



THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY
NATIONAL EXAMINATIONS COUNCIL OF TANZANIA



**STUDENTS' ITEMS RESPONSE ANALYSIS
REPORT FOR THE FORM TWO NATIONAL
ASSESSMENT (FTNA) 2022**

GEOGRAPHY



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ASSESSMENT (FTNA) 2022

013 GEOGRAPHY

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FOREWORD

This report presents Students' Item Response Analysis (SIRA) on Form Two Geography Subject National Assessment which was conducted in November 2022. The report aims to provide feedback to all educational stakeholders on the factors that contributed to the students' performance in Geography subjects.

The Form Two National Assessment (FTNA) is a formative evaluation which intends to monitor students' learning in order to provide feedback that teachers, students and other educational stakeholders can use to improve teaching and learning. This analysis shows justification for the students' performance in the Geography subject. The students who attained high scores were able to identify the requirements of the questions, had adequate knowledge of the subject contents possessing skills in computing, good mastery of the English language and essay writing skills. However, the students with poor performance depicted contrary attributes.

This report will help students to identify strengths and weaknesses for them to improve learning before sitting for their Certificate of Secondary Education Examination (CSEE). It will help teachers to identify the challenging areas and take appropriate measures during teaching and learning.

The National Examinations Council of Tanzania (NECTA) expects that the feedback provided in this report will shed light on the challenges for which education stakeholders should take proper measures to improve teaching and learning of the Geography subject. Consequently, students will acquire knowledge, skills and competences indicated in the syllabus for better performance in future assessments and examinations.

The Council appreciates the contribution of all those who prepared 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 2022. The examination assessed competences as per the Geography subject syllabus of 2005.

The Form Two National Assessment results are analysed into five grades; A, B, C, D and F with the following intervals: 75 – 100 (Excellent), 65 – 74 (Very Good), 45 – 64 (Good), 30 – 44 (Satisfactory) and 0 – 29 (Fail) respectively. The pass grade is 30 percent and above, that is, those students who obtain grade A to D. According to the FTNA 2022 results, a total of 633,140 students sat for this assessment and 348,257 (55.00%) passed with the following grades: A – 25,319 (4.00%), B – 32,288 (5.10%), C – 118,435 (18.71%), D – 172,215 (27.20 %) and 284,883 (45.00%) students failed the assessment by obtaining grade F. The analysis indicated that the performance of the students in this year has increased by 2.70 percent as compared to the performance of 2021 in which 314,674 (52.30%) students who had sat for the assessment passed and 287,053(47.70%) students failed.

In this report, the analysis of students' performance is 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.

The report also presents the requirements of each question, the percentage of the students who attempted each question with their scores and the possible reasons for their performance. Extracts from the students' examination scripts, graphs indicating distribution of students' scores and appendices are presented in this report for illustrations.

2.0 ANALYSIS OF STUDENTS' PERFORMANCE IN EACH QUESTION

2.1 SECTION A: OBJECTIVE QUESTIONS

This section composed of two questions i.e, questions 1 and 2 with a total of 15 marks. Question 1 consisted of 10 multiple choice items carrying a total of 10 marks and question 2 consisted of 5 matching items which carried a total of 05 marks.

2.1.1 Question 1: Multiple Choice Items

This question aimed at testing the students' knowledge on *the Solar System, Agriculture, Weather and Climate, Sustainable Use of Forest Resources, Transport, Major Features of the Earth's Surface, Map work and Manufacturing Industry topics*. It covered the ordinary level Geography syllabus for form 1 and 2. A student was instructed to choose the correct alternative out of the four and each item carried 1 mark.

All the 634,730 (100%) students attempted this question as it was a compulsory question. The analysis indicates that 219,891 (34.64%) students scored from 00 to 02 marks. The students who scored 03 to 06 were 414,839 (56.88%) while 53,817(8.48%) students scored between 06 to 10 marks. Figure 1 represents performance of students in question 1.

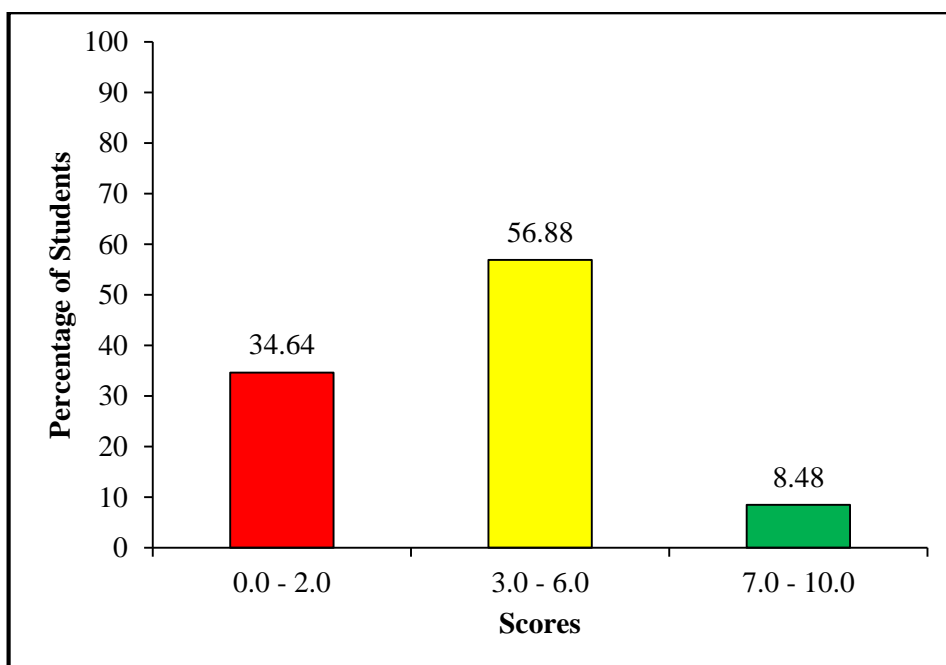


Figure 1. The students' performance for question 1.

Generally, the performance for this question was good since 65.36 percent of the students scored from 03 to 10. This performance indicates that, the students had good knowledge on the tested topics. It also implies that teaching and learning processes took place adequately on the given topics. The analysis of students' responses in each item is presented hereunder.

(i) *John was told by his teacher that the Earth makes one complete rotation every twenty-four hours. From which direction does it rotate?*

A West

B South

C North

D East

The correct response for this item is alternative A. The students who chose the correct answer, were able to understand the concept of Earth's movement particularly rotation of the Earth on its own axis. Those who opted for distractors B, *South* and C, *North* were not able to retain and recall the knowledge on the concept of Earth's movement. While those who opted for distractor D, *East* had insufficient knowledge about the rotation of the Earth as they failed to recall that the Earth does not rotate from East to West.

(ii) *Mr. Juma decided to move to a new farm land after experiencing decreases in crops yield. Which farming method is Mr. Juma practicing?*

- | | | | |
|---|-----------------------------|---|----------------------|
| A | <i>Bush following</i> | B | <i>Crop rotation</i> |
| C | <i>Shifting cultivation</i> | D | <i>Trip method</i> |

The correct response for this item is C, *shifting cultivation*. The students who chose the correct answer, were able to compare and differentiate it from other farming methods. They were able to recall that shifting cultivation involves the farmers movement to another fresh land when the yields are low from the old farmland. The students who opted for alternative B, *Crop rotation* were aware of the farming method, but failed to recall its correct characteristics since crop rotation does not involve the farmers movement to a new farmland. Rather they grow different crops on the same land at different times. Students who opted alternative A, *Bush following* were not aware of the crop farming method where farmers cultivate a plot of land for two or more years and then leave it for a period of time to allow the land to grow into bush and regain its nutrients before being used again.

(iii) *What type of rainfall occurs when the warm moist wind from the ocean is forced to rise by the mountain?*

- | | | | |
|---|----------------------------|---|------------------------------|
| A | <i>Orographic rainfall</i> | B | <i>Convectional rainfall</i> |
| C | <i>Frontal rainfall</i> | D | <i>Cyclonic rainfall</i> |

Students who chose the correct answer B, *Convectional rainfall* were able to identify and classify the types of rainfall, their formation, and characteristics. They demonstrated adequate knowledge on the topic of Weather. Those who opted for distractors; A (*Orographic rainfall*), C (*Frontal rainfall*) and D (*Cyclonic rainfall*) had inadequate knowledge on the topic of weather under the sub topic of the elements of weather.

(iv) *You have been assigned to educate Petu villagers on non – renewable energy resources. Which energy resource will **not** be chosen in your teachings?*

- | | | | |
|---|-------------------------------|---|----------------------------------|
| A | <i>Oil, wave and tides</i> | B | <i>Tides, biomass, and oil</i> |
| C | <i>Biomass, oil and tides</i> | D | <i>Waves, biomass, and tides</i> |

The correct response for this item is D, *Waves, biomass, and tides*. Students who responded correctly to this item had adequate knowledge on the topic of

Sustainable Use of Power and Energy Resources, particularly on the *major sources of power*. Students who chose distractors A, *Oil, wave and tides* and B, *Tides, biomass and oil* had insufficient knowledge on the topic, particularly in distinguishing the types of energy and power sources. Those distractors had a mixture of both renewable and non-renewable energy resources.

(v) *Suppose you planned to transport clean water from Ruvu River to Dar es Salaam City Centre. Which types of transport will be suitable?*

A *Road transport*

B *Railway transport*

C *Pipeline transport*

D *Water transport*

The correct response for this item is C, *Pipeline transport*. The students who chose the correct answer had adequate knowledge about the means of transporting and supplying liquid over a long distance. Thus, were able to differentiate pipeline transport from other types. While those who opted for distractor A, *Road transport* and B, *Railway transport* could not differentiate the means of transporting liquid over a long distance and those for short distance. Likewise, those who opted for D, *Water transport*, misconceived water as a resource to be transported to water as a means of transport using ships, ferries and canoes.

(vi) *Mingo visited his friend in Netherland during the holiday. He was surprised to see that many trees had shaded their leaves because of cold weather. Which season of the year was it?*

A *Spring*

B *Winter*

C *Autumn Summer*

D *Summer*

The correct response for this item is C, *Autumn*. Students who got it right revealed sufficient knowledge on the *Solar System* topic especially on the *Revolution* which results on seasons of the year and are differentiated by temperature and rainfall characteristics. The students who opted for distractors A, *Spring*, B, *Winter* and D, *Summer* had limited knowledge on the subject matter for they were able to identify the seasons of the year, but could not distinguish the correct characteristics for *Autumn*.

(vii) *The tourists from Norway to Tanzania were interested to visit mountains formed by prolonged denudation. Which type of mountains will satisfy their interest?*

A Volcanic mountain

B Block mountains

C Fold mountains

D Residual mountains

The correct response for this item is D, *Residual Mountains*. Students who managed to choose correct response had adequate knowledge about the major features of the Earth's surface specifically on different types of mountains and how they are formed. Those who opted for distractors A, *Volcanic mountains*, B, *Block mountains* and C, *Fold Mountains* had insufficient knowledge about the formation of the mountains, specifically those formed by prolonged denudation.

(viii) *Joti and Jeki were required to calculate a distance of a road on a map provided. Which possible method could they use?*

A Tracing method

B Stripping method

C A pair of dividers

D Division method

The correct response for this item is C, *A pair of dividers*. The students who responded correctly to this item had knowledge on the methods used to measure distances of linear features on maps by using measuring tools (A pair of divider, ruler, thread and a piece of paper). Students who opted for distractors A, *Tracing method*, B, *Stripping method* and D, *Division method* confused the methods of calculating areas of irregular shapes with the methods of measuring the distance of linear features on maps. The three mentioned methods are for calculating areas on the map and not for calculating distances.

(ix) *Nic was assigned by his Geography teacher to calculate an area of irregular shape in a topographical map. Which procedure is **not** proper for his calculations?*

A Tracing the figure required from a given map.

B Subdividing the traced shape into smaller squares

C Using a formula to find the distance between two points

D Calculating the divided area of a regular shape independently

The correct response for this item is C, *Using a formula to find the distance between two points*. The students who chose the correct alternative had knowledge about map work, especially on procedures used in different methods to calculate areas of irregular figures. The students who chose alternatives A, *Tracing the figure required from a given map*, B, *Subdividing*

the traced shape into smaller squares and D, calculating the divided area of irregular shape independently failed to understand that all those are procedures are for calculating area of irregular shape but the question demanded the incorrect procedure.

(x) *Form Two students were told by their teacher to select an industry which deals with production of industrial spare parts. Which type of industry will be selected by them?*

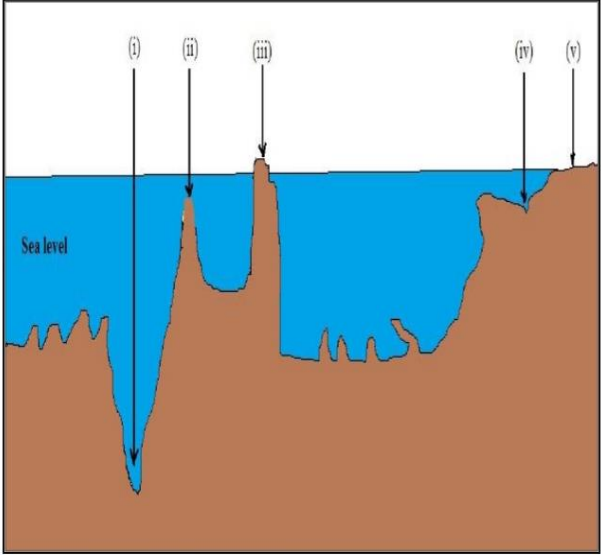
- | | | | |
|---|-------------------|---|------------------------|
| A | Chemical industry | B | Fabrication industry |
| C | Textile industry | D | Metallurgical industry |

The correct response for this item is D, *Metallurgical industry*. The students who responded correctly had good understanding on the topic of manufacturing industries. They managed to identify the types of manufacturing industry that deal with the production of iron and steel as raw materials. The students who opted for A, *Chemical industry*, B, *Fabrication industry* and C, *Textile industry* were not aware of the characteristics for each type of industry.

2.1.2 Question 2: Matching Items: Major Features of the Earth's Surface

The question composed of five matching items from the topic of *Major Features of the Earth's Surface* under the sub topic of *Relief Features of the Ocean Floor*. The question required students to match the relief features of the ocean floor observed in the provided diagram in **List A**, with their corresponding names in **List B**, by writing a letter of the correct response below the item number in the space provided. Each item carried 01 mark, making a total of five (05) marks. The question was:

2. Match the relief features of the ocean floor in **List A** with their corresponding names in **List B** by writing the letter of the correct response below the item number in the table provided.

List A	List B
	A Continental shelf
	B Continental slope
	C Ocean ridge
	D Ocean deep
	E Deep sea plain
	F Ocean island
	G Sea level

The analysis of students' performance indicates that, a total of 634,727 (100%) students responded to this question. It further indicates that 232, 538 (36.62 %) students scored from 00 to 01 mark. The students who scored 02 to 03 marks were 194,029 (30.58%), while 208,164 (32.80%) students scored from 04 to 05 marks.

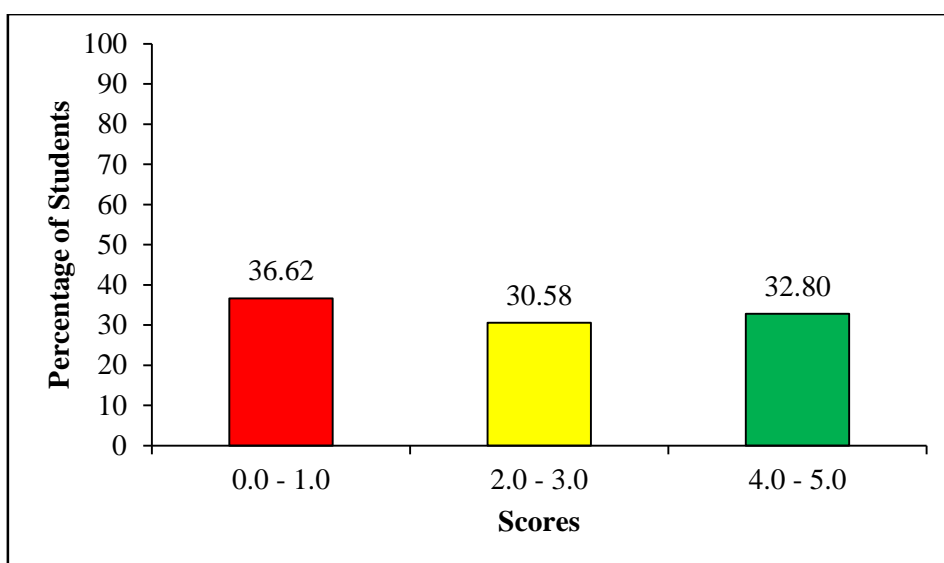


Figure 2: *The percentage of students' performance for question 2.*

Figure 2 shows that 232, 538 (36.62%) students had weak performance. This means that the performance in this question was average.

A total of 208,727 (32.80%) students with good performance had adequate knowledge of *Major features of the Earth's Surface* topic specifically on water bodies sub topic (features of the ocean floor). Those students identified and matched 4 to 5 relief features correctly. That is (i) D, *Ocean deep*, (ii) C, *Ocean ridge*, (iii) F, *Ocean Island*, (iv) B, *Continental slope* and (v) A, *Continental shelf*.

On the other hand, 232,538(36.62%) students with weak performance had insufficient knowledge on the concept of the *ocean floor features*. For example, those who scored 01 mark managed to match only one feature correctly out of the five while those who scored 02 to 03 marks managed to match two to three features out of five. Such features of the ocean floor include; (i) *Ocean deep- which is a long narrow steep sided depression plunging from the deep sea plain to the depth of 10,000 Meters or more* (ii) *Ocean ridge- which is a raised part of the ocean floor within the sea water* and item (iii) *Ocean Island- which is a piece of land surrounded by water*. The majority of student matched these items correctly possibly due to their clear distinguishable appearances.

On the other hand, some students failed to match items (iv) with *Continental slope* and (v) with *Continental shelf* because these features are alike.

Continental shelf is the shallow part of the sea that demarcate landmass and the ocean (high tides and low tides), while Continental slope is a point where continental shelf forms a steep slope towards the ocean basin.

2.2 SECTION B: SHORT ANSWER QUESTIONS

This section had seven 07 compulsory short answer questions which carried 10 marks each. The analysis of each question is as follows:

2.2.1 Question 3: The Solar System

In this question, the students were given the statement; *“John was watching a match between Taifa Stars and Morocco on a television which was played in Rabat-Morocco (10⁰ E) at 3: 00 p.m.”*

- (a) *What will be a local time of John who is watching the match in Tanga at 40⁰ E.*
- (b) *Mention the name of the time when the match was watched.*
- (c) *Describe other possible time which might be recorded in the area.*

A total of 634,723 (100 %) students attempted this question. The analysis of data on the performance shows that 504,331 (79.46%) students scored from 00 to 2.5 marks, 114,428 (18.02%) students scored from 03 to 06 marks, whereas 15,964 (2.52%) scored from 6.5 to 10 marks. Figure 3 summarises the students’ performance for this question.

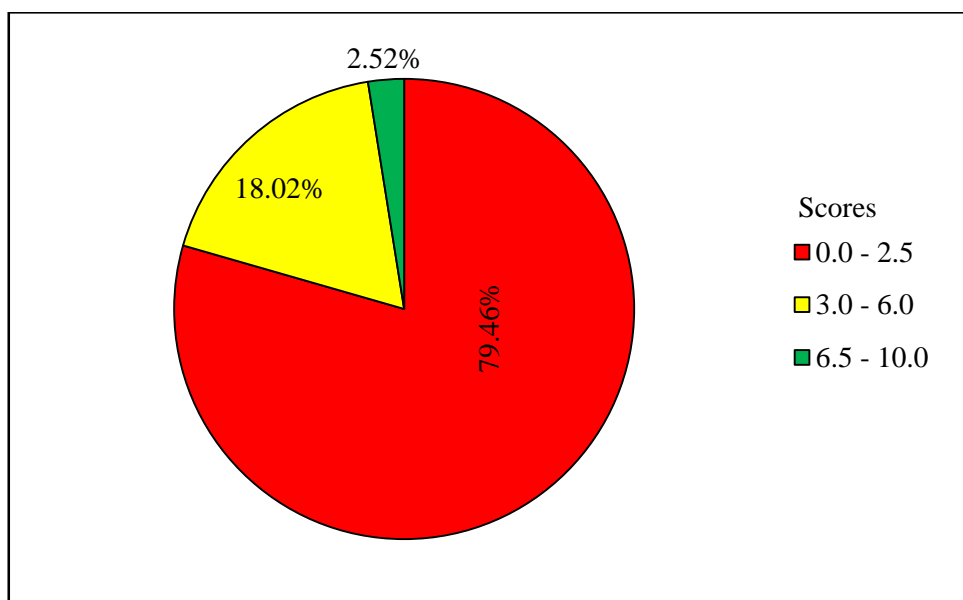


Figure 3: *The percentage of students' performance for question 3*

The analysis in figure 3 shows that students' performance in this question was weak because 130,392 (20.54%) students scored from 03 to 10 marks.

The majority of students (504,331) who scored lower marks had inadequate knowledge on *Solar System* topic especially in *Parallels and Meridians* subtopic. These students had inadequate knowledge on calculating local time. In part (a), the some of the students failed to calculate the difference in degree between Rabat and Tanga, converting degrees into hours and determining the time of Tanga. Also, they failed to mention and describe the name of the time (local mean time) in part (b), and standard time in part (c) respectively.

A total of 388,962 (61.30%) students who scored zero some of them failed to understand the demands of the question, had poor Mathematical skills and others lacked the knowledge on the concept of *Parallels and Meridians*. For example, some of these students in part (a) added Longitude degrees instead of subtracting them to get the difference in degrees between Rabat and Tanga, such as; $40^{\circ} + 10^{\circ} = 50^{\circ}$. Thus, they ended up with incorrect Longitudes.

The majority of those students were not able to provide correct responses in part (b) and (c). Some of the incorrect responses provided in part (b) were: *The match was watched at seven O'clock, prime Meridian, In the afternoon and during day* instead of mentioning the name of the time when the match was watched which was *local mean time* or *local time*. In part (c), the incorrect responses provided by some students were; *International date line, Local time, Time Meridian and Local mean time* instead of *standard time which refers to the civil time accepted throughout a longitudinal zone 15° width*.

One student for example, provided incorrect responses in all the parts. whereby In part (b) he/she wrote *twenty minutes past six pm* and in part (c), he/she outlined the names of parallels, that's *Equator, Greenwich, Tropic of cancer, Tropic of Capricorn, longitude and latitude*. Extract 3.1 shows a sample of an incorrect responses for question 3.

3. John was watching a match between Taifa Stars and Morocco on a television which was played in Rabat in Morocco (10° E) at 3:00 p.m.

- (a) What will be a local time of John who is watching the match in Tanga at 40° E?

(i) $40^{\circ} + 10^{\circ} = 50^{\circ}$ change degrees into minutes
 (ii) $\frac{50^{\circ}}{15^{\circ}} = 3\frac{2}{3}$ (iii) $\frac{5}{15} \times 60 = 20 \text{ minutes}$
 (iv) $3:00 \text{ pm} + 3:20 \text{ pm} = 6:20 \text{ pm}$
 Local time in Tanga at 40° E = 6:20 pm

- (b) Mention the name of the time when the match was watched.

Twenty minutes past six pm

- (c) Describe other possible time which might be recorded in the area.

(i) Equator
 (ii) Greenwich
 (iii) Tropic of cancer
 (iv) Tropic of capricorn
 (v) Longitude and Latitude

Extract 3.1: A sample of incorrect responses for question 3.

In extract 3.1, the student got 6:20 pm as a local time when the match was watched in Tanga, instead of 5:00 pm in part (a). In part, (b) he/she mentioned *twenty minutes past six pm*, instead of mentioning *Local Mean Time*. In part (c), he/she named different parallels and Great circles, instead of describing *Standard time which is the civil time accepted throughout a longitudinal zone 15° width*.

Few students with a good performance (15,964) revealed to have adequate knowledge and skills on the application of parallels and meridians. They were also knowledgeable on the Longitudes and time calculations. Their marks varied due to the strengths and weaknesses of their responses. In part (a) they managed to calculate the local time of Tanga 40° E from Rabat 10° E by following the correct procedures. which are: *Calculate the deference in degree between Rabat and Tanga, subtracted the degree of Rabat from that of Tanga ($40^{\circ} - 10^{\circ} = 30^{\circ}$), changed the difference in degree into time; $15^{\circ} = 1 \text{ hour}$, therefore $30^{\circ} / 15^{\circ} \times 1 \text{ hour} = 2 \text{ hours}$. Finally, managed to obtain the time of Tanga by taking the 3 hours plus 2 hours = 5:00 pm, since Tanga is in the further Eastern part of Rabat.*

In part (b), those students managed to mention *local Mean Time* as the time when the match was watched. Likely, in part (c), the students managed to describe the other possible time, which might be recorded in the area as

Standard Time which is the local time accepted throughout a longitudinal zone 15° width. Extract 3.2 indicates a sample of student's correct responses to question 3.

3. John was watching a match between Taifa Stars and Morocco on a television which was played in Rabat in Morocco (10° E) at 3:00 p.m.

(a) What will be a local time of John who is watching the match in Tanga at 40° E?

Difference in degree of longitude $1 \text{ hr} \times 30^\circ$
 Tanga) 40°E - 10°E (Morocco) = 30° 15°

Time : 3:00pm - Morocco = 2hrs - The local time
 1 hour = 15° Difference in time - 2hrs will be 5:00p.m.
 2 = 30° 3:00pm + 2hrs = 5:00pm

(b) Mention the name of the time when the match was watched.
 Local time zone

(c) Describe other possible time which might be recorded in the area.
 Standard time - Is the time or common time shared
 by all places located in the same time zone.

Extract 3.2: A sample of correct responses for question 3

2.2.2 Question 4: Map Work

In this question the students were given the statement; “*Direction and bearing can be used to determine position of a play ground in your school map.*” Then they were required to answer the following questions in parts (a) and (b).

- (a) *Mention the four main directions on that map*
- (b) *Using a well labeled diagram, show the eight compass directions and its bearings you would use to show locations of any feature on that map.*

This question was attempted by 634,730 (100%) students of which 221,147 (34.84%) students scored from 00 to 2.5 marks, 284,497 (44.82%) scored from 03 to 06 marks and 129,086 (20.34%) scored from 6.5 to 10 marks. Figure 4 illustrates the students' performance for this question.

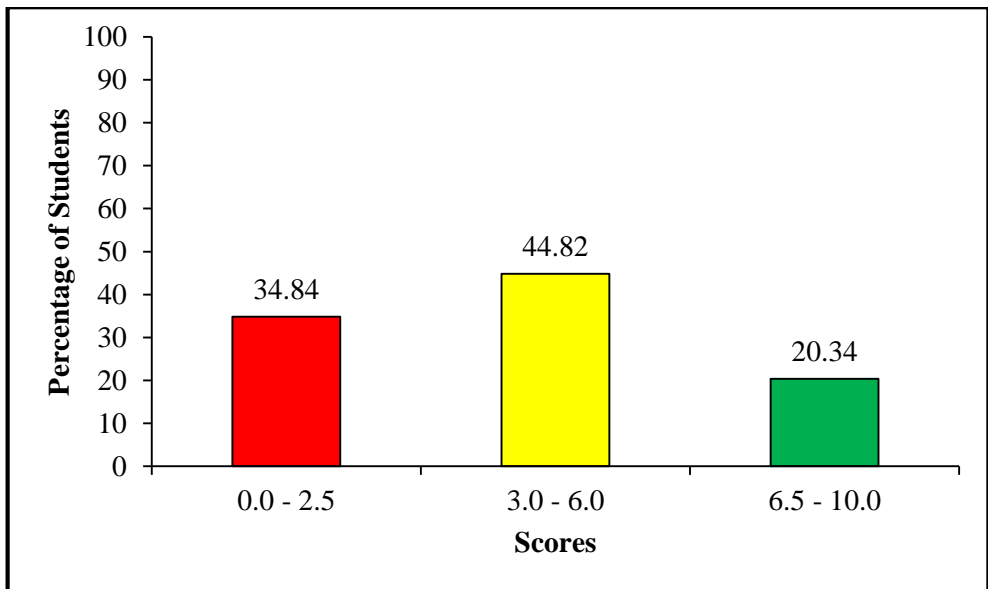
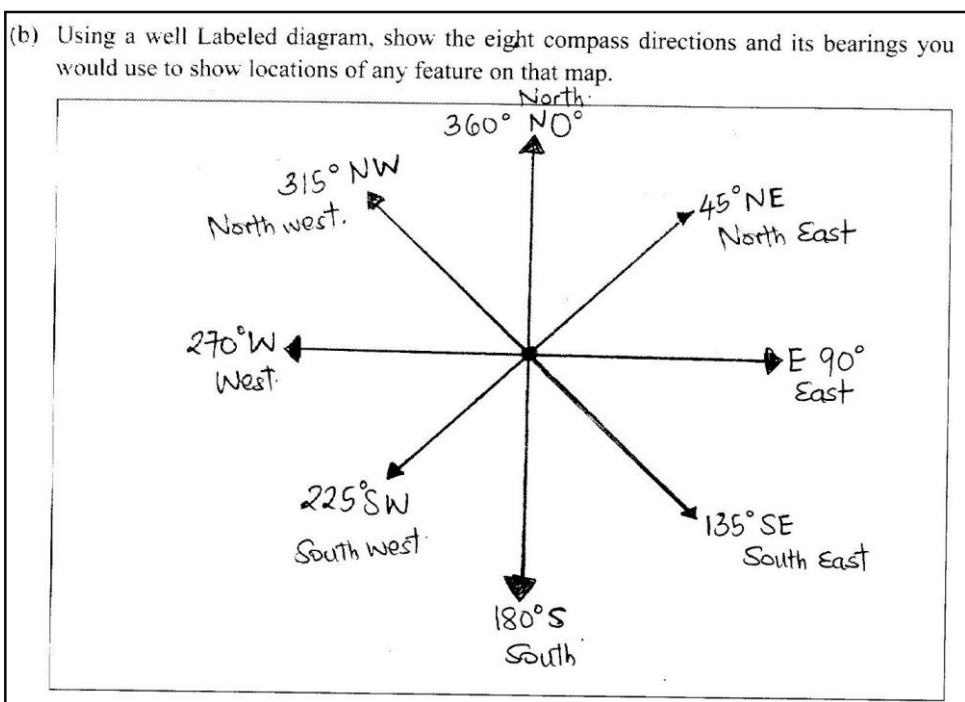


Figure 4: *The percentage of students' performance for question 4*

Figure 4 shows that the general performance for this question was good because 65.16 percent of the students scored 03 to 10 marks. Among them, 20.34 percent scored higher marks (6.5 to 10). This indicates that, the students had adequate knowledge on Map work specifically on the concept of *locating position on map*.

The item response analysis shows that, 29,086 (20.34%) students with good performance managed to; (a) mention the four main directions on the map that is *North, South, East and West*. Likewise, in part (b), the majority of students drew a well labeled diagram showing the eight compass directions, but only few students provided correct bearings.

Furthermore, some of the students in item (a) mentioned the four main directions on the map that is *North, South, East and West*; (b) drew the diagram showing the eight compass directions but failed to insert the appropriate bearings. However, their scores varied depending on the strengths and weaknesses of their responses. Extract 4.1 indicates a sample of student's correct responses for question 4(b).



Extract 4.1: A sample of correct responses for question 4(b)

On the other hand, 21,147 (34.84%) students who had weak performance portrayed insufficient knowledge on *Map Work*, particularly on *locating positions on map* and others failed to understand the demands of the question. Some of these students mentioned two to four main directions in part (a), but they did not draw the diagram showing the eight compass directions and their appropriate bearings in part (b). Others showed insufficient understanding on locating position on the map as they did not mention the four main directions in part (a) while in part (b) some managed to draw the diagram showing the eight compass direction but they could not label them correctly. For example, one student in part (a) wrote *Margin, North direction, Grid reference, Latitudes and Longitudes*, instead of *North, South, East and West*. The student was not aware that *Margin and North direction* are the essentials of map while *Grid reference, Latitudes and Longitudes* are the ways of locating positions on a map.

Likewise, another student in part (a) mentioned *Bearing and direction, place names, grid reference, latitudes and longitudes*. He/she was not aware that those are the ways of locating position on a map. In part (b) the student mixed correct and incorrect responses. Moreover, another one named *Title, scale, margin and key* in part (a), while in part (b) he/she gave inadequate responses. Extract 4.2 represents a sample of such poor responses.

4. Direction and bearing can be used to determine position of a play ground in your school map.

(a) Mention the four main directions on that map.

(i) Place name

(ii) Grid reference

(iii) Latitude and Longitude

(iv) Compass bearing

(b) Using a well Labeled diagram, show the eight compass directions and its bearings you would use to show locations of any feature on that map.

Extract 4.2: A sample of incorrect responses for question 4

In Extract 4.2, the student failed to meet the demand of the question. In part (a) he/she mentioned the methods of locating positions on a map which are place name, grid reference, Latitude and Longitude, and compass bearing, instead of four direction of the map, which are North, East, South and West. In part, (b) he/she could not draw and label correctly the eight compass direction with their bearings.

2.2.3 Question 5: Sustainable Mining

This question tested the students on the concept of mining. It had three parts (a), (b), and (c) in which the students were required to read the given statement and then answer the questions that followed. The statement was; *“Suppose you have been invited by the villagers in Soni Village to teach them on how they can extract the mineral discovered in their village which is brownish – black in colour and is made of organic substances deposited for a long time.”*

- (a) *Identify the possible mineral discovered in that village.*
- (b) *Outline three uses of the mineral which was discovered in Soni Village.*
- (c) *Describe three problems limiting the exploitation of the mineral which was discovered in Soni Village.*

A total of 415,720 (100%) students attempted this question. The analysis of data on the performance shows that 415,720 (65.50%) students scored from 00 to 2.5 marks, 171,207 (26.97%) scored from 03 to 06 marks whereas, 47,804 (7.53%) scored from 6.5 to 10 marks. Figure 4 summarises this performance.

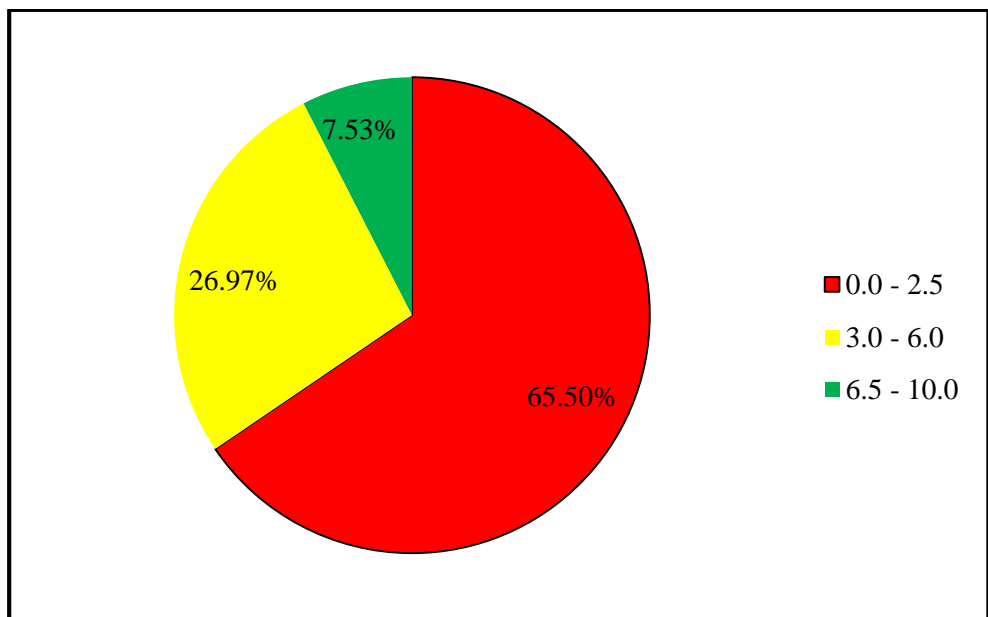


Figure 5: *The percentage of students' performance for question 5*

Figure 5 indicates that the general performance for this question was average because 34.50 per cent of the students who attempted this question scored 03 to 10 marks.

The analysis indicates that, 415,720 (65.50%) students with lower marks (0 - 2.5) had inadequate knowledge about the topic of *Sustainable Mining*. Those students provided less points, incorrect points or insufficient explanations, hence they had poor performance. For example, one student in part (a) wrote *Copper*, while another student wrote *Gold minerals*, instead of *Coal*. Those students were not aware that, *Copper is reddish – brown in colour* whereas *Gold is Yellow in colour*. Others were able to identify the mineral discovered in the village, but managed to outline one to two uses of coal in part (b) and one or two problems limiting the exploitation of the mineral in part (c). Furthermore, some students outlined the effects of the mining industry on the environment, instead of problems limiting the exploitation of coal in part (c). For example, one student wrote; *land pollution, water pollution and air pollution*. Another one mentioned *spread of diseases, environmental degradation, and noise pollution*. Extract 5.1 shows incorrect responses for question 5.

5. Suppose you have been invited by the villagers in Soni Village to teach them on how they can extract the mineral discovered in their village which is brownish-black in colour and is made of organic substances deposited for a long time;
- (a) Identify the possible mineral discovered in that village.
Gold
- (b) Outline three uses of the mineral which was discovered in Soni Village.
- (i) *Used to make Jewellery*
- (ii) *Used to make glasses*
- (iii) *Used to for cutting things*
- (c) Describe three problems limiting the exploitation of the mineral which was discovered in Soni Village.
- (i) *soil erosion*
- (ii) *Deforestation*
- (iii) *Health disease*

Extract 5.1: A sample of incorrect responses for question 5

In Extract 5.1, the student misunderstood the requirements of the question as he/she identified the mineral discovered as Gold instead of Coal in part (a). In part (b), he/she outlined the uses of Gold and Diamond, instead of the uses of Coal. In part (c), the student mentioned the environmental problems such as soil erosion, deforestation and human diseases instead of the problems limiting the exploitation of the minerals which have been discovered such as: *low level of science and technology, Shortage of skilled labour, shortage of fund/capital, insufficient Government Support, poor transport and communication and oppositions from environmentalists.*

The item response analysis shows that, 47,804 (7.53%) students with a good performance had adequate knowledge on the topic of *Sustainable Mining*. Their marks varied due to the strengths and weaknesses of their responses. For example, in part (a) students identified *Coal* as possible mineral which was discovered in the village due to the fact that, the minerals with brownish – black colour and are made up of organic substances deposited for long time is Coal. In part (b), they outlined the three uses of coal out of the following; *It is used for generating electricity running machines, it is used for domestic purpose such as cooking, it is used melting iron / metals, it is used in the production of valuable fertilizers for agriculture and other chemicals, it is used for making construction materials by mixing it with cement and gravels, it is used as an ingredient in soap making industries and it is used making plastic fibres like nylon.*

Likewise, in part (c), they described the three problems limiting the exploitation of coal which was discovered in the village out of the following; *Exhaustion of the mineral; given that it is the non-renewable, shortage of skilled labour, shortage of fund / capital, low level of science and technology, small market because many people cannot afford buying coal, poor transport and communication, oppositions from environmentalists for air pollution.* Extract 5.2 is a sample of correct responses for this question.

5. Suppose you have been invited by the villagers in Soni Village to teach them on how they can extract the mineral discovered in their village which is brownish-black in colour and is made of organic substances deposited for a long time;

(a) Identify the possible mineral discovered in that village.

The mineral is Coal

(b) Outline three uses of the mineral which was discovered in Soni Village.

(i) Used in domestic purpose such as cooking and boiling water and others.

(ii) Coal minerals are used to generate electricity that can be used for people.

(iii) Coal minerals are used in industry as a source of fuel.

(c) Describe three problems limiting the exploitation of the mineral which was discovered in Soni Village.

(i) poor technology and advanced methods to extract minerals (Coal).

(ii) Lack of enough capital to invest in mineral extraction eg. Coal.

(iii) Lack of skilled labour who have knowledge on these minerals.

Extract 5.2: A sample of correct responses for question 5

2.2.4 Question 6: Agriculture

The question consisted of part (a) and (b) whereby the students were required to read the statement provided and then answer the questions that followed. The statement given was; *John's family is engaging in rearing dairy cattle for commercial purpose.*

(a) Outline three economic importance of the activity in Tanzania.

(b) Determine four characteristics of the activity.

A total of 634,731 (100%) students attempted this question. The analysis of data on performance shows that 348,500 (54.91%) students scored from 00 to 2.5 marks, 222,199 (35.00%) scored from 03 to 06 marks, whereas 64,032 (10.09%) scored from 6.5 to 10 marks. Figure 6 summarises this performance.

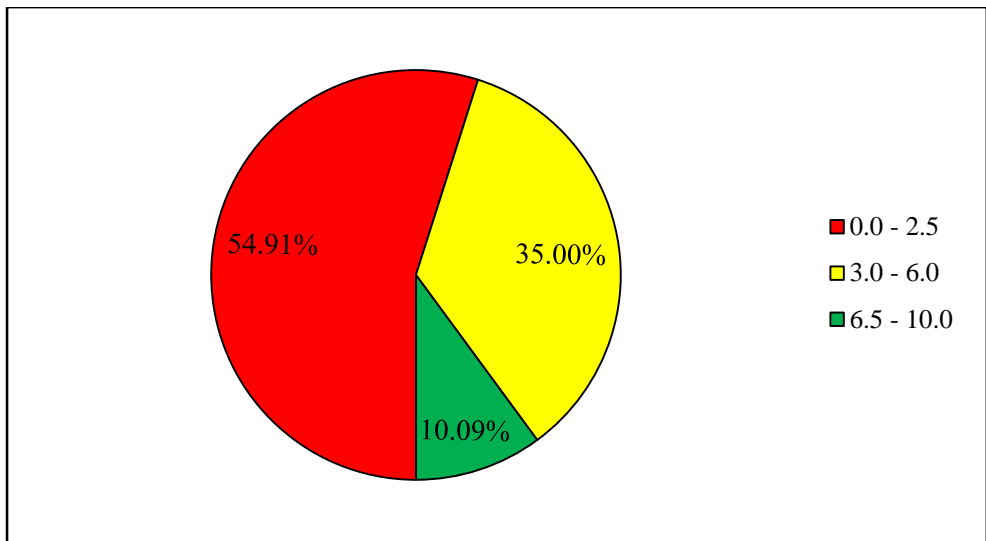


Figure 6: *The percentage of students' performance in question 6.*

Figure 6 shows that the general performance on this question is average because 45.09 percent of the student scored 03 to 10 marks. Among them, 10.09 percent had higher (6.5 to 10) scores. This indicates that the students had adequate knowledge of *Agriculture* especially on livestock keeping.

A total of 348,500 (54.91%) students had weak performance on this question. Some students misinterpreted the question demands, while others had poor knowledge of the subject matter. Some students managed to outline only one economic importance of commercial dairy cattle rearing in Tanzania in part (a) and failed to determine any characteristics of the activity in Tanzania in part (b). Some students wrote incorrect responses in part (a), and mixed up correct and incorrect responses in part (b). For example, one student outlined; *the cattle do not move from one place to another, it uses low technology and it raises more number of cattle* in part (a). This student was not aware that these are the characteristics for zero grazing. Other responses outlined by students were correct in part (a), while in part (b) they provided incorrect responses such as: *it needs good climate, water availability, good soil and availability of minerals*, instead of the characteristics of dairy cattle commercial farming in Tanzania.

Another student wrote social importance of rearing dairy cattle in part (a) which are; *it is source of food and people get proteins*, while he/she mentioned incorrect responses in part (b) which are; *social, economic,*

cultural and political activities. These are categories of human activities. Another one mentioned human economic activities in general such as; *farming, pastoralism, fishing and trading* instead of characteristics of commercial dairy cattle keeping

Additionally, another student provided correct responses in part (a) and incorrect responses in part (b) by writing the characteristics of subsistence livestock keeping which are; *it is practiced on small area, it uses low capital, it does not require high technology and animals are kept for subsistence*. The student might have been attracted by the word “Cattle” which is kept by most people for consumption without considering the term “Commercial purposes”. Another student outlined relevant responses in part (a), then mentioned the benefits obtained from cattle in part (b) as follows; *from cattle we get milk, we get meat, we get manure and skins for shoes making*, instead of writing the characteristics of *Commercial cattle rearing*. Extract 6.1 indicates a sample of weak responses for question 6.

6. John's family is engaging in rearing dairy cattle for commercial purposes.

(a) Outline three economic importance of the activity in Tanzania.

(i) Agriculture

(ii) Fishing

(iii) Trade

(b) Determine four characteristics of the activity.

(i) Availability of market

(ii) Source of income

(iii) See encourage the development of government revenue

(iv) Source of foreign currency

Extract 6.1: A sample of incorrect responses for question 6

In Extract 6.1, the student outlined economic activities, instead of economic importance of dairy cattle commercial farming in Tanzania in part (a). In part (b), he/she explained the factors for establishing a dairy farm and its economic benefits.

On the other hand, 64,032 (10.09%) students with a good performance showed sufficient knowledge and skills on the topic of *Agriculture* particularly livestock keeping. In part (a), they outlined the economic importance of rearing dairy cattle in Tanzania such as: *it helps to get income through selling dairy product, source of government revenue, it enables the government to earn foreign currency through selling dairy product outside the country, it provides employment to people such as in industry and trade, the development of transport and communication, stimulates other sector of economy such as manufacturing industries, livestock provides raw materials in manufacturing industries and source of nutrients to the soil such as cow dung when used in farmlands.*

These students also determined the characteristics of dairy cattle as required in part (b) of the question. Some of the characteristics determined by the students include; *It needs a large area for keeping the cattle, it needs high capital to run the activities, it uses modern and improved cattle breeds, more space is needed for ranches and growing grass for feeding livestock and only type of livestock is kept to ensure high production*, though they differed in their marks. The marks disparities were affected by the accurateness of their responses. Extract 6.2 is a sample of correct responses.

6. John's family is engaging in rearing dairy cattle for commercial purposes.
- (a) Outline three economic importance of the activity in Tanzania.
- (i) It is a source of employment. People can be employed as labourers and drivers.
 - (ii) It is a source of income for the government through collection of tax.
 - (iii) Facilitates development of industries especially dairy industries.
- (b) Determine four characteristics of the activity.
- (i) It usually occupies a large area of land for construction of ranches.
 - (ii) It involves rearing of only one type of cattle or domestic animals.
 - (iii) It is done where the population is low.
 - (iv) It is expensive to establish and manage it.

Extract 6.2: A sample of correct responses for question 6.

2.2.5 Question 7: Climate

The students were required to read the statement provided and then answer the question in part (a), (b) and (c). The statement provided was; “ *Hoki experienced condition while in Dar es Salaam but the temperature and humidity in the area was almost constant for about 30 years.* ”

- (a) *Name two possible types of atmospheric conditions in the area.*
- (b) *In three points, differentiate the atmospheric conditions named in (a).*
- (c) *Outline two similarities of the atmospheric conditions named in (a).*

A total of 634,731 (100%) students attempted this question. The analysis of data on performance shows that 517,896 (81.59%) students scored from 00 to 2.5 marks, 73,935 (13.10%) scored from 03 to 06 marks whereas 42,900 (5.31%) scored from 6.5 to 10 marks. Figure 7 demonstrates performance in this question.

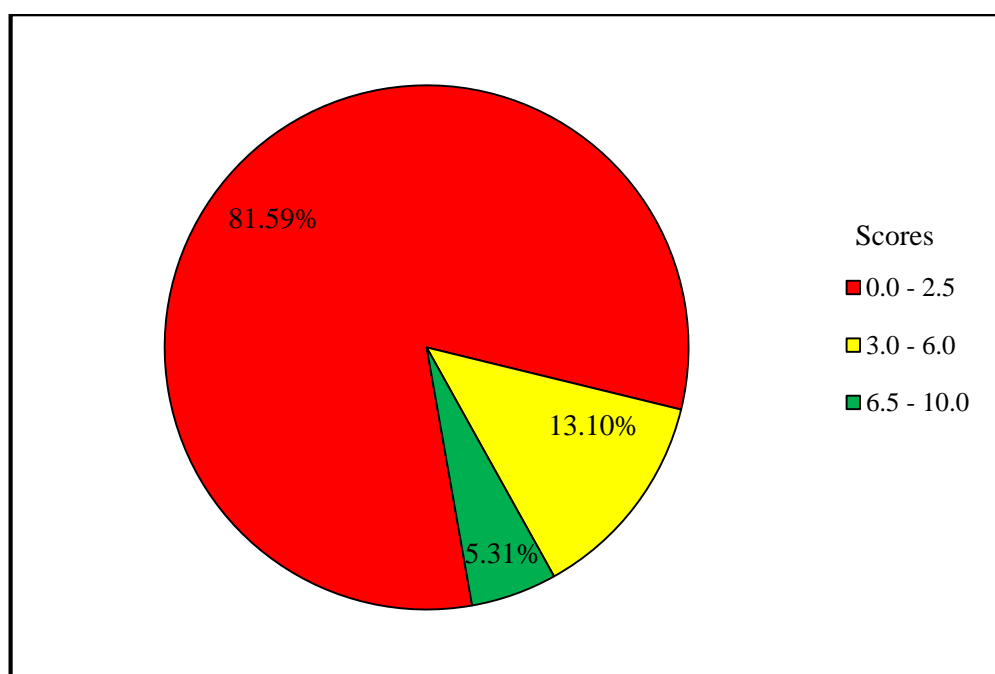


Figure 7: *The percentage of students' performance for question 7*

The analysis shows that, the general performance for this question was weak because 81.59 per cent of the students scored lower marks, among them 79.00 per cent scored zero mark. This performance suggests that most of the students had insufficient knowledge of the *Climate* topic, specifically on the *Weather and Climate* sub topic. Those students had little understanding of

the type of atmospheric conditions in (a). For example, one student named *Temperature* and *Humidity* as the two types of atmospheric conditions of the area. He/ she failed to differentiate the types of atmospheric conditions. Similarly, he/she made the difference between *Temperature* and *Humidity* in part (b) as follows; *Temperature is the degree of hotness or coldness of air*, while *Humidity is the amount of water vapour in the atmosphere*. Furthermore, he/she provided incorrect response in part (c), *both have a person who studies the condition called a Climatologist*. This student was not able to realise that a person who studies Weather is called a Meteorologist whereas for the climate is called a Climatologist.

Likewise, another student named the World climatic conditions, instead of type of atmospheric conditions in part (a) which are *Desert* and *Semi desert conditions*. Another one provided irrelevant responses by writing *Equatorial and Tropical climate* in part (b) while referring to the responses in part (a). Another student named *Troposphere and Stratosphere* in part (a), and failed to identify that these are the layers of atmosphere. Probably, he/she was confused with the word “*Atmospheric*” and “*Atmosphere*.”

Students who scored more than two marks some of them managed to name two possible types of the atmospheric conditions of the area in (a), which were *weather* and *climate* and managed to differentiate one or two of the atmospheric conditions in (b) but failed to outline the similarities of the atmospheric condition named in (a).

Some students mixed up correct and incorrect responses in some parts. For example, one student mixed up correct and incorrect responses in parts (b) and (c). Incorrect responses were *Weather covers a large area*, while *Climate covers a small area* in part (b). The student reversed the statement because *Weather* covers a small area while *Climate* covers a large area. Extract 7.1 demonstrates incorrect responses for this question.

7. Hoki experienced short time changes of atmospheric condition while in Dar es Salaam but the temperature and humidity in the area are almost constant for about 30 years.

(a) Name two possible types of atmospheric conditions in the area.

(i) ...sunshine

(ii) ...Wind

(b) In three points, differentiate the atmospheric conditions named in (a).

(i) Wind is the blowing air

(ii) Sunshine are the rays of light from the sun

(iii) Sunshine or solar is renewable source of energy

(c) Outline two similarities of the atmospheric conditions named in (a).

(i) Wind is the renewable source of energy

(ii) Sunshine is the renewable source of energy

Extract 7.1: A sample of incorrect responses for question 7.

In Extract 7.1, the student named two elements of weather (Sunshine and Wind) instead of the two types of atmospheric condition which are *Weather* and *climate* in part (a). He/she differentiated wind and sunshine, instead of weather and climate in part (b). In part(c), he/she outlined the similarities of wind and sunshine instead of similarities of weather and climate.

Despite the weak performance for some students, 42,909 (5.31%) students revealed to have adequate knowledge on the concept of Weather and Climate. They named the possible types of atmospheric conditions in the area which are *weather and climate*. They also differentiated three atmospheric conditions named in (a); *Weather changes quickly while, climate takes a long time to change, description of weather is based on small area while climate is based on large area, climate has distinct seasons while weather occurs on day to day basis, weather involves one to two conditions of the atmospheric conditions, while climate includes many conditions of the atmospheric conditions, the person who studies climate is called Climatologist, while the person who studies weather is called Meteorologist, weather is measured on short period of time while, climate is measured and recorded over a long*

period and climate can be determined by water bodies, relief, and natural vegetation while weather is determined by the elements of weather.

Moreover, they outlined two similarities of the atmospheric conditions named in (a); *both describe atmospheric condition of an area, both are determined by the same elements, and both determine social economic activities.* Extract 7.2 represents a sample of correct responses for this question.

7 Hoki experienced short time changes of atmospheric condition while in Dar es Salaam but the temperature and humidity in the area are almost constant for about 30 years.

(a) Name two possible types of atmospheric conditions in the area.

(i) Weather

(ii) Climate

(b) In three points, differentiate the atmospheric conditions named in (a).

(i) Weather is recorded in short period of time. While Climate is recorded in a long period of time.

(ii) Weather can be forecasted. While Climate can not be forecasted.

(iii) The study of weather is meteorology. While The study of climate is climatology.

(c) Outline two similarities of the atmospheric conditions named in (a).

(i) Both weather and climate deal with the condition of the atmosphere.

(ii) They have similar elements such as sunshine, rainfall, atmospheric pressure and temperature.

Extract 7.2: A sample of correct responses for question 7.

2.2.6 Question 8: Water Management for Economic Development

The question required the students to read the given statement and answer the questions that followed in part (a) and (b). The given statement was; *“Mvuha Villagers have established a River Basin Development Project along the Mvuha River which passes near their village.”*

- (a) *Identify five steps they followed to establish the project.*
- (b) *What are the four social economic importance of their project?*

All the 634,731 (100 %) students attempted this question. The analysis of data on performance shows that 312,944 (49.30%) students scored from 00 to 2.5 marks, 292911(46.15%) scored from 03 to 06 marks whereas, 28,876 (4.55%) scored from 6.5 to 10 marks. The students' performance for this question is illustrated in Figure 8.

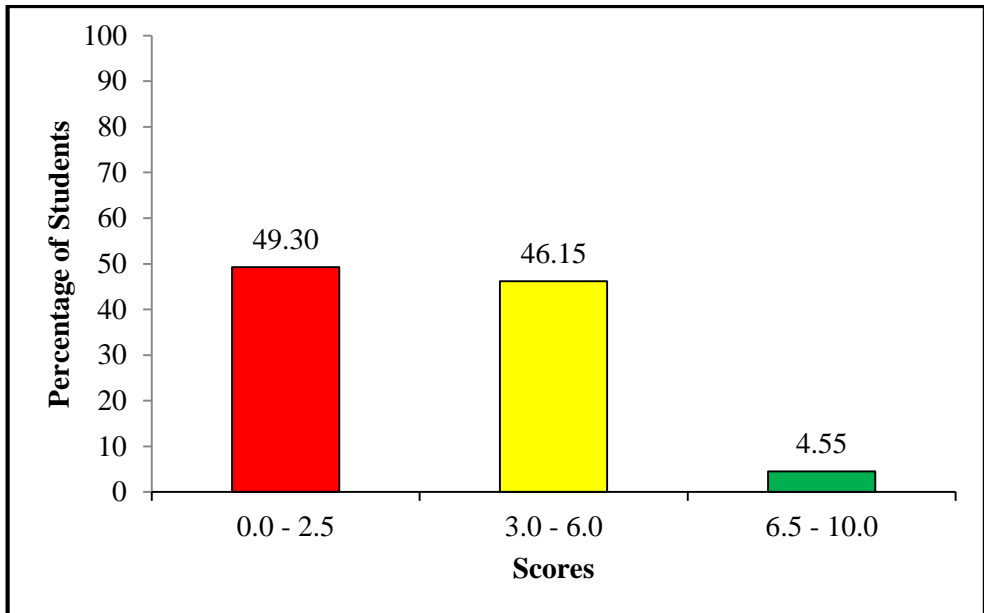


Figure 8: The percentage of students' performance for question 8

Figure 8 shows that 50.70 per cent of the students scored from 3.0 to 10.0 marks. This implies that the general performance for this question was average. This performance indicates that the students had insufficient knowledge about *River Basin Development Project*, though they provided few correct points, insufficient explanations and incorrect answers in some cases.

The students with a good performance 28,876 (4.55%) met the demands of the question. This indicates that they had adequate knowledge and skills on the topic of *Water Management for Economic Development* especially on river basin development. They identified five steps the villagers followed to establish the project in part (a) which were; *Clearing of the vegetation to give room for the project intended, construction of dams for retaining of water, removal of silt or mud from the river or dam, planting trees on the marginal land, hills slopes and river banks, and straightening and widening river channels so that they can accommodate more water for transportation.*

They also, in part (b), outlined the four social economic importance of the project; *Water is used in manufacturing industries for cooling machines, washing containers and in the chemical processing, also water is used in beverage industry, water is used to produce Hydro Electric Power needed by the modern economic activities. Industries, homes and offices need electricity. Water is used for transporting goods. Lakes, ocean and rivers provide the cheapest means of transporting bulky loads. Water facilitates the growth and development of the fishing industries. Fishes thrives in rivers, lakes, oceans and ponds.*

Other responses were; *water is used for irrigation purposes since several countries in the world do not completely depend on the rainfall for farming rather they use water to irrigate their farms River basin Development helps to control floods, provide water for domestic purposes, encourage development of tourism activities, used as research sites or centres, creation of job opportunities, encourage environmental conservation and encourage settlement.* Extract 8.1 represent a sample of correct responses for question 8.

<p>8. Mvuha Villagers have established a river Basin Development Project along the Mvuha River which passes near their village.</p> <p>(a) Identify five steps they followed to establish the project.</p> <p>(i) <i>Building of the dam for water collection</i></p> <p>(ii) <i>Planting trees on the side of the river.</i></p> <p>(iii) <i>removal of silt from the river</i></p> <p>(iv) <i>Strengthening of the river walls.</i></p> <p>(v) <i>Clearing vegetation where the project is intended to take place.</i></p> <p>(b) What are the four social economic importance of their project?</p> <p>(i) <i>The water can be used for irrigation purpose.</i></p> <p>(ii) <i>The water can be used for domestic uses such as cooking and drinking</i></p> <p>(iii) <i>The river and large dams can be used for navigation purpose.</i></p> <p>(iv) <i>Fishing activities takes place.</i></p>
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Extract 8: A sample of correct responses for question 8

The analysis indicates that 312,944(49.30%) of the students had weak performance. Those students had inadequate knowledge about *River Basin Development Project*. Some of these students provided incorrect responses in

some parts of the question and had inadequate knowledge on the concept tested. For example, one student wrote *poor transport, poor capital, poor science and technology, poor market and lack of skilled labour* in part (a), instead of the steps for *River Basin Development Project*. The student did not understand that these are the challenges facing industries and not the steps for developing *River Basin Management Project*. In addition to that, another student mentioned the procedures of calculating an area by using square method in part (a), whereby he/she *counted all the complete squares, counted incomplete squares and added the complete and incomplete squares* instead of following the steps for establishing the *River Basin Development Project*. He/she managed to give correct responses in part (a).

On the other hand, 203,287(32.00%) students who scored zero some lacked knowledge on the subject matter, while others failed to understand the demands of the question. For example, one student mentioned *availability of capital, high science and technology, presence of skilled labour, presence of good social service and presence of good government policy* in part (a). He/she failed to understand that these are the factors favoring location of industries and not steps for *River Basin Development Project*. However, in part (b) he/she provided only few social economic importance of the project. Another student in part (a) wrote the types of transport, instead of steps to be followed to establish the project. The incorrect responses provided by the student were; *to establish a pipeline, to establish land transport, to establish railway transport, to establish road transport and to establish water transport*. This student probably was influenced by the word *project* that is, “*a planned piece of work designed to produce something in a certain area*”, whereby the establishment of the project needs infrastructure. Extract 8.2 indicates such incorrect responses for question 8 (a).

8. Mvuha Villagers have established a river Basin Development Project along the Mvuha River which passes near their village.

(a) Identify five steps they followed to establish the project.

(i) Problem identification

(ii) Hypothesis formulation

(iii) Observation and data collection

(iv) Collection data

(v) Conclusion

Extract 8.2: A sample of incorrect responses for question 8(a)

In Extract 8.2 the student provided the steps to be followed in research with data collection tools, instead of identifying five steps to be followed to establish the project in part (a).

2.2.7 Question 9: Sustainable Use of Forest Resources

This question required the students to read the given statement and answer the questions that followed. The statement read: *“The Gwashi village chairperson told the villagers to use the available forests in their village sustainably.”*

- (a) Name two possible types of forests in the village.
- (b) Mention four human activities which may cause unsustainability of the forests in the area.

A total of 634,731 (100 %) students attempted this question. The analysis of data on performance shows that 284,669 (44.85%) students scored from 00 to 2.5 marks, 218,557 (34.43%) scored from 03 to 05 marks whereas 131,505 (20.72%) scored from 6.5 to 10 marks as illustrated in Figure 9.

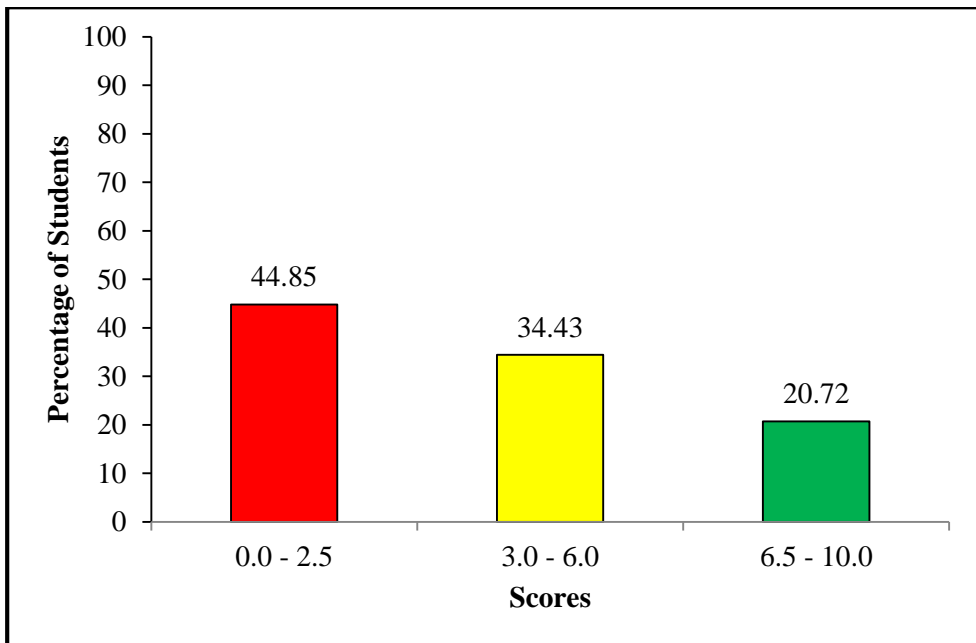


Figure 9: *The percentage of students' performance for question 9*

Figure 9 shows that 55.15 per cent of the students scored from 03 to 10 marks. This implies that the general performance for this question was average. Those students had adequate knowledge about *Sustainable Use of Forest Resources*, though they provided fewer points, insufficient explanation and incorrect responses in some cases.

The analysis indicates that, 131,505 (20.72%) students had a good performance. Their scores revealed sufficient knowledge on the topic of *Sustainable Use of Forest Resources*. The students' scores varied with clarity and accuracy of their responses. In this category, some students were able to name the two types of forests in part (a) which are; *Man made* and *Natural forests*. Likewise, they correctly mentioned the four human activities which might have caused unsustainability of the forests in the area in part (b) which are; *Cutting of trees for timber, charcoal and for building materials, fire burning /bush fires, agricultural activities (shifting cultivation, bush fallowing and keeping large number of livestock), clearing land for construction activities and mining activities*. Extract 9.1 illustrates correct responses for this question.

9. The Gwashi village chairperson told the villagers to use the available forests in their village sustainably.

(a) Name two possible types of forests in the village.

(i) Natural forests.

(ii) Artificial forests.

(b) Mention four human activities which may cause unsustainability of the forests in the area.

(i) Defforestation.

(ii) Overgrazing.

(iii) Burning of forests.

(iv) Harvesting trees for construction.

Extract 9.1: A sample of correct responses for question 9.

Moreover, 284,669 (44.85%) students with weak performance showed insufficient knowledge on the subject matter. Some of these students named the two types of forests in the area in part (a) correctly and mentioned few human activities in part (b). For example, one student named two types of forests which are; *Artificial* and *natural forests* and mentioned only two human activities which may cause unsustainability of the forests in part (b). On the other hand, another student described the characteristics of vegetation in natural regions, which are; *Equatorial forests* and *Tropical/Savanna* forests in part (a) whereas he/she gave correct responses in part (b). Another student named *large* and *small forests* in part (a). Possibly, he/she misconceived the types and scales of forests. This student was not aware that *Large or Small forests* can either be *Natural or Artificial*. However, he/she provided correct responses in part (b). Another student mentioned only one correct response in part (a), while he/she mentioned three major categories of human activities in part (b) which are; *Primary*, *Secondary* and *Tertiary activities*. Probably, he/she was attracted by the word “*Human activities*.” Extract 9.2 illustrates incorrect responses for this question.

9. The Gwashi village chairperson told the villagers to use the available forests in their village sustainably.

(a) Name two possible types of forests in the village.

(i) ...Tropical Monsoon Forest...

(ii) ...Deciduous Forest...

(b) Mention four human activities which may cause unsustainability of the forests in the area.

(i) ...They are used to make furnitures eg. chairs, tables...

(ii) ...Tree is the source of Medicine eg. Mwarobaini tree...

(iii) ...Tree is the source of Non-renewable sources if they can't be replaced after use...

(iv) ...Tree is used for cooking purpose at home eg. At home, During conducted...

Extract 9.2: A sample of incorrect responses for question 9.

In Extract 9.2, the student named the types of natural forests instead of the types of forests in part (a). In part (b), he/she mentioned the benefits of forests resources instead of four human activities which may cause unsustainability of forest in the area.

2.2.8 SECTION C- ESSAY QUESTION

2.2.9 Question 10: Major Features of the Earth's Surface.

The students were given the statement to read and then to answer the followed question. The statement given was; *“The Form One students were taught by their Geography teacher that African continent has major relief features.” Giving two examples for each, describe the five major relief features the teacher taught the students.*

A total of 634,731 (100 %) students attempted this question where 519,941 (81.91%) students scored from 00 to 04 marks, 88,183 (14.54) scored from 4.5 to 9.5 marks and 22,527 (3.55%) scored from 10 to 15 marks. The students' performance is illustrated in Figure 10.

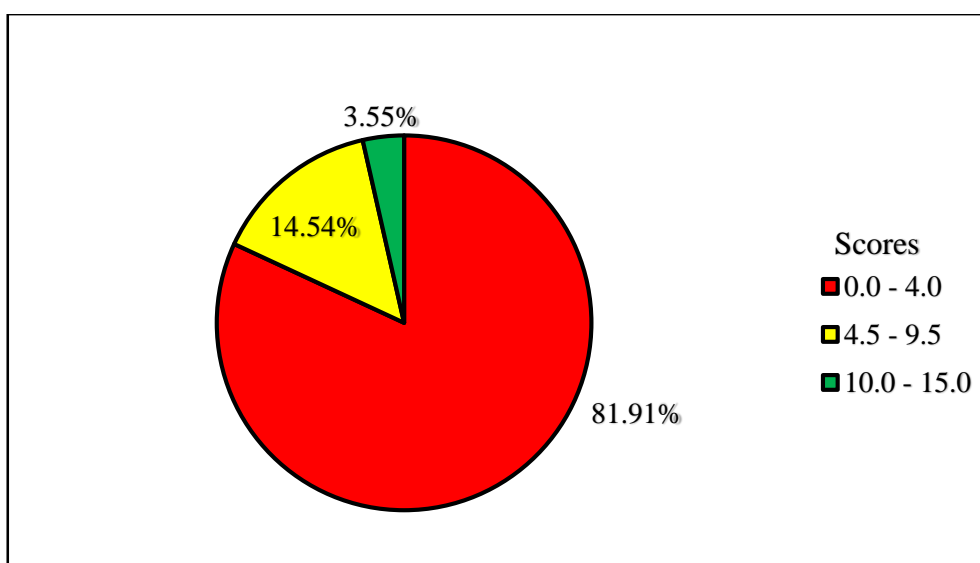


Figure 10: *The percentage of students' performance for question 10.*

Figure 10 shows that the general performance for this question was weak because 519,941 (81.91%) -students scored below 03 marks.

Majority of these 519,941 (81.9%) students demonstrated inadequate knowledge about *Features of the Earth's Surface* topic as some of them provided incorrect responses to the question. Others did not meet the demands of the question accordingly. In addition, their responses were characterised with poor essay writing skills and poor English Language command.

The analysis shows that, some students provided weak introductions and mixed correct and incorrect responses with irrelevant conclusion. For example, one student provided a relevant introduction but mixed up correct and incorrect relief features, which are; *Oceanic ridge*, *Ocean Island* and *Continental slope*. This student failed to understand that these are the features of the ocean floor. In addition to that, he/she ended up with irrelevant conclusion. Another student provided relevant introduction and explained few correct relief features of the ocean floor. Other students wrote irrelevant introduction, mentioned only few correct relief features without describing them although they provided relevant conclusion.

Further analysis shows that, other students managed to provide introductions but failed to explain the major relief features, and their conclusions were irrelevant. For example, one student described other features like *Gulf* and

Cape. He/she did not remember that a *Gulf* is the part of the ocean that penetrates land and a *Cape* is a piece of land entering the sea or ocean. Apart from that, another student described the major features of the ocean floor instead of the major relief features such as; *continental shelf*, *continental slope*, *oceanic ridge*, *oceanic deep* and *oceanic plain*. On the other hand, another student mentioned *hachures*, *trigonometrical*, *spot height*, *contour* and *form lines*. This student failed to recall that these are the methods of representing relief on topographic maps. Some of their responses were characterised with poor English Language command. Extract 10.1 represents such weak responses.

10. The Form One students were taught by their Geography teacher that African continent has major relief features? Giving two examples for each, describe the five major relief features the teacher taught the students.

MAJOR RELIEF FEATURES.

Major relief features are the physical landscape that are found on the earth's surface. As for the African continent it is the second largest continent occupying an area of 35.7 million kilometres square. The following are the major relief features that are found on the earth's surface:-

A cape: This is an area of land that enters into the sea or ocean. As a relief feature is usually located at the edges of continents. Examples of capes may include:- The Cape of Good Hope (Cape Town) found in South Africa and Cape Leeuwin found in Australia.

A Gulf: This is a part of the waterbody (sea or ocean) that tends to penetrate into the land. Both a cape and a gulf are located at the edge of the continents. A gulf is formed when land is gradually destroyed the waterbody. Examples of gulfs may include :- Gulf of Guinea found in Guinea and Gulf of Mexico found at the coast of Mexico.

A peninsula: This is an area of land that enters into the sea or ocean (waterbody) and is surrounded by water for most of its sides (three-quarters of its sides). Examples of peninsulas may include :- Arabian peninsula and the Mesopotamian Peninsula.

A strait: This is a narrow water path that separates two landmasses. Examples of straits may include :- The strait of Gibraltar and the Luzon strait.

A waterbody: These are large masses of either salty or fresh water that are found surrounding large masses of land such as continents. Examples of waterbodies may include :- Oceans (Pacific Ocean and Arctic ocean) and Seas (Caspian sea and Dead sea).

To sum up; The earth's surface is composed of different kinds of major relief features such as plains, plateaus, valleys and many others that are to be conserved for the use of the current and future generations of people.

the continent that are found upper of the continent of the ocean continental shelf when look usual to a sea level I will see at the top of land.

Ocean deep is the one of the relief features that are found in the ocean and ocean deep found inside of the ocean so ocean deep in the sea level it found in deep of a continent and is the first inner in east of the sea level to the ocean.

Ocean ridge the also a part of the ocean continental is the part is upper part that raising above the ocean there is a part that raise and come up some parts called ocean ridge also it is found in the ocean continental so also is a some of part.

Continental slope is the also a part of the ocean continental which rise from above the sea level up to down the inner part of sea level so continental slope is the place where the particles, sea water and other things raising above to down to the continental place.

Oceanic island is the upper most part of the continental and it found in on the ocean place to the continental for me I think is the first part before entering to the ocean continent will meet with that oceanic continental.

Generally, there are others feature of the oceanic but those are few so other are Deep sea plain, ocean ridge, ocean deep and other features are maintained above these are and its found in only in continental.

Extract 10.1: A sample of an incorrect response for question 10

In Extract 10.1, the student explained the major relief features of the ocean floor in the introduction and described the relief features of the ocean floor in the main body, instead of the relief features of the continent.

Despite weak performance of the majority of student, 22,527 (3.55%) demonstrated to have a good understanding on the topic of the *Major Features of the Earth's Surface*. Correctness and clarity of their responses led them to differ in their marks. In this category, some students were able to provide relevant introductions, main body and conclusions. Those students wrote relevant introductions that; *Africa is the largest continent in size with an area of about 30.2 million square kilometres. The continent is occupied by major relief features where height above the sea level and slope give rise to different relief features on the continent. Examples of features are such as Plateau, Plain, Rift valley, Mountains and Basins.*

The majority of students in this category described the major relief features by giving two examples for each as follows; *Plateaus are formed when forces*

from within the earth uplift a large region. In some areas, the outflow and spread of lava have formed plateaus over extensive areas. For example, Deccan Plateau, Columbia Plateau and Snake Plateau. Plains are continuous stretches of comparatively flat land, not rising much above sea level. They are a result of down warping of the earth's crust. For example; Serengeti Plains, Coastal Plains of Tanzania, Kenya and Mozambique Plains. Rift valley are formed when the ground between two sets of faults sinks down. For example; Lake Tanganyika, Lake Nyasa, Lake Albert, Lake Eyasi and Turkana. Mountains are part of the earth's surface that rise abruptly to a greater height, usually above 300 metres from the surrounding level. For example, Mount Kilimanjaro, Cape ranges, Uluguru, Adakama and Ahhagar mountains.

Moreover, they described other features which are; *Basins as natural depression or bowl shaped hollow on the earth's surface, formed when a part of land sink due to the earth movements. These basins vary in size, with some occupied by water. Basins collect water and sediments from surrounding land surface. For example, Congo basin, Victoria, Amazon and Kyoga basin. Water bodies are areas on the Earth's surface where water has accumulated. Water bodies can be salted or fresh water, small or large bodies. They occupy about 70% of the earth's surface. For example, oceans, seas, rivers and lakes.* In addition to that, they ended up with relevant conclusions. Extract 10.2 represents a sample of a good responses from one of the students.

10. The Form One students were taught by their Geography teacher that African continent has major relief features? Giving two examples for each, describe the five major relief features the teacher taught the students.

10: MAJOR RELIEF FEATURES OF AFRICA.

Continent is a major landmass rising from the ocean floor. It includes Asia, Africa, North America, South America, Antarctica, Europe and Australia. The continents vary in sizes and features. Most or all of them are separated by oceans except for Asia and Europe separated by Ural mountains. Relief is any height above or below sea level. The following are the major relief features of African continent;

Plain is a wide stretch of a comparatively flat land that does not rise much above the sea level. The plains may be formed as extensive spread of lava over a large area or stretch of land. Most of the plains

10 are located near coastal areas, being referred to as coastal plains, example Indogangetic plains and East African coastal plains.

Plateau, is an extensive high land area with more or less uniform summit levels. They are formed as a result of extensive spread of lava or downwrapping of the earth's crust. Examples include Central African plateaus and South American plateau.

Rift valley, is a long narrow stretch low land bordered by ^{parallel} steep sides called escarpment. The rift valley is likely to have a lake at its flow. Example the Great East African Rift valley and Mariana's trench found in east Africa and under the ocean respectively.

Basin is a wide narrow land filled with water. This is a result of downwrapping of the earth's crust or upward movement of the earth leaving or causing a depression. examples of basins include Victoria basin and Kyoga basin found in East Africa.

Mountain, is a land of high elevation rising more than 300meters above the surrounding land. The mountains are of various types include block mountain, fold mountains due to wrinkling and folding of the earth's crust, volcanic mountains due to outflow of magma, and residual mountains due to prolonged denudation of the existing mountains. Examples of mountains in Africa include Mount Kilimanjaro, mount Elgon, mount Ruwenzori, mount Alps, Mount Atlas, mount Uluguru, Usambara mountains, Drakensburg mountains and cape ranges.

Conclusively, the relief features are very important and they keep on changing with time. Nevertheless, they give a very beautiful and asthetic value to the earth's surface.

Extract 10.2: A sample of correct responses for question 10

3.0 ANALYSIS OF THE STUDENTS' PERFORMANCE IN EACH TOPIC

The FTNA 2022 Geography Subject Assessment paper consisted of 10 questions that were set from 10 topics namely: *The solar system, Major features of the Earth's Surface, Agriculture, Weather, Climate, Sustainable Use of Forest Resources, Transport, Map Work, Manufacturing Industry, Sustainable Mining, and Water Management for Economic Development.*

The analysis of the students' performance per topic in FTNA 2022 showed that students had a good performance in the following topics; *The solar system, Major features of the Earth's Surface, Agriculture, Weather, Climate, Sustainable Use of Forest Resources, Transport, Map Work and Manufacturing Industry*(65.36%) that were tested in question 1 and *Map work* (65.15%) tested in question 4.

The students performed averagely in the following topics: *Sustainable Use of Forest Resources* (55.15%) *Water Management for Economic Development* (50.70%), *Agriculture* (45.09%), *Features of the Earth's surface* (40.72%) and *Sustainable Mining* (34.50%). Those topics were tested in question 9, 8, 6, 2, 10, and 5 respectively.

The performance of students was weak in the topics of: *Solar System* (18.41%) and *Climate* (18.41%) assessed in question 3 and 7 respectively (see appendix).

4.0 CONCLUSION

The analysis of individual questions shows that the general performance of the 2022 Geography subject (FTNA) was average since 55.00 percent of the students passed and 45.00 percent failed. The level of performance has increased by 2.70 percent in relation to that of 2021 where 52.30 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 English Language.

5.0 RECOMMENDATIONS

Based on the observations made through the analysis in this report, the following are suggested in order to improve the performance of the students in the Geography subject Assessment;

- (a) During teaching and learning process, teachers should do effective demonstration of weather and climate by using pictures and video showing weather and climate and how they relate.
- (b) Teachers should use study tour to weather stations, forested areas, River Basin Management Projects, mining sites and areas with different features so as to improve students competence. This will increase their performance in weather and climate sub topic as well as in human activities and on the *Major Features of the Earth's Surface* topic.
- (c) Questions and answers should be used effectively to discuss how various questions are tested. This will help to improve the performance on the topic of Solar System and climate which had average performance.
- (d) Teachers should put more emphasis in developing students' mathematical skills in order to improve their computation skills in time calculations by using Longitude lines.
- (e) Students should read questions carefully in order to identify the requirement of each question. This will overcome the challenges of the students' inability to identify the requirements of the questions.
- (f) Teachers should use action verbs during the teaching and learning process as well as in continuous assessment questions. This will help the students to provide answers which are relevant to the demands of the questions.
- (g) Students should practise communicating in English language which is the medium of instruction and in their daily school routines. They should also read both fictions and non-fictions books in order to improve their English language proficiency in writing, reading, speaking and listening. This will help them to overcome the challenges of writing poor grammatical and meaningless sentences in answering some of the questions.

**SUMMARY OF PERFORMANCE OF THE STUDENT IN EACH
TOPIC FOR 013 GEOGRAPHY-FTNA 2022**

S/N	Topic	Question Number	% of students who scored 30 marks and above	Remarks
1	The Solar System, Agriculture, Weather and Climate, Sustainable Use of Forest Resources, Transport, Major Features of the Earth's Surface, Map work and Manufacturing Industry	1	65.36	Good
2	Map Work	4	65.15	Good
3	Sustainable Use of Forest Resources	9	55.15	Average
4	Water Management for Economic Development	8	50.70	Average
5	Agriculture	6	45.09	Average
6	Features of the Earth's Surface	2&10	40.72	Average
7	Mining industry	5	34.50	Average
8	Solar system	3	20.54	Weak
9	Climate	7	18.41	Weak

