of weather without explanations. Some of them mixed up correct and incorrect responses. An examples of incorrect response was; *sunshine.* The student did not remember that, sunshine is the light we get from sun rays. So, it is one of the elements of weather which can be affected by various factors. Probably, misinterpreted the two concepts *sunshine* and *cloud cover.*

The majority of students (64.20%) with weak performance had limited understanding on the concept of weather, as some of them described only one factor which affect the element of weather recorded in the station while, others provided responses contrary to the demand of the question. For instance, some students wrote about *temperature, humidity,* and *wind,* while another one wrote *precipitation, atmospheric pressure* and *cloud cover*. Those students failed to realise that; these are the elements of weather which can be affected by various factors. Extract 5.2 is a sample of incorrect response for question 5.

5. On 31st December 2020, a meteorologist in a weather station recorded a temperature of Dar es Salaam as 36^0 Centigrade.

(a) Describe three factors which affect the element of weather recorded in the station.

(i) Atmospheric pressure

(ii) Humidity

(iii) Rainfall

Extract 5.2: A sample of incorrect responses for question 5

In extract 5.2, the student mentioned the *elements of weather* which are *temperature, humidity, clouds cover, sun shine, wind, precipitation* and *atmospheric pressure* instead of *factors affecting the elements of weather which are: distance from water bodies, ocean currents, altitude, latitude, aspect* and *length of a day time.*

2.2.4 Question 6: Major Features of the Earth's Surface

The question assessed the students' recall of major features of the earth's surface. The question demanded the students to: briefly describe how fold mountains and block mountains are formed with the aid of diagrams.

This question was attempted by 797,124 (100%) students, of whom 456,393 (57.26%) had weak performance as they scored 0 to 2.5 marks, 285,634 (35.83%) had average performance as they scored 3 to 6 marks, while 55,096 (6.91%) students had good performance as they scored 6.5 to 10 marks. The performance of students in this question was generally average, as 43.07 percent of the students scored 3 to 10 marks. Figure 6 illustrates the students' performance for this question.

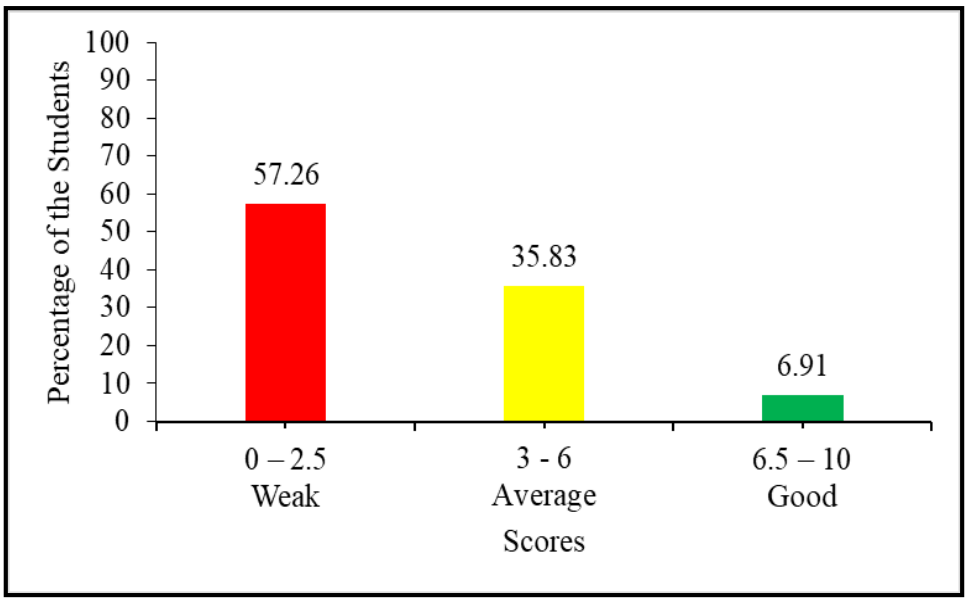
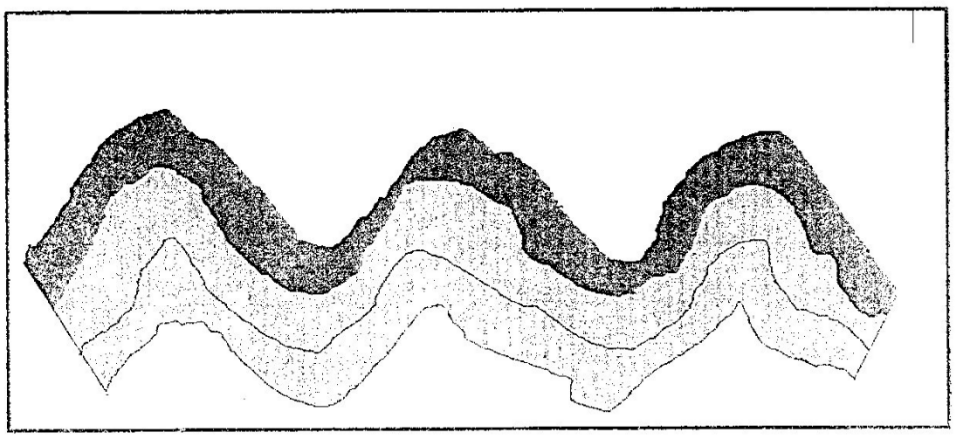


Figure 6: *Students' performance for Question 6*

The analysis implied that, 55,096 (6.91%) students with higher scores had sufficient knowledge of the major features of the earth's surface, especially on the different types of mountains and their formation. Those students described correctly the formation of fold and block Mountains with the aid of diagrams as follows:

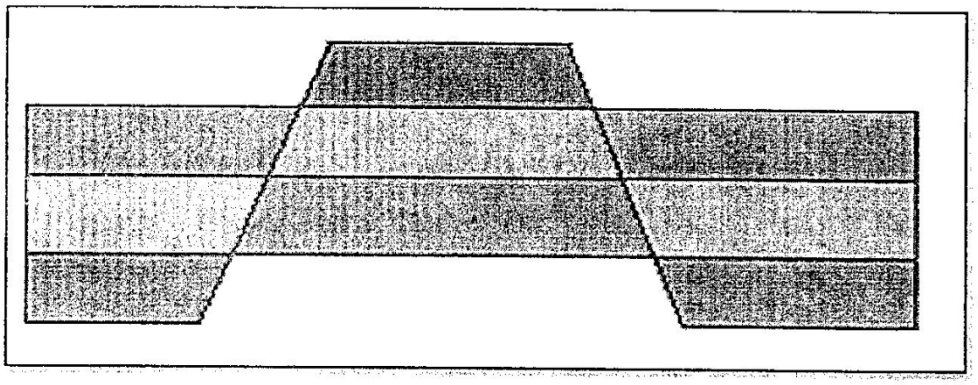
(a) *Fold mountain is formed by a process of folding or wrinkling of earth's rocks. The folding occurs when compressional forces act on horizontal layers of crustal rocks.*

Diagram of fold mountain



Moreover, in part (b), those students described a *block mountain as an upland area with table like structured bordered by faults on one or both sides. They are formed when tensional forces in the earth's crust forces layers of crustal rocks to break.*

Diagram of block mountain



The accuracy and clarity of their responses were the factors that contributed to the variation in their marks. Extract 6.1 is a sample of the correct response for question 6.

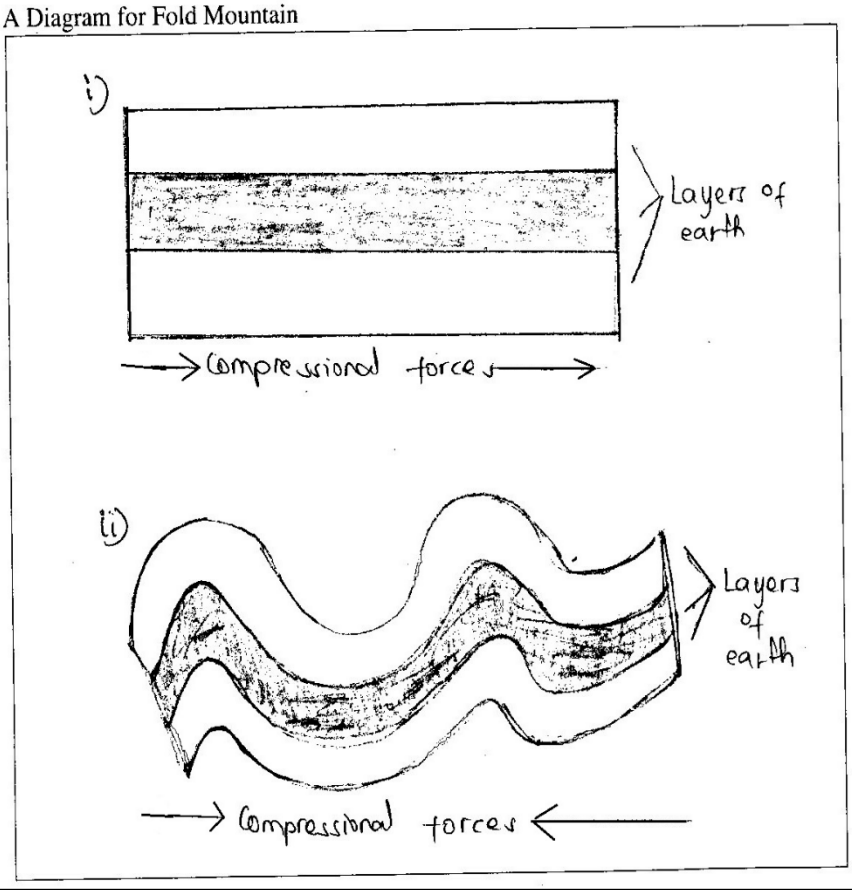
6. With the aid of a diagram briefly describe how fold and block mountains are formed.

(a) Fold mountain

i) The layers of the earth are subjected to compressional forces.

ii) As the compressional forces continue acting on earth's layers they lead to wrinkling of the earth's crust hence leading to formation of fold mountain.

A Diagram for Fold Mountain



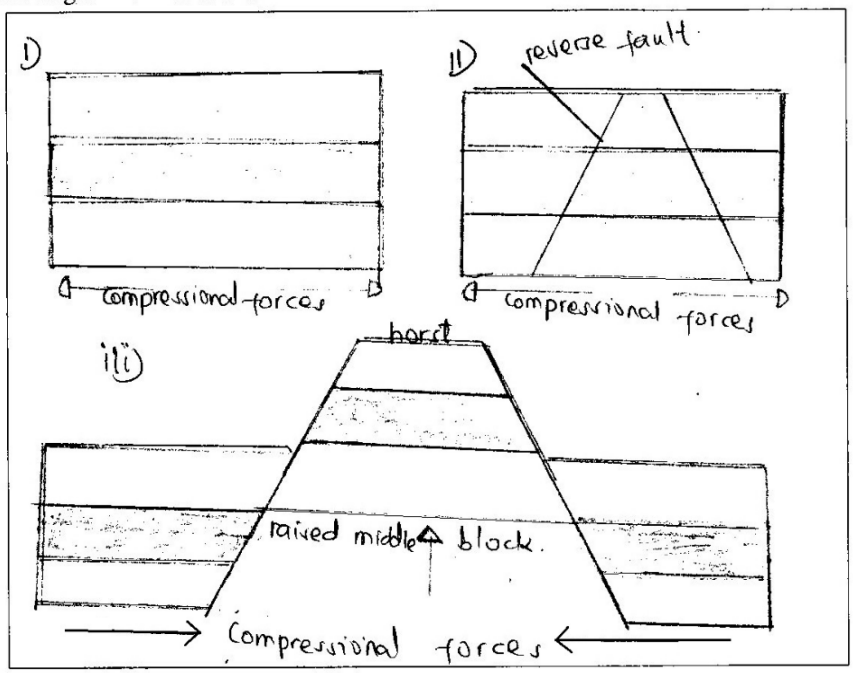
(b) Block mountain

i) The layers of the earth are subjected to compressional forces.

ii) As the compressional forces increases they lead to formation of lines of weakness called reverse faults

iii) When the compressional forces continue acting on the earth's layers they cause the middle part to rise hence forming block mountain.

A Diagram for Block Mountain



Extract 6.1: A sample of correct responses for question 6

The students (36.16%) who scored averagely had moderate knowledge about the major features of the earth's surface, especially on the different types of mountains and their formation. Some students described correctly fold and block mountains without diagrams. Some of them described only the formation of fold mountain with a diagram. Some described block mountain only while others described inadequately the formation of fold and block mountains with diagrams.

Contrarily, 456,393 (57.26%) students had weak performance due to little knowledge on the concept of mountains and their formation. For instance, some students were not able to describe and draw diagrams of fold and block mountains. Some of them explained insufficiently fold mountain but drew the diagram of block mountain and described block mountains but drew the diagram of fold mountains. Some provided responses which were contrary to the demand of the question on both parts while, others failed to describe both fold and block mountains but drew correct diagrams.

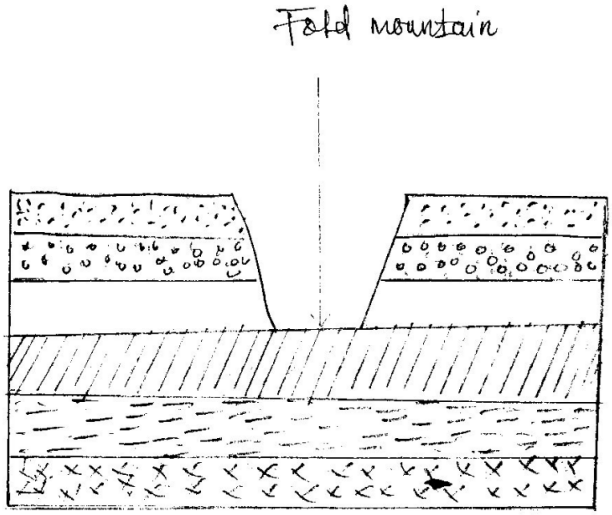
For instance, one student interchanged the description of block mountain as fold mountain and fold mountain as block mountain but ended up with correct diagrams. The response of the student was as follows; a *Fold Mountain is formed due to tensional forces,* while *a block mountain is formed due to compressional forces* but *drew correctly the diagram of fold and block mountains.* The student did not realise that a fold mountain is formed due to compressional forces whereas block mountain is formed due to tensional and compressional forces. Another student provided incorrect descriptions of fold and block mountains and drew the diagrams of *fold mountain* instead of *block mountain* and *block mountain* instead of *fold mountains.* Extract 6.2 represents a sample of such incorrect responses for question 6.

6. With the aid of a diagram briefly describe how fold and block mountains are formed.

(a) Fold mountain

Fold mountain - This is the type of mountain which is active it can cause Volcano because it has fold thus why called Fold mountain

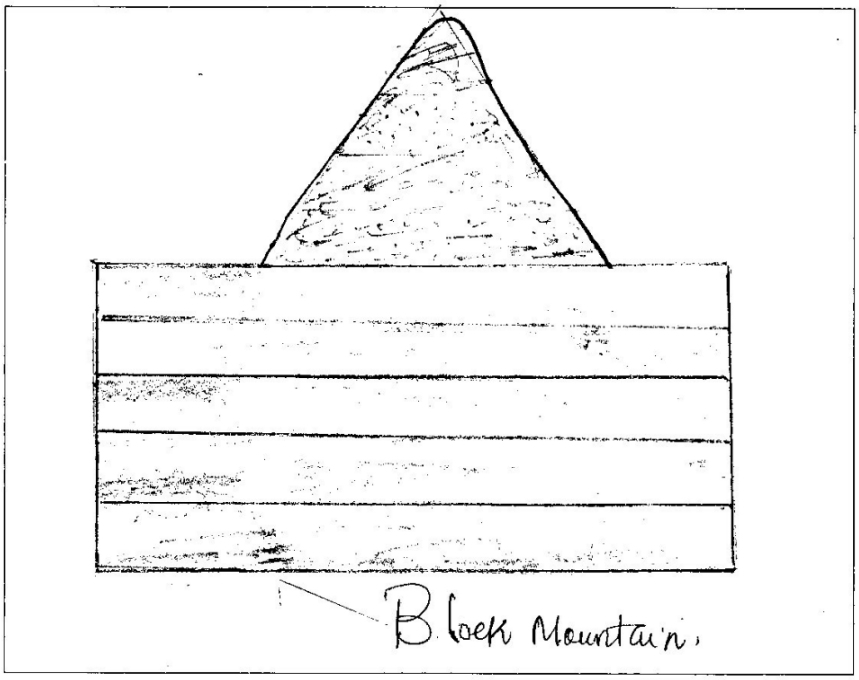
A Diagram for Fold Mountain



(b) Block mountain

Block mountain - This is type of block which is not active it can't cause Volcano if has Block thus why we are call Block Mountai.

A Diagram for Block Mountain



Extract 6.2: A sample of incorrect responses for question 6

In extract 6.2, the student provided incorrect description of *fold* and *block mountains* and drew the diagram of *block mountain* instead of *fold mountain.*

2.2.5 Question 7: Tourism

This question tested the students understanding of the concept of tourism. It had three parts (a), (b) and (c) as follows;

(a) What do you understand by the term tourist attraction?

(b) Outline three historical sites found in Tanzania.

(c) Identify three negative impacts of tourism.

The question was attempted by 797,124 (100%) students, of which 333,640(41.86%) scored 0 to 2.5 marks which is weak performance; 310,180 (38.91%) scored 3 to 6 marks which is average performance and 153,304 (19.23%) scored 6.5 to 10 marks which is good performance. The general performance of students in this question was generally average, as 58.25 percent of students scored from 3 to 10 marks. Figure 7 illustrates the performance of students for question 7.

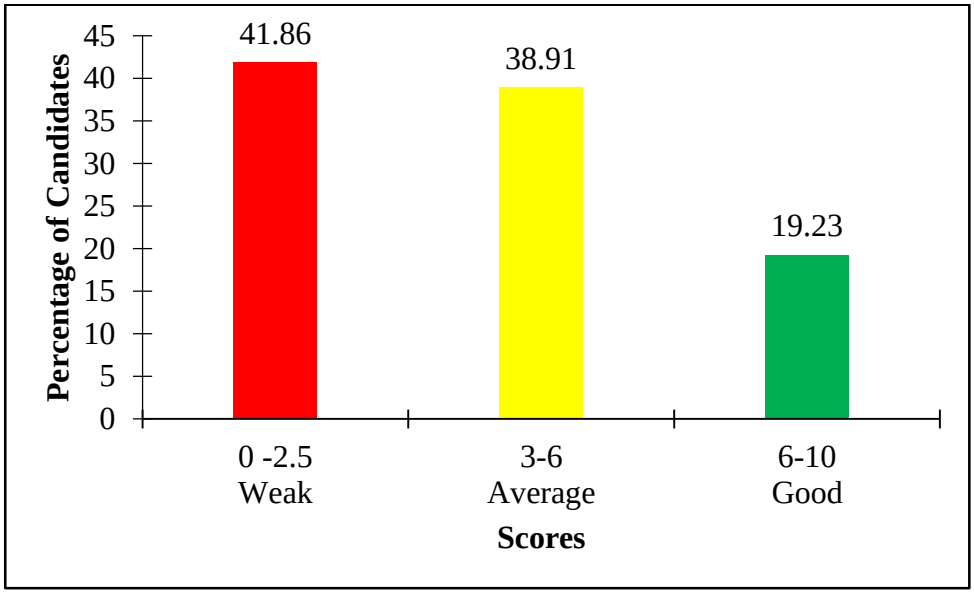
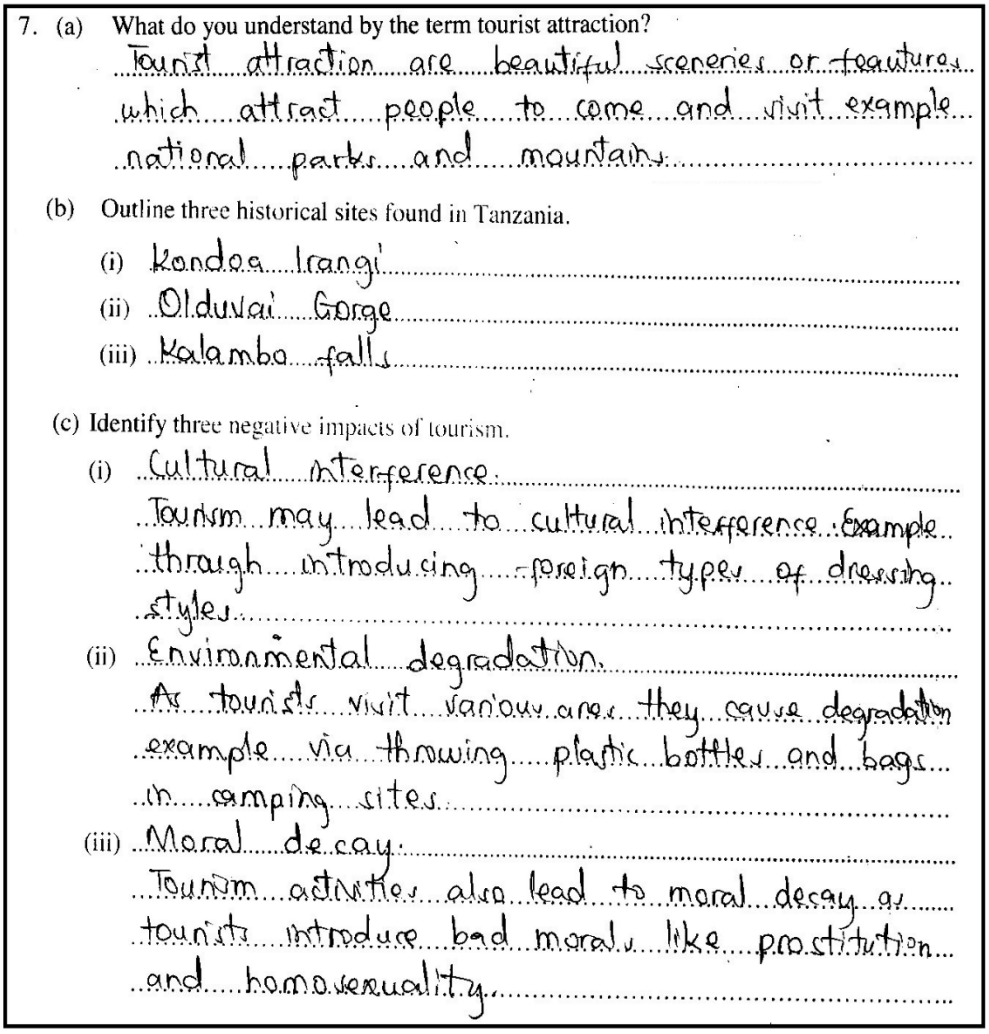


Figure 7: *Students performance for Question 7*

Data analysis indicated that 153,304 (19.23%) students who scored high marks demonstrated sufficient knowledge on the concept of tourism. For instance, some students defined *tourism attraction* as a *thing or feature that makes tourists want to visit a certain place* in part (a). In part (b), they outlined three historical sites found in Tanzania as; *Olduvai Gorge in Arusha, Kondoa Irangi cave drawings in Dodoma, Amboni caves in Tanga, Engaruka Old Iron Centre, Bagamoyo slave market, Stone town in Zanzibar, Mikindani slave market, Kilwa Old buildings, Isimila, Pangani Old buidings* and Kalambo falls. Also, in part (c) they identified negative impacts of tourism as; *change of cultural identity, environmental pollution, spread of diseases, it may lead to the deforestation, may force government*

to diverge expenditure from other important economic activities, increase of land price, housing, food and clothes, displacement of communities, increase of crimes and moral decay. The variation of marks among those students was influenced by the strengths of their points and explanations. Extract 7.1 is a sample of the correct response for this question.



7. (a) What do you understand by the term tourist attraction?

Tourist attraction are beautiful sceneries or feautures which attract people to come and visit example national parks and mountains

(b) Outline three historical sites found in Tanzania.

(i) Kondoa Irangi

(ii) Olduvai Gorge

(iii) Kalamba falls

(c) Identify three negative impacts of tourism.

(i) Cultural interference

Tourism may lead to cultural interference Example through introducing foreign types of dressing styles

(ii) Environmental degradation

As tourists visit various area they cause degradation example via throwing plastic bottles and bags in camping sites

(iii) Moral decay

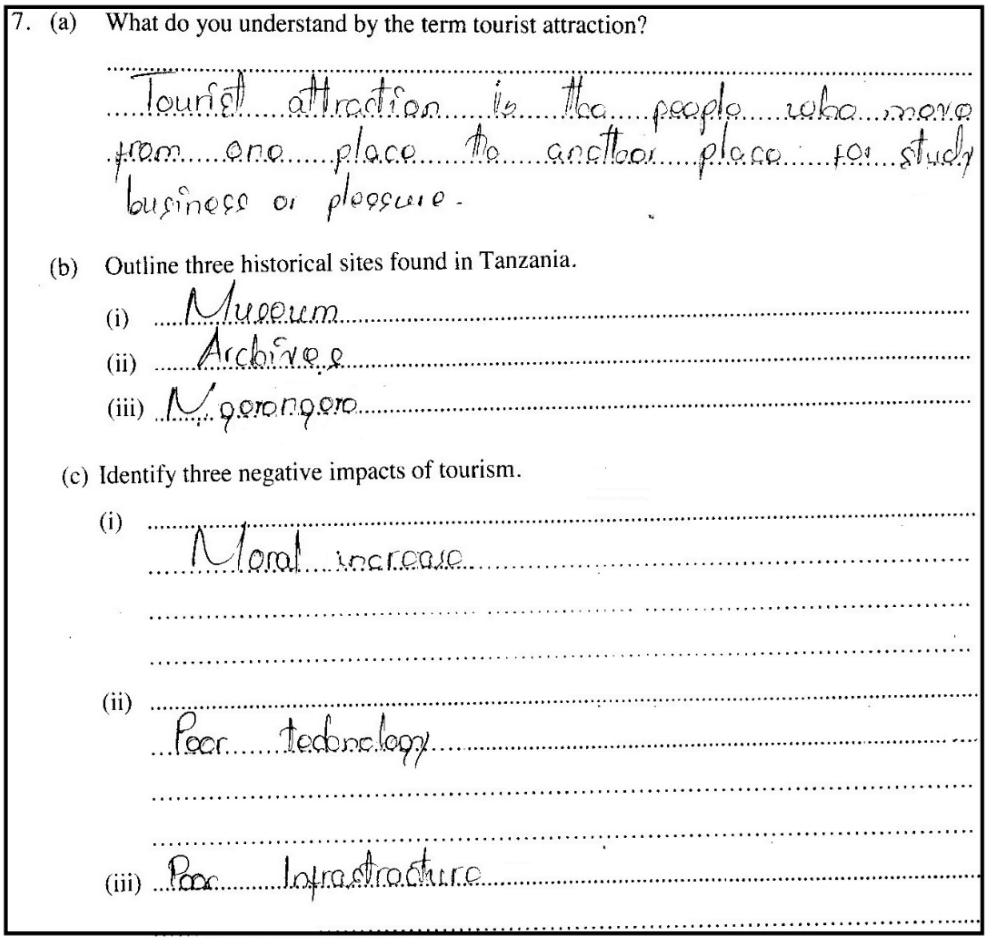
Tourism activities also lead to moral decay as tourists introduce bad morals like prostitution and homosexuality

Extract 7.1: A sample of correct responses for question 7

A total of 310,180 (38.91%) students who scored average marks had moderate understanding on the concept of tourism. Some students provided correct responses in parts (a) and (b), whereas in part (c) they mixed up correct and incorrect responses. Some of them did not define the term tourist attraction in part (a) but provided few correct responses in both part (a) and (b). In part, (a), some of them provided examples of tourist attraction instead

of defining the term tourist attraction. In part (b), they wrote correct and incorrect responses while, in part (c) they provided correct responses. For instance, one student in part (a), provided examples of tourist attraction such as; *varied sceneries, different cultures, historical sites and monuments* instead of defining it. Probably the students misinterpreted the word tourist's attraction with definition of tourist attraction. Additionally, in part (b) the student mixed up correct and incorrect responses. An example of incorrect response was Mikumi National Park. That student was not aware that Mikumi National Park is one of the tourist attractions but it is not the historical site as demanded by the question.

On the other hand, 333,640 (41.86%) students with weak performance revealed inadequate understanding on the concept of tourism. In part (a) some students defined the term tourism instead of tourist attraction. In part (b) they outlined national parks instead of historical sites. In part (c), they identified positive impacts of tourism instead of negative impacts of tourism. For instance, one student wrote *Tourism is the movement of people to places of interest for leisure, instead of tourist attraction*. The student failed to recall that tourist attraction is not a process but it is an attractive force. This implied that the student had general knowledge of tourism but not tourist attraction. For instance, one student named *Serengeti* and *Mount Kilimanjaro National Park* in part (b). Extract 7.2 represents a sample of incorrect response for question 7.


7. (a) What do you understand by the term tourist attraction?

Tourist attraction is the people who move from one place to another place for study business or pleasure.

(b) Outline three historical sites found in Tanzania.

(i) Museum

(ii) Archives

(iii) Ngorongoro

(c) Identify three negative impacts of tourism.

(i) Moral increase

(ii) Poor technology

(iii) Poor Infrastructure

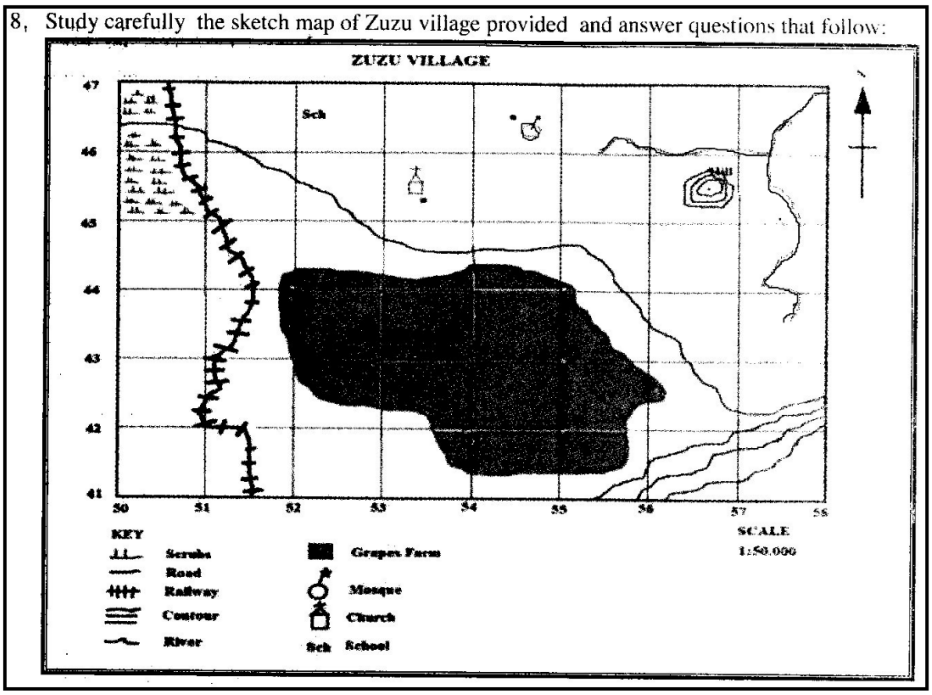
Extract 7.2: A sample of incorrect responses for question 7

In extract 7.2, the student defined tourist instead of tourist attraction. In part (b), the student mentioned historical sites as *museum* and *archives* instead of *Olduvai Gorge in Arusha, Kondoa Irangi cave drawings in Dodoma, Amboni caves in Tanga, Engaruka Old Iron Centre, Bagamoyo slave market, Stone town in Zanzibar, Mikindani slave market, Kilwa Old buildings, Isimila, Pangani Old buidings and Kalambo falls*. In part (c), the student wrote moral increase instead of *moral* decay. Also, in this part the student mentioned poor technology and poor infrastructure which are the challenges facing tourism instead of the impacts of tourism.

2.2.6 Question 8: Map Work

This question tested the student's knowledge and skills of map work, especially on scale conversion, reading grid reference, measuring, the length and calculating areas on the maps. It had three parts: (a), (b), and (c). The students were required to read the given statement and then respond to the questions that followed. The statement was, "Study carefully the sketch map of Zuzu village provided and answer the questions that follows".

(a) Using a tracing method, calculate the area covered by Grape farm in Km^2.
(b) Measure the length of the railway line.
(c) Convert the given fractional map scale into statement scale.



The question was attempted by 797,124 (100%) students, of whom 70,280 (84.09%) had weak performance as they scored 0 to 2.5 marks, 103,045 (12.93%) scored 3 to 6 marks, which is average performance, and 23,799 (2.99%) scored from 6.5 to 10 marks, which is good performance. In general, the performance of the students in this question was weak, since 15.99 percent of the students scored 3 to 10 marks. Figure 8 illustrates the student performance in this question.

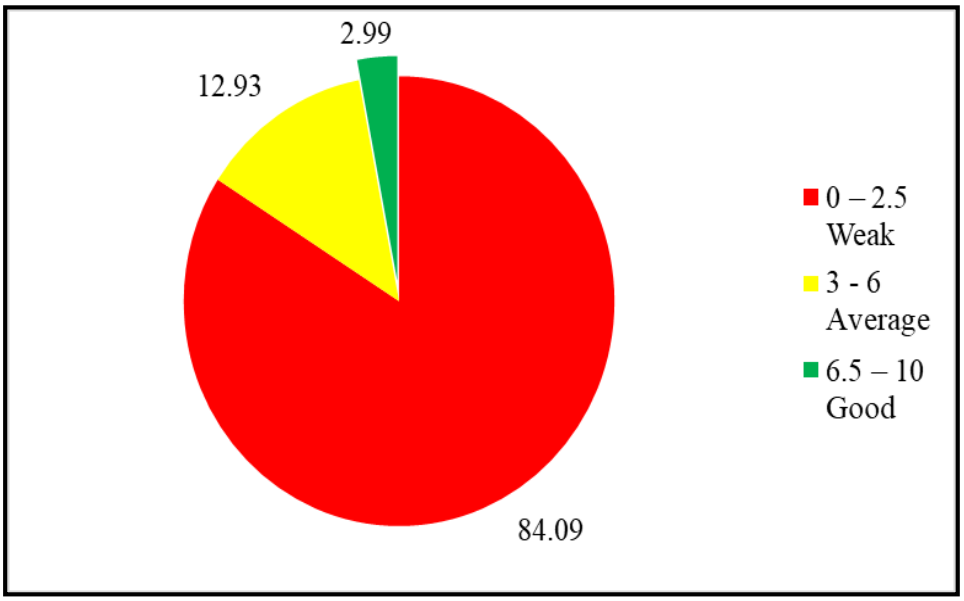
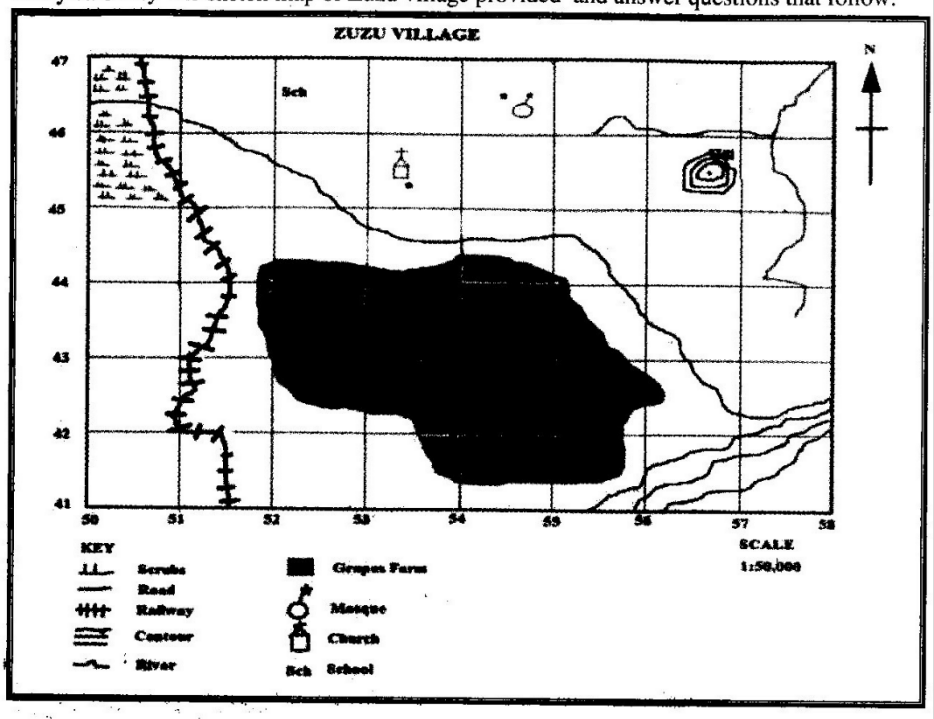


Figure 8: *Students' performance for Question 8*

The majority of students (84.09 %) who had weak performance possessed little knowledge of mathematical skills on scale conversion, reading grid references, measuring length, calculating areas and distances on the sketch map given. Some students in part (a) mixed up correct and incorrect responses. In part (b), provided incorrect responses whereas in part (c) wrote only few steps. Some of them provided only few answers in all parts while others provided incorrect responses in all parts contrary to the demand of the question. For instance, one student in part (a), used the geometrical method instead of *tracing method*. The student divided the figure into different shapes without any calculations. This response implied that, the student misinterpreted the word tracing. In part (b), the student copied the given scale while in part (c), did not show any step but wrote 1km = 100,000cm. This indicated that the student lacked basic skills of map work and mathematical skills on scale conversion, reading grid reference, measuring length, calculating areas and distances on the maps. Extract 8.2 represents such incorrect responses.

8. Study carefully the sketch map of Zuzu village provided and answer questions that follow:



(a) Using a tracing method, calculate the area covered by Grapes farm in Km^2.

Frame

key

Scale

North direction

Title

8 (b) Calculate the length of the railway from grid reference 506476 to 515415 in Km.

Soln

grid reference 506476

+515415

1021891 km

∴ the railway from grid reference 1021891 km

(c) Convert the given fractional map scale into statement scale.

It the relationship between map distance and ground distance

Extract 8.2: A sample of incorrect responses for question 8

In extract 8.2, in part (a) the student mentioned the components of a map instead of calculating the area by using tracing method. In part (b), added grid reference instead of calculation the length of the railway from grid reference 506476 to 515415 in km identifying the railway by using grid reference while in part (c) the student provided the definition of scale instead of converting the fractional map scale into statement.

Generally, a total of 23,799 (2.99 %) students with good performance had sufficient knowledge of mathematical skills on scale conversion, reading grid references, measuring, calculating areas and distances of areas on the maps. For instance, some students in part (a) calculated correctly the area covered by grapes in Km^2 in part (a), by following these steps.

Area of a Grape farm
Solution:
(i) *Complete squares = 4*
(ii) Incomplete squares = 14/2 = 7
(iii) Complete squares + incomplete squares = 4 + 7 = 11
Areas of 1 square from the map scale
2 cm x 2 cm = 1 km x km
= 1 km^2
Total area = area of 1 square x total number of squares
= 1 km^2 x 11 squares
Area of a grape farm = 11 km^2

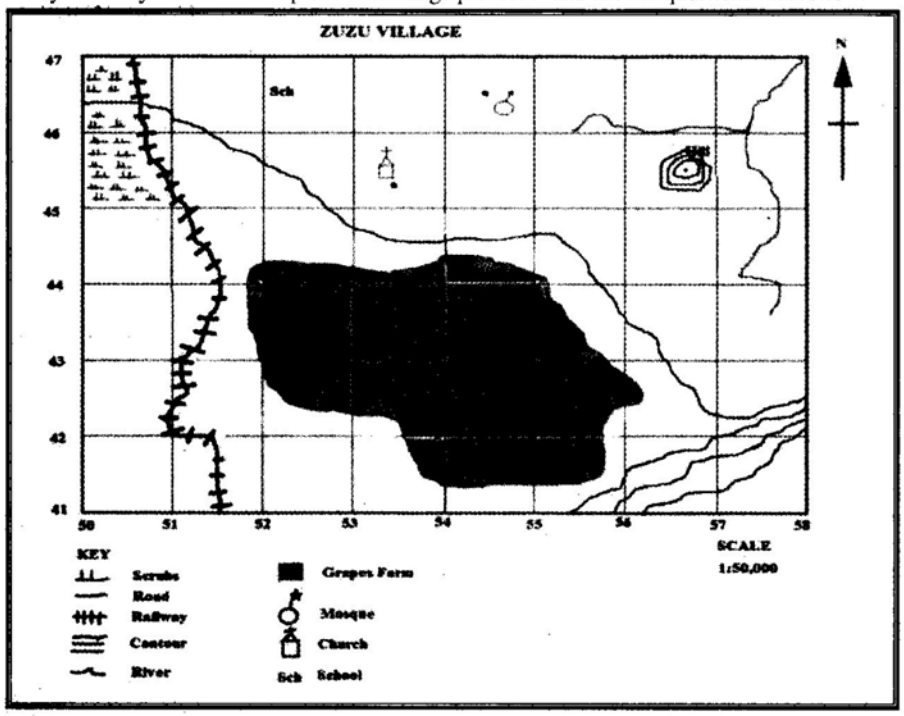
In part (b) they calculated the length of the railway from grid reference 506476 to 515415 in Km as follows;
Solution:
(i) *The length of the road on the map between grid 506476 to 515415 is 8.5cm.*
(ii) Converting map's scale of 1:50,000 into statement scale
Scale = Map distance/actual ground distances
Actual ground distance = 50,000 cm/100,000 cm x 1 km
Ground distance = 0.5 Km
Therefore, one centimeter on the map represents half a Kilometer on the ground.
(iii) Actual ground distance = Map distance x ground distance
Actual ground distance = 8.5 cm x 0.5 Km = 4.25 Km

Therefore, the length of the railway from grid 506476 to 515415 is 4 Km – 4.5 Km.

In part (c) they converted the given fraction map scale into statement scale as follows;
Solution:
(i) *The given map scale 1:50,000*
(ii) Statement scale =?
(a) Convert ground distance into km
1 km = 100,000 cm
x = 50,000 cm
x = 1 km x 50,000 cm
100,000 cm
=½ km
(b) *Writing the scale with ground distance in km*
1 cm to ½ km
(c) Writing statement scale
One centimeter on the map represents half a kilometer on the round.

However, their scores varied because of strengths of their responses. Extract 8.1 represents such correct response.

8. Study carefully the sketch map of Zuzu village provided and answer questions that follow:



(a) Using a tracing method, calculate the area covered by Grapes farm in Km^2.

Soln

No of complete squares = 4 squares

No of incomplete squares = 14 squares

$= \frac{4 + 14}{2} = 4 + 7 = 11$ squares

Length of one square is 2cm

$A = L \times L = 2cm \times 2cm$

$= 4cm^2$

1:50,000

1km = 100,000cm

x = 50,000cm

$= \frac{50,000/km}{100000} = 1/2 km$

(1cm² to (1/2 km²)

$1cm^2$ to $1/4 km^2$

1cm² to 1/4 km²
4cm² to ∝
= 1/4 km² × 4
= 1km²

1sq = 1km²
11sq = ∝
= 11 × 1km²
= 11km² ∴ Area covered is 11km²

(b) Calculate the length of the railway from grid reference 506476 to 515415 in Km.

Soln
Length of railway on map = 9.1cm
1:50000
1km = 100000cm
∝ = 50000cm
= 50000 × 1km = 1km
100000 2
1cm to 1/2km
9.1cm to ∝
∝ = 1 × 9.1
2
= 4.05km ∴ Length of the railway is 4.55km

(c) Convert the given fractional map scale into statement scale.

Soln
1:50000
1km = 100000cm
∝ = 50000cm
= 50000 × 1km
2 100000
= 1/2km
1cm to 1/2km
= One centimeter on a map represents half a kilometer on the ground.

Extract 8.1: A sample of correct response for question 8

Additionally, 126,474 (12.93%) students who scored average marks had moderate knowledge of mathematical skills on scale conversion, reading grid reference, measuring, calculating areas and distances of places on the maps. Some of the students mixed up correct and incorrect responses in all parts. Some of them provided correct responses in part (a) only. Furthermore, some students provided correct responses in part (a) and (c), while in part (b) provided incorrect responses. Others wrote the correct answer without indicating its units whereas in part (b), they presented their responses in numbers. For instance, in part (a), one student calculated the area covered by grapes in Km^2 by following these steps.

Area of a Grape farm
Solution:
(i) Complete squares = 2
(ii) Incomplete squares = 17/2 = 8.5
(iii) Complete squares + incomplete squares = 2 + 8.5 = 10.5
Areas of 1 square from the map scale
2 cm x 2 cm = 1 km x km
= 1 km^2
Total area = area of 1 square x total number of squares
= 1 km^2 x 10.5 squares
Area of a grape farm = 10.5 km

The student wrote 10.5 km instead of 10.5km^2.

In part (c) converted the given fraction map scale into statement scale as follows;
Solution:
(i) *The given map scale 1:50,000*
(ii) Statement scale =?
(a)Convert ground distance into km
1 km = 100,000 cm
x = 50,000 cm
x = 1 km x 50,000 cm
100,000 cm
= ½ km
(b) Writing the scale with ground distance in km
1 cm to ½ km
(c) Writing statement scale
1cm on the map represents 0.5 on the ground.
But in part (b) failed to convert the given fractional scale into statement. .

2.2.7 Question 9: Climate

This question tested students' understanding of the types of climate and their relationship with human activities. It had three parts (a), (b) and (c).

(a) Name the major climatic regions in Africa.
(b) Which type of climate dominates a large part of Africa?
(c) Mention three human activities which are influenced by the type of climate identified in (b).

The question was attempted by 797,124 (100%) students, of whom 406,656 (51.02%) had weak performance as they scored 0 to 2 marks, 253,232 (31.77%) scored 2.5 to 6 marks, which is average performance and 137,124 (17.22%) scored 6.5 to 10 marks, which is good performance. In general, the performance of the students in this question was average since 48.98 percent of them scored 2.5 to 10 marks. Figure 9 illustrates the students' performance for question 9.

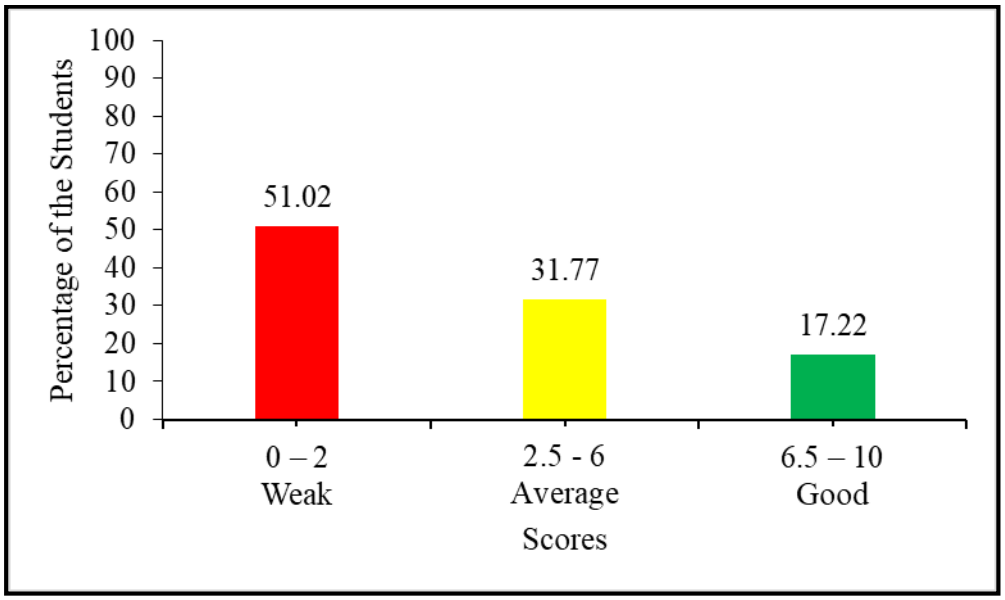
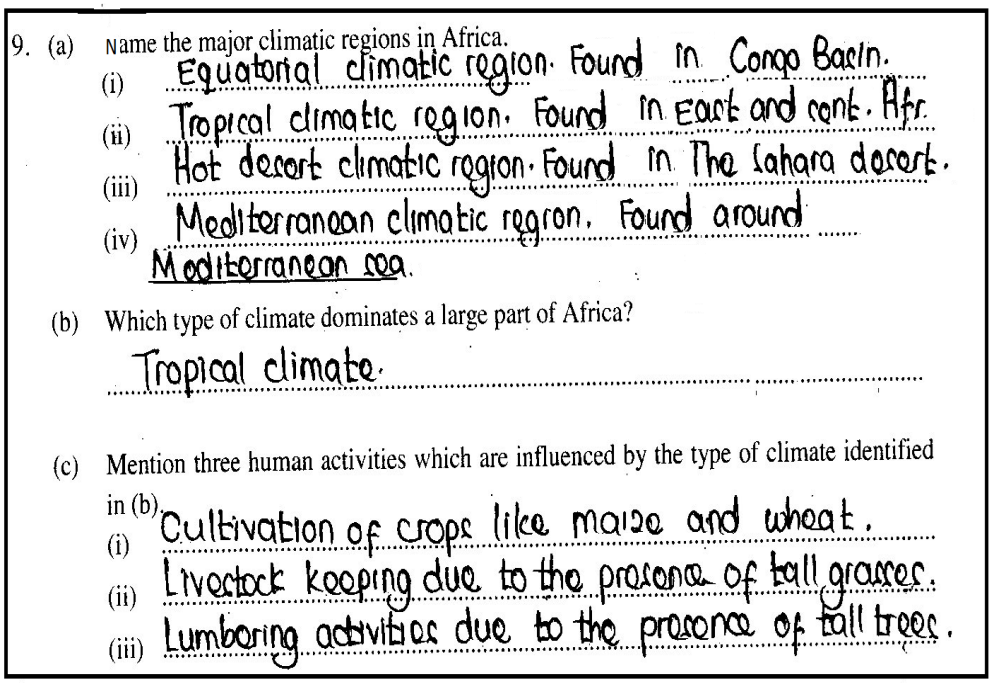


Figure 9: *Students' performance for question 9*

A total of 137,236 (17.22%) students who scored high marks revealed adequate knowledge on the topic of climate, particularly on types of climates and their relationship with human activities. Understanding of the concept enabled those students to respond correctly in all parts. Those students in part (a) named the major climatic regions in Africa as; *Desert climate, Equatorial*

climate, Mediterranean climate and *Tropical climate/Tropical Savanna*. In part (b), they identified the type of climate dominating a large part of Africa as; *Tropical climate/Tropical savanna*.

Additionally, in part (c), they mentioned correctly the human activities influenced by the type of climate identified as; *livestock keeping, crop cultivation, tourism activities, hunting and gathering, lumbering, fishing* and *mining*. So far, the strengths of their points led them to vary in their scores. Extract 9.1 represents a sample of such a correct response for this question.


9. (a) Name the major climatic regions in Africa.
(i) Equatorial climatic region. Found in Congo Basin.
(ii) Tropical climatic region. Found in East and cent. Afr.
(iii) Hot desert climatic region. Found in The Sahara desert.
(iv) Mediterranean climatic regron. Found around Mediterranean sea.

(b) Which type of climate dominates a large part of Africa?
Tropical climate.

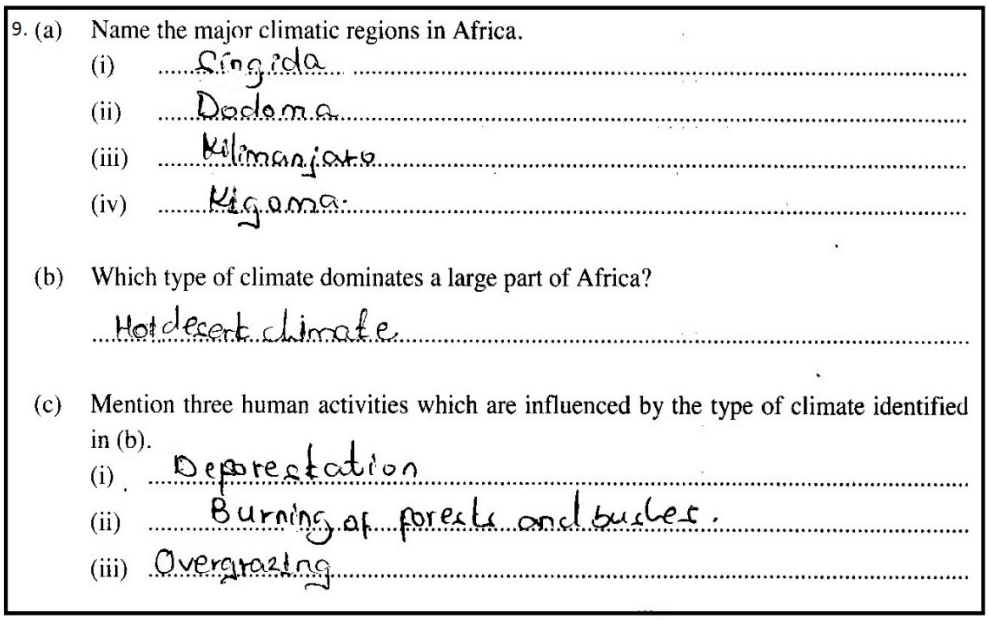
(c) Mention three human activities which are influenced by the type of climate identified in (b).
(i) Cultivation of crops like maize and wheat.
(ii) Livestock keeping due to the presence of tall grasses.
(iii) Lumbering activities due to the presence of tall trees.

Extract 9.1: A sample of correct responses for question 9

Furthermore, 253,232 (31.77%) students with average performance possessed moderate knowledge about types of climates and their relationship with human activities. In this category, some students provided correct responses in parts (a) and (c) only. Some of them mixed up correct and incorrect responses in part (a) and (c) whereas in part (b) they provided correct responses. Others wrote only two points in part (a) and (c) while in part (c), they gave correct responses. For instance, one student mixed up correct and incorrect responses in part (a) and (c). Examples of incorrect responses in part (a) was *Tundra climate* whereas in part (c) was *recreational activities*. The student failed to realise that Tundra climate is found in

Northern Norway, Northern Canada and North America and recreational activities is done in Tundra region.

Moreover, further analysis indicated that 406,656 (51.02%) students who scored lower marks had insufficient knowledge about types of climate and their relationship with human activities. Some students in part (a) named only one major climatic regions in Africa. In part (b) they failed to name the type of climate dominating a large part of Africa while in part (c) they mentioned only one human activity which is influenced by the type of climate identified in (b). Some of them mixed up correct and incorrect responses in part (a) and (c), whereas in part (b) provided correct response while, others provided responses contrary to the demand of the question. For instance, one student in part (a) mentioned *Njombe, Iringa, Tanga, Mbeya and Kilimanjaro*. In part, (b) wrote *rainfall and temperature*. Probably the student was attracted by the word regions thus provided such responses while in part (c) they mentioned types of human activities. Such as; *primary activities, secondary activities* and *tertiary activities*. While another student in part (a) wrote *Islamic, Roma, T.A.G* and *Anglican religion*, in part (b). The student confused the word region and religion which have two different meanings, thus mentioned religions instead of regions. Extract 9.2 represents such weak responses.


9. (a) Name the major climatic regions in Africa.
(i) Singida
(ii) Dodoma
(iii) Kilimanjaro
(iv) Kigoma
(b) Which type of climate dominates a large part of Africa?
Hot desert climate
(c) Mention three human activities which are influenced by the type of climate identified in (b).
(i) Deforestation
(ii) Burning of forests and bushes.
(iii) Overgrazing

Extract 9.2: A sample of incorrect responses for question 9

In extract 9.2, the student mentioned regions instead of climatic regions in part (a). In part (b), named *Hot desert climate* instead of *Tropical climate/Tropical savannah,* while in part (c) the student outlined causes of soil erosion which are *deforestation, burning of forests/bushes and overgrazing* instead of human activities which are influenced by the type of climate identified in part (a).

2.3 SECTION C- ESSAY QUESTION

2.3.1 Question 10: Agriculture

The students were required to; *Analyse five ways of improving large scale agriculture in Tanzania.* This question tested students understanding of the large scale agriculture. The question carried 15 marks.

This question was attempted by 797,124 (100%) students, of whom 495,007 (62.10%) had weak performance as they scored from 0 to 4 marks, 160, 056 (20.08%) students scored 4.5 to 9.5 marks, which is average performance and 142,061 (17.82%) scored 10 to 15 marks, which indicates good performance. The general performance of the students in this question was average, as 37.90 percent scored 4.5 to 15 marks. Figure 10 illustrates the students' performance for this question.

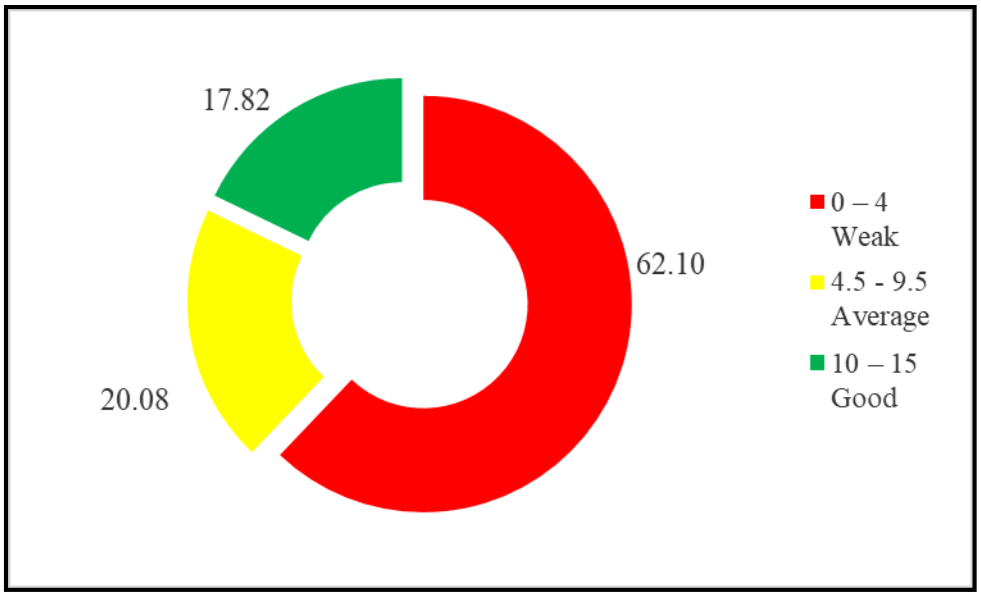


Figure 10: *Students' performance in question 10*

The analysis showed that, 142,061 (17.82%) students with higher marks showed sufficient knowledge on the concept of large scale agriculture and ways of improving it, hence they provide correct responses. Those students defined agriculture as; *the system of farming covering large area and normally one type of crop is produced for commercial purpose*.In addition, they correctly analysed ways of improving large scale agriculture as; *improvement of the transport network and communication system, government should render the necessary support, establishment and expansion of irrigation schemes, the government should provide education, to improve soil fertility, establishment of market, provision of real-time weather-related information to farmers, to control pest and disease and improvement of science and technology.*

Furthermore, they ended up with a relevant conclusion. The strengths of their points led them to vary in their marks. Extract 10.1 illustrates the correct responses for this question.

10. Analyse five ways of improving large scale agriculture in Tanzania.

WAYS ON HOW TO IMPROVE LARGE SCALE AGRICULTURE IN TANZANIA.

Large scale agriculture is an agricultural system that is conducted on extensive or large tracts of land and mainly for commercial purposes. It involves cultivating crops, that is either food crops or cash crops and rearing of animals in order to sell them or their products in order to obtain profit. Examples of cash crops that are cultivated are; tea, sisal, coffee and cloves while examples of crops produced on a large scale are; maize, millet, sorghum and wheat. Some of the large scale livestock keeping practices in Tanzania include dairy farming, beef farming and keeping pigs. This sector faces a variety of challenges in the country. Some of the challenges are; inadequate capital, unreliable internal and external market and

poor or low level of technology. This being the case, Tanzania has to apply measures in order to improve the sector. The following are appropriate ways on how to improve large scale agriculture in Tanzania:

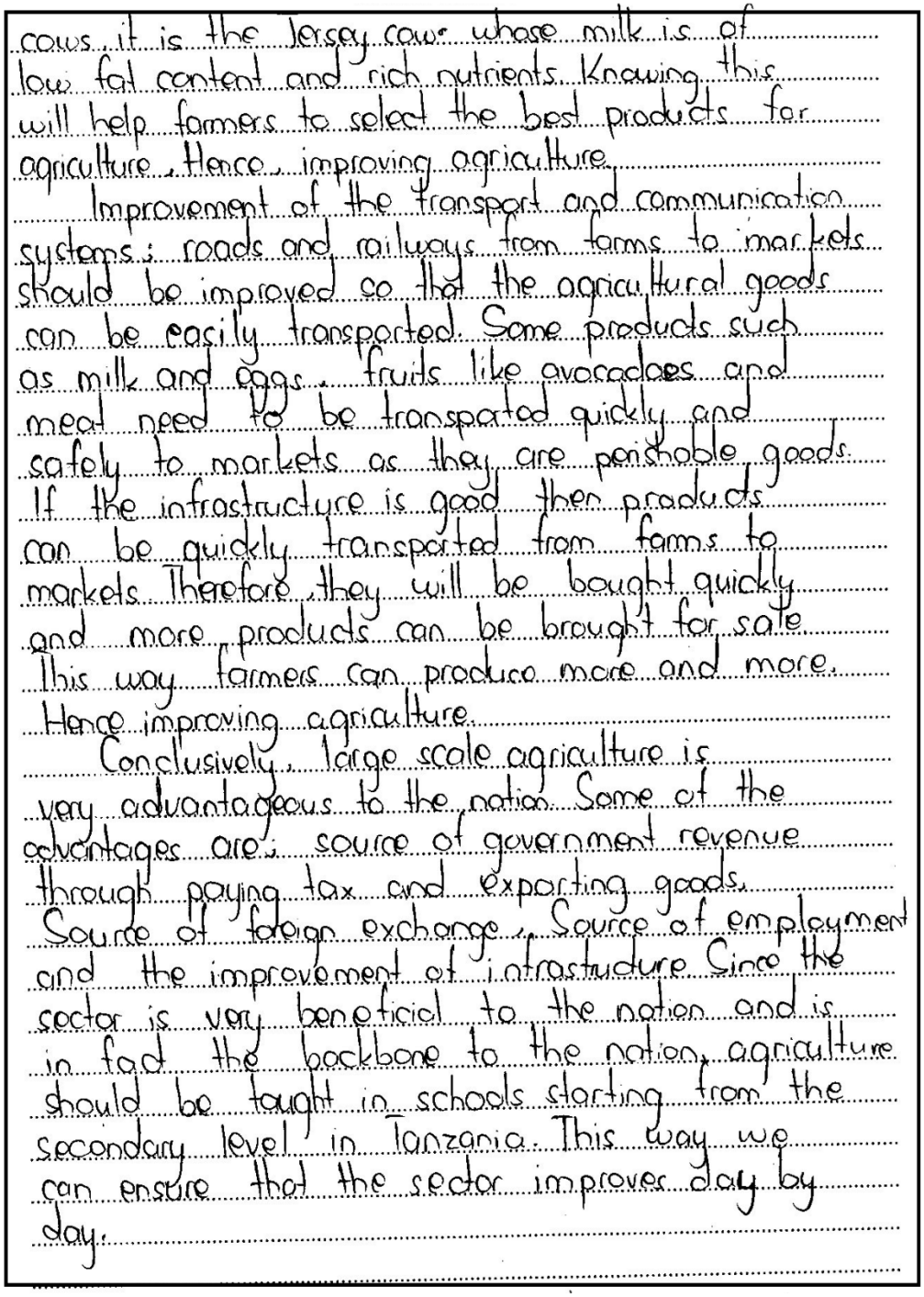
Provision of funds and subsidies to farmers and livestock keepers: The government needs to provide some amount of money to the farmers and livestock keepers engaging in large scale agriculture. This money can be used to buy the necessary equipments and products for example, farmers can use funds to buy high quality seeds, pay workers and buy machines like tractors in order to maximize the production of crops. On the other hand, livestock keepers can use the funds to build ranches and buy food for the animals. Therefore, in doing so, the government will have improved the sector by a certain percentage more.

Employing agricultural experts to advise farmers on better agricultural methods: The government should hire agricultural experts whose duty will be to advise farmers on the strategies to use in order to maximize yields in both crop cultivation and livestock. For example: an expert could visit a farmer dealing with tomato cultivation and advise the farmer on what kind of seeds to use, the best season to plant, types of fertilizers to use, the right time to harvest and how to deal with tomato diseases. Additionally, advising livestock keepers on the best breed of animals to keep and one resistant to diseases

Experts can give this advice through conducting seminars, through mass media or private visits to famers and livestock keepers.

Establishing ready markets: After harvesting agricultural products need to be sold so that the money can be used for buying other agricultural input. Therefore, the government needs to set up markets where agricultural products can be sold. To ensure a ready market the products need to be of very high quantity but also very high quality in order to influence customers to buy it from the internal market. The government can also ensure a market internationally by entering into partnerships with large scale agriculture companies and exporting the products. For example, since coffee is of very great demand, it should be grown in high quantity and quality in our country and later on it can be exported to other countries. This way agriculturalists do not encounter losses and the sector is improved.

Investing in research on how to make large scale agriculture better: Another way of improving agriculture is doing research. The government should support conducting research on better agricultural methods. For example: doing a research on the drip irrigation method and terracing so as to find out how the methods work and testing them out to see if they really do maximize crop production. Furthermore, research on breeds of animals such as cows and sheep should be conducted in order to know which breed produces more and better yields. A good example of breeds for sheep is the Merino sheep while


cows, it is the Jersey cow. whose milk is of low fat content and rich nutrients. Knowing this will help farmers to select the best products for agriculture. Hence, improving agriculture.

Improvement of the transport and communication systems; roads and railways from farms to markets should be improved so that the agricultural goods can be easily transported. Some products such as milk and eggs, fruits like avocadoes and meat need to be transported quickly and safely to markets as they are perishable goods. If the infrastructure is good then products can be quickly transported from farms to markets. Therefore, they will be bought quickly and more products can be brought for sale. This way farmers can produce more and more. Hence improving agriculture.

Conclusively, large scale agriculture is very advantageous to the nation. Some of the advantages are; source of government revenue through paying tax and exporting goods. Source of foreign exchange, Source of employment and the improvement of infrastudure. Since the sector is very beneficial to the nation and is in fact the backbone to the nation, agriculture should be taught in schools starting from the secondary level in Tanzania. This way we can ensure that the sector improves day by day.

Extract 10.1: A sample of correct response for question 10

A total of 160,056 (20.08%) students who had average performance had moderate knowledge about the large-scale agriculture and ways of improving it. Some students provided irrelevant introductions and mixed up correct and

incorrect responses with irrelevant conclusions. Some of them, explained a few points insufficiently and ended up with a weak conclusion, whereas others provided a good introduction and explained a few points correctly with a irrelevant conclusion.

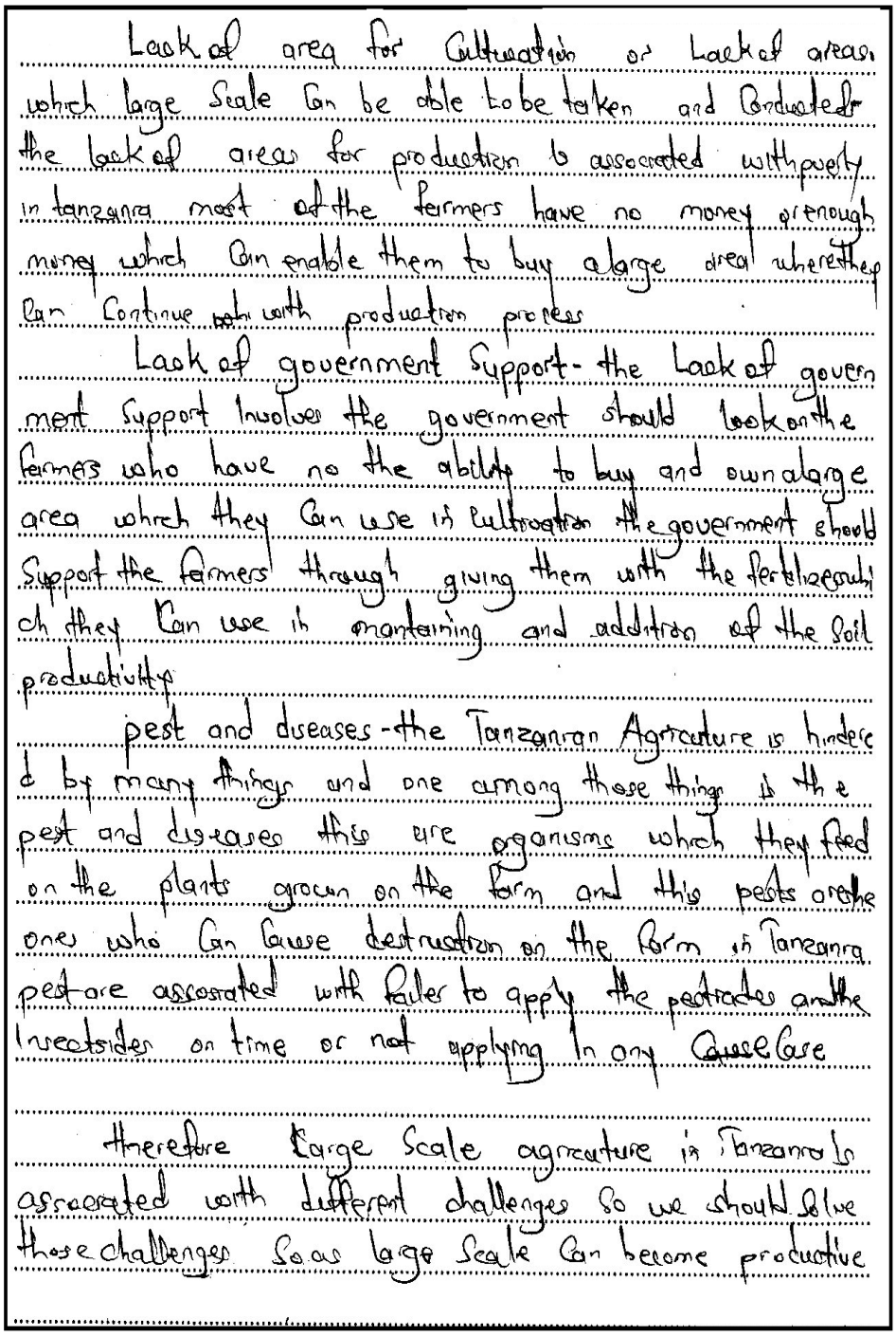
The analysis indicated that 495,007 (62.10%) students with lower scores had little knowledge about the large-scale agriculture and ways of improving it. Some students failed to provide relevant introduction, mixed up correct and incorrect responses without conclusion while others provided one to two ways of improving large scale agriculture. For instance, one student, provided characteristics of large scale agriculture such as; *more space is needed, it is practiced in remote areas, one type of animal is kept and it is for sale* instead of ways of improving large-scale agriculture without conclusion. Another student provided irrelevant introduction but wrote challenges facing large scale agriculture such as; *climate change, pests and disease, poor transportation, lack of market and poor storage facilities*, contrary to the demand of the question. Extract 10.2 illustrates incorrect response to this question.

10. Analyse five ways of improving large scale agriculture in Tanzania.

large Scale agriculture this is the type of agriculture which is mainly practised in Equatoral Climate and it is associated with different challenges the following are the challenges which large Scale agriculture face

Lack of Capital- Capital this are all man made assets which man prepare so as it can help him in the preparation of the farm and the lack of Capital Contribute through by, when a person lack Capital his or her farm will not be well because Capital helps in the Sustainability of the farm.

Lack of education on how to run the large Scale agriculture - the lack of education is through when a person has sufficient Knoledge on how to maintain and Sustain large Scale agriculture can not able to maintain the productivity which will lead to the falling of the large Scale agriculture in Tanzania


Lack of area for Cultivation or Lack of areas which large Scale Can be able to be taken and Conducted the lack of areas for production is associated with poverty in tanzania most of the farmers have no money or enough money which Can enable them to buy a large area where they Can Continue ~~wh~~ with production proces

Lack of government Support- the Lack of goverment Support involves the government should look on the farmers who have no the ability to buy and own a large area which they Can use in Cultivation the government should Support the farmers through giving them with the fertilizers which they Can use in maintaining and addition of the Soil productivity

pest and diseases -the Tanzanian Agriculture is hindered by many things and one among those things is the pest and diseases this are organisms which they feed on the plants grown on the farm and this pests are the ones who Can Cause destruction on the farm in Tanzania pest are associated with failer to apply the pesticides and the Insecticides on time or not applying In any CaseCase

therefore Large Scale agriculture in Tanzania is associated with different challenges so we should Solve these challenges So as large Scale Can become productive

Extract 10.2: A sample of incorrect responses for question 10

In extract 10.2, the student wrote challenges facing large scale agriculture instead of ways of improving large scale agriculture in Tanzania.

3.0 ANALYSIS OF THE STUDENTS' PERFORMANCE IN EACH TOPIC

The FTNA 2024 paper in Geography consisted of 10 questions that were set from 11 topics, namely: *The Solar System, Agriculture, Weather, Transport, Sustainable Use of Forest Resources, Map Work, Manufacturing Industry, Sustainable Mining, Major Features of the Earth's Surface, Tourism* and *Climate.*

The analysis of the students' performance per topic in Geography FTNA 2024 shows that students had a good performance (82.70%) in the following topics: *Solar System, Agriculture, Weather, Transport, Sustainable Use of Forest Resources, Map work, Manufacturing industries, Sustainable miming)* which were tested in question 1 (Multiple choice Items). In addition, the students had average performance in the topics of *Tourism* (58.25%) *Major features of the Earth's Surface* (57.33%)*, Solar System* (50.22%), *Climate* (48.11), *Weather* (35.80%) *and Agriculture* (35.44%) which were tested in questions 7, 4, 6, 2, 9, 5, 3 and 10 respectively. On the other hand, the performance of students was weak in the topics of *Map Work* (15.91%) which were assessed in question 8. (See appendix).

4.0 CONCLUSION AND RECOMMENDATIONS

4.1 CONCLUSION

The analysis of individual questions showed that the general performance of the 2024 Geography subject (FTNA) was average, since 58.51 percent of the students passed and 41.49 percent failed. The level of performance has increased by 4.78 percent in relation to that of 2023, where 53.78 percent of students passed. The students who passed the assessment demonstrated awareness of the demands of the questions, adequate knowledge of the subject matters tested, good essay writing skills, adequate mathematical skills, and a good command of the English language, whereas the students who failed the assessment displayed contrary attributes.

4.2 RECOMMENDATIONS

Based on the Students' Item Response Analysis (SIRA) for Geography FTNA 2024 provided in this report, it is recommended that:

(a) Teachers should design simple practical exercises using the globe and torch to guide students' demonstrations and discussions on the significance and effects of different Earth's movements.

(b) Teachers should assess the students at the end of each topic to evaluate their understanding of the topic before moving on to the next topic. In so doing, the teachers will be aware of the challenges that the students face in a particular topic, and that, in turn, will help in designing and developing the teaching methods to improve the students' understanding.

(c) During the teaching and learning process, teachers should do effective demonstrations on weather and climate by using real scenarios, pictures, and videos showing weather and climate, their relationship, and their impact on the Earth's environment.

(d) Teachers should prepare and use study tour teaching strategies for weather stations, forested areas, mining sites, and areas with different features to improve students' competence. This will increase students' performance in the *Weather* and *Climate* sub-topics as well as in the *Major Features of the Earth's Surface* topic.

(e) The question and answer method should be used effectively to discuss how various questions are tested. This will help to improve the performance of students

(f) Teachers should put more emphasis on developing students' Mathematical skills in order to improve their computation skills in calculating time by using longitude lines. Students should learn to read questions in their respective formative and summative assessments to identify each question's requirement. This will overcome the challenges of the students'inability to identify the requirements of the questions in the future Geography FTNA.

Appendix

Students' Performance per Topic in Geography FTNA 2024

S/N	Topic	Question Number	% of students who scored 30 marks and above	Remarks
1.	The Solar System, Weather, Transport, Sustainable Use of Forest Resources, Map work, Manufacturing industries, Sustainable miming,	1	82.70	Good
2.	Tourism	7	58.25	Average
3.	Major Features of the Earth's Surface	4&6	57.51	Average
4.	Solar system	2	50.22	Average
5.	Climate	9	48.98	Average
6.	Weather	5	36.02	Average
7.	Agriculture	3&10	35.72	Average
8.	Map work	8	18.85	Weak