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

CANDIDATES' ITEMS RESPONSE ANALYSIS REPORT ON THE CERTIFICATE OF SECONDARY EDUCATION EXAMINATION (CSEE) 2020

GEOGRAPHY

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FOREWORD

The report on the Candidates' Item Response Analysis on the 2020 Certificate of Secondary Education Examination (CSEE) for Geography subject has been prepared by the National Examinations Council of Tanzania (NECTA). The aim of this report is to provide feedback to different education stakeholders including: students, teachers, parents, policy makers and the general public on the performance of candidates, and the extent to which the instructional goals and objectives of the subject were met.

The CSEE marks the end of the four years of the ordinary level of secondary education. It is a summative evaluation which shows the general effectiveness of the education system. Principally, candidates' responses to the examination questions indicate what the education system was able/ unable to offer to the candidates in the four years of the Certificate of Secondary Education.

In this report, the analysis of each question has been done, and different categories of information of this analysis have been shown by figures and graphs. Factors that have contributed to the candidates' ability to answer the examination questions correctly and score high marks include: their ability to understand the demands of the questions, having basic knowledge of the subject matter, possessing skills in computing and drawing, good mastery of English language. The candidates who scored low marks lacked such qualities.

It is the belief of the National Examinations Council of Tanzania that this report shall serve as a basis for enabling all educational stakeholders to take proper measures in order to improve the candidates' performance in this subject.

Finally, the National Examinations Council of Tanzania is grateful to all Examination Officers and other stakeholders who provided valuable support in the preparation of this report.

Dr. Charles E. Msonde
EXECUTIVE SECRETARY

1.0 INTRODUCTION

This report presents the analysis of the candidates' items and responses on the Certificate of Secondary Education Examination (CSEE) in Geography subject for the year 2020. In this report, performance of the candidates is divided into three categories; good, average and poor. It is good if the candidates' scores range from 65 to 100 percent, average from 30 to 64 and poor from 0 to 29 percent. These categories are indicated in the figures and tables by colours such as; green for good, yellow for average and red for poor.

The Geography examination paper had three sections; A, B and C. Sections A and B contained compulsory questions. Section A consisted of two questions which had 15 marks in total. Question 1 involved ten multiple choice items while, question 2 consisted of five matching items. Question 1 carried 10 marks while question 2 had 5 marks. Section B consisted of five short answer questions (3, 4, 5, 6 and 7) of which each carried 11 marks making a total of 55 marks. Section C had three optional questions and the candidates were required to answer any two. Each question carried 15 marks making total of 30 marks.

A total of 436,523 candidates sat for the CSEE 2020 in Geography subject, out of which, 234,217 (53.90%) candidates passed while, 200,299 (46.10%) failed. Generally, the performance in 2020 improved by 0.75 percent compared to that of 2019, in which, 53.15 percent of the candidates passed and 46.85 percent failed.

This report provides an analysis on the performance of the candidates in each question. It shows what the candidates were required to do as well as the strengths and weaknesses of their responses. Samples of the candidates' answers are shown to illustrate the facts. It is expected that the report will be useful to all educational stakeholders and will enable teachers and students to improve the teaching and learning process in Geography subject.

2.0 ANALYSIS OF CANDIDATES' PERFORMANCE FOR EACH QUESTION

2.1 SECTION A: OBJECTIVE QUESTIONS

This section had two compulsory questions whereby question 1 consisted of 10 multiple choice items carrying a total of 10 marks and question 2 consisted of 5 matching items with a total of 5 marks. The total marks for the section were 15.

2.1.1 Question 1: Multiple Choice Items

Multiple choice items tested the candidates' knowledge and skills on the topics of; *The Solar System, Structure of the Earth, Soil, Forces that affect the Earth, Environmental Issues and Management, Sustainable use of Power and Energy Resources, Climate and Natural Regions, Sustainable Mining* and *Weather.* These topics covered the form one, two, three and four topics from the syllabus. The candidates were given five alternatives of which they were supposed to choose one correct alternative.

This question was attempted by 436,523 (99.9%) candidates, of which 191,818 (44%) scored from 0 to 2 marks, 213,812 (49%) scored from 3 to 6 marks and 30,592 (7%) scored from 7 to 10 marks. The general performance on this question was average, as 56 percent of the candidates scored 3 marks and above. This performance indicates that the candidates had sufficient knowledge and skills on the topics measured.

Item (i) demanded the candidates to explain why the Sun appears larger than other stars that are seen at night. The candidates who chose the correct answer 'B' *the Sun is closer to the Earth than the stars* had sufficient knowledge and skills on the topic of The Solar System. They were able to state the dimension of the Sun in relation to other space bodies. The candidates who opted for 'A' *Starlight bends as it passes planets,* 'C' *The Earth's atmosphere filter out light from other stars,* lacked knowledge of the solar system as they failed to realize that the Sun is at the center of our solar system. Those who selected option 'D' *Daylight brightens the Sun making it appear larger* may be they were interested with the size rather

than giving a reason and those who chose destructor 'E' *The capacity of our eyes does not view far during the night,* misconceived the question.

In item (ii), the candidates were required to identify the layer of the Earth which forms the ocean floor. The candidates who chose correct answer 'C' *Sima* had adequate knowledge of the Earth's crust which consists of two layers, the *Sial* and *Sima*. On the other hand, those who chose option 'B' *Sial* failed to differentiate between *Sima* and Sial that both are layers of Earth's crust but, *Sial is the upper layer of the crust and composed of Granite rocks that form the continent* while *Sima is the layer below the Sial and composed of Silica and Aluminum and forms the ocean floor*. Moreover, candidates who opted for 'A' *Mantle*, 'D' *Core* and 'E' *Crust* failed to understand that all those options are the concentric zones of the Earth.

Item (iii) required the candidates to identify the general term for characteristics of soil. The candidates who chose the correct answer 'C' *soil properties* had adequate knowledge of soil composition and properties. The candidates who opted for destructor 'A' *soil profile* had lacked knowledge of the subject matter because *soil profile is the arrangement of soil layers.* Those who opted for destructors 'B' *soil particles*; 'D' *soil fertility* and 'E' *soil formation* had general knowledge about soil, but were not able to understand the general characteristics of it.

Item (iv) required the candidates to identify the name of the bag which was being pulled by the river in relation to the river action. The candidates who chose the correct answer 'C' *river load* had sufficient knowledge of the action of the river. Those who opted for alternatives 'A' *river erosion* and 'B' *transportation* failed to realize that these are the actions of the river and not the materials carried by the river. Those who opted for response 'D' *river meander* and 'E' *river bed* were not aware that these are the features formed due to river action.

In item (v), the candidates were required to identify the factor which is not the cause of desertification in Tanzania. The candidates who chose the correct answer 'D' *overfishing* were aware of the major environmental problems thus, they knew the factors that cause desertification in Tanzania. Those who opted for 'A' *deforestation*, 'C' *shifting cultivation*, 'E' *bush*

fire and 'B' *urban growth* were not knowledgeable of the factors which cause desertification in Tanzania hence they seemed to guess the responses.

Item (vi) required the candidates to identify the raw materials which would be the best on project in developing energy from the remains of living things. The candidates who chose the correct answer 'D' *coal* were aware that coal is a source of energy that occurs in sedimentary rock layers as a result of remains of organisms. On the other hand, those who chose incorrect answer 'A' *running water* lacked knowledge of the subject matter because running water is not energy from the remains of living organisms. Those who opted for 'C' *solar energy* had also lacked knowledge of the subject matter as *solar energy is the energy which is generated from the Sun*. Moreover, candidates who opted for 'B' *Petroleum* and 'E' *natural gas* failed to realize that Petroleum and naturals gas are formed due to the fossilization of plants and animals, but they are not economically friendly compared to coals when launching a project.

In item (vii) the candidates were required to name the general term of the regions provided. The statement given was; '*the Amazon and Congo basins are regions characterized with the same geographical background to human activities, climate, vegetation and relief.*' The candidates who chose the correct answer 'A' *natural region* had knowledge of the major natural regions found on the Earth's surface with their climate type and characteristics. They were able to identify natural regions as a part of the Earth's surface with relatively similar climate, vegetation and human activities. The analysis shows that candidates who opted for alternative 'B' *natural resources* failed to relate the descriptions with the correct concepts. The candidates who chose alternatives 'C' *natural vegetation* and 'E' *natural climate* had inadequate knowledge of the subject matter. They thought that the vegetation of a region is closely related to the climate of the region. Those who chose 'D' *natural landscape* lacked knowledge of the concept of climatic regions and their characteristics as *natural landscape refer to the natural features which are formed as a result of various forces within and on the surface such as; mountains, basins, plateaus, valleys, hills etc*.

Items (viii) demanded the candidates to select three types of non-metallic minerals from the alternatives given. The candidates who chose correct

answer ‘C’ *oil, diamond and coal* had knowledge about minerals. They were able to identify the types of minerals found in the world which can be grouped into two major types, non-metallic and metallic minerals. Furthermore, the candidates who opted for other destructors ‘A’ *coal, gold and copper,* ‘B’ *natural gas, silver and diamond,* ‘D’ *copper, silver, oil* and ‘E’ *gold, natural gas and diamond* were not able to differentiate between non-metallic and metallic minerals. They failed to realize that minerals are naturally occurring valuable and useful organic substances which can be identified by their characteristics, chemical composition and physical properties; so they ended up guessing the responses.

Item (ix) required the candidates to identify the temperature which would be experienced by the tourists in Manyara 1500m above the sea level, if the temperature of Zanzibar at sea level is 32^0C. The candidates who chose the correct answer ‘A’ 23^0C had adequate knowledge of calculating temperature of a place in relation to the change of altitude. The candidates who opted for incorrect answer ‘B’ $9^0\ C$ were able to calculate the difference in temperature between Zanzibar and Manyara as stated if 0.6^0 C of temperature decreases with altitude of 100m. Yet they failed to find the temperature of Manyara since Manyara is at higher altitude than Zanzibar, the temperature of Manyara would be lower than that of Zanzibar. Those who opted for ‘D’ $0.6^0\ C$ were aware that the temperature decrease with increase in altitude at the rate of 0.6^0 C for every 100 meters. However, they failed to calculate the temperature of a place in relation to altitude by following the procedures of finding and calculating the difference in Temperature between Zanzibar and Manyara. The candidates who opted for the incorrect answers ‘C’ $19^0\ C$ and ‘E’ $17^0\ C$ lacked knowledge of applying mathematical skills on calculating the difference in temperature according to altitude between Zanzibar and Manyara.

In item (x) the candidates were demanded to identify the result which occurs when the Moon’s shadow is casted over the Earth. The correct answer was ‘A’ *solar eclipse*. The candidates who chose this answer revealed to have adequate knowledge of the effects of movement of the Earth around the Sun following its orbit, especially on the eclipse of the Sun. Those who chose destructor ‘B’ *lunar eclipse* seemed to have knowledge of the effects of Earth’s revolution on the concept of eclipse, but they failed to differentiate the result which occurs when the Earth passes

between the Moon and the Sun and when the Moon passes between the Sun and the Earth. Those who opted for 'C' *aphelion* had insufficient knowledge and skills on the concept of solar system. They failed to understand that *Aphelion refers to the point in the orbit of a planet, asteroid or comet which is the furthest from the Sun*. The candidates who chose 'D' *summer solstice* lacked knowledge of the subject matter since *solstice means the period of the year in which the Sun is vertically overhead.* Those who opted for destructor 'E' *Equinoxes* failed to realize that this implies *an equal length of day and night at all latitudes*.

2.1.2 Question 2: Matching Items

The question consisted of five items where by each item weighed 01 mark, making a total of 05 marks. The items were taken from agricultural concepts and it required the candidates to match the descriptions of types of agriculture in **List A** with the correct type of agriculture from **List B** by writing a letter of the correct answer beside the item number in the answer booklet.

LIST A	LIST B
(i) Crop cultivation practiced in a small plot of land.	A. Agriculture
(ii) System of agriculture in which land is cultivated and left for some years to improve its fertility.	B. Large scale agriculture
(iii) Traditional system of crop cultivation in which farmers move to new farm land when the yield are low.	C. Subsistence agriculture
(iv) Activity of growing crops and rearing livestock.	D. Sedentary agriculture
(v) System of agriculture in which farms are owned by Government, Co-operatives and Private Companies.	E. Shifting cultivation
	F. Monoculture
	G. Bush fallowing
	H. Dairy farming

The question was attempted by 435,775 (99.8%) candidates out of which 180,850 (41.5%) scored from 0 to 1 mark, 185,590 (42.6%) scored from 1.5 to 3 marks and 69,335 (15.9%) scored from 3.5 to 5 marks. The general

performance on this question was average as 58.5 percent of the candidates scored 1.5 marks and above.

Item (i) required the candidates to match the descriptions of crop cultivation practiced in a small plot of land with the correct concept. The candidates who managed to choose the correct answer 'C' *subsistence agriculture* had knowledge of small scale agriculture and how it is practiced. The candidates who opted for incorrect options had inadequate knowledge of agriculture and the related concepts.

In item (ii) the candidates were demanded to identify the system of agriculture in which land is cultivated and left for some years to improve fertility. The candidates who chose the correct answer 'G' *bush fallowing* had knowledge of diverse systems of agriculture practiced in an area. The candidates who chose incorrect response 'E' *shifting cultivation* related the description with bush fallowing because both are the methods of crop cultivation in small scale agriculture. Though in shifting cultivation farmers tend to move from one area to another searching for fertile land. Other related choices such as 'A' *agriculture,* 'B' *large scale agriculture,* 'C' *subsistence agriculture,* 'D' *sedentary agriculture,* 'F' *monoculture* and 'H' *dairy farming* were chosen by the candidates who failed to relate the concept with the correct description due to insufficient knowledge of the subject matter.

Item (iii) demanded the candidates to name the traditional system of crop cultivation in which farmers move to new farm land when the yields are low. The correct response 'E' *shifting cultivation* was chosen by the candidates who had adequate knowledge of the concept of small scale agriculture which is conducted by using the method of shifting cultivation. The candidates who chose incorrect responses failed to distinguish the system of agriculture and methods used. Moreover, the candidates who had insufficient knowledge ended up guessing the answers.

Item (iv) required the candidates to identify the practice which deals with growing crops and rearing livestock. Some of the candidates who managed to match the correct option 'A' *agriculture* had relevant knowledge of diverse types of agriculture. However, others were attracted by the destructors 'B' *large scale agriculture,* 'C' *subsistence agriculture* and 'D'

s*edentary agriculture.* These candidates had insufficient knowledge hence they failed to differentiate these types of agriculture. Furthermore, the candidates who chose destructors 'E' *monoculture,* 'G' *bush fallowing* and 'H' *dairy farming* were not knowledgeable of the types of agriculture and their characteristics.

In item (v) the candidates were required to identify the system of agriculture in which farms are owned by the Government, Co-operative and Private Companies. The correct response 'B' *large scale agriculture* was matched correctly by the candidates who had adequate knowledge of the type of agriculture which is influenced by strong bases of financial resources, infrastructure, technology and markets. However, those who chose 'C' *subsistence agriculture* failed to differentiate between large scale agriculture and subsistence agriculture. Small scale agriculture refers to a system of agriculture in which crop cultivation is practiced in a small area, while large scale agriculture is practiced in large estates or farms. However, due to little knowledge of the types of agriculture, some candidates chose unrelated responses.

2.2 SECTION B: SHORT ANSWER QUESTIONS

2.2.1 Question 3: Map Reading and Map Interpretation

The candidates were required to study the map extract of Sikonge (sheet 137/2) and then answer the given questions.

The question had five parts (a), (b), (c), (d) and (e). The candidates were required to (a) calculate the total distance covered in kilometers if the car was travelling from Sikonge town (grid reference 732787) to Iyombakuzoa church (grid reference 755765) and turns back to Sikonge, (b) describe the nature of relief in the mapped area, (c) calculate the gradient from grid reference 835846 to 782786, (d) find the highest point on the given map and give its grid references and direction, and (e) state the general direction of slope of the land in the mapped area. The total marks allocated for this question were 11.

The question was attempted by 386,765 (88.6%) candidates. About 372,989 (96.4%) scored from 0 to 3 marks, 13,487 (3.5%) scored from 3.5 to 7 marks and 289 (0.1%) scored from 7.5 to 11 marks. The performance in

this question was generally poor because 88.6 percent of the candidates scored below average.

Table 1.1: Number and percentage of candidates in each group of scores

Scores	**0.0 - 3.0**	**3.5 - 7.0**	**7.5 - 11.0**
No. of Candidates	372,989	13,487	289
% of Candidates	96.4	3.5	0.1

The analysis shows that 372,989 (96.4%) candidates who scored from 0 to 3 marks lacked adequate knowledge and skills on map reading and interpretation.

In part (a), some candidates were not able to calculate the total distance covered from Sikonge to Iyombakuzoa church in kilometers if the car turns back to Sikonge town. They lacked knowledge and skills of locating positions on a map by using grid references. Also this part was skipped by some of the candidates because it required application of mathematical skills. For example, one candidate wrote *14 cm on the map and 3.2 km on the ground.* Another candidate wrote *3.1 cm on the map* which was the correct distance from Sikonge to Iyombakuzoa church, but failed to multiply it by two as the question demanded so as to get *6.2 cm.* Moreover, some of the candidates were able to measure distance from Sikonge town to Iyombakuzoa church correctly, but they failed to calculate the distance due to incompetence in mathematical skills. Furthermore, some candidates were able to calculate the distance, but failed to convert the answer into actual ground distance. For example, one candidate wrote the correct distance as *6.2 cm on the map,* but failed to convert it into ground distance thus she/he wrote *the actual distance on the ground is 6.2 km.* Another candidate wrote incorrect distance as *6.7 cm* but managed to write the correct map scale as *1 cm = 0.5 km* which made him/her to score few marks.

In part (b), some candidates failed to provide the correct answer on the nature of relief in the mapped area due to poor knowledge of representing features on the map. For example, one candidate mentioned the type of natural vegetation such as; *woodland, scattered tree* and *shrubs.* Another candidate wrote the methods of showing relief of an area as; *contour lines*

and *spot height*. However, few candidates wrote few correct answers. For example, one candidate wrote *there are highlands due to the presence of hills*, while another candidate wrote *there are lowlands covered by rivers*. The correct answer was *highland plateau with altitude ranging between 1140m and 1300m (grid reference 836845) above the sea level*.

In part (c), most candidates were not able to calculate the gradient from grid reference 835846 to 782786; *gradient is a slope or steepness of the ground and it is expressed as a ratio between it's vertical interval and horizontal equivalent*. This part was skipped by some of the candidates, and those who attempted it provided incorrect responses due to poor application of mathematical skills. Others wrote correct formula but failed to follow correct procedures of calculating the gradient. For example, one candidate wrote correct formula such as;

$$\text{Gradient} = \frac{\text{Difference in height}}{\text{Horizontal distance}}$$

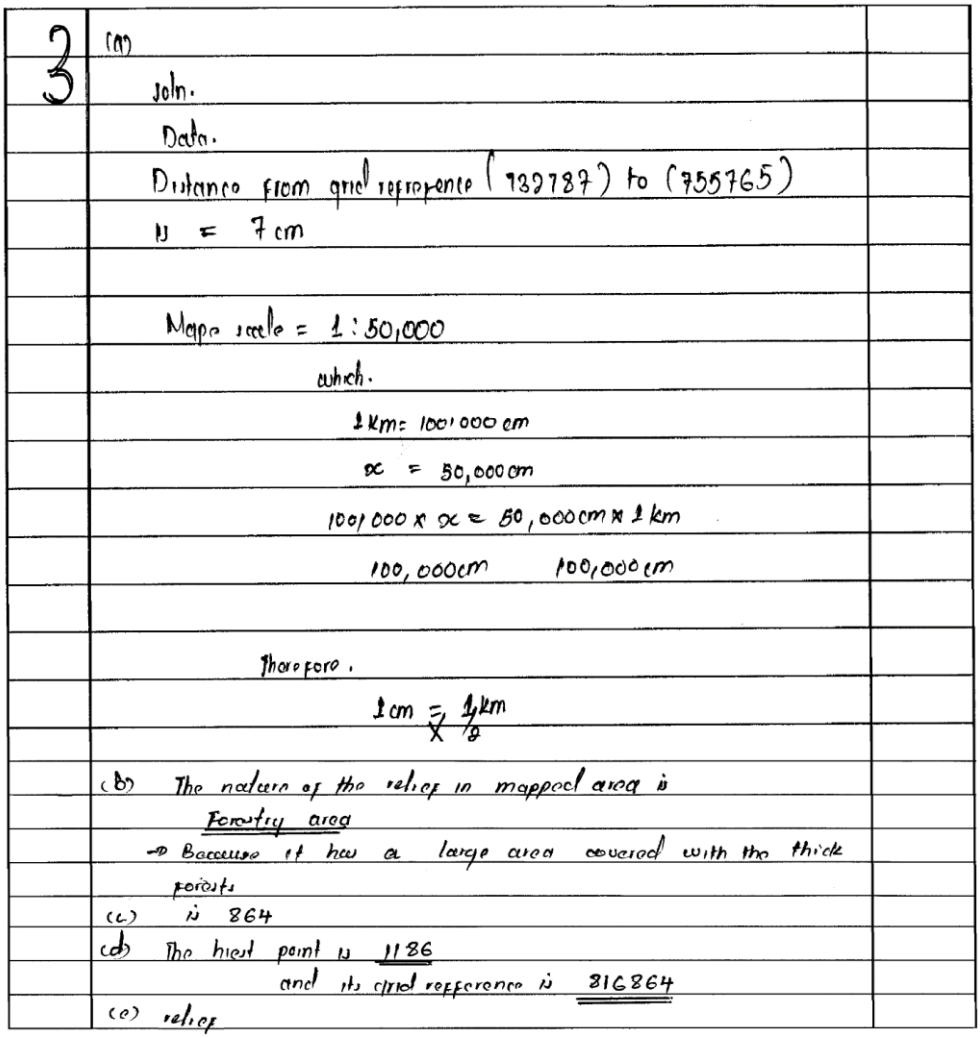
However, the candidate failed to follow correct procedures to find the gradient which led him/her to end up with wrong answer. Another candidate used incorrect formula and procedures of calculating gradient. For example, one candidate wrote incorrect formula as;

$$\text{Gradient} = \frac{\text{Vertical distance}}{\text{Horizontal distance}}$$

The correct procedure was $\text{Gradient}=\frac{\text{Vertical increase}}{\text{Horizontal increse}}$. Hence, the correct gradient was *1 in 57*.

In part (d), majority of the candidates failed to find the highest point on the given map, its grid reference and direction due to inadequate knowledge and skills of locating position on a map by using grid reference and compass bearing. For example, one candidate wrote *there is highest contour* without providing its actual height, incorrect grid reference *833845* and direction *East.* Another candidate wrote the correct highest point as *1300m,* but failed to give grid references and its direction instead of *1300m* which was the correct answer.

In part (e), some candidates failed to state the general direction of slope of the land in the mapped area. For example, one candidate misinterpreted the question by writing responses like *there are steep slope and gentle slope* while, others were able to state the general direction of the slope. For example, one candidate provided correct response as *there is highland area.* Extract 3.1 is a sample of incorrect responses to question 3.


3 (a)
Soln.
Data.
Distance from grid reference (732787) to (755765)
is = 7 cm
Maps scale = 1:50,000
which.
1km = 100,000 cm
∝ = 50,000 cm
100,000 × ∝ = 50,000cm × 1 km
100,000cm 100,000cm
Therefore.
1 cm = 1/2 km
(b) The nature of the relief in mapped area is
Forestry area
→ Because it has a large area covered with the thick forests
(c) is 864
(d) The highest point is 1186
and its grid reference is 816864
(e) relief

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

In Extract 3.1, the candidate obtained *7cm* as a distance in km from Sikonge town to Iyombakuzoa church, instead of a correct distance of 6.2 cm in part (a). In part (b), he/she provided vegetation type (*Forestry area*) instead of the nature of the relief of the area which is *highland plateau with*

altitude ranging between 1140m and 1300m (grid reference 836845) above the sea level. In part (c), the candidate wrote *864* as the gradient from grid reference 835846 to 782786 instead of calculating the gradient by using the formula:

Gradient=$\frac{\text{Vertical increase}}{\text{Horizontal increse}}$ hence, the correct gradient was *1 in 57.*

In part (d) the candidate wrote *1186* as the approximate height of the highest point, instead of finding the approximate height of the highest point in the topographical map given which was *1300m* and finally in part (e), the candidate wrote the word *relief* instead of stating the approximate height of the highest point which was *1300m.*

Furthermore, the analysis shows that the 13,487 (3.5%) candidates who scored from 3.5 to 7 marks showed moderate skills and failed to respond correctly to some parts of the questions due to inadequate knowledge and skills on the subject matter.

On the other hand, 289 (01%) candidates who scored from 7.5 to 11 marks had adequate knowledge and skills on the concept of map reading and interpretation. However, variations of their scores were determined by the strengths of their responses.

The analysis further shows that in part (a), the candidates were able to calculate the total distance covered in km from Sikonge to Iyombakuzoa if the car turns back to Sikonge town. They managed to identify the two points to be measured, that is Sikonge town (grid reference 732787) and Iyombakuzoa church (grid reference 755765). They used the correct method of measuring distances on a map and they got *6.2 cm*. They managed to convert the map distance obtained into ground distance (km) by using the scale of the map given as follows;

Map scale: 1cm = 0.5 km

Map scale = 6.2cm

Distance in km = $\frac{\text{6.2 cm x 0.5 km = 3.1 km}}{\text{1cm}}$

They wrote the total distance *3.1 km x 2 = 6.2 km*.

In part (b), the candidates managed to describe the nature of the relief in the mapped area such as; *The relief is highland ranging in altitude between 1140m and 1300m (grid reference 836845) above the sea level, which indicate highland plateau. Also the land is generally sloping North – East to Western and Southern part where by North Earthen part is mostly elevated land while western southern part is lowland plateaus with many streams and seasonal swamps.*

In part (c), most candidates were able to calculate the gradient from grid reference 835846 to 782786. They managed to identify two points of which gradient were to be based, then they measured the distance between two points whereby they got *16 cm*, and then, they followed the procedures of calculating gradient of places as follows;

$$\text{Gradient} = \frac{\text{Vertical increase}}{\text{Horizontal increase}}$$

$$\text{Gradient} = \frac{\text{difference in height}}{\text{Horizontal distance}}$$

$$\text{Gradient} = \frac{1300\text{m} - 1160\text{m} = 140\text{ m}}{16\text{ cm}}$$

They applied the given map scale *1 cm = 0.5 km*

$$\text{Gradient} = \frac{140\text{m}}{16\text{ cm} \times 0.5\text{ km}}$$

$$\text{Gradient} = 140/8\text{km}$$

1 km = 1000 m

$$\text{Gradient} = 140\text{m}/8000\text{m} = 1/57$$

Gradient = 1 in 57

Therefore, they ended up with the correct answer*; gradient is 1 in 57*.

In part (d), the candidates were able to identify the highest point on the given map as *1300m, grid reference 835846* and *its direction is North East.*

In part (e), they managed to state general direction of slope of the land as follows; *the slope is decreasing from North East through central part to the West and South.* Extract 3.2 is a sample of correct responses to question 3.

3 a) Scale 1 : 50,000

To change it into Statement Scale

1cm : 50,000cm

1km = 100000cm

x = 50,000cm

$x = \frac{50,000}{100,000} \times 1km$

$x = \frac{1}{2}$ km

∴ 1cm to $\frac{1}{2}$ km

Total distance covered in centimetre is 12.8cm

If 1cm represent $\frac{1}{2}$ km

12.8cm represent x

$12.8 \times \frac{1}{2}$ km = x

6.4 km = x

∴ Total distance covered in kilometres from Sikonge town (732787) to Itambokuzwa (755765) and back to Sikonge is 6.4 km

b) The nature of relief is Highland relief due to Presence of many contours in majority of the mapped area

c) Gradient = $\frac{\text{Vertical Interval}}{\text{Horizontal distance}}$

V.I = 1300 - 1260 = 40m

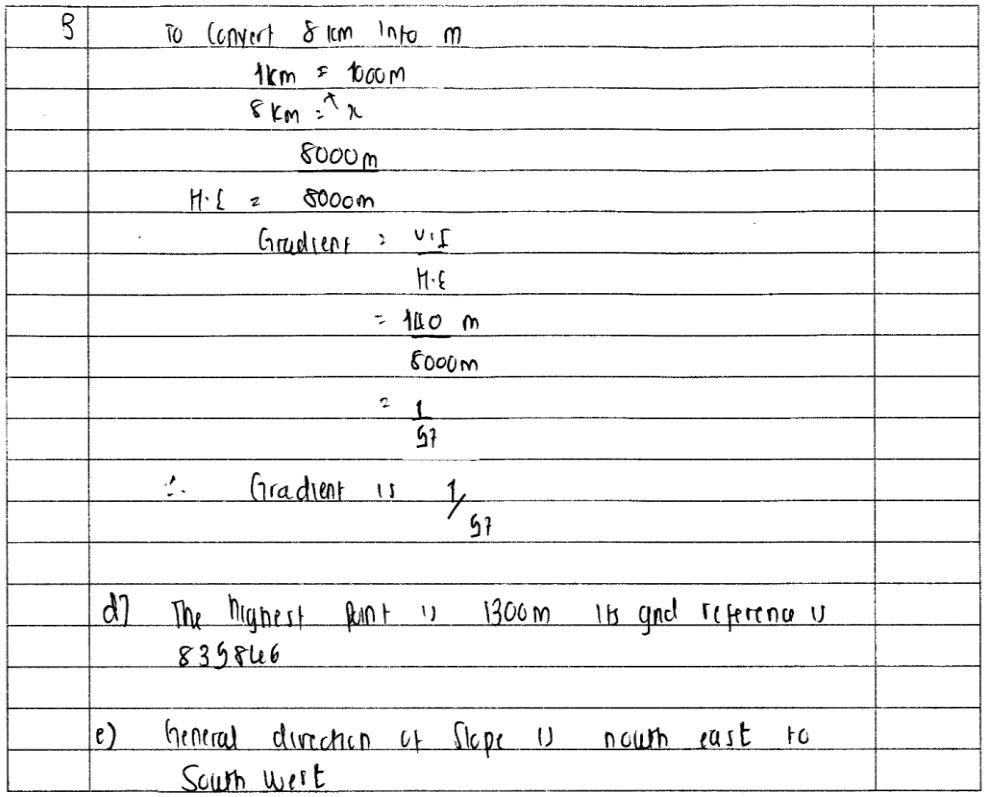
H.E = 16cm

To change into km

1cm = $\frac{1}{2}$ km

16cm = x

x = 8km



Extract 3.2: A sample correct responses for question 3.

2.2.2 Question 4: Application of Statistics

The candidates were required to carefully study the weather data for a station in Australia and answer the questions that followed.

Month	**J**	**F**	**M**	**A**	**M**	**J**	**J**	**A**	**S**	**O**	**N**	**D**
Temp (^{o} C)	28.3	27.5	28.5	29	26.7	26	26	25	24	26	27	28
Rainfall (mm)	380	330	240	175	170	5	2.5	2.2	17	50	210	230

This question had five parts (a), (b), (c), (d) and (e) which tested the candidates' capability on the Application of Statistics topic. The candidates were required to (a) calculate the annual mean temperature for the station, (b) determine the rainfall range, (c) find the temperature mode and median, (d) comment on the relationship between temperature and rainfall, and (e)

show the application of the data in the daily life by giving two examples. The total marks allocated for this question were 11.

The question was attempted by 410,700 (94.1%) candidates. Of all, about 289,689 (70.5%) scored from 0 to 3 marks, 98,029 (23.9%) scored from 3.5 to 7 marks and 22,982 (5.6%) scored from 7.5 to 11 marks. The general performance in this question was poor because 70.5 percent of them scored below average pass mark. Figure 1 illustrates the candidates' performance for this question.

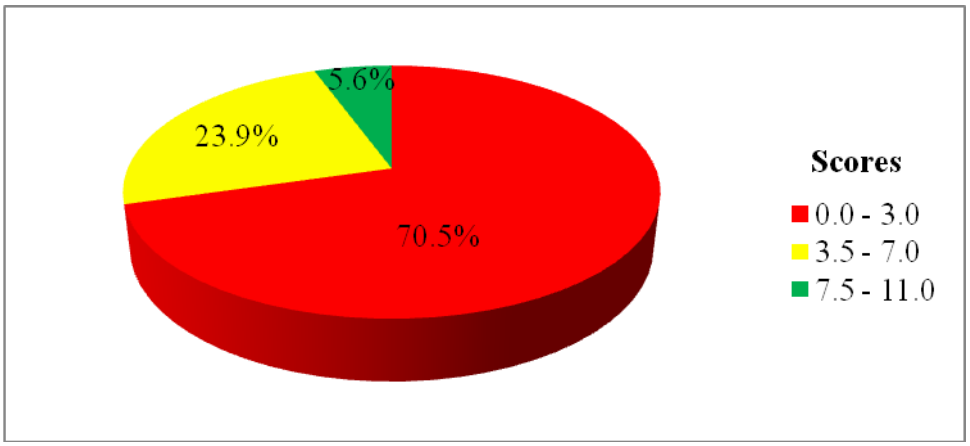


Figure 1: *Candidates' Performance for Question 4*

The analysis indicates that about 289,689 (70.5%) candidates who scored from 0 to 3 marks had poor knowledge and skills on statistical measures. this is because they failed to provide correct answers in some parts of the question which required application of mathematical skills.

In part (a), some candidates were not able to calculate the annual mean temperature for the station as they did not show any procedures. Instead, they just wrote the incorrect answers. For example, one candidate wrote 17^0 *C* while, another one wrote 18^0 *C* without showing any procedures. Some were able to present the sum or total of all temperature records, and divided the total by the number of months correctly. Yet they failed to get average value of the data due to poor application of mathematical skills. For example, one candidate managed to follow correct procedures of finding summation of all temperature records and dividing by *12 months*, but ended

up getting *312/12=26* which was incorrect answer while, the correct total was *322/12=26.8*.

Part (b) and (c) aimed at testing the candidates' capability in applying mathematical skills to calculate the rainfall range, temperature mode and median for the station in Australia by using weather data provided. Some of the candidates failed to provide correct answers as they used the formula for calculating median of the grouped data, instead of the median of individual data. Others wrote correct formula, but failed to compute the values while, others did not show any formula, they just wrote answers that were incorrect.

In part (d), majority candidates failed to comment on the relationship between temperature and rainfall due to lack of sufficient knowledge and skills on climate and weather. They were unable to study the table correctly; as a result, they provided incorrect responses. For example, one candidate wrote incorrect answers as; *when rainfall decreases temperature remains constant*. However, other candidates who scored few marks explained insufficiently the relationship between temperature and rainfall. For example, one candidate wrote inadequate explanations such as *in January, March and April temperature and rainfall are high.*

In part (e), some candidates in this category failed to show the application of data in the daily life by giving two examples. For example, one candidate drew *bar graph and line graph* to show the relationship between temperature and rainfall. Another candidate explained inadequately the application of data in the daily life as; *it helps farmers to plan the best use of land* and *helps to know the amount of rainfall.* Extract 4.1 represent incorrect responses for question 4.

4

a/ Soln

Total of temp. divide by 12

$$\frac{28.3 + 27.5 + 28.5 + 29 + 26.7 + 28 + 26 + 25 + 24 + 26 + 27 + 28}{3}$$

$$T_{temp} = \frac{322.0}{12.}$$

$$= 2.61$$

$\therefore$ $= 2.61^{\circ}$

b/.

Soln

= Highest - lowest

$= 380_{mm} - 5$

$= 375\ mm.$

$\therefore$ The range is 375 mm.

4 c) Solution

X	f	cf
29	1	1
28.5	1	2
28.3	1	3
28	1	4
27.5	1	5
27	1	6
26.7	1	7
26	3	10
25	1	11
24	1	12
	12	

i) Mode = $L + \left(\frac{t_1}{t_1 + t_2}\right) i$

Mode = $L + \left(\frac{T_1}{T_1 - T_2}\right) i$

= $24 + \left(\frac{2.9}{0.5}\right) 2.61$

= 27

Median = $L + \left(\frac{N/2 - Clb}{fm}\right) i$ = 29

d) It is equatorial climate due to its temperature and amount of rainfall

e) i. Grouped data

ii. Ungrouped data

Extract 4.1: A sample of incorrect answers for question 4.

In extract 4.1, the candidate was able to calculate the sum of all values of temperature, and divided them by twelve months, but she/he ended up with incorrect average in part (a). In part (b), she/he failed to find the range. In part (c), she/he used the formula for grouped data to find temperature median, instead of the formula for individual data. In part (d), she/he provided the type of climate instead of the relationship between

temperature and rainfall while, in part (e), the candidate mentioned the characteristics of data instead of explaining the application of data in the daily life.

The analysis additionally indicated that 98,029 (23.9%) candidates who scored from 3.5 to 7 marks had moderate knowledge of the subject matter. They demonstrated moderate mathematical skills which enabled them to provide correct answers to some parts of this question. For example, one candidate was able to; (a) calculate the annual mean temperature for the station, (b) determine the rainfall range and (c) find mode and median. However, this candidate was not able to provide a correct comment on the relationship between temperature and rainfall in part (d). He/she provided incorrect relationship as; *both temperature and rainfall are shown in the same table and graph*. On the other hand, some candidates were able to provide correct comments on the relationship between temperature and rainfall for the station while, others mixed correct and incorrect responses. For example, one candidate wrote *in January rainfall and temperatures are high while in June and August is low.*

In part (e), majority of the candidates gave two examples and showed partially the application of the data in daily life. Others managed to give one example, but failed to show its application in daily life. For example, one candidate wrote that *data is used to predict occurrence of floods and helps to know the type of crops to plant*.

Further analysis indicated that the 22,982 (5.6%) candidates who scored from 7.5 to 11 marks had adequate knowledge and skills on the concept of application of statistics. This is especially on how to apply mathematical skills in doing various calculations. Their scores varied depending on the strengths of their responses. They showed abilities to interpret data from the table and managed to (a) calculate the annual mean temperature for the station by following the correct procedures as;

Annual mean temperature (^{0} C)

$$Mean = \frac{\sum x}{N}$$

$$\frac{28.3 + 27.5 + 28.5 + 29 + 26.7 + 26 + 26 + 25 + 24 + 26 + 27 + 28}{12}$$

$$322/12 = 26.83$$

Hence, they ended up with the correct annual mean temperature *26.830 C*

In part (b), they managed to determine the rainfall range as follows;

Highest rainfall amount (January) – lowest rainfall amount (August)

380 mm – 2.2 mm = 377.8 mm.

Therefore the rainfall range is 377.8 mm.

In part (c), the candidates were able to find the temperature mode and median as follows:

(i) *Temperature mode is the temperature with highest frequency. Hence, the mode is* 26^0 *C.*

(ii) *Temperature median is obtained by rearranging the data give in ascending or descending order and finding the middle number.*

24, 25, 26, 26, 26, 26, 26.7, 27, 27.5, 28, 28.3, 28.5, 29

From the data given the middle number is 26.7 and 27.

Thus median $= \frac{26.7 + 27}{2} = 26.9^0$ C

The temperature median 26.9^0 C $\approx 27^0$ C.

In part (d), they provided correct comment on the relationship between temperature and rainfall that; *high temperature is experienced in January, February, March, April, November* and *December because rain fall is high while there is low temperature in June, July, August, September* and *October because of low rainfall.*

In part (e), they were able to give two examples, and showed the application of data in daily life such as*;*

(i) *They enable Geographers to determine the types of crops to be cultivated in the area based on the weather condition/characteristics as given in the table.*

(ii) *The data can be used to predict the future trends in weather patterns. For example, the trend of temperature and rainfall can be used to predict possibility of drought or unusual rainfall (floods),*

hence take precaution measures. Extract 4.2 represents correct responses for question 4.

04. a) Annual mean temperature.

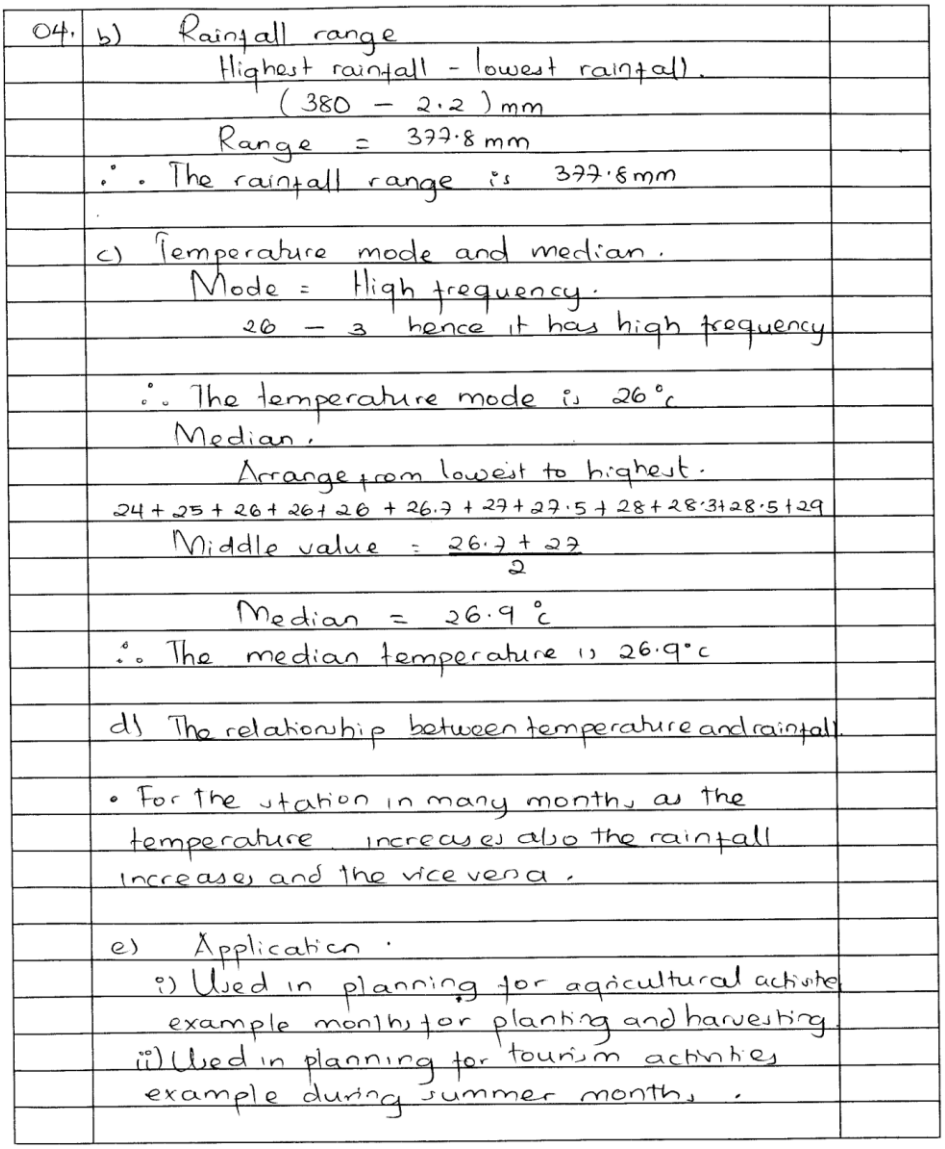
Anual mean temperature = Average temperature

$$\frac{27 + 26 + 28{\cdot}3 + 27{\cdot}5 + 28{\cdot}5 + 29 + 26{\cdot}7 + 26 + 26 + 25 + 24 + 28}{12}$$

Annual mean temperature = $\frac{322}{12}$ °c

Annual mean temperature = 26·8 °c

∴ The annual mean temperature is 26·8°c



Extract 4.2: A sample of correct responses for question 4.

2.2.3 Question 5: Introduction to Research

The candidates were given the statement that, *suppose you want to conduct a research about maize production in your district from 2008 to 2018 and your interest is to know whether the production has increased or decreased. Your plan is to consult farmers who were directly involved in the maize production for the said period and visit the District Agricultural Officer for more information'.*

This question had four parts (a), (b), (c) and (d). The candidates were required to; (a) mention the best research approach for the study, (b) name the main source of data for the study, (c) identify two individuals who would be respondents for the study and (d) mention other six possible sources of research problem for the similar study. The total marks allocated for this question were 11.

The question was attempted by 382,658 (87.7%) candidates of which 309,055 (80.8%) scored from 0 to 3 marks, 66,562 (17.4 %) scored from 3.5 to 7 marks and 7,041 (1.8%) scored from 7.5 to 11 marks. The general performance in this question was poor as 19.2 percent scored 3.5 marks and above. Figure 2 illustrates the candidates' performance for this question.

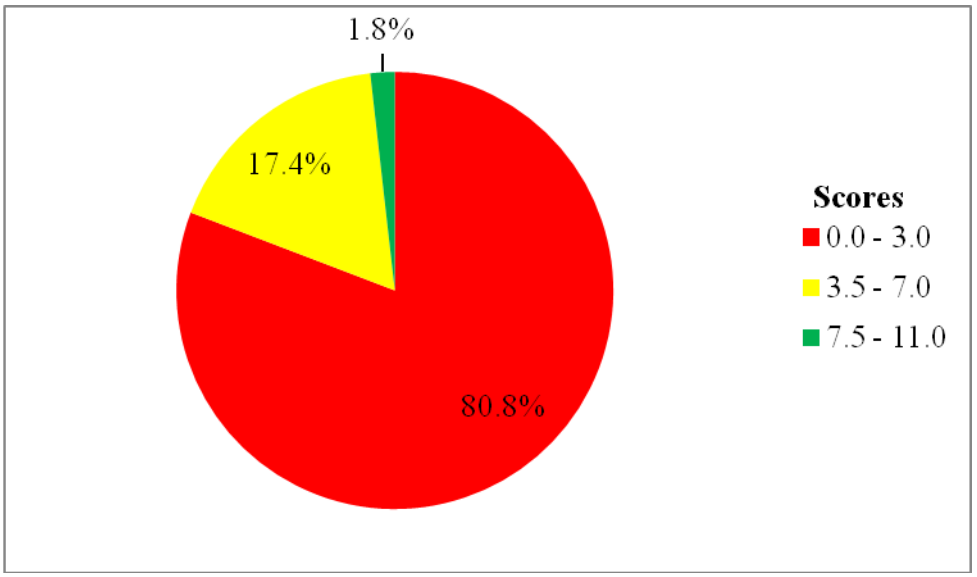


Figure 2: *Candidates' Performance in Question 5*

The analysis showed that 309,055 (80.8%) candidates who scored 0 to 3 marks had inadequate knowledge of the concept of research.

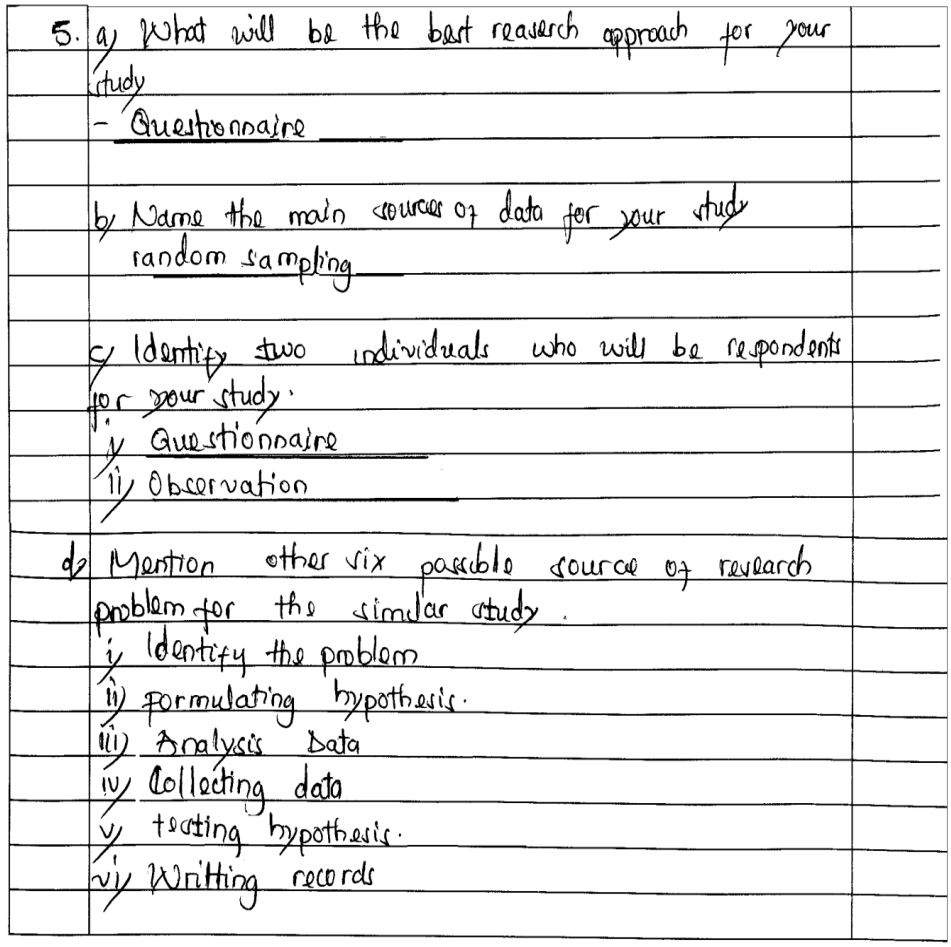
In part (a), the candidates were not able to identify the best research approach for the study because they misinterpreted the demands of the question as a result, they scored zero marks. For example, one candidates mentioned *questionnaire method* while, another one wrote *interview method*s which are the primary sources of data. Some of the candidates

mentioned secondary sources of data. For example, one candidate wrote *Literature review*. The correct answer was *quantitative research.*

In part (b), some candidates were able to name the main sources of data while, others provided incorrect answers. For example, one candidate wrote the correct source as *primary source*. Another candidate provided the technique used to select samples such as *random sampling* while another one wrote *farmers and District Agriculture Officer*.

Furthermore, the candidates' responses showed that in part (c), some of the candidates managed to identify two individuals who would be respondents for the study. Others mixed correct and incorrect answers. For example, one candidate wrote the correct answer *farmers* and incorrect answer *villagers*. Another candidate wrote methods of collecting data as *questionnaires* and *observation* that were both incorrect answers instead of providing two respondents for the study.

On top of that, in part (d) which aimed at testing the candidates' ability on suggesting the possible sources of research problems for the similar study, the analysis showed that some of the candidates misconceived the question and gave incorrect answers. Those with insufficient knowledge mixed correct and incorrect answers. For example, one candidate wrote incorrect points such as; *brainstorming*, *community* and *farmers* while, another candidate provided the stages of conducting research as *identification of the problem, formulation of hypothesis, collection of data*, *data analysis, testing of hypothesis and record writing,* instead of other sources of the problem for the similar study. Extract 5.1 is a sample of incorrect responses for question 5.



Extract 5.1: A sample of incorrect responses for question 5.

In extract 5.1, the candidate mentioned the method of collecting data in part (a), instead of the best research approach which is *quantitative research*. In part (b), she/he wrote the technique of selecting samples which is *random sampling*, instead of naming the source of data that is *primary source*. In part (c), she/he mentioned methods of collecting data that is questionnaire and observation, instead of identifying two individuals who would be respondents that were Maize Farmers and District Agricultural Officer. In part (d), she/he provided the stages of conducting research, instead of six other sources of research problem for the similar study that are *deductive from theories, literature review, practical issues in society, inductive theories, ready available problems (example, eruption of diseases, fire, floods etc.)* and *information from expert*.

On the other hand, a total of 66,562 (17.4%) candidates who managed to score 3.5 to 7 marks were able to answer some parts of the question correctly. For example, in part (a), some of them managed to identify the best research approach for a study while, others misinterpreted the question that led them to write wrong answers. For example, one candidate wrote the correct best approach as *quantitative approach,* instead of *quantitative research.*

In part (b), most candidates were able to name the main sources of data provided while, others could not give correct responses. For example, one candidate wrote the correct main source of data as *primary source*. In part (c), most of the candidates managed to identify the two individuals who would be respondents for the study that were *Maize Farmers* and *Agriculture Officer*.

In part (d), most candidates did not manage to mention the six possible sources of research problem for the similar study. Some of them provided correct responses and others mixed correct and incorrect answers. For example, one candidate wrote *District Agriculture Officer* and *use of samples.*

Further analysis indicated that 7,041 (1.8%) candidates who scored from 7.5 to 11 marks demonstrated adequate knowledge and skills on the subject matter because they were able to meet the demands of the question. In part (a) they mentioned the research approach as *quantitative approach*. In part (b), they named the main source of data for the study as *the primary source* and in part (c), they managed to identify two individuals who would be respondents for the similar study as *Maize Farmers* and *District Agriculture Officer*.

Moreover, in part (d), they were able to mention other six possible sources of research problem for the similar study as; *deductive from theories, literature review, practical issues in society, inductive theories, ready available problems (example, eruption of diseases, fire, floods etc.)* and *information from experts.* Therefore, strengths of their answers led to variations in their scores. Extract 5.2 is a sample of correct responses for question 5.

5(a)	Quantitative research approach.	
(b)	Consultation (asking questions) to the famers	
	and the district Agriculture offrcer.	
(c)		
1.	Famers	
2.	District Agriculture offrcer.	
(d)	Sources of research problem.	
1.	Casual observation.	
2.	Related literature.	
3.	Current social and political issues.	
4.	Deduction from theories	
5.	Personal interests	
6.	Experience.	

Extract 5.2: A sample of a correct response for question 5

2.2.4 Question 6: Forces that Affect the Earth's Surface

The question consisted of two parts (a) and (b). In part (a), the candidates were required to use well labeled diagrams to show the two stages of rift valley formation by tensional forces. In part (b), they were required to explain four benefits of rift valley to societies in Tanzania. The total marks allocated for this question were 11.

The question was attempted by 338,516 (77.5%) candidates of which, 245,029 (72.4%) scored from 0 to 3 marks, 76,575 (22.6%) scored from 3.5 to 7 marks and 16,912 (5%) scored from 7.5 to 11 marks. The general performance in this question was poor as only 27.6 percent scored 3.5 marks and above. Figure 3 illustrates the candidates' performance for this question.

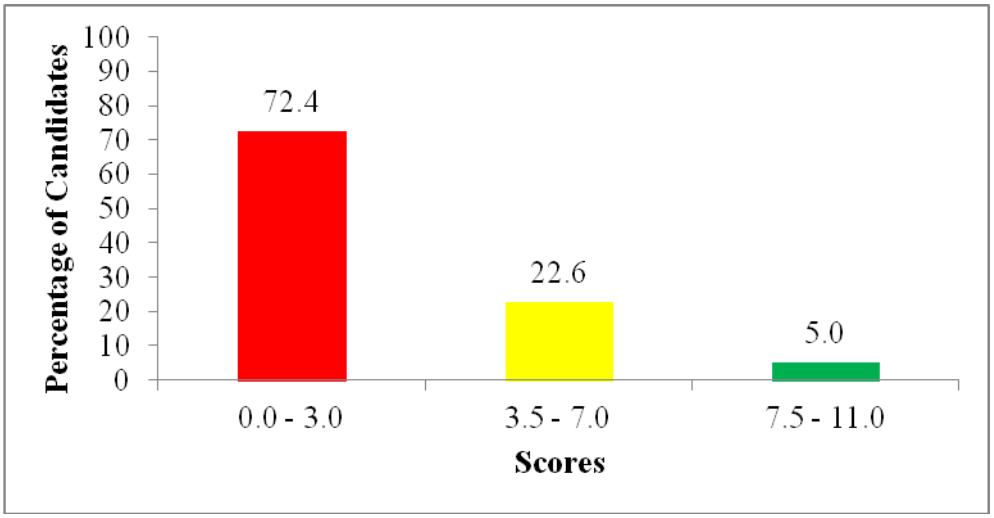


Figure 3: *Candidates' Performance for Question 6*

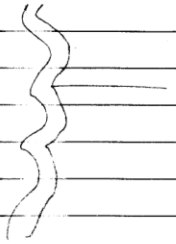
The analysis indicated that 245,029 (72.4%) candidates who scored from 0 to 3 marks had little knowledge of the features of the Earth's surface, particularly rift valley formation by tensional forces.

In part (a), some candidates managed to draw the diagram but failed to show the two stages of its development while, others drew incorrect diagram. For example, one candidate drew *combined bar* and *line graphs*, while another candidate drew the diagram, showing the formation of *sill and dyke.* Another candidate drew the diagrams that show the formation of *meanders* and *oxbow lakes*.

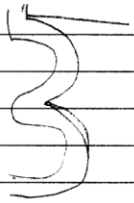
Further analysis showed that, in part (b) some candidates were not able to explain four benefits of rift valley to societies in Tanzania while, others mixed correct and incorrect points. For example, one candidate wrote irrelevant responses as; *rift valley helps in irrigation activities* and *trading activities.* Extract 6.1 is a sample of incorrect responses for question 6.

6. (a) Using well Labelled diagrams, show two stages of rift Valley formation by tensional forces.

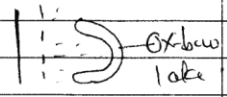
(i) The rivers forms the meanders.



(ii) The river form the neck along the river bed.



(iii) The river is formed due to the tensional force and is known as ox-bow lake.



(b) Benefits of rift valley.
- To Control flood.
- Helps in introducing different Agricultural Scheme.
- Helps in electric production.
- It acts as a Source of Tourist attraction like Lake Tanganyika.

Extract 6.1: A sample of incorrect answers for question 6.

In extract 6.1 the candidate drew the diagrams that show the formation of meanders and oxbow lake, instead of rift valley formation.

On the other hand, 76,575 (22.6%) candidates who scored from 3.5 to 7 marks had moderate knowledge of rift valley formation as a result of tension forces. They managed to give correct responses in one part of the question. For example in part (a), some of the candidates were able to draw

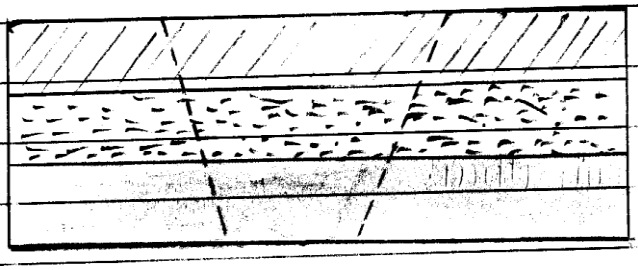
well labeled diagrams and indicated stages of rift valley formation. Others failed to respond correctly as the question demanded. For example, one candidate drew the diagram to show stages of rift valley formation by *compression forces,* instead of *tension forces*. Another candidate drew incomplete diagram.

Moreover, in part (b) some candidates managed to explain inadequately the benefits of rift valley to societies in Tanzania. Some mixed correct and incorrect responses, while others failed to respond correctly as a result they scored few marks. For example, one candidate wrote four correct answers, but provided partial explanations to them.

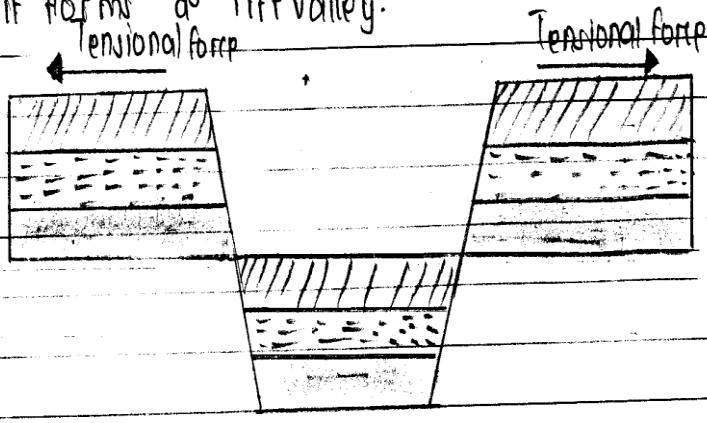
On the other hand, a total of 16,912 (5%) candidates who scored from 7.5 to 11 marks were knowledgeable on the concept of the major features of the Earth's surface and how they are formed. Those candidates showed the two stages of rift valley formation by tensional forces. In part (a), the candidates were able to draw well labeled diagrams showing two stages of rift valley formation by tensional forces. Moreover in part (b), they managed to explain four benefits of rift valley to societies of Tanzania as; *research and studies centers can be available in the valley, can provide sites for tourists attractions, recreation activities in lakes example, water sports, fishing activities in lakes which can provide live hood to people, alluvial deposits from which can provide live hood to people, fertile soil from sediments deposited by running water, pastures for the animals can be found in the valley and water for domestic* and *industrial uses from available lakes in the rift valley*. Strengths of the responses led to the differences in their scores. Extract 6.2 represents a sample of correct responses for question 6.

6a The following are the stages of rift valley formation by tensional forces,

i) The fault lines are formed along the line of weakness where as the bedding plane of the rocks are weak.



ii) The due to the weakness, the tensional forces occure which pull away the rocks as the area between sinks as it forms a rift valley.



6b The following are the benefits of riftvalley in Tanzania,

i) The rift valley constitute ~~of~~ enough grasses and water whereas it is used for pastures and water for the nomadic pastoralists example the Maasai people in Tanzania who arepastoralists.

ii) The rift valley has a beautiful scenery which is commonly used as a source of tourism attraction as it ~~is~~ leads to increased national income.

iii) The rift valley constitutes of water bodies like river where as the water can be used for domestic purposes such as cooking and washing.

iv) The rift vally is used in production of Hydroelectric power by running water of the rivers.

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

2.2.5 Question 7: Photograph Reading and Interpretation

The candidates in this question were required to carefully study the photograph and answer the questions that followed.

The question had five parts (a), (b), (c), (d) and (e). This question required the candidates in part (a), to name the type of rock seen in the photograph; (b) to explain the type of photograph by giving two evidences and in part (c), to suggest the scale of production for the activity taking place with two evidences. In part (d), the candidates were required to mention the main economic activity carried out in the area and (e) to mention three outcomes of the economic activity taking place to the environment. The total marks allocated for this question were 11.

The question was attempted by 424,299 (97.2%) candidates out of which, 167,222 (39.4%) scored from 0 to 3 marks, 198,223 (46.7%) scored from 3.5 to 7 marks and 58,854 (13.9%) scored from 7.5 to 11 marks. Generally, the performance in this question was average as 60.6 percent scored 3.5 marks and above.

The analysis showed that 167,222 (39.4%) candidates who scored from 0 to 3 marks failed to respond correctly to some parts of the question due to insufficient knowledge of photograph reading and interpretation. For example, in part (a), some candidates named the type of the rock seen in the photograph, while others provided incorrect type of rock. For example, one candidate wrote *igneous rock*, while others mentioned *metamorphic rock* instead of *sedimentary rock*.

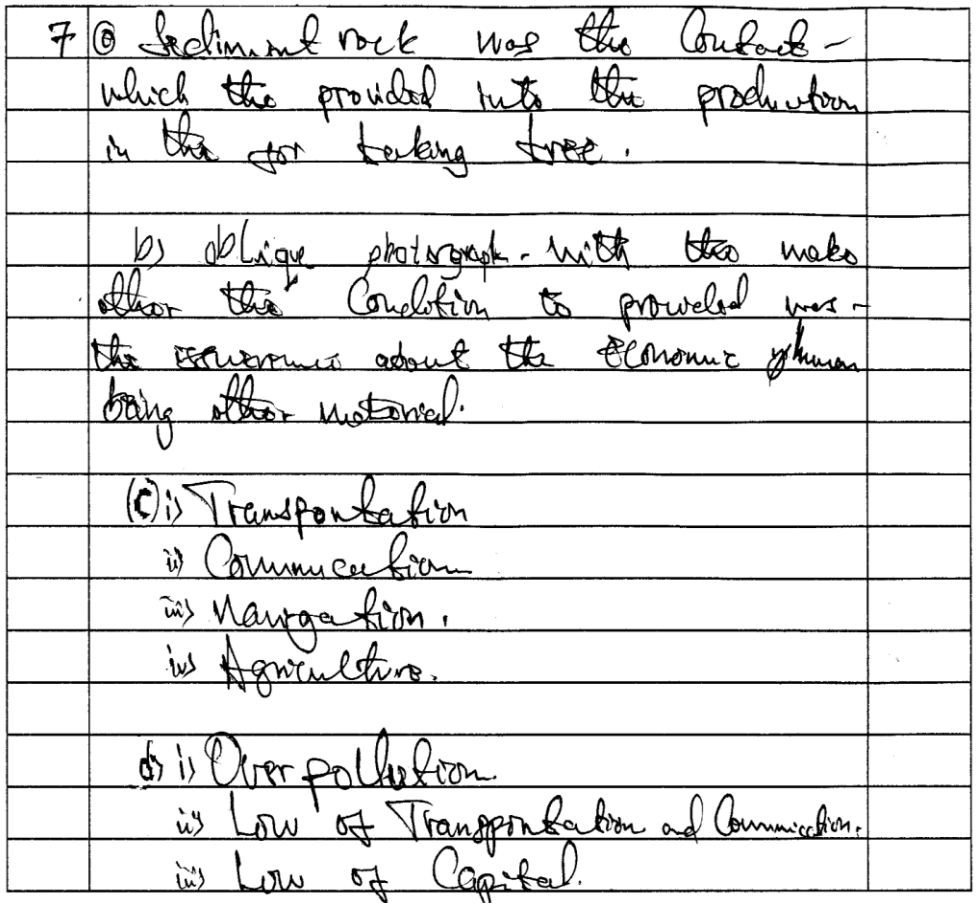
In part (b), some candidates were able to provide the type of photograph, but failed to give two evidences to justify their responses, while others provided irrelevant types of photograph. For example, one candidate wrote *low oblique photograph because the top and side view are seen clearly* and *it covers a large area*. Another candidate wrote *high oblique photograph as it shows top view clearly*, instead of *ground photograph* because *it shows the side view of the object, the size of objects near the camera are larger than those further away, it shows a small area, it shows a general view of objects* and *it shows horizon*.

In part (c), some candidates failed to suggest the scale of production for the activity taking place. Others mentioned the scale of production without two

supporting evidences. For example, one candidate wrote *small scale production* while another one mentioned *medium scale of production.* The correct response was *large scale production* which is evidenced by the *presence of heavy machine (excavator) and a truck*.

In part (d), some candidates managed to mention the main economic activity carried out in the area, while others failed. For example, one candidate wrote *cultivation activities,* while another candidate wrote *collection of stones for building purpose,* instead of *mining* or *quarrying activities.*

In part (e), some candidates mentioned few correct negative outcomes of economic activities taking place to the environment while, others provided incorrect responses. For example, one candidate wrote; *death of people* and *occurrence of floods* while, another candidate wrote *shortage of land for agriculture activities.* Extract 7.1 is a sample of incorrect responses for question 7.



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

In extract 7.1 the candidate wrote *sediment rock* instead of *sedimentary rock* in part (a). In part (b), he/she mentioned *oblique photograph*, instead of *ground photograph*. In part (c), the candidate provided other activities that were not related to the one seen on the photograph that is; *transportation, communication, navigation and agriculture* instead of *mining or quarrying activities*. In part (e), he/she wrote *over pollution, low of transportation and communication and low of capital*, instead of *pollution, land degradation and diseases (air and water borne)* as negative outcomes of the economic activity taking place to the environment.

On the other hand, the candidates' responses showed that 198,223 (46.7%) candidates who had average scores (3.5 to 7 marks) were able to answer some parts of the question correctly. In part (a), some candidates managed to name the type of rock seen in the photograph, while others failed. For example, one candidate provided correct type of rock as *sedimentary rock.*

In part (b), some candidates managed to explain briefly the types of photograph with supporting evidence. However, others wrote *ground photograph* with evidence. For example, one candidate wrote; *Ground photograph because horizon is seen clearly.* Moreover, in part (c) some candidates managed to suggest the scale of production for the activity taking place, without giving any evidence. For example, one candidate wrote the correct answer *mining activities, which are practiced at large scale level.* Other candidates did not attempt this part of the question.

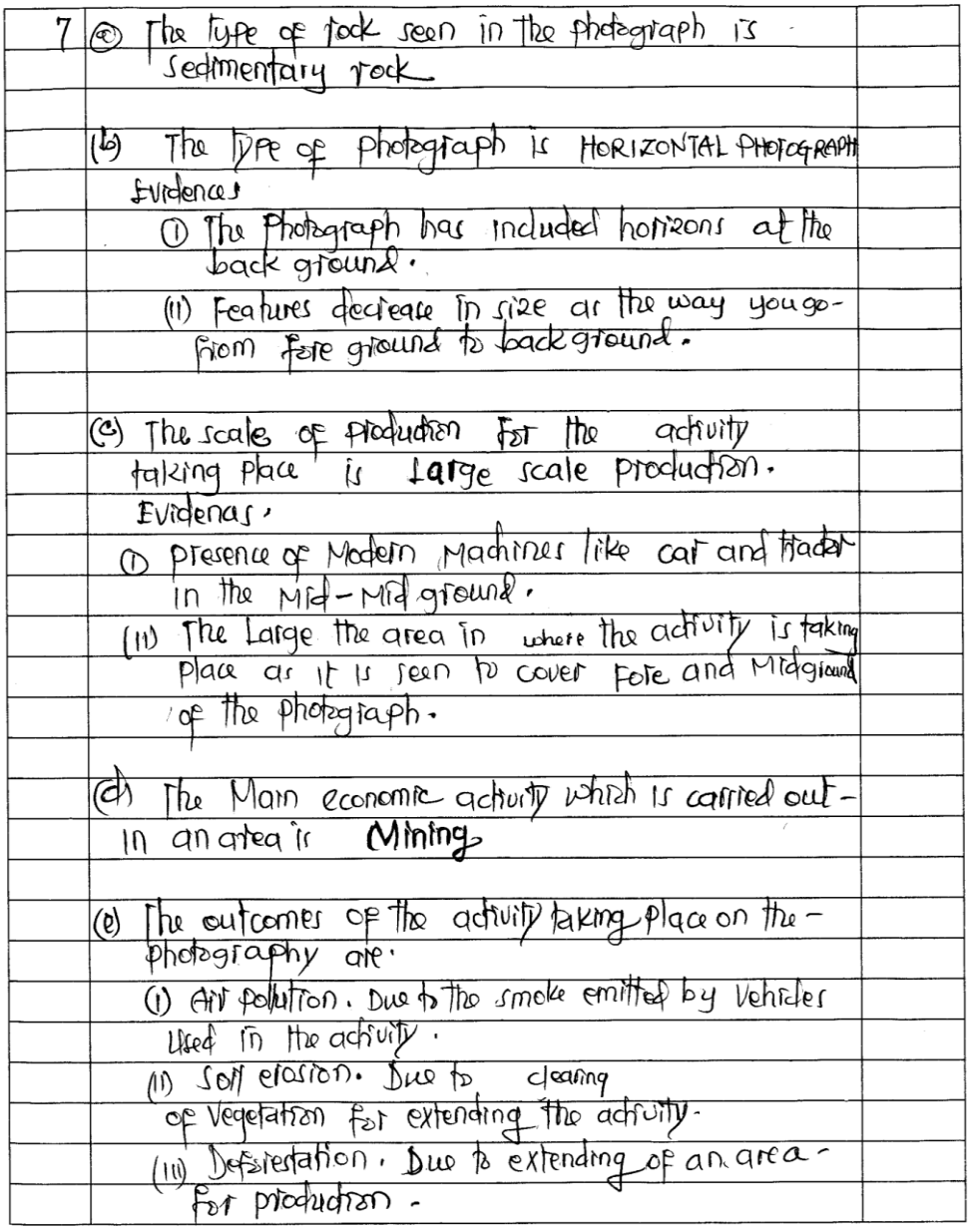
In part (d), some candidates provided correct responses of the main economic activities carried out in the area while, others provided incorrect economic activities. For example, one candidate wrote *mining activities,* and another one provided incorrect answer *collection of building materials.* In part (e), some of the candidates mentioned few correct negative outcomes of the economic activity-taking place to the environment and others mixed correct and incorrect responses. For example, one candidate wrote *occurrence of resettlement and land degradation.*

Further analysis indicated that the 58,854 (13.9%) candidates who scored from 7.5 to 11 marks demonstrated adequate knowledge and skills on the subject matter. The analysis shows that most of the candidates in this category, managed to read and interpret the photograph given. In part (a), the candidates were able to name the type of rock seen in the photograph as *Sedimentary rock.* In part (b), they explained briefly the type of photograph by giving two evidences to support the answer as; *ground photograph* because *it shows the side view of the object, the size of objects near the camera are larger than those further away, it shows a small area, it shows a general view of objects* and *it shows horizon.*

Furthermore, in part (c), the candidates managed to suggest the scale of production for the activity taking place with two evidences as; *large scale mining due to the presence of Earth moving machine and a truck.* In part (d), they were able to mention the main economic activity carried out in the area as *mining or quarrying or excavating or extracting activities.*

On top of that, in part (e), the candidates managed to mention the three negative outcomes of the economic activity taking place to the environment as; *pollution, land degradation, diseases e.g. air and water borne disease*

during rainy season, loss of biodiversity and *deforestation.* The quality of their responses influenced variations in their scores. Extract 7.2 is a sample of correct answers for question 7.


7 (a) The type of rock seen in the photograph is sedimentary rock

(b) The type of photograph is HORIZONTAL PHOTOGRAPH
Evidences
(i) The photograph has included horizons at the back ground.
(ii) Features decrease in size as the way you go- from fore ground to back ground.

(c) The scale of production for the activity taking place is large scale production.
Evidenas,
(i) presence of Modern machines like car and Hader in the Mid-Mid ground.
(ii) The Large the area in where the activity is taking place as it is seen to cover fore and Midground of the photograph.

(d) The Main economic activity which is carried out- in an area is Mining

(e) The outcomes of the activity taking place on the- photography are.
(i) Air pollution. Due to the smoke emitted by Vehicles Used in the activity.
(ii) Soil erosion. Due to clearing of vegetation for extending the activity.
(iii) Deforestation. Due to extending of an area- for production.

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

2.3 SECTION C: REGIONAL FOCAL STUDIES

2.3.1 Question 8: Tourism Industry

The question required the candidates to explain lessons that Tanzania tourism has to learn from Switzerland to improve the sector more by giving six points. The total marks allocated for this question were 15.

The question was attempted by 390,487 (89.5%) candidates, where 151,202 (38.7%) scored from 0 to 4 marks, 146,971 (37.7%) scored from 4.5 to 9.5 marks and 92,314 (23.6%) scored from 9.5 to 15 marks. The general performance in this question was average because 61.2 percent scored 4.5 marks and above. Figure 4 illustrates the candidates' performance for this question.

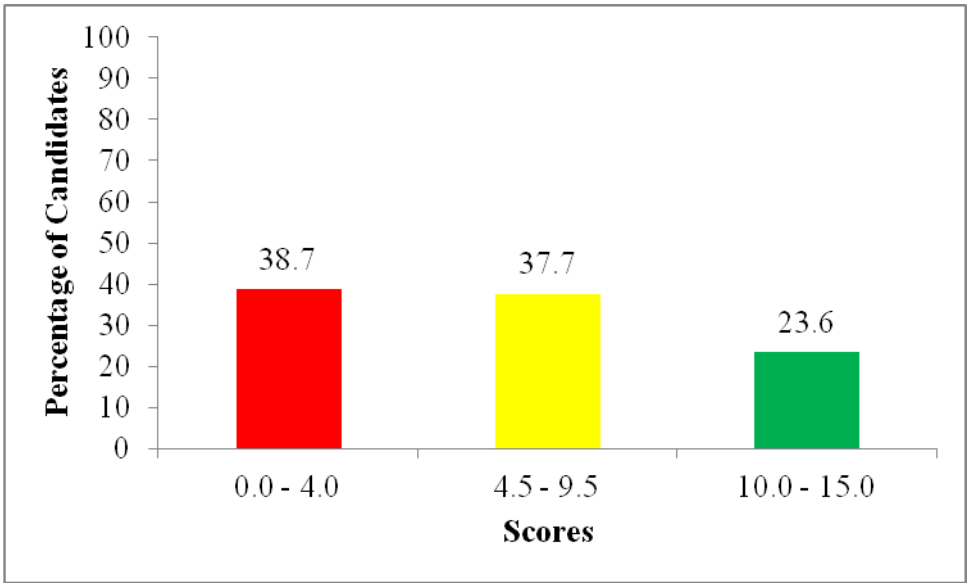


Figure 4: *Candidates' Performance for Question 8*

The analysis of the candidates' responses indicated that, 151,202 (38.7%) candidates scored from 0 to 4 marks. This implies that they had poor knowledge and skills on the concepts of tourism specifically on the factors for the development and growth of tourism in Switzerland. The analysis showed that some of them failed to meet the demands of the question, as they provided incorrect responses. Others managed to provide relevant introduction of tourism but failed to provide correct explanations on how

Tanzania should improve tourism industry. For example, one candidate wrote inadequate introduction and incorrect points as; *to improve international relationship, protecting the wild animals, provision of education* and *proper water crisis management*. Another candidate explained factors which hinder development of tourism in Tanzania as; *lack of good transport and communication, lack of government support, lack of enough capital and lack of market* instead of focusing on the lessons that Tanzania has to learn from the Switzerland's tourism sector. Another candidate provided relevant introduction, but wrote incorrect points as; *source of unemployment, source of foreign currency and source of income.*

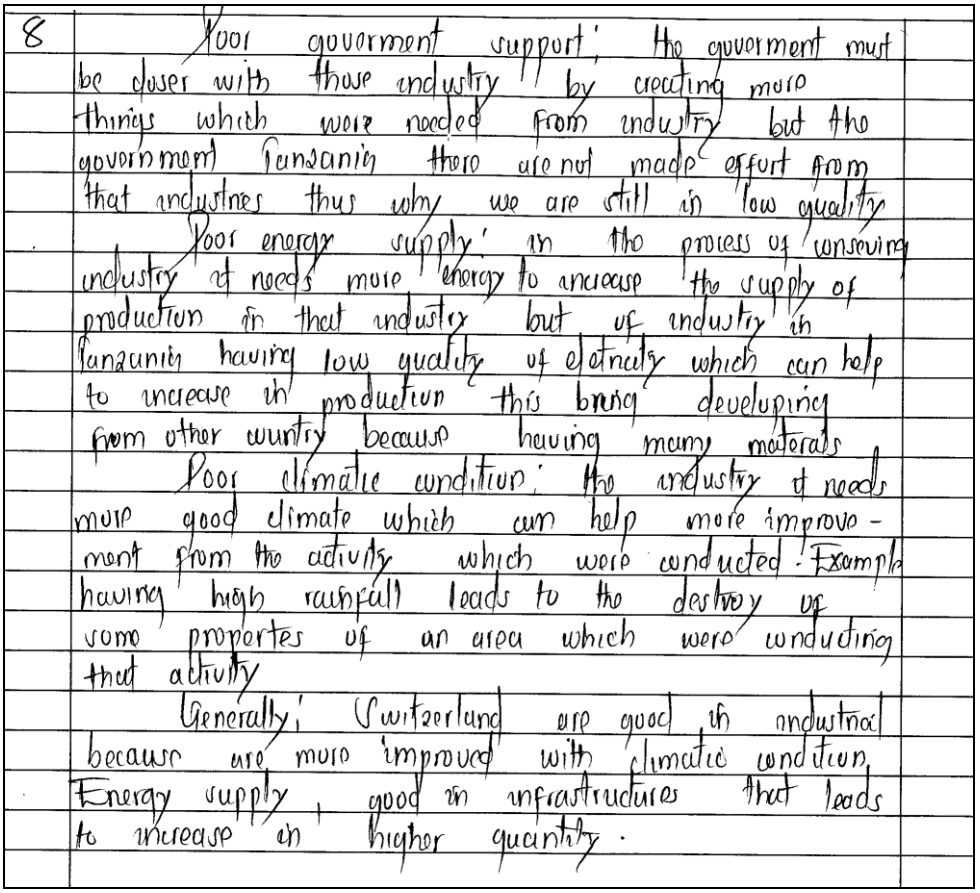
Moreover, some candidates failed to provide relevant introduction and conclusion, but they mixed correct and incorrect answers. For example, one candidate wrote; *increase of foreign currency, government support and source of employment, marketing, publicity and hospitality*. Extract 8.1 is a sample of incorrect responses for question 8.

8 Tanzania tourism industry; this is the way of sector of industry of perform well thus bring the many tourist wanted to see on which ways which help those producers to confirm those needs on industry tourism industry has to learn in Switzerland for the aim of gaining new knowledge which can help to improve in hagher quantity. The following are the lessons of Tanzania Tourism industry has to learn from Switzerland so as to improve more on this sector due to the following lessons;

Shortage of capital; Tanzania we are in low money which can help to improve that sector of industry which can help to increase tourism, this it needs support from government to provide good resources which come from industry the government create more loans to those private industry.

Poor infrastructures; through that thus why people from Tanzania we are in low in quality because among infrastructures are poorly which can bring bad resources such as roads railway for transporting those raw materials Example in the area which processing textile industry it needs transport for communication.

Shortage of unskilled labour; through the situation of producing raw materials, it needs more labourers which can help to provide those goods for using in different areas. Example labourers needs for transportation, making some materials which needs in that industry and other places.


8 Poor gouverment support; the gouverment must be closer with those industry by creating more things which were needed from industry but the government Tanzania there are not made effort from that industries thus why we are still in low quality
Poor energy supply; in the proiess of conserving industry it needs more energy to increase the supply of production in that industry but of industry in Tanzania having low quality of electricity which can help to increase in production this bring developing from other country because having many materals
Poor climatic condition; the industry it needs more good climate which can help more improve - ment from the activity which were conducted. Exampl having high rainfall leads to the destroy of some properties of an area which were conducting that activity
Generally, Switzerland are good in industrial because are more improved with climatic condition, Energy supply, good in infrastructures that leads to increase in higher quantity.

Extract 8.1: A sample of incorrect responses to question 8.

In extract 8.1, the candidate explained the factors which hinder the development of tourism industry which are *shortage of capital, poor infrastructure, poor government support, poor energy supply* and *poor climatic condition*. He/she was to provide lessons that Tanzania tourism has to learn from Switzerland to improve the sector.

Furthermore, a total of 146,971 (37.6%) candidates who scored average marks (4.5 to 9.5) had moderate knowledge about tourism specifically on the factors for the development of tourism in Switzerland; hence they were able to give few correct responses. Some candidates were able to provide relevant introduction, inadequate explanations of points with relevant conclusions. Others presented relevant introduction and conclusions, but they mixed correct and incorrect answers. For example, one candidate wrote; *marketing, publicity, provides development to the country* and *provides employment opportunity* as a result she/he scored few marks.

Another candidate provided relevant introduction, but explanations of the points were insufficient such as; *advancement in communication and transportation network, good accommodation, hospitality, good market, good infrastructure* and *peace and stability*. Those responses show that the candidate lacked sufficient knowledge of tourism sector.

Further analysis revealed that 92,314 (23.6%) candidates who scored from 10 to 15 marks. They showed sufficient knowledge about the factors for the development of tourism industry in Switzerland. They understood the demands of the question, as they provided good introduction such as; *Tourism is one among the important economic sectors in Switzerland and Tanzania. But there is difference in level of tourism development between the two countries where as tourism is more successful in Switzerland than in Tanzania despite the presence of numerous tourists attractions in the country.* Most candidates in this group managed to explain the lessons that Tanzania tourism sector has to learn from Switzerland so as to improve the sector more. Examples of their points were: *marketing and publicity, develops and expands tourist attractions, promote hospitality, training in tourism, improvement of infrastructures, stable political system and neutrality and promote domestic tourism*. The strengths of their responses led to variations of their scores. Extract 8.2 is a sample of correct responses for question 8.

8 Tourism is a movement of people from their homes to other areas of interests for leisure learning and relaxing. Tourism industries are the sectors that ensure the progression of tourist activities. Tanzania tourism industry has to learn from switzerland the various conditions or factors which when favoured may lead to the improvement and development of tourism industry in Tanzania. Those factors are

Improving infrastructure. Switzerland is well-developed interm of infrastructure some thing which facilitate tourim industries in the country so even in Tanzania the infrastructures like transport and communication networks should be improved so as to motivate the tourists from inside and outside Tanzania as it is in switzerland

Maintaining peace and harmony in the country, this is also a condition that the Tanzanian should learn from switzerland as switzerland is a major and leading country in term of peace and harmony in the world so through doing that many tourists from outside Tanzania will be motivated to came in the country so as to learn the people's way of life so this eventually will lead to the development of tourism industry in Tanzania as it is in switzerland.

Improving social services and accomodations. sina most of the tourists are from abroad. The government of Tanzania should improve social services like health services, markets and accomodations so that to enable the tourist to get their needs once if they reach in Tanzania so this eventually lead to the development of tourism industry as it is in switzerland.

Conserving and protecting tourist honeypots.

8 In Tanzania there are various tourists attractions - like national parks eg example Mikumi, serengeti, Ngolongoro and Manyara also there are various - game reserves like selous, Rungwa, kigosi and Marwa- which all together should be conserved and protected. through avoiding pollution as what switzerland do in conserving its tourists attractions like. Geneva city. so this will motivate the tourists both- from internal and from external hence will lead to the development of tourism industry as it is in - switzerland.

Inverting highly in tourism industry as it- is in other sectors, the government of Tanzania should invest much in tourism industry as an economic- sectors; this will help in improving the sectors th - through ensuring the required conditions for its develop ment such as improving accomodations and paying labourers who are incharge of controlling the sector- so this will lead to the development of tourism industry in Tanzania as it is in switzerland.

Employing skilled labourers in the sector. Tourism industry need skilled labourers who will be in charge of administering its continuation. This is what Tanza nian should learn from switzerland since there - skilled labourers are employed in tourism industry something which lead to their success

Conclusively, Tourism industry as other economic sectors contribute to the rise of income of the nation since through this sector foreign currency is earned, employment opportunities to the people is ensured and trade activities is developed so the government of Tanza nia should learn from switzerland and other countries

8 which are well developed in tourism industries so as- to find out which should be done in order to impro ve tourism industry as it is in those countries since tourism sector is one of the sector which brings econo- mic benefits to the country (Tanzania).

Extract 8.2: A sample of the correct answers for question 8.

2.3.2 Question 9: Human Population

The candidates were required to justify the statement that '*migration is caused by both pull and push factors' by using six points*. The total marks allocated for this question were 15.

The question was attempted by 362,469 (83.0%) candidates whereby 70,474 (19.4%) scored from 0 to 4 marks, 144,684 (40%) scored from 4.5 to 9.5 marks and 147,311 (40.6%) scored from 10 to 15 marks. The general performance in this question was good because 80.6 percent scored 4.5 marks and above. Figure 5 illustrates the candidates' performance in this question.

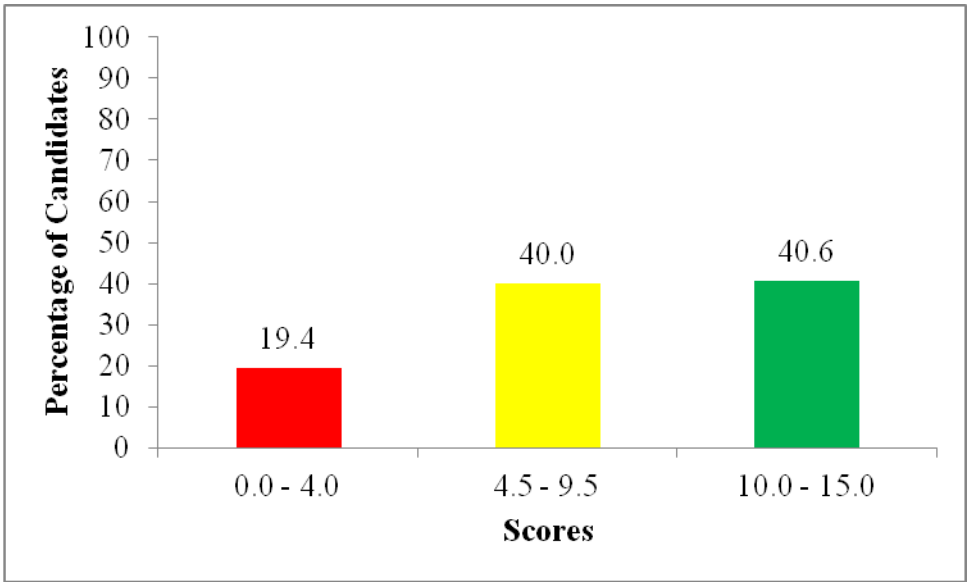
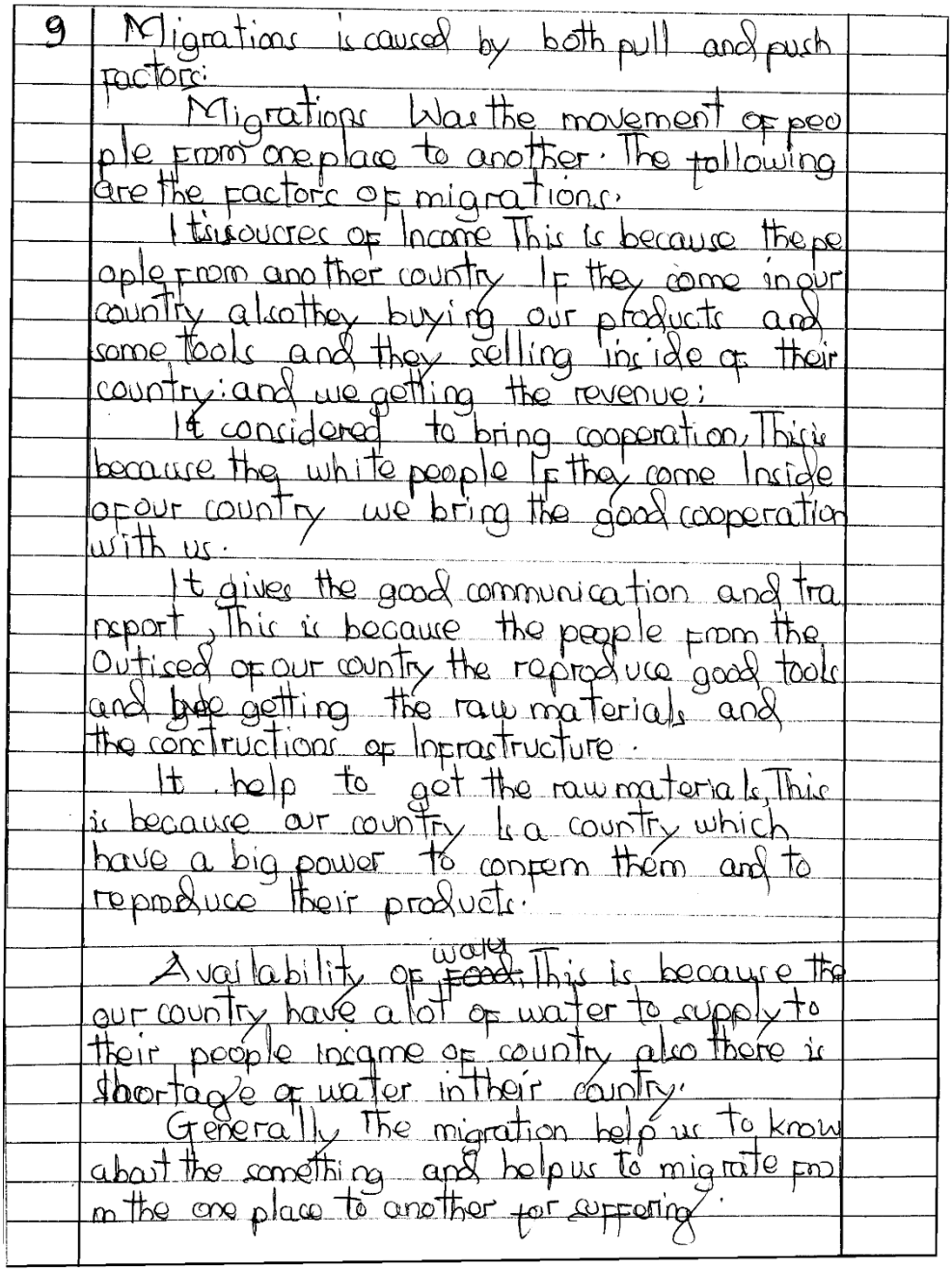


Figure 5: *Candidates' Performance for Question 9*

The analysis showed that 70,474 (19.4%) candidates who scored from 0 to 4 marks lacked knowledge of the subject matter. Some provided irrelevant responses which were contrary to the demands of the question. Other candidates provided correct introductions, but they mixed correct and incorrect responses with relevant conclusion. Moreover, some candidates misinterpreted the question's demand; therefore, they wrote incorrect responses. For example, one candidate provided the following responses; *population increase, death* and *birth rate.* Other candidates provided incorrect responses which were neither pull nor push factors for migration.

For example, one candidate mentioned incorrect responses which describe the types of settlement patterns such as *nuclear, linear* and *scattered settlement patterns*. Extract 9.1 is a sample of incorrect responses for question 9.



9 Migrations is caused by both pull and push factors:

Migrations Was the movement of people from one place to another. The following are the factors of migrations.

It is sources of Income This is because the people from another country If they come in our country also they buying our products and some tools and they selling inside of their country: and we getting the revenue:

It considered to bring cooperation, This is because the white people If they come Inside of our country we bring the good cooperation with us.

It gives the good communication and transport, This is because the people from the Outised of our country the reproduce good tools and bee getting the raw materials and the constructions of Infrastructure.

It help to get the raw materials, This is because our country is a country which have a big power to confern them and to reproduce their products.

Availability of ~~food~~ water: This is because the our country have a lot of water to supply to their people incame of country also there is shortage of water in their country.

Generally The migration help us to know abait the something and help us to migrate from the one place to another for suffering.

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

In extract 9.1, the candidate explained the benefits of migration such as; *it gives good communication, it help to get raw materials, it brings cooperation and it is a source of home,* instead of the pull and push factors which cause migration.

Furthermore, a total of 144,684 (40%) candidates who scored average marks (4.5 to 9) were able to understand the demands of the question, and had moderate knowledge of the topic tested. The analysis showed that some candidates in this category explained the causes of migration correctly, but they failed to explain all the required points as the question demanded. Others managed to give relevant introductions, but mixed correct and incorrect responses. For example, one candidate provided relevant introduction and explained the responses inadequately such as; *relief, climate factor, soil factor, availability of natural resources, pests and diseases* and *political stability* without providing relevant conclusion.

Further analysis indicated that 147,311 (40.6%) candidates scored from 10 to 15 marks. These had adequate knowledge of the concept of migration particularly the causes of migration. The analysis showed that, they were able to provide relevant introductions as; *Migration is the movement of people from one area or region to another which result in changes of resistance. The movement involves either temporary or permanent change of residence. When people move from one place to another within a county for instance from Dodoma to Njombe it is called internal migration but when people for instance move from Burundi to Tanzania is termed as international migration*. Moreover, those candidates explained the causes of migration such as; *availability of land, climatic condition, relief, presence of natural resource, natural hazards, pests and diseases, political stability, social services, availability of work, political freedom and hope of wealth*. Also they managed to provide relevant conclusion. However, candidates' varying abilities to explain the responses led to variations in their scores. Extract 9.2 is a sample of correct responses for question 9.

9 Migration - Is the Movement of people from one place to another which may result into change in residence. Migration can be brought by push factors as the factors which demand an individual or group of people to migrate unwillingly or pull factors as the factors which Motivates the people to Migrate toward a certain place due to its beauty. The following are the push factor that greatly influence Migration.

Natural disasters. Thes are natural calamities like earthquake, stormy and floods so due to those disasters people May Migrate from an area which is affected since those calamities are risk to human life so this will be as a push factor since the people will move or Migrate unwillingly

Political unrest. This is a condition where by a certain nation or locality is in state of political unrest. This is accompained by killing of people due to war which is then arise due to political unrest so this lead to the Movement of people away from the area so as to save their lives although they tend to Migrate Unwillingly since are then called Refugees.

Diseases. This is also a push factor that force the people to Migrate as the people tend to Migrate from the area affected by diseases example Cholera and Malaria which is some times influenced by the

the condition of environment example if the environment which is polluted. So due to this people will be forced to move toward other places where there is no diseases. hence Migration.

Migration also is influenced by pull factors as the factors which influence an individual to Migrate toward a certain area for a certain gain. Those factors are like.

Fertility of the soil. This is a pull factor that encourage the people to Migrate toward an area as fertile soil is always supportive to agricultural activities so due to this people will Migrate willingly in searching for gains-hence Migration.

Employment opportunities. This is also a factor that influence the people to Migrate from one area to another as many people prefered the area with reliable employment s so as to have a better living standard so this lead to Migration although people Migrate willingly

Better social services. This is a pull factors that influence people to Migrate toward an area since the area with better social services like health services, Water and electricity supply is favourable for one's settlement.

Conclusively Migration is major factor which contribute to the population change in an area so the government should ensure equal allocation of social services and other better factors in all areas so as to counteract the effects that may be brought by the rapid increase of rate of Migration like decrease in production due to lack of enough man power in an area where people Migrate from and shortage of services in an area where people Migrate to due to increase in population.

Extract 9.2: A sample of correct answers for question 9.

2.3.3 Question 10: Elementary Surveying and Map Making

The candidates were given the scenario that *'the Form Three students were told by their Geography teacher to perform a survey activity around the school compound'*. From the scenario they were required to *explain eight pre survey activities they need to consider*. The total marks allocated for this question were 15.

The question was highly skipped as it was attempted by only 46,865 (10.7%) candidates of which, 35,851 (76.5%) scored from 0 to 4 marks, 8,940 (19.1%) scored from 4.5 to 9.5 marks and 2,074 (4.4%) scored from 10 to 15 marks. The general performance on this question was weak because 76.5 percent of the candidates who attempted this question scored below average pass mark. Figure 6 illustrates the candidates' performance for this question.

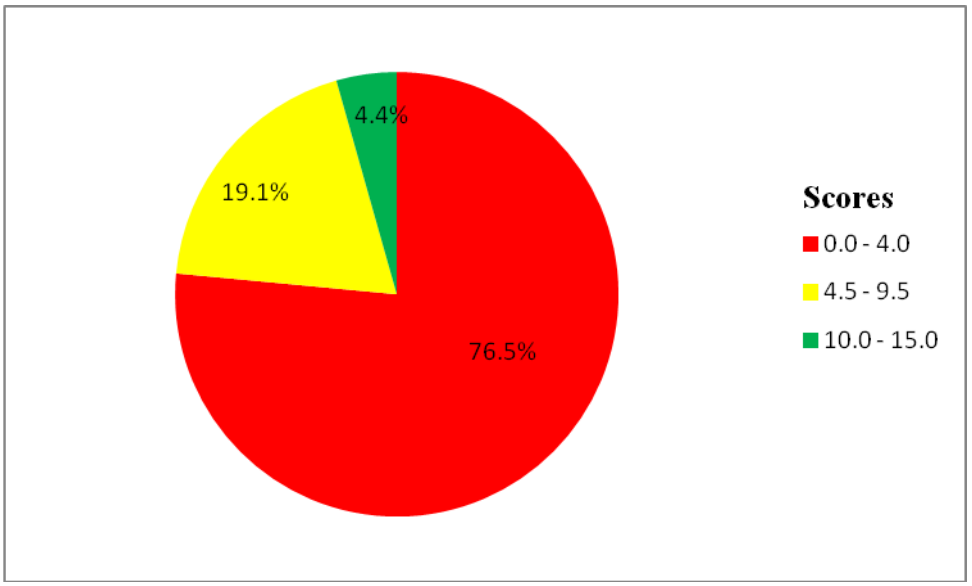
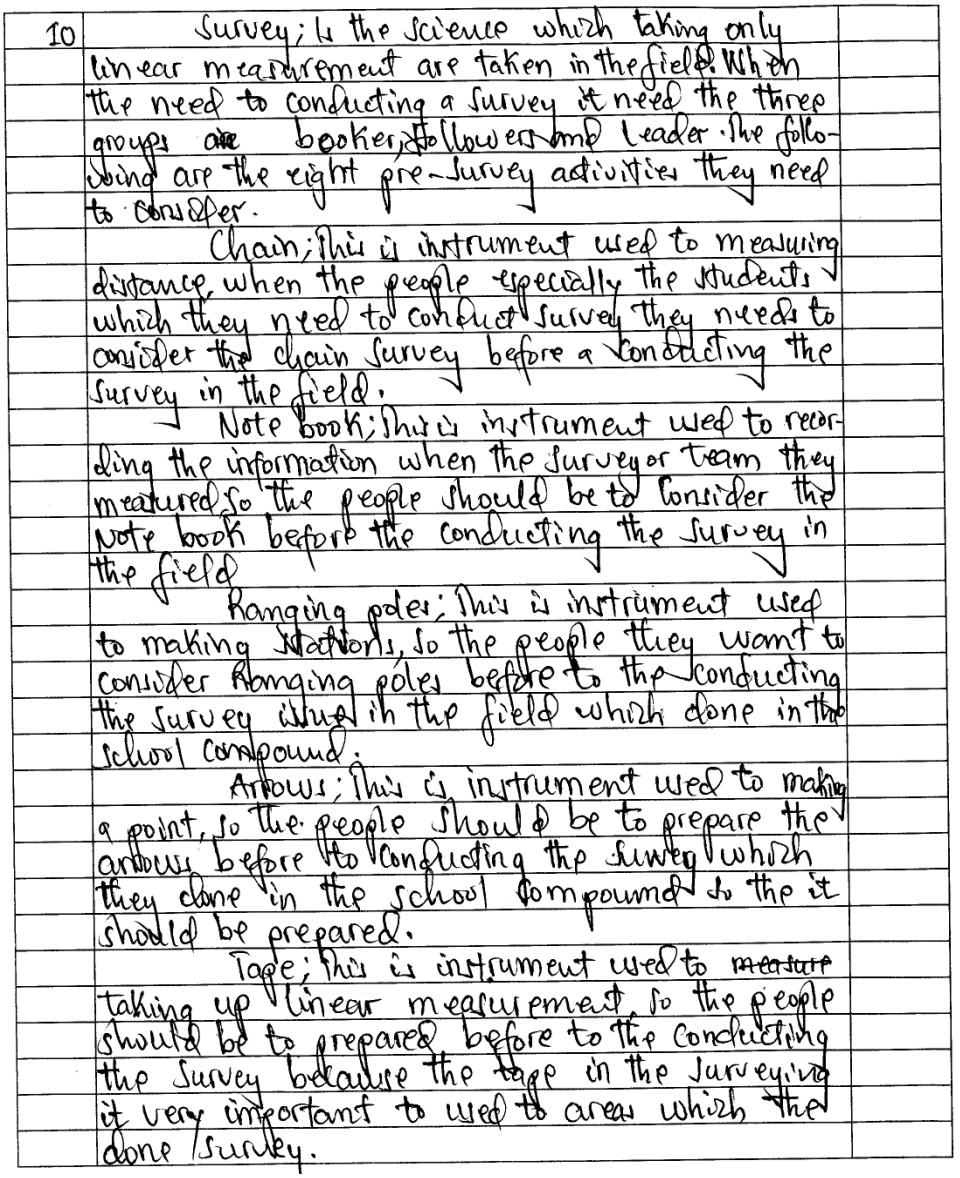


Figure 6: *Candidates' Performance for Question 10.*

The analysis of candidates' performance indicated that 35,851 (76.5%) candidates who scored from 0 to 4 marks had insufficient knowledge and skills on the concept of survey, particularly on pre-survey activities. The analysis indicated that most of those candidates were not able to provide the correct responses according to the demands of the question. Few candidates managed to give relevant introductions, and outlined few correct

responses. Others mixed correct and incorrect responses without providing introduction and conclusions. For example, one candidate explained the types of survey as*; chain survey, leveling, plane table survey* and *prismatic compass survey.* Another candidate mentioned the instruments used in leveling as*; leveling staff, spirit level, tripod stand, abney level,* and *surveying band* instead of pre-survey activities *that are; identification of an area, preparation of survey budget, determination of the objective of the survey , ask for permission from the responsible authority of the area etc*. Extract 10.1 is a sample of incorrect responses for question 10.



10 Survey; is the science which taking only linear measurement are taken in the field. When the need to conducting a survey it need the three groups are booker, followers and Leader. The following are the eight pre-survey activities they need to consider.

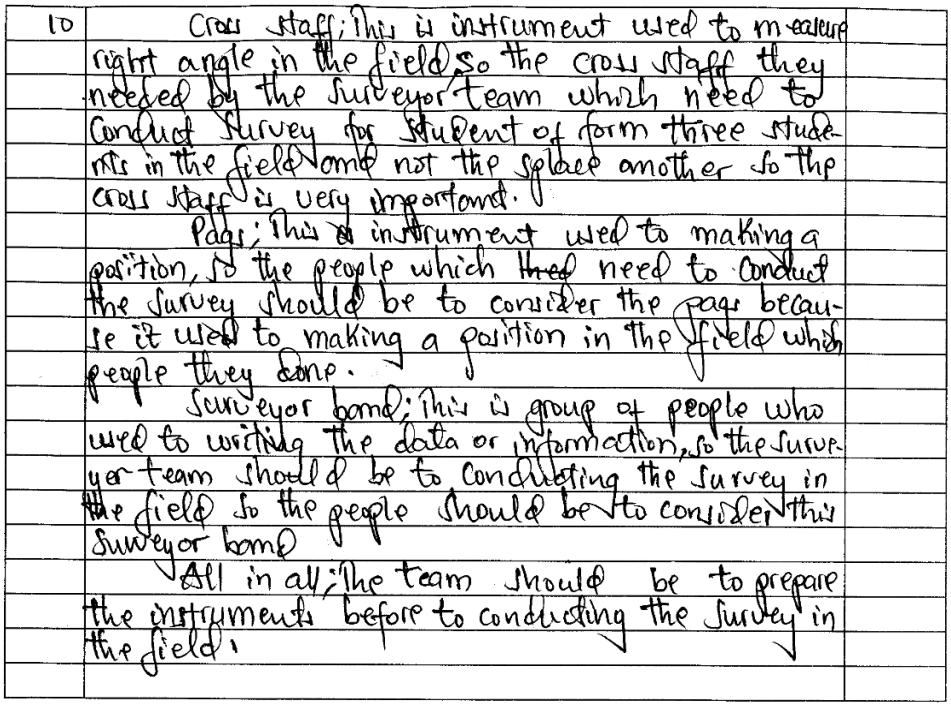
Chain; This is instrument used to measuring distance, when the people especially the students which they need to conduct survey they needs to consider the chain survey before a conducting the survey in the field.

Note book; This is instrument used to recording the information when the surveyor team they measured so the people should be to consider the note book before the conducting the survey in the field

Ranging poles; This is instrument used to making stations, so the people they want to consider Ranging poles before to the conducting the survey should in the field which done in the school compound.

Arrows; This is instrument used to making a point, so the people should be to prepare the arrows before to conducting the survey which they done in the school compound so the it should be prepared.

Tape; This is instrument used to ~~measure~~ taking up linear measurement, so the people should be to prepared before to the conducting the survey because the tape in the surveying it very important to used to areas which the done survey.


10 Cross staff; this is instrument used to measure right angle in the field so the cross staff they needed by the surveyor team which need to conduct survey for student of form three students in the field and not the splace another so the cross staff is very important.

Pags; this is instrument used to making a position, so the people which they need to conduct the survey should be to consider the pags because it used to making a position in the field which people they done.

Surveyor band; this is group of people who used to writing the data or information, so the surveyor team should be to conducting the survey in the field so the people should be to consider this surveyor band

All in all; the team should be to prepare the instruments before to conducting the survey in the field.

Extract 10.1: A sample of incorrect responses for question 10.

In extract 10.1, the candidate explained the instruments used in chain survey which are *chain, note book, ranging poles, arrows, tape, cross staff, pegs and surveyors band,* instead of pre-survey activities.

On the other hand, a total of 8,940 (19.1%) candidates who scored average marks (4 to 9) demonstrated moderate knowledge and skills on the concept of survey. Their responses showed that, they were aware of the procedures to be followed before the actual survey, though they failed to give clear elaborations. Few candidates gave relevant introductions, but mixed correct and incorrect points. Others provided irrelevant introductions, then provided few pre survey activities with partial conclusions. For example, one candidate provided incorrect points as; *formulation of hypothesis, testing of hypothesis* and *writing of the report.* Such a candidate failed to recognize that these are among the stages of conducting research. Another candidate wrote; *choose types of clothes according to the weather of that area, ensure your security, should know the language of that area* and *should be familiar with the sample.*

Further analysis showed that about 2,074 (4.4%) candidates who scored from 10 to 15 marks demonstrated adequate knowledge and skills on the subject matter, specifically on the pre survey activities. They were able to provide relevant introductions as; *Survey is a science of measuring and recording distance, angles and heights on the Earth's surface to obtain which accurate plans and maps are made.* They managed to explain eight pre – survey activities as; *identify the survey area, prepare survey budget, determine the objectives of the survey, ask for permission from the responsible authority of the area you want to survey, prepare survey equipment or tools, time duration, prepare a survey team* and *prepare pre survey visit or reconnaissance.* They ended up with relevant conclusions. However, their marks varied due to differences in capabilities of explaining relevant responses as the question demanded. Extract 10.2 is a sample of correct responses for question 10.

10. Survey is the process of measuring, recording and determining linear distances angles and relative heights of different points on the Earth surface for the production of Map. There are four types of Survey which are Chain Survey, Prismatic Compass survey, Plane table Survey and Levelling Survey. The following are the pre-Survey activities someone need to consider before conducting the Survey.

Area to be Surveyed, The area must be available so that a ~~Surve~~ Survey activity may be go on.

Preparation of tools, After getting that area someone needs to have tools for conducting the Survey. Such tools including Tap, chain, Theodolite, Cronometre and Pegs. The choices of tools depends on what type of Survey someone conducts.

Preparation of Survey team, Those are people who are helping me

10 survey process. Such activities they help is like carrying Instrument and fixing the pegs.

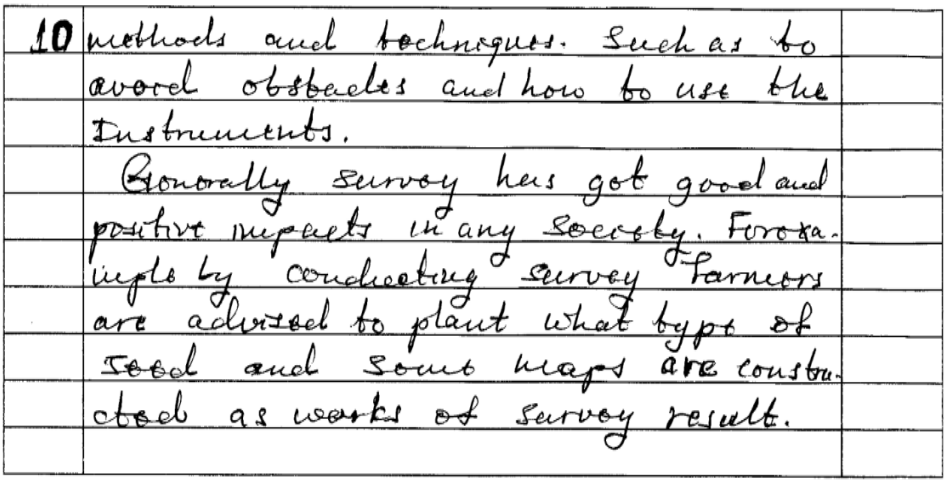
Conducting Reconnaissance, This is the paying short visit to the area where the Survey must be go on or conducted. This will help a surveyor to have full information about that place, that is flat or round? It have obstacles in large amount or not?

Preparation of Survey schidules, This involves planning in general those activities will be carried from what time to what time. Shortly is the general timetable of survey activity during such time.

Preparation of capital for ensuring the all needs have reached, Survey consumes time and money at all, so it is better to have more money for purchasing some instrument although some of them are locally present like pegs.

Providing report to the Government of the surveyed area. Survey team must provide information to that Authority of the targeted area so that to conduct such activity well and safetly.

Having full information about Survey, Inorder Someone to conduct the survey should have to learn more about survey



Extract 10.2: is a sample of correct responses for question 10.

3.0 ANALYSIS OF THE CANDIDATES' PERFORMANCE IN EACH TOPIC

The analysis of candidates' performance in each topic shows that the candidates had good performance in 01 out of 17 topics. The topic with good performance was *Human Population* (*80.6%).*

The performance of the candidates was average in the topics *of Tourism Industry (61.2%), Photograph Reading and Interpretation (60.6%), Agriculture (58.5%),* and the topics of *The Solar System, Structure of the Earth, Forces that Affect the Earth's Surface, Soil, Climate and Natural Regions, Weather, Sustainable Use of Power and Energy Resources, Sustainable Mining, Environmental issues and Management* which were measured in question number one had *56* percent.

However, the weak performance was found in five topics of *Application of Statistics (29.5%), Forces that Affect the Earth's Surface (27.6%), Elementary Surveying and Map Making* (*23.5%), Introduction to Research* (*19.2%)* and *Map Reading* and the topic of *Map Interpretation* which had the weakest performance of *3.6* percent. The performance of the students by topic is summarized in the attached appendix.

4.0 CONCLUSION

The analysis of individual questions indicated that the general performance of Geography subject in the Form Four (CSEE) 2020 was average. The level of performance has improved in relation to that of 2019. Some candidates answered the questions correctly though many candidates had poor performance in the topics of *Application of Statistics (29.5%), Forces that Affect the Earth's Surface (27.6%), Elementary Surveying and Map Making* (23.5**%**), *Introduction to Research* (19.2**%**) and the topic of *Map Reading and Map Interpretation* which had the weakest performance of 3.6% as marked by the red colour in the appendix. The reasons which might have contributed to low performance in those topics were inability to understand the demands of the question, lack of basic knowledge of the subject matter, and lack of knowledge of mathematical skills.

5.0 RECOMMENDATIONS

In order to improve the performance of candidates in Geography subject, the following are recommended;

(a) Teachers should put more efforts on teaching the topics of *Forces that Affect the Earth's Surface* and *Elementary Surveying and Map Making* because their performance is decreasing yearly. The topic of *Forces that Affect the Earth's Surface* requires study tours where by the students will be able to learn by observing different relief features found on the Earth's surface. Moreover, the topic of *Elementary Surveying and Map Making* should be taught through performing practical field study so that the students can merge theory and practiced work.

(b) Teachers should lead the students to do library research and subject projects in order for them to learn practically how researches are conducted in the topic of *Introduction to Research* as well as enhancing teachers' close supervision when performing practical works.

(c) Students should be given many exercises concerning the topic of *Map Reading and Map Interpretation* so that they can be able to read, interpret, measure and calculate.

(d) Teachers are advised to adhere to the principles of conducting competence based continuous assessment in teaching and learning process in the classroom. This will help the students to build self confidence in any assessment because they will be familiar with necessary terms used in assessments items, and identifying the demands of the questions.

Appendix

Summary of the Candidates' Performance per Topic

S/N	Topic	Question Number	Percentage of the candidates who scored 30% and above	Remarks
1.	*Human Population*	9	80.6	Good
2.	*Tourism Industry*	8	61.2	Average
3.	*Photograph Reading and Interpretation*	7	60.6	Average
4.	*Agriculture*	2	58.5	Average
5.	*The solar System, Structure of the Earth, Forces that Affect the Earth's Surface, Soil, Climate and Natural Regions, Weather, Sustainable Use of Power and Energy Resources, sustainable Mining and Environmental issues and Management.*	1	56	Average
6.	*Application of statistics*	4	29.5	Weak
7.	*Forces that Affect the Earth's Surface*	6	27.6	Weak
8.	*Elementary Surveying and Map Making*	10	23.5	Weak
9.	*Introduction to Research*	5	19.2	Weak
10.	*Map Reading and Interpretation*	3	3.6	Weak