

THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA



**CANDIDATES' ITEM RESPONSE ANALYSIS
REPORT FOR THE CERTIFICATE OF SECONDARY
EDUCATION EXAMINATION (CSEE) 2019**

013 GEOGRAPHY

THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA



**CANDIDATES' ITEM RESPONSE ANALYSIS REPORT FOR
THE CERTIFICATE OF SECONDARY EDUCATION
EXAMINATION (CSEE) 2019**

013 GEOGRAPHY

Published by

The National Examinations Council of Tanzania

P.O. Box 2624

Dar es Salaam, Tanzania

©The National Examinations Council of Tanzania, 2019

All rights reserved.

FOREWORD

The Candidates' Item Responses Analysis (CIRA) report for Geography subject on the Certificate of Secondary Education Examination (CSEE) 2019 aimed at providing feedback to secondary school candidates, teachers, Educational Policy makers, parents and other Educational stakeholders on the candidates' performance and how well the instructional goals and objectives were met.

The Certificate of Secondary Education Examination (CSEE) marks the end of four years of secondary education. It is a summative evaluation which, among other things, assesses the effectiveness of general system of education and the mode of education delivery in Tanzania secondary schools.

In this report, reasons for poor, average and good performance are identified. The analysis shows that the candidates with good performance provided appropriate responses. This suggests that they were able to identify the demand of each question, had enough knowledge on the subject matter, adequate drawing and mathematical skills as well as proficiency in English Language. It was established that those with low scores lacked such qualities. The analysis of each question has been done in order to show the strengths and weaknesses of the candidates in responding to the questions.

The National Examinations Council of Tanzania believes that the feedback provided in this report will enable the educational administrators, schools managers and students to identify proper measures to be taken in order to improve candidates' performance in future examinations administered by the Council.

Finally the Council is grateful to all stakeholders who provided valuable assistance in the preparation of this report.



Dr. Charles E. Msonde
EXECUTIVE SECRETARY

TABLE OF CONTENTS

| | |
|--|-----|
| FOREWORD | iii |
| 1.0 INTRODUCTION | 1 |
| 2.0 ANALYSIS OF THE CANDIDATES' PERFORMANCE IN EACH QUESTION | 2 |
| 2.1 SECTION A: OBJECTIVE QUESTIONS | 2 |
| 2.1.1 Question 1: Multiple Choice Items | 2 |
| 2.1.2 Question 2: Matching Items..... | 6 |
| 2.2 SECTION B: SHORT ANSWERS..... | 8 |
| 2.2.1 Question 3: Map Reading and Interpretation..... | 8 |
| 2.2.2 Question 4: Application of Statistics | 18 |
| 2.2.3 Question 5: Elementary Surveying and Map Making | 26 |
| 2.2.4 Question 6: Introduction to Research | 32 |
| 2.2.5 Question 7: Photograph Interpretation..... | 38 |
| 2.3 SECTION C: ESSAY QUESTIONS | 46 |
| 2.3.1 Question 8: Solar System..... | 46 |
| 2.3.2 Question 9: Water Management for Economic Development..... | 51 |
| 2.3.3 Question 10: Manufacturing Industries | 57 |
| 3.0 PERFORMANCE OF THE CANDIDATES IN EACH TOPIC..... | 65 |
| 4.0 CONCLUSION..... | 65 |
| 5.0 RECOMMENDATIONS..... | 66 |
| <i>Appendix I</i> | 67 |

1.0 INTRODUCTION

This report is intended to analyse the candidates' item response for the Form Four National Examination in Geography subject for the year 2019. This examination covered the 2010 syllabus and adhered to 2019 examination format. The paper consisted of ten (10) questions categorized in three (03) sections A, B, and C. The candidates were required to attempt all questions from section A and B also to choose two questions from section C making a total of nine (09) questions.

Section A had two questions, which were constructed from various topics. Question one consisted of ten multiple choice items and question two consisted of, five matching items. The candidates were required to choose the correct answer from the alternatives given. Section B had five short answer questions, which were constructed from various topics. Section C consisted of three essay questions which were taken from different topics.

The report aims to give feedback to the stakeholders on the performance of the candidates in each question by showing what candidates were required to do, the candidates' strengths and weakness in responding to the questions. The performance of the candidates is grouped into three categories: namely good, average and weak. Scores from 65 – 100 were considered as good performance, 30 – 64 as average and 0 – 29 as weak performance. The samples of the candidates' responses are inserted as extracts to represent good, average and weak cases. Graphs and charts are used to summarize the candidates' performance in percentage for each question.

In 2019, a total of 432,047 (100%) candidates sat for the Geography examination, of which 224,138 (53.15%) passed, while 207,909 (46.85%) failed. In 2018 the total of 359,445 (100%) candidates sat for the Geography examination, of which 189,525 (53.03%) passed and 169,920 (46.97%) failed. This indicates that the performance rate of the candidates in CSEE for the year 2019 in Geography subject has increased by 0.12 percent compared to the 2018 results.

Lastly, the report provides the conclusion, recommendation and the appendix which shows the percentage of the candidates who scored 30 marks and above for each question. It is expected that the report will be useful to education stakeholders and it will enable teachers and the students to improve the teaching and learning process in Geography subject.

2.0 ANALYSIS OF THE CANDIDATES' PERFORMANCE IN EACH QUESTION

2.1 SECTION A: OBJECTIVE QUESTIONS

2.1.1 Question 1: Multiple Choice Items

The multiple choice items aimed at testing the candidates' knowledge on Physical Geography, Mathematical Geography and Human Geography. The candidates were required to choose correct answer among the five given alternatives.

The question was attempted by 424,025 (100%) of all the candidates, where by 171,789 (40.5%) scored from 0 to 2 marks, 229,126 (54.1%) scored from 3 to 6 marks and 2,309 (5.4%) scored from 7 to 10 marks. This implies that the question had average performance because 59.5 percent of the candidates scored 30 marks and above.

The candidates who scored from 7 to 10 marks were knowledgeable on the topics involved in the multiple choices questions. Those candidates were able to identify correct responses from the given alternatives.

The candidates who scored from 3 to 6 marks had insufficient knowledge in understanding the demand of the question. Most of them were able to provide correct answers for some items but failed in others. This made them to end up with average performance.

Most of the candidates who scored 0 to 2 marks misconceived the demand of the question. This suggests that the candidates were not aware of contents tested. Due to lack of awareness, they failed to distinguish the correct and in correct answers from the alternatives given. Figure 1 illustrates the performance in this question.

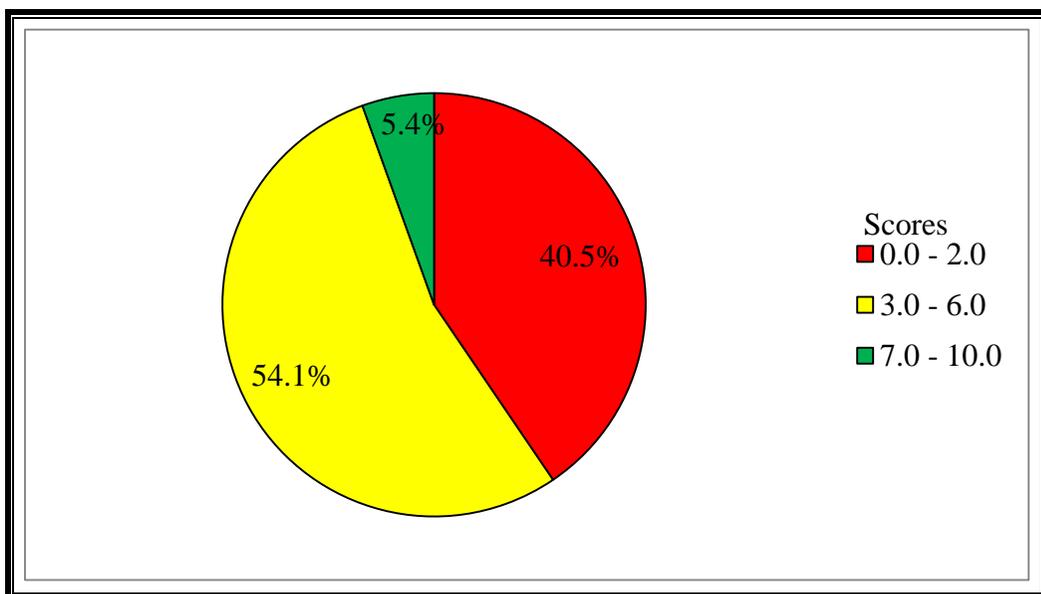


Figure 1: Trend of the candidates' performance in question 1.

The following paragraphs aims to provide analysis of candidates' responses for each item by starting the requirements of each item. The strengths and weaknesses of candidates' responses are also identified and possible reasons for their poor, average or good performance are provided.

Item (i) required the candidates to identify the layer of the earth's interior which is made up of Sima and Sial. The candidates who opted for the correct answer D *lithosphere* had sufficient knowledge and skills on the concept of the internal structure of the earth. The candidates who opted for distractors, C *Asthenosphere* and E *Barysphere* confused sima and sial with other layers of the internal structure of the earth, especially on the outer layer (crust), the middle layer (mantle) and the inner layer (core). The candidates who opted for distractors A *Biosphere* and B *Hydrosphere* lacked knowledge on the concept of the internal structure of the earth as *Biosphere means a part of the earth which support life* while *Hydrosphere is concerned with water sources of the earth including oceans, lakes and rivers*.

Item (ii) required the candidates to calculate time for Burundi (30° E) when the goal was scored. The candidates who opted for the correct answer A 2:00 am indicated that they had good mathematical skills on calculating time. Those who opted for distracter B 10:00 am, C 4:00 am, D 10:00 pm and E 12:00 am, lacked mathematical knowledge and skills on how to calculate the time which made them to choose incorrect options.

Item (iii) required the candidates to identify the geological processes occurring in the area when large amount of soil and rock materials were sliding down wards the slope. The correct answer was D *mass wasting and transportation*. The candidate who opted for this alternative were familiar with the topic of forces that affect the earth especially on mass wasting and transportation since *Mass wasting is the downward movement of the materials on the slope by the influence of gravity*. This process does not involve transportation agent such as wind, water or ice. The candidates who chose other alternatives were not familiar with Mass wasting. Those who chose A *Weathering and Erosion* were not informed that weathering does not involve sliding of the materials under the slope, rather *it is the disintegration of the rock materials by either chemical or mechanical processes while erosion is the removal of the weathered materials by agents of erosion such as water, wind or ice*.

The candidates who chose B *Deposition and Transportation* misconceived these terms with mass wasting because *deposition is the lying down of the materials of the earth, which were carried out by the transporting agents like (water, wind or ice) while transportation is the removal of the eroded materials from one place to another through water, wind or ice*.

The candidates who chose distractors C *Weathering and Denudation* and E *Erosion and Transportation* were not aware that weathering, denudation and erosion involves the disintegration and removal of the rock materials which are transported from one place to another through wind, water and ice.

In item (iv) the candidates were required to identify the type of forest which is found in low temperate areas. The candidates who opted for the correct answer B “*coniferous forest*”, revealed good knowledge on the topic of climate. The candidates who opted for other alternatives A *Tropical rain forest*, C *Equatorial forest*, D *Deciduous forest* and E *Mediterranean forest*, had general knowledge on the topic of climate, but failed to associate it with the type of temperature found in the regions.

Item (v) required the candidates to identify the general term used to show seasonal movement of herdsmen with their cattle between lowlands and highlands in search of water and pasture. The candidates who chose the correct answer B *Transhumance*, had sufficient knowledge on the concept of livestock keeping. The candidates who opted for other alternatives A *Pastoralism*, C *Nomadic*, D *Semi nomadic* and E *Zero grazing* had general knowledge on the livestock keeping but failed to differentiate these terms because they are related.

Item (vi) required the candidates to identify the social-economic advantages of reserved forests to societies. The candidates, who chose the correct answer *Tourism*, were knowledgeable on the topic of sustainable use of forest resources which made them to opt for the correct answer. The candidates who opted for distractor B *Lumbering*, had poor knowledge on the concept of reserved forests. They were not aware that reserved forests are among the tourist attraction and not for lumbering. The candidates, who chose distractor C *Mining*, lacked knowledge on the importance of reserved forest resources. This made them to choose a wrong alternative *mining* which involves the extraction of minerals resources on the earth's surface. The candidates who opted for distractor D *Forestry* wrongly associated reserved forests and forestry which is the science of managing forest resources for human use. Those who chose E *Agriculture*, failed to associate tourist attractions with agricultural activities. These candidates had poor knowledge on the concept of reserved forests as agriculture involves *growing crops for subsistence and commercial activities* while reserved forests *is for tourists attractions*.

In item (vii), the candidates were required to identify the best type of soil which can be mixed with cement for building a house. The correct answer was A *Sandy*. Those who picked the correct answer *Sandy* revealed to have good knowledge and skills in the topic of the study of soil especially on the uses of it. Those who opted for other alternatives B *silt*, D *loam*" and E *clay* were aware on the general types of soil but they were not knowledgeable on the functions of soil types. Those who opted for distractor C *Alkaline*, had knowledge on soil pH but not soil types and their functions.

In item (ix), the candidates were required to identify the best components of weather to be considered for the growth of crops cultivated on a farm from the given alternatives. The candidates, who chose the correct answer D *temperature and rainfall*, revealed good knowledge on the weather as they were able to identify the best components of weather to be considered when one wants to cultivate crops. The candidates who opted for other alternatives A "*Rainfall and Soil*, B *moisture and sun shine*, C *Rainfall and clouds cover* and E *Humidity and rainfall* demonstrated general knowledge on the concept of weather and its components, but they were not able to associate the best components of weather suitable for crop cultivation.

Item (x) required the candidates to identify the type of climate in the area experiencing seasonal reverse of wind. The candidates, who opted for C *Tropical continental*, understood the characteristics of tropical continental climate. Those who opted for other alternatives were not knowledgeable on the types of climate

and natural regions in relation to wind system. The candidates in this category were not aware of the kind of climatic regions in relation to wind. They failed to recognize the effect of wind reverse in relation to climate of the region or area which led them to opt for incorrect alternatives A *Tropical maritime*, B *Tropical monsoon*, D *Equatorial monsoon* and E *Equatorial*.

2.1.2 Question 2: Matching Items

This question consisted of 5 matching items which were composed from the topic of forces that affect the earth. The question required the candidates to match the descriptions of karst regions in Colum A with corresponding features in Colum B by writing the letter of the correct answer. This question tested the candidates knowledge on different features formed as a result of water action in limestone region.

The question was attempted by 424,021 (100%) candidates. Majority of the candidates (72.4%) scored from 0 to 1 mark, 108,982 (25.7%) scored average marks (2 to 3) and very few candidates (1.9%) scored higher marks (4 to 5). Generally, the candidates' performance in this question was poor because only 27.6 percent of the candidates were able to score 2 to 5 marks. Figure 2 illustrates the performance in this question.

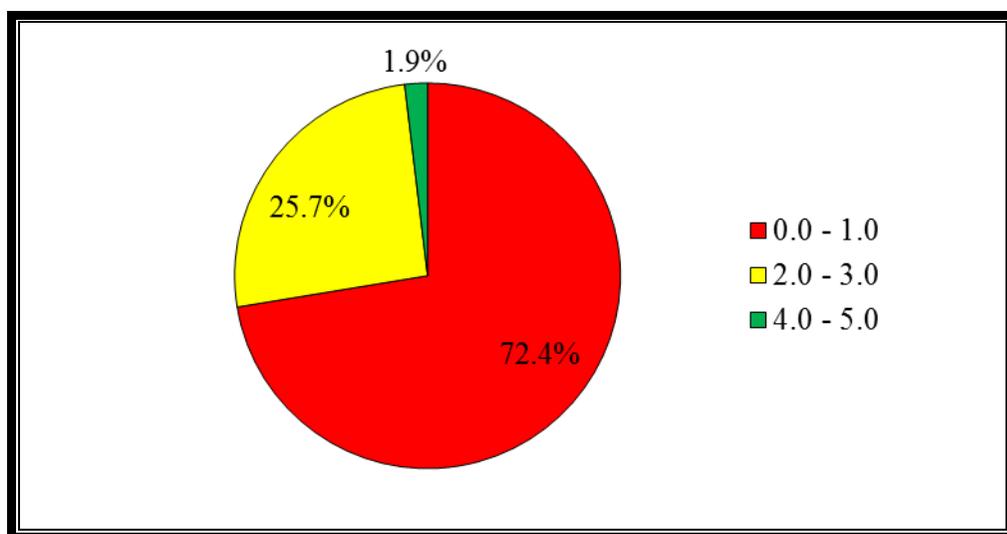


Figure 2: Trend of candidates' performance in question 2.

The candidates who performed well 81,279 (1.9%) in this question had adequate knowledge on the topic of *forces that affect the earth's surface*. They were able to match correctly most of the features formed as a result of water action in the limestone region.

Item (i) required the candidates to identify the irregular gullies found on the limestone surface which separate limestone region. The candidates who matched the correct option F “*Grike*” had good knowledge on the concept of the features found on the limestone regions due to the action of moving water. The candidates who opted for other alternatives A *Doline*, C *Swallow hole*, D *Polje*, E *Uvala* and G *Gorge* had general knowledge on the features formed in karst region, but they were not able to differentiate these features. The candidates who opted for B “*Clint*” had general knowledge on features formed in karst region, but failed to differentiate between the *Clint* and *Grike*, since *Clints are ridges of limestone blocks formed after erosion which they are separated by the gullies called Grikes*. Therefore, those candidates misconceived the two items.

In item (ii), the candidates were required to identify the vertical holes in the limestone ground through which rain water or river may disappear into the ground beneath. The candidates who chose the correct answer C *swallow hole* had knowledge on the topic of forces that affect the earth, particularly in the Limestone or Karst region. Other candidates who opted for A *Doline*, B *Clint*, D *Polje*, E *Uvala*, F *Grike* and G *Gorge* did not recognize the difference between these features and the swallow hole. Probably, they had little knowledge on the formation of these features.

Item (iii) required the candidate to identify the round hollow on the surface of a limestone region. The correct answer was A *Doline*. The candidates who opted for the correct answer A *Doline* were well informed on this part as they were capable of distinguishing characteristics of the feature named with other features. Those who opted for other options B *Clint*, C *Swallow hole*, D *Polje*, E *Uvala*, F *Grike* and G *Gorge* had general knowledge on the distinguishing characteristics of these features, but they were not knowledgeable on how each feature is formed, and had little knowledge on the observed characteristics of each feature.

Item (iv) required the candidates to identify the wide depression with a fairly flat floor in a limestone surface. The correct answer was E *Uvala*. The candidates who made the choice of the correct answer *Uvala* were well informed about the formation of features in the limestone region and its distinguishing characteristics. Those who chose the other options had insufficient knowledge on how these features are formed. The mode of formation of these features confused them because they somehow resemble one another. Therefore, the candidates failed to match with the correct answer.

Item (v) required the candidates to identify the largest surface depression found in limestone region which is formed due to action of solution. The correct answer

was D *Polje*. The candidates who chose the correct answer *Polje* were knowledgeable on the different features formed in Karst region. Those who opted for A *Doline*, B *Clint*, C *swallow hole*, E *Uvala*, F *Grikes* and G *Gorge*, had general knowledge on the formation of features in limestone region, but they were not able to differentiate these features by identifying the characteristics of each feature. This made them to match incorrectly.

2.2 SECTION B: SHORT ANSWERS

2.2.1 Question 3: Map Reading and Interpretation

This question required the candidates to study carefully the map extract of Mkomazi (sheet 109/1) provided and answer the questions given. The question had five parts (a-e). In part (a), the candidates were required to measure the distance of river Pangani in Kilometres from grid reference 910771 to 910826 by using the given RF Scale. In part (b), the candidates were required to describe relief of the area where as in part (c), they were required to identify two types of rocks found in the map, with reasons. In part (d), the candidates were required to name the major way used to show the height of the land in the mapped area. In part (e), the candidates were required to draw an annotated cross section from grid reference 960820 to 910880 and mark Ruvu river basin and the main trucks by using a vertical scale of 1cm to represent 50m. This question intended to test the knowledge and skills of the candidates on reading and interpreting topographical maps.

This question was attempted by 424,025 (100%) candidates. Majority of the candidates 382,101 (90.1%) scored from 0 to 2.5 marks, of which 181,313(42.8%) scored 0 marks. Further analysis shows that 41,378 (9.8%) scored average marks (3 to 6.5) and 546 (0.1%) candidates scored high marks (7 to 11). The general performance of the candidates in this question was poor because 9.9 percent of the candidates scored from 3 to 11 marks, out of 11. Figure 3 illustrates the performance in this question.

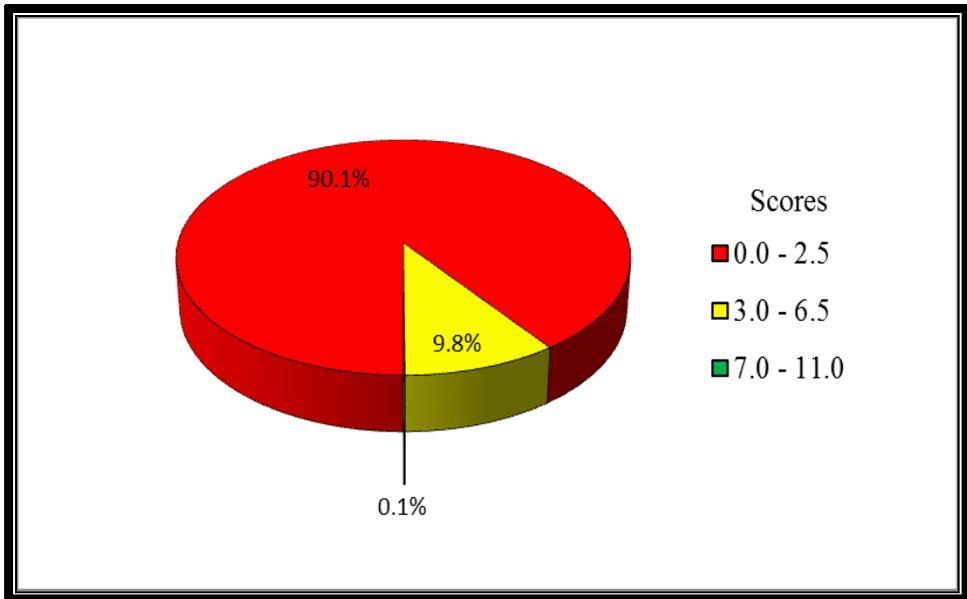


Figure 3: Trend of candidates' performance in question 3.

Most of the candidates who scored from 0 to 2.5 marks failed to understand the demand of the question. Some of them were unable to provide correct responses for all parts of the question. The main reason for poor performance was poor skills on measuring, describing, drawing, calculating, reading and interpreting topographical maps. The analysis indicates further, these candidates failed to follow instructions to some parts of the question, hence provided incorrect responses.

In part (a), the candidates were required to measure the distance of river Pangani in kilometres from grid reference 910771 to 910826 by using the given RF scale. In order to get the correct answer, the candidates were required to measure the length of the river Pangani in centimeter on the map from grid reference 910771 to 910826, and then by using RF scale, they were required to convert it into the actual ground distance in Kilometres. The main problem was that, some of the candidates failed to determine the map distance in centimeters, hence fail to relate map distance with actual ground distance represented by the RF scale. For example, one candidate who performed poorly measured the length of the river and obtained *44cm*, after converting to RF scale, he/she got *22km*. Another candidate measured the same length and got *16.5cm*, after converting to RF scale, she/he got *8.2km*. Furthermore, some of the candidates failed to measure the length of the river because they were not able to read or to identify the grid references correctly while others left the part of the question unanswered.

Further analysis shows that some of the candidates had poor mathematical skills on calculating the distance of river Pangani or Ruvu in kilometers. For example, one candidate measured the length of the river *12.5cm* and converted to ground distance as *12.5 km*, while the other measured *18.5cm* and got *5.3* after conversion as the length of the river. This suggests that the candidates had poor skills in mathematical Geography operations.

It was also noted that, some of the candidates calculated the area of the mapped area instead of measuring the distance of river Pangani in kilometres from grid reference 910771 to 910826 by using the given RF scale. For example, one candidate wrote *full squares 2 half squares 5*, and then used the procedures for calculating the area of the irregular shape.

In part (b), the candidates were required to describe relief of the area. But they failed due to lack of knowledge on map reading and interpretation. For example, one candidate mentioned features found in the mapped area, such as: *the seasonal swamp, shrubs covered in all parts of the map, rivers, lakes and forest* instead of providing the correct answer which is *the relief of the area is a highland because the contour height on the map ranges from 1500 m in the South West corner to 1900 m in the North East* such height depict that the area is a highland zone. Another candidate mentioned physical features such as: *plain* and *plateau* while the other explained the drainage pattern such as: *there is presence of dendritic drainage pattern found at Mikocheni at grid reference 915900 and many rocks*.

In part (c), the candidates were required to identify two types of rocks found in the map and also provide reasons. The candidates provided incorrect answers due to insufficient interpretation skills. For example, one candidate identified the types of rocks, as *boulder rocks* and *outcrops rocks*, another one described *mountainous rocks* and *volcanic rocks*. Others named the type of rocks, as *fold rocks* and *metamorphic rocks*. These candidates failed to provide reasons for their answers, the correct answers were:

Igneous rock at North – South centre, because the nature of the mountain range and its drainage pattern at the centre to the North West corner and eastern part of mountain range, its tributaries form a shape like a tree with its branches and Sedimentary rocks to the Eastern part of mountain ranges and Western part along River Pangani or Ruvu as the steams flowing from the peak of a mountain at the centre towards the papyrus and seasonal swamps to the east and braided drainage pattern from the north to the south beneath mountain range all together indicate the eastern part is a deposition zone hence rock formed at this zone mostly is sedimentary rock.

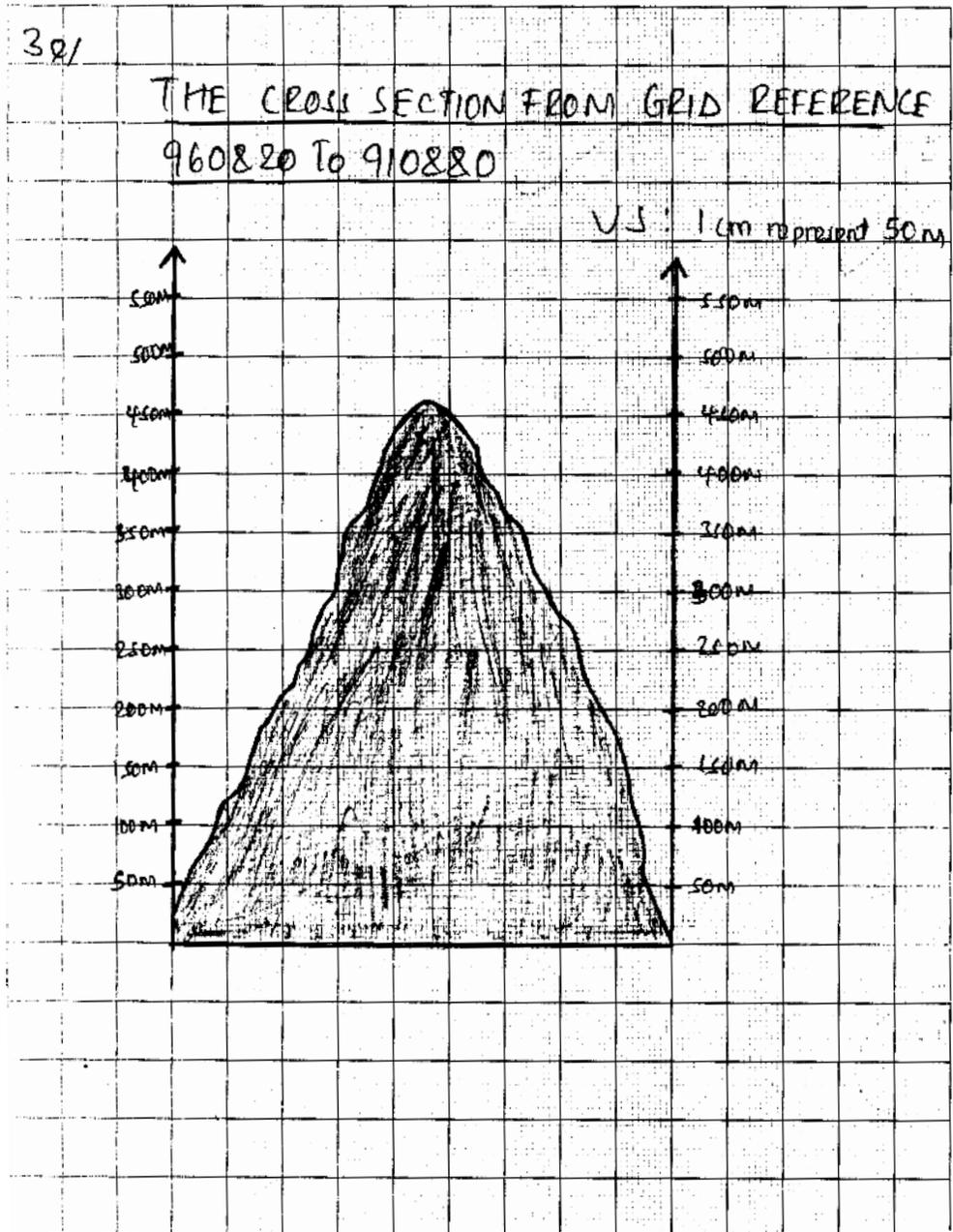
In part (d), the candidates were required to name the major way used to show the height of the area. These candidates lacked skills of Map Interpretation as most of them mixed the methods used to show relief features on Topographical maps with the way used to show the height of the land in the mapped area. For example, one candidate identified *Bench mark* and *Spot height* while another wrote *Trigonometrical* and *Hachuring* as the main ways used to show the height, of the land. These responses were incorrect. The correct answer was *contour method*.

In part (e), the candidates were required to draw an annotated cross section from grid reference 960820 to 910880 and mark Ruvu river basin and the main track. Most of the candidates were not able to draw an annotated cross section. They failed to determine the height of the area where the cross section was to be drawn and the scale to be used. This suggests the candidates lacked skills of drawing cross section. Extract 3.1 represents a sample of the candidate who performed poorly in this question.

| | | |
|-----|--|--|
| 3 | | |
| (a) | 1:50,000 = scale | |
| | map distance = 16.5 cm | |
| | scale = $\frac{\text{map distance}}{\text{ground distance}}$ | |
| | | |
| | $\frac{1}{50,000} = \frac{16.5}{x}$ | |
| | $x = 825,000 \text{ cm}$ | |
| | 1 km = 100,000 cm | |
| | $x = 825,000 \text{ cm}$ | |
| | $\frac{825,000 \text{ cm} \times 1 \text{ km}}{100,000 \text{ cm}}$ | |
| | 8.25 km | |
| | The distance of Pangani river = 8.25 km | |
| (b) | - Presence of rivers, seasonal swamps, lakes example: Lake Manka, River Pangani | |
| | - Presence of papyrus swamps | |
| | - Presence of scrub | |
| | - Presence of forests | |
| | These indicate that the area's relief is in lowland areas, thus a valley | |
| (c) | - Presence of water bodies like rivers, seasonal swamps, and lakes indicate deposition and transportation of soil particles therefore there is presence of sedimentary rocks | |
| | - Presence of temperature changes, there is formation of metamorphic rocks | |

Extract 3:1 A sample of a poor response, from one of the candidates who performed poorly.

In extract 3:1, the candidate in part (a) calculated wrong map distance as 16.5 cm and obtained 8.25 km instead of 7.4km. In (b), he/she explained the features found in the area instead of describing the relief of the area and (c) he/she mentioned water bodies instead of the rocks found in the area.



In extract 3: 2, the candidate failed to draw the correct cross section. The candidates failed to determine the height of the area where the cross section was

to be drawn and the scale to be used. This implies that he/she had no knowledge on cross section drawing.

The candidates who scored from 3 to 6.5 marks were able to respond correctly to some parts of the question. This suggests that they had insufficient knowledge and skills on topographical map reading and interpretation and were able to observe the demand of the question for some parts of the question.

In part (a), the candidates were required to measure the distance of river Pangani in kilometers. Some candidates managed to measure the distance of river Pangani in centimeter, but failed to convert the measurement in the representative scale given. Other candidates failed to measure the distance of river Pangani in the map, while others failed to follow the procedures of converting the map measurements into the actual ground measurement by using the RF scale given. For example, one candidate measured *34.3 cm* and converted it into ground measurement as *17.2 km*, another candidate measured the distance of the river and got *17.5cm* and he/she converted into ground distance as *17.5 km* while another candidate calculated the distance of the river in *2150 gram*, he/she converted into *kilogram* then multiplied by *100* and got *215000kg*. This is an indication that the candidates had insufficient knowledge and skills on units of measurement because kg is not used to measure distance.

In part (b) the candidates were required to describe relief of the area. Some candidates described the relief of the area with reason, while other did not provide any reason. Some of the candidates provided inadequate description of the relief of the area without reasons, while others mixed correct and incorrect answers concerning the relief of the area. For example, one candidate explained *the presence of gentle slope on the eastern part of the map, presence of strip of steep slope running through areas of Mgongoni and Mikocheni, presence of rivers and lakes and the presence of seasonal swamp* as a description of the relief of the area. Another candidate described the relief of the area as *forest at Kwaniali and shrubs in the Southern region of the mapped area*.

In part (c), the candidates were required to identify two types of rocks found in the map. Some of the candidates mixed up correct and incorrect answers, with reasons, while others identified correct rocks type with wrong evidence. For example, one candidate mixed correct and incorrect answer, he/she mentioned *Igneous rocks* and *Metamorphic rocks*, another candidate mentioned the correct types of rocks as *Igneous* and *Sedimentary rocks* without reasons, another candidate identified the type of rocks as *Impermeable rocks due to presence of several water bodies* and *Permeable rocks due existence of scattered trees*.

Another candidate identified the type of rocks as *Mountainous rocks due the direction of the flow of river* and *limestone rocks due to formation of terraces*. This suggests that the candidates had inadequate knowledge and skills on the subject matter.

In part (d), the candidates were required to name the major way used to show the height of the land in the mapped area. Some of the candidates were able to name the major, way used to represent the relief of the area, while others failed. Furthermore, some of the candidates named other methods which are not major but they are used to represent relief of the area while others mixed the major way with minor. For example one candidate managed to mention the correct major way used to show the height of the land as *Contour*. Another candidate named *Spot height*, as the major way which is used to show the height of the land which was incorrect. Another candidate mentioned *Contour, naming method* and *Spot heigh,t* while another candidate named *Contour line* and by using *Trigonometrical station*.

In part (e), the candidates were required to draw an annotated cross section by using a vertical scale of 1cm to represent 50m from grid reference 960820 to 910880, and mark Ruvu river and the main truck. Some candidates drew a cross section without labeling it. Some drew a cross section without a scale, while others drew a wrong cross section but they provided correct scale and title for the cross section. Disparity of their responses made them to have variation in their scores in this category.

The candidates who scored from 7 to 11 marks were knowledgeable on topographical map reading and interpretation, especially on the concept of measurements of distance, description of relief of the area, identification of the rocks as well as cross section drawing skills.

In part (a), they were able to measure the distance of river Pangani in kilometres from grid reference 910771 to 910826 by using the given RF scale which was 7.4 km, they were able to apply correct procedures whereby in the first step, they measured the distance of river Pangani in centimeter as 14.8 and they managed to convert into actual ground distance as:

$$1 \text{ cm} \quad : \quad 0.5 \text{ km}$$

$$14.8 \text{ cm} \quad : \quad x$$

$$\frac{14.8 \text{ cm} \times 0.5 \text{ km}}{1 \text{ cm}} = 7.4 \text{ km}$$

In part (b), they were able to describe the relief of the area as: *highland because the contour height on the map ranges from 1500 m to 1900 m.*

In part (c), they identified the two types of rocks found in the map as *Igneous rock at North – South centre and North West corner and sedimentary rocks to the Eastern part of mountain ranges and Western part along river Pangani or Ruvu.*

In part (d), the candidates managed to name the major way used to show the height of the land in the mapped area as *contour.*

In part (e), they managed to draw an annotated cross section using a vertical scale provided and marked the Ruvu river basin and the main tracks. Also they managed to label the cross section drawn.

However, their marks varied from 7 to 11 depending on the strengths and accuracy of their responses, because some did not get all parts correctly. Extract 3.3 represents part of the candidate's response who managed to answer the question fairly well.

| | | | |
|----|-----|---|--|
| 3. | (a) | Solution: Distance from map = 15.1 cm. From map scale 1:50,000 1 cm = $\frac{1}{2}$ km Thus finding distance in km. 1 cm = $\frac{1}{2}$ km 15.1 cm = X. $\frac{X \times 1 \text{ cm}}{1 \text{ km}} = \frac{15.1 \text{ cm} \times \frac{1}{2} \text{ km}}{1 \text{ cm}}$ $X = 7.55 \text{ km}$ Thus, distance of river Pangani in km is 7.55 km. | |
| | (b) | The relief of the area is of highlands/mountainous. This is due to the presence of high readings of contours up to 1800 m. At this height it proves the area to be mountainous or of high land. | |
| | (c) | (i) Sedimentary rocks :- This is due to the presence of various river channels as sedimentary rocks can easily be eroded and form river channels. This is evident from the presence of rivers from Lake Mberu of GRID 974773. (ii) Igneous rocks :- This is due to the nature of the place that is mountainous and thus areas like this are usually found with igneous rocks. | |
| | (d) | The major way is by using contours. | |

Extract 3.3: A sample of a response from one of the candidates who attempted the question fairly well.

In extract 3.3, the candidate managed to provide the correct answers in part (a), (b), (c) and (d). In part (e), the candidates did not manage to draw a cross section. This may be due to insufficient skills in reading and drawing cross section. Also, some candidates might have failed to determine the correct contour heights, because in some parts the contour numbers seemed to be faint, for example at grid reference 192865. Majority of the candidates tried to draw an annotated cross section, but no one made it.

2.2.2 Question 4: Application of Statistics

This question had three parts namely (a), (b) and (c). The candidates were given a table of values and were required to: (a) name the two simplest ways of presenting the data, (b) explain five advantages of presenting the data by simple methods mentioned in (a) and (c) to present the given statistical information by using simple graph.

The candidates' performance shows that the question was attempted by 424,025 (100%) candidates. Further analysis of candidate's performance shows that, 149,554 (35.3%) scored from 0 to 2.5 mark 155,970 (36.8%) scored average marks (3 to 6.5) and 118,501 (27.9%) scored from 7 to 11 marks. The general performance for this question was average because 64.7 percent of the candidates scored from 3 to 11 marks. Figure 4 illustrates the percentage of the candidates' performance in this question.

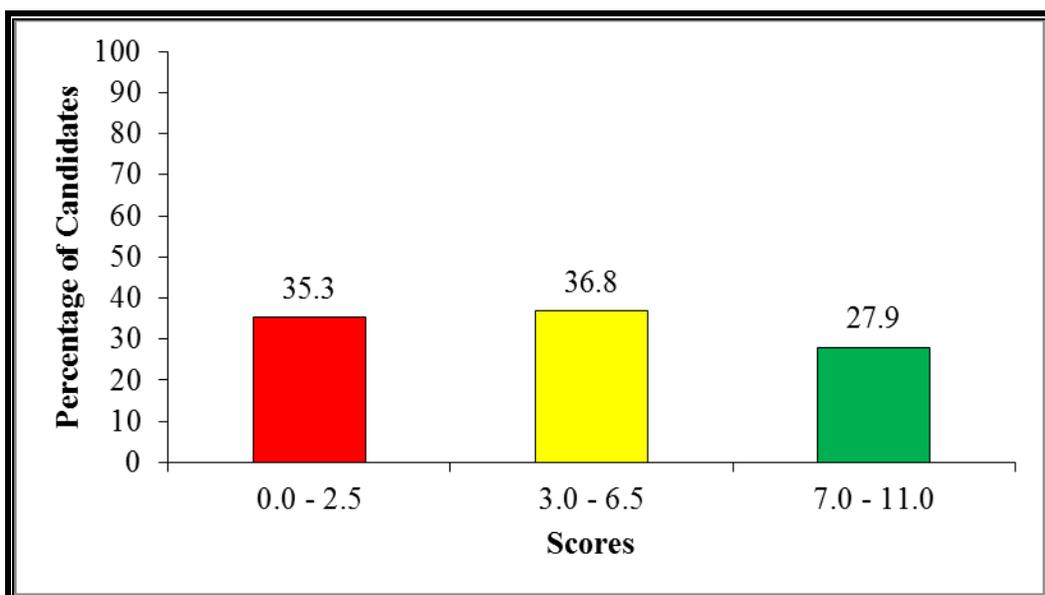


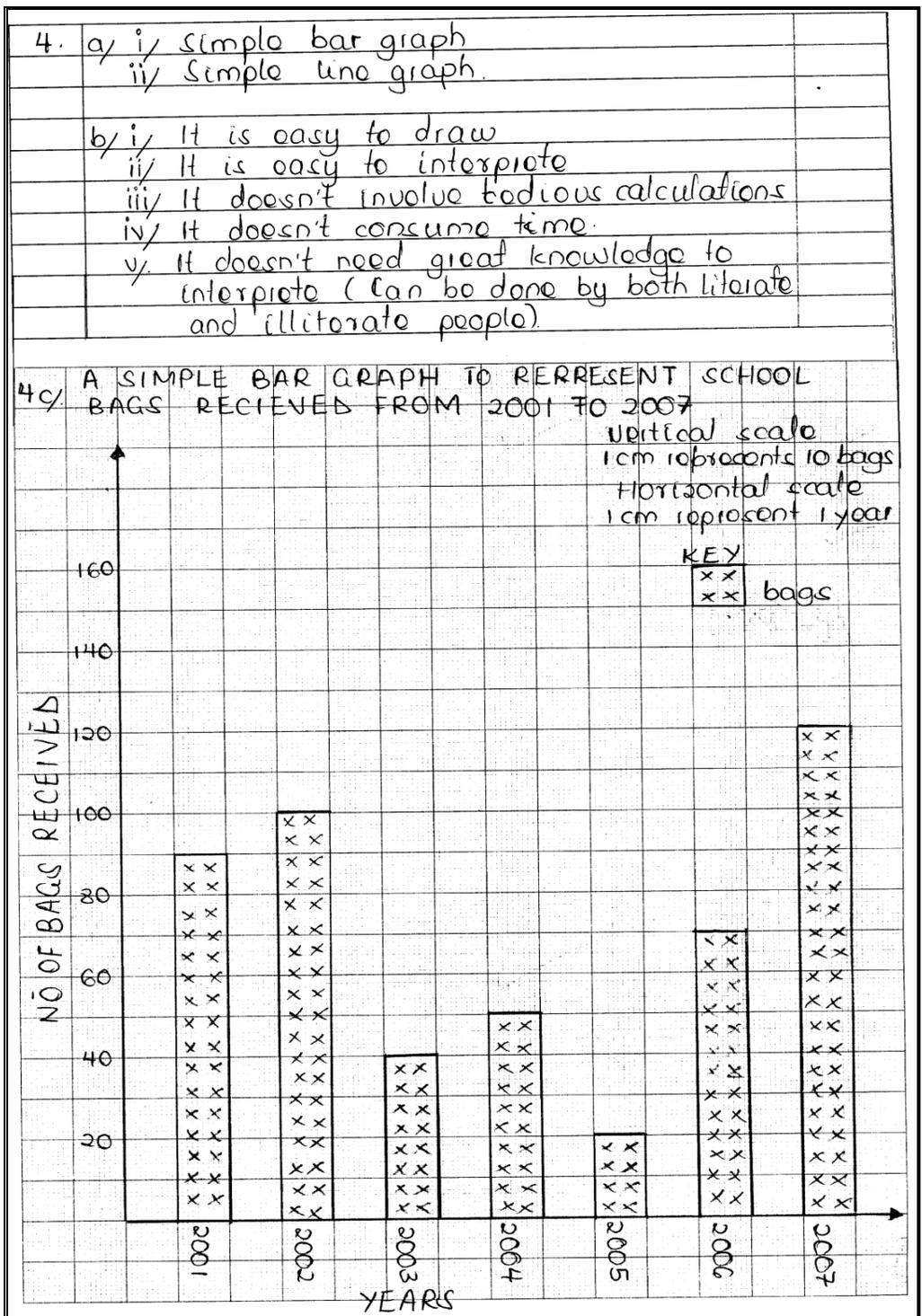
Figure 4: Trend of candidates' performance in question 4.

Candidates' responses show that the question had average performance because 64.7 percent of all the candidates scored 3 to 11 marks.

The candidates who scored from 7 to 11 marks interpreted the demand of the question relatively well. This suggests these candidates had sufficient knowledge and skills on statistical issues related to mentioning, calculating and drawing the statistical information according to the demand of the question. For example, in part (a), some candidates managed to name the two simplest ways of presenting the data which were; *simple line graph* and *simple bar graph*.

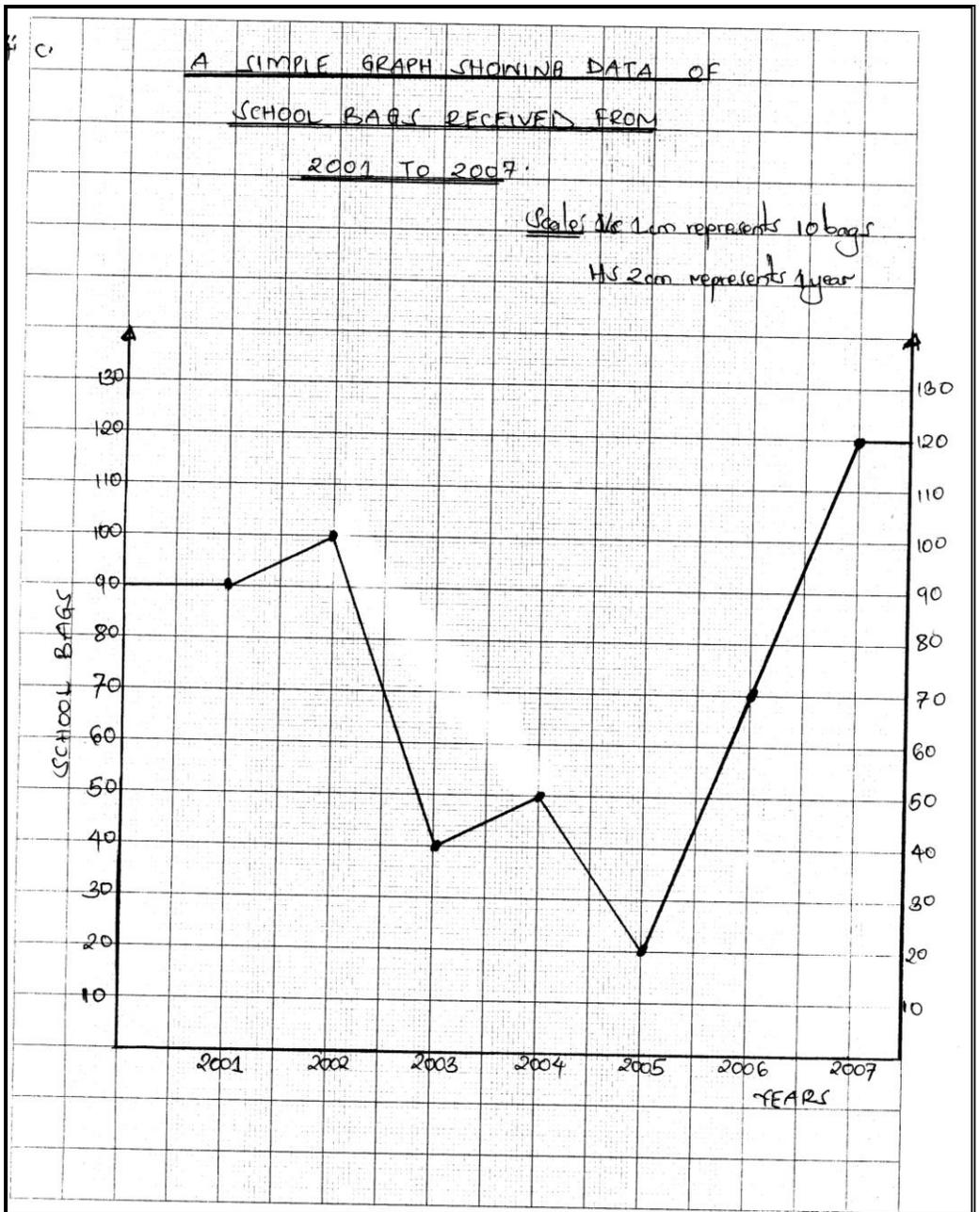
In part (b), some of the candidates were able to present five advantages of presenting the data by using the methods mentioned in part (a). For example, one candidate provided correct advantages of presenting the data by using the simple method, such as; *they are simple to interpret from the graph, they are simple to prepare or draw as they involve only one variable, they do not consume time, they do not need high skills, they are easy to read the exact time value against plotted points* and *they do not involve calculations*.

In part (c), some of the candidates managed to draw a simple line/bar graphs and labeled it with a well written title. The variation in their scores resulted from the strengths and accuracy of candidates' responses. Extract 4.11 is a sample of a candidate's responses who met the demand of the question.



Extract 4.1 A sample of a good response, for question (4 a-c).

In extract 4:1 the candidate was able to provide correct answers in part (a), (b) and (c).



Extract 4.2 A sample of candidates' good response, for question (4a-c)

In extract 4:2 the candidate was able to provide correct answers in part (a), (b) and (c).

The analysis indicates that candidates who scored from 3 to 6.5 marks interpreted the question differently and had insufficient knowledge on the content. In part (a), some candidates in this category were able to mention only one simplest way of presenting the data instead of two. Some mixed up correct and incorrect

answers, while other candidates pointed out incorrect responses in some parts of the question. For example, one candidate wrote *Simple line graph* and *Multiple bar graph*. Another candidate provided *Divergent line graph* and *Divergent bar graph* while another candidate wrote *Compound line graph* and *Pie chart* instead of providing the correct answer which were *Simple line* and *bar graph*.

In part (b), some candidates explained few advantages of presenting the data by simple methods, while, others mixed up correct and incorrect answers. For example one candidate wrote correct and incorrect responses such as; *it is easy to compare, it shows fluctuation more clearly for example divergent method, it is easy to read the item and understand the data presented and it brings good visual impression when they are coloured.*

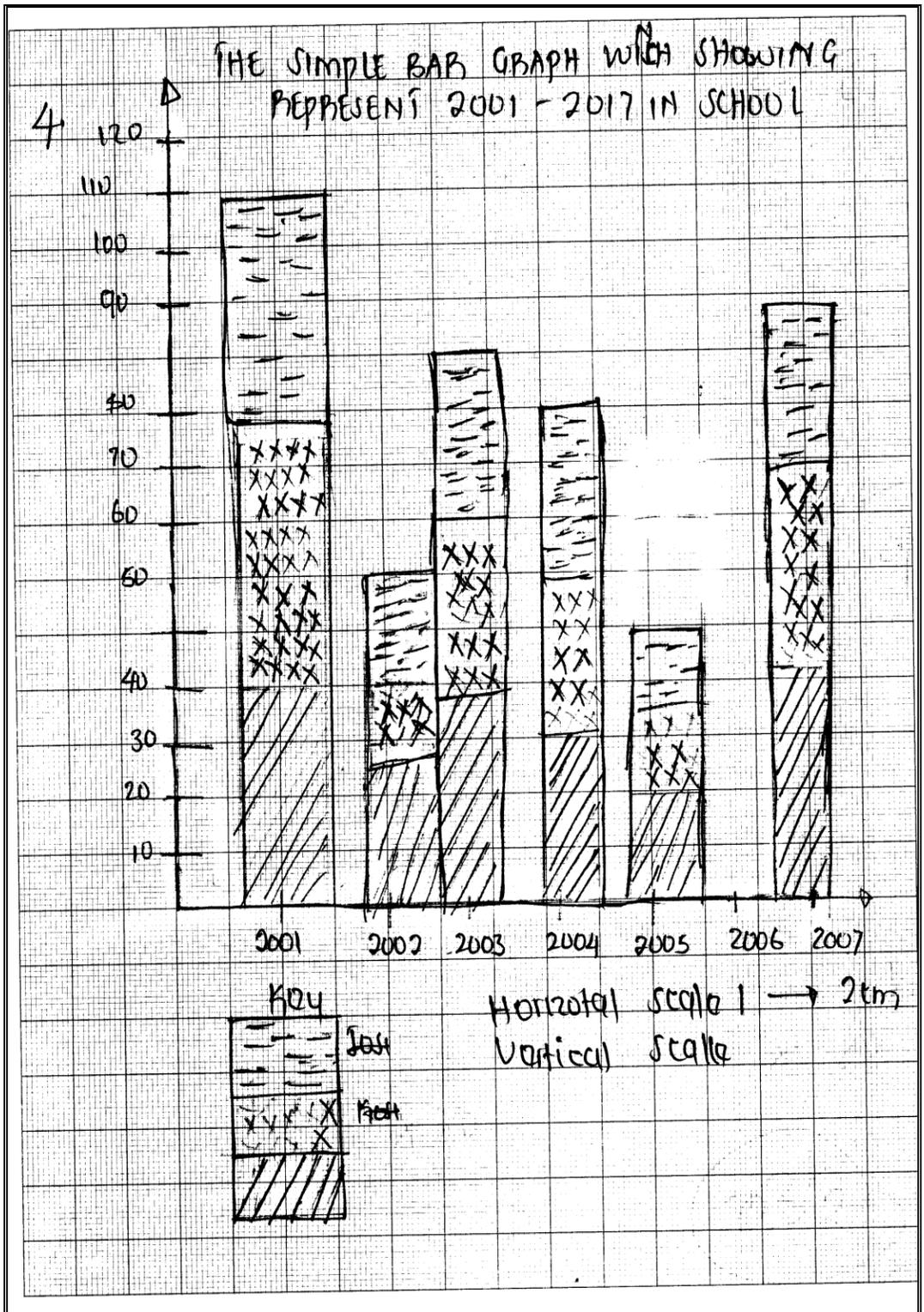
In part (c), some of the candidates managed to write the correct title but they failed to present statistical information by using simple graph. Some of them were able to write correctly the vertical and horizontal scale but failed to draw the graph. Others drew a simple graph correctly but failed to label it.

Some of the candidates who scored from 0 to 2.5 marks did not meet the demand of the question while, others had inadequate knowledge of the subject matter tested. The candidates who scored 0 mark provided incorrect responses in all parts of the questions. Analysis shows that, some of the candidates had responded to some parts of the question, while others responded only to few parts of the question.

In part (a), some of the candidates failed to name the two simplest ways of presenting the data. For example, one of the candidates wrote wrong answers such as; *Compound line graph* and *Divergent line graph*. Another candidate mentioned *Divergent bar graph* and *Grouped bar graph* instead of *Simple line graph* and *Simple bar graph*.

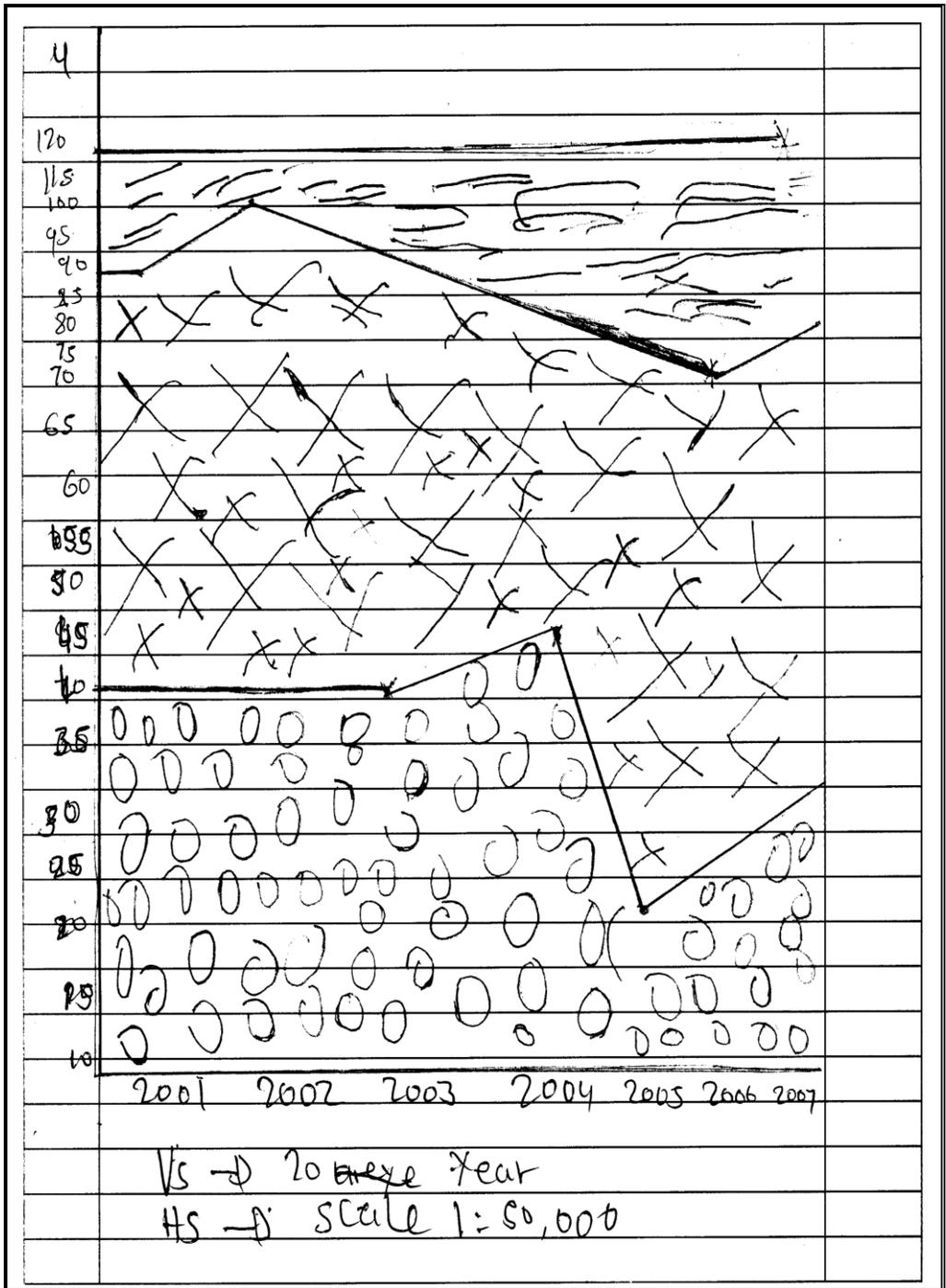
In part (b), some of the candidates were able to name few advantages of simple graphs mentioned in (a), while others failed. For example, one candidate explained advantages of comparative bar graph, as; *used when one wants to make comparison, comparative does not involve calculations and it is empirical.* Another candidate provided incorrect answers, such as; *it help to learn different information, it help to generate skills and knowledge, it help to be innovative and it help to determine different events* instead of providing the correct answers such as; *they are simple to interpret, they are simple to prepare, they do not have skills, they are easy to read the exact time value against plotted point on straight graph, they can be used to compare between years and they do not involve calculations.*

In part (c), majority of candidates failed to present the given statistical information by using simple graph, while few of them were moderately able to present the data. For example, one candidate drew *Divergent bar graph*, another candidate drew *Compound bar graph*, while another candidate drew a *line graph* but failed to give title and scale for the graph, hence scored low marks. Extract 4.3 indicates a sample of a candidate's response who failed to meet the demand of the question.



Extract 4:3 A sample of a response from one of the candidates.

In extract 4.4, the candidate misconceived the question. Instead of drawing simple bar/line graph, he/she drew a compound bar graph and mixed it with grouped graph for two years (2002 and 2003).



Extract 4.4 is the sample of a candidates' poor response.

In extract 4.4, the candidate failed to meet the demand of the question because he/she drew a compound line graph instead of a simple bar/line graph.

2.2.3 Question 5: Elementary Surveying and Map Making

The question had two parts, (a) and (b). The candidates were required to describe five instruments used in surveying in part (a), to explain three procedures to be followed during the surveying process in part (b). Marks allocated for this question were 11.

This question was attempted by 424,025 (100%) candidates, of which 225,597 (53.2%) scored from 0 to 2.5, 165,392 (39%) scored from 3 to 6.5 marks, and 33,035 (7.8%) scored from 7 to 11 marks. Figure 5 illustrates the percentage of the candidates' performance in this question.

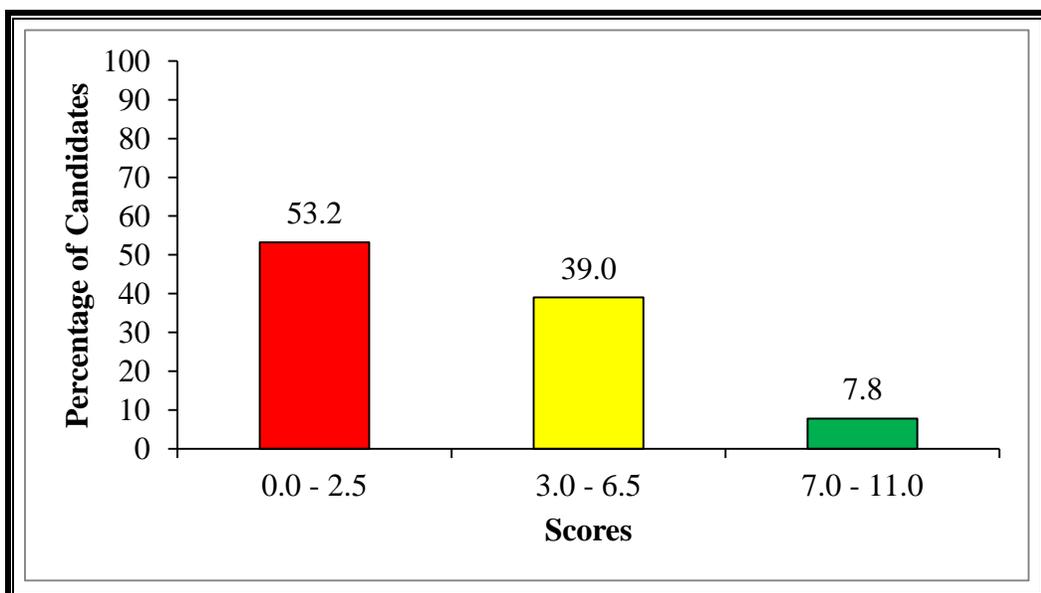


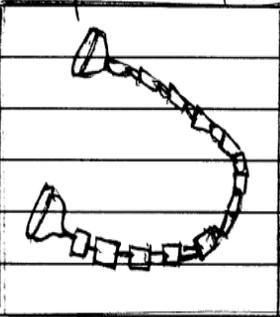
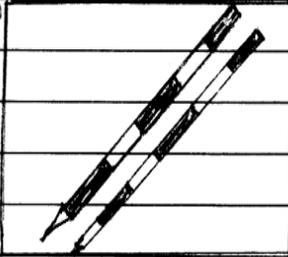
Figure 5: Trend of the candidates' performance in question 5.

The analysis shows the general performance was average because 46.8 percent of all the candidates scored between 3 and 11 marks.

The candidates who scored from 7 to 11 marks had sufficient knowledge of the subject matter examined. In part (a), the candidates managed to provide the correct answers by explaining the instruments used to survey the school compound, as follows: *chain, tape surveyors band, cross staff, ranging poles, pegs, note book, arrows and pencils*. Also, in part (b), they provided correct procedures to be followed when conducting survey in the school compound,

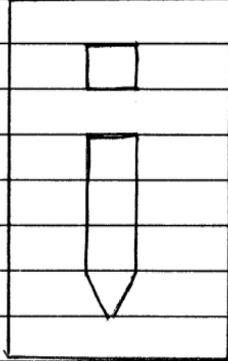
including; *inspection of the area, surveying in the field and recording or presentation of data.*

The variations of their scores were influenced by the accuracy of their responses. Extract 5.2 indicates a sample of a response from one of the candidates who managed to meet the demand of the question.

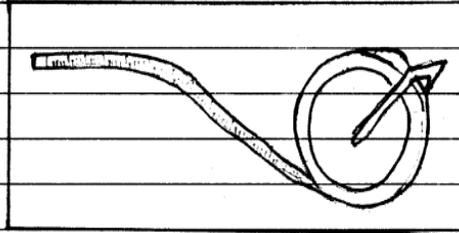
| | | |
|----|---|--|
| 5. | (a) Instruments of chain/tape survey. | |
| | i) A chain - Is used to measure lengths of points between two points. Mostly lengths below 30 metres | |
| |  | |
| | ii) Ranging poles - These are poles used to mark points of which distances between them is to be measured | |
| |  | |

5

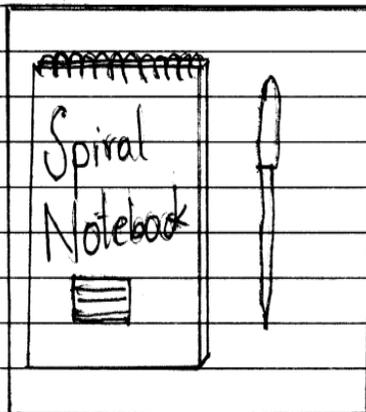
a) iii) Pegs - They are used to put poles in position during measuring distances.



iv) Tape - Used to measure distances between two points



v) Pen and note book - These are used to record readings obtained in the tape and chain measurements



| | | |
|------|--|--|
| 5 b) | Procedures to be followed during chain survey | |
| | i) Identification and preparation of the area to be surveyed, Here the surveyor prepares the area by removing obstacles that can be removed and clearing the area and slashing long grass. | |
| | ii) Measurement of the distances - Here points are identified and ranging poles are set. After that the chains are settled and distances between them are measured accurately. | |
| | iii) Recording of the data obtained - Here the measurements are called out on twice and the one recording notes down the distances neatly in the notebook. | |

Extract 5:2 A sample of a candidate's good response

In extract 5.2, the candidate managed to provide correct response. In part (a) he/she described instruments used in surveying the school compound, while in part (b), he/she explained procedures to be followed during the surveying process.

The candidates who scored from 3 to 6.5 marks had insufficient knowledge of survey, specifically on the instruments and procedures to be followed in conducting chain survey. Most of the candidates managed to provide relevant instruments used in chain survey, but they failed to provide correct procedures to be used in conducting chain survey. Some of the candidates explained few instruments and procedures, some were able to describe few instruments used in surveying but failed to explain procedures of surveying process. Some candidates mentioned five instruments correctly without explaining their uses. However, some candidates were not able to explain procedures to be followed during the surveying process, while others mixed up correct and incorrect answers. For instance, one candidate mentioned the tools used in chain survey in part (a),

Tripod stand, survey, books, chain and rulers instead of chain, tape, cross staff, surveyors band, pegs, note book and pencil. In part (b), he/she explained the procedures to be followed in surveying process such as *avoid of the steep slope, straight of be the chain so as to avoid errors and the use of required instruments.*

Another candidate provided correct answers in part (a) but he/she provided irrelevant procedures of conducting chain survey, such as *preparation of equipment used, identifying the problem and conducting the survey process.* Another candidate, provided correct and incorrect answers such as *chain, boundaries, in tree increase, tape and in area production* while in part (b), he/she explained irrelevant procedures of conducting chain survey such as *chain, leveling and chain surveying.* The correct procedures of conducting chain survey are; *inspection of the area, surveying in the field and presentation of data or recording.* Such responses indicate that the candidate had partial knowledge of the topic. The variations of their scores were a result of varying degree of clarity of their responses.

Some of the candidates who scored 0 to 2.5 marks failed to understand the demand of the question, while others showed to have inadequate knowledge of survey particularly on the five instruments used in surveying. Furthermore, some of the candidates failed to explain three procedures to be followed during the survey process, while others explained few correct procedures. For example, one candidate mentioned *cars and motorbike.* Another candidate wrote *Equatorial monsoon and Tropical continental.* Another candidate mentioned *chain survey, labour, companies of social services and compound of chain,* while another candidate provided answers such as *Mass wasting, weathering, swallow hole and transportation* instead of providing correct answers which are instruments used in surveying such as; *the chain, the tape, surveyor's band, cross staff, ranging poles, pegs, arrows, notebook and a pencil.*

In part (b), some of the candidates failed to explain three procedures to be adhered to during conducting the surveying process, while others misconceived the question demand. For example, one candidate wrote, in part (b); *to ensure you have money for paying the surveyors and to ensure you have instruments which can be used in the survey.* Another candidate wrote; *to ask for permission from the village chairperson and to make sure you have good transport* while, another candidate wrote; *prepare required equipment and choose any three assistant and prepare.* These are the important things to consider before conducting survey work and not the instruments used in surveying. Extract 5.1 illustrates such a poor response from one of the candidates in this question.

| | | |
|----|--|--|
| 5. | a) Describe five instruments they used in surveying the school compound | |
| | i) Equatorial monsoon | |
| | ii) Tropical continental | |
| | iii) mass wasting and transportation | |
| | iv) Equatorial monsoon | |
| | v) Swallow hole | |
| | b) Explain three procedures they followed during the survey process | |
| | Survey | |
| | is the moving seasonally with their cattle between lowlands and highlands in search of water and pasture | |
| | - § Swallow hole is the irregular gullies found on the limestone surface which separate limestone region | |
| | Gorge is the vertical holes in the limestone ground through which rain water or river may disappear into ground beneath | |
| | clint The round hollow on the surface of a limestone region | |
| | Tropical continental is the chance to visit south-east Asia for a study tour and he experienced seasonal reverse of wind in the area | |

Extract 5.1 A sample of a candidate's poor response in question 5.

In extract 5.1, the candidate misconceived the question. In part (a) the candidates listed the types of climate, forces that affect the earth and the features found in Karst region, instead of describing instruments used in surveying the school compound. In part (b), the candidate mentioned features formed in Karst region instead of procedures to be followed during surveying process.

2.2.4 Question 6: Introduction to Research

This question had four parts (a), (b), (c) and (d). The question required the candidates to suggest the statement of the problem for the research in part (a) to identify two sources of the research problem in part (b), to elaborate four possible research tools Lugano would use during data collection and in part (c) and to explain three significance of conducting research in part (d). The total marks allocated for this question were 11.

This question was attempted by 424,025 (100%) candidates. The general performance in this question was average since 185,449 (43.7%) of the candidate scored between 3 and 11 marks. Data analysis in this question shows that 238,576 (56.3%) scored from 0 to 2.5 marks of which 120,077 (28.3%) scored 0 mark. Figure 6 below illustrates the performance.

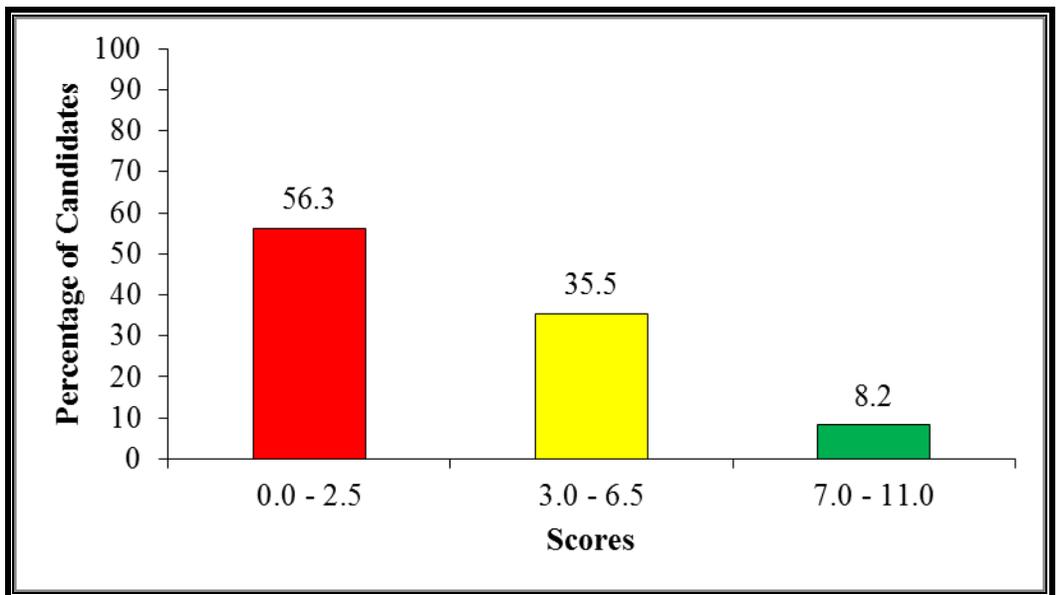


Figure 6: Trend of candidates' performance in question 6.

The candidates who scored from 7 to 11 marks had good knowledge on the topic of introduction to research. Most of the candidates in this category were able to answer the question correctly. In part (a), they provided correct statement of the problem as *the conflicts between farmers and pastoralists in Kilosa Districts* or *the causes of conflicts between farmers and pastoralists in Kilosa District* or *the effects of the conflicts between farmers and pastoralists in Kilosa District*. In part (b), the candidates provided correct sources of the research problem, such as *personal experience* and *information from the radio*. Further analysis of candidates' responses in this category indicates that, in part (c), the candidates in

this category managed to provide the research tools, as *interview, questionnaires, focus group discussion* and *observation*. Further analysis shows that in part (d), candidates provided the significance of conducting research such as; *it helps to know the root causes of the problem, it will help the government to make appropriate intervention on the problem and will help to suggest or find proper solution of the problems*. The disparity of their marks was a result of the strengths and weakness of the candidates' responses because some of the candidates failed to respond correctly in some parts of the question. Moreover, others candidates provided few points while others had incorrect points. Extract 6.1 is a sample of a candidate's good responses.

| | | |
|------|---|--|
| 60) | The statement of the problem is "sources of conflicts between pastoralists and farmers." | |
| b) | The sources include: | |
| i) | Personal experience. | |
| ii) | Mass media (Radio). | |
| c) | Questionnaire: Is a list of questions which are given to a respondent so as to provide answers to them. They can be open-ended where respondent is not limited to answer and close-ended where the respondent's answers are limited example Yes <input type="checkbox"/> or no <input type="checkbox"/> | |
| ii) | Interview: Is a verbal interaction between the researcher (interviewer) and respondent (interviewee). They can be structured where questions are prepared or unstructured where questions are not prepared. | |
| iii) | Observation: This involves using eyes to see, ears to hear and hence recording what is seen and heard. It can be participant where researcher is part and parcel of respondent or non-participant where he is not involved. | |
| iv) | Focus-group discussion: Is the critical thinking and analysis of a certain issue between a small group of 6-8 people. | |

| | | |
|--------|---|--|
| 6d) i) | Research help in solving economic issues or social and political problems. Example solving the conflicts between farmers and pastoralists. | |
| ii) | Research also help in making of policies which concern certain issues in the society. Example policy based on payment of tax after a research that tax yields to economic development | |
| iii) | It also prepares one for future careers. People who want to be professors at different field such as medical or laws need to conduct a research so as to be fit for their careers. | |

Extract 6.1: A sample of a candidate's good response.

In extract 6.1 the candidate managed to meet the demand of the question in parts (a), (b), (c) and (d).

On the other hand, the candidates who scored from 3 to 6.5 marks had partial understanding of the skills and concepts of research. In part (a), the candidates were required to suggest the statement of the problem for Lugano's research. Most of the candidates in this group were able to provide relevant statement of the problem, while, others provided incorrect responses which indicated lack of knowledge of the subject matter or misconception of the question requirement.

On the other hand, in part (b), the candidates were required to identify two sources of that research problem. Most of the candidates were able to suggest two possible sources of the research problem, while others mixed correct and incorrect sources. For example, some of the candidates misconceived sources of research problem with types of research, while others outlined types of research sampling techniques, such as; random sampling and systematic sampling.

In part (c) the candidates were required to elaborate four possible research tools Lugano would use during data collection. Most of the candidates provided correct research tools such as: *interview, questionnaires, focus group discussion, observation and rapid appraisal* while, others mixed up correct and incorrect research tools. For example, one candidate mixed up correct and incorrect answers, as; *political matters and literature review* and the other mentioned *Books and quantitative research*.

In part (d), the candidates were required to explain three significance of conducting that research. Most of the candidates provided correct significance of conducting that research, while others failed. Analysis from candidates' responses shows that the candidates who provided incorrect responses in this part had inadequate knowledge or misconceived the demand of the question. Moreover, some candidates mixed up correct and incorrect answers on the significance. For example, one candidate explained the significance of research, as; *it helps to know the root causes of the problem, language barrier, it will help the government to make appropriate intervention on the problem and poor transportation system.* Other candidates provided irrelevant importance of Lugano's research while others provided irrelevant significant, as; *it enable a researcher in collecting information, it enable researcher to know what has been study and it enable a researcher to know the interest and idea which researcher want to work on it* instead of presenting relevant importance of research such as; *it helps to know the root causes of the problem, it will help the government to make appropriate intervention on the problem and will help to suggest or find proper solution of the problems.* The variation in the correctness of responses made the candidates to have different scores.

Some of the candidates with low performance (0 to 2.5 marks) demonstrated inadequate knowledge of the subject matter, while others misinterpreted the requirement of the question, thus providing irreverent answers. For example, in part (a), some of the candidates failed completely to suggest the statement of the problem for Lugano's research correctly, while others provided partial responses on the statement of the problem, hence scored low marks. This indicates that they had partial knowledge on the topic of research, specifically on the procedures of conducting research, tools of research and their significance.

For example, one candidate suggested the statement of the problem, as; *to reduce the conflict between farmers and pastoralists.* Another candidate stated the statement of the problem as *lack of cooperation between farmers and pastoralists* while, another candidate stated the statement of the problem as *to ensure security among farmers and pastoralists* instead of stating the correct statement of the problems, as; *the conflicts between farmers and pastoralists in Kilosa Districts* or *the causes of conflicts between farmers and pastoralists in Kilosa District* or *the effects of the conflicts between farmers and pastoralists in Kilosa District* from the given question. Some of the candidates were confused the word *problem*, hence they interpreted it as "difficulty" or "challenge" as a result they mentioned the challenges/ difficulties encountered in conducting a research. For example,

one candidate mentioned the challenges, as; *lack of tools, lack of science and technology, poor transport and communication and lack of concentration.*

In part (b), the candidates were required to identify two sources of the research problem. Some of the candidates in this part provided incorrect responses, some mixed correct and incorrect points while others identified only few research sources. For example, one candidate mentioned the sources of research as; *from political status and from practical experience.* Another candidate mentioned the sources of research problem as; *shortage of land and lack of permanent settlement* while another mentioned: *poor geographical location and conclusion from other researchers.* Other candidates misinterpreted the question demand on the sources of research thus responded as; *questionnaires and interview,* while others mentioned the types of research such as; *basic research and applied research* instead of identifying the correct sources of the research problems such as *personal experience and information from media (Radio, Television etc).*

In part (c), the candidates were required to elaborate four possible research tools Lugano would use during data collection. Majority of candidates in this category failed to provide the correct research tools due to inadequate knowledge on the subject matter. The analysis shows that other candidates misconceived the question demand. For example, some of the candidates mentioned the stages of field research such as; *problem identification, hypothesis formulation and data analysis,* the other mentioned types of sample in research such as: random sampling and systematic sampling. It was also noted that some candidates provided irrelevant answers which were contrary to the demand of the question, such as; *mental, health, good friend ship and respect for the people.* These responses indicate that the candidates had poor understanding of the subject matter.

In part (d), the candidates were required to explain three significance of conducting research. Some of the candidates in this category failed to meet the demand of the question, thus provided incorrect answers. Other candidates explained few significant of conducting that research. For example, one candidate provided wrong explanations on the importance of research, such as; *provide data for playing data, it helps to economic activities and it helps to know the classifying and storing data.* This indicates that the candidates had inadequate knowledge on the topic of research. Extract 6.2 indicates a sample of a poor response from one of the candidates.

| | |
|---|--|
| <p>Q6.2 - literature review</p> <p>→ environment</p> <p>→ objective and inductive reasons</p> <p>→ conclusion of theory</p> <p>→ from a person extensive experience</p> <p>↳ i) primary source research and ii) secondary source research problem</p> <p>↳ i) Hypothesis formulation ii) research problem iii) data analysis iv) report writing</p> <p>↳ must be new clear</p> <p>↳ must be specific</p> <p>↳ must be researchable</p> <p>↳ should be skill and knowledge</p> | |
|---|--|

Extract 6.2: A sample of poor responses.

In extract 6.2 the candidate misconceived the question. In part (a), the candidate mentioned literature review, instead of the statement of the problem of Lugano's research. In part (b), he/she mentioned sources of data, instead of sources of research problem. In part (c), he/she mentioned stages of conducting research, instead of research tools and in part (d), the candidate mentioned the qualities of a good research, instead of significance of conducting the research. Furthermore, the candidate demonstrated poor proficiency in English language.

2.2.5 Question 7: Photograph Interpretation

This question had five parts, namely (a), (b), (c), (d) and (e). The candidates were required to study the photograph provided and answer the questions that followed. The marks allocated for this question were 11.

The candidates were required in part (a) to name the dominant tree found in the area. In part (b), they were supposed to name two land uses that might be suitable in the area. Part (c) required the candidates to suggesting three possible regions in Tanzania where the photograph might have been taken and in part (d) they were required to describe the relief features shown in the photograph and part (e) demanded them to explain the formation of the relief features found in the background. The question aimed at testing the candidates' basic knowledge and skills in photograph interpretation.

Photograph



The question was attempted by 424,019 (100%) candidates. Analysis shows that 229,341 (54.1%) candidates scored from 0 to 2.5 marks. The performance was average for 179,988 (42.4%) candidates and was good for 14,690 (3.5%) candidates because they scored from 7 to 11 marks. The general performance in this question was average because 45.9 percent of all the candidates scored between 3 and 11 marks. The candidates' performance in this question is illustrated in figure 7.

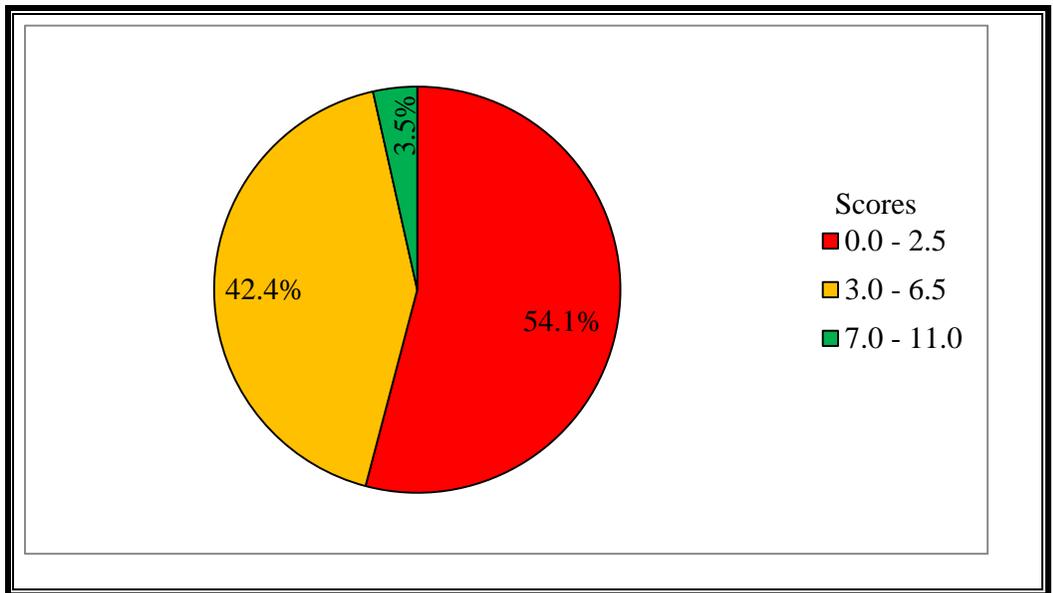


Figure 7: Trend of candidates' performance in question 7.

The candidates who scored 7 to 11 marks had adequate knowledge and skills in photograph reading and interpretation. Majority of them managed to provide satisfactory answers in most parts of the question. The variations in their scores were the result of the accuracy of the responses provided. For example, in part (a), one candidate managed to name the dominant tree as *Baobab tree*, while others used the name *Baobao tree*. In part (b), the candidates were required to suggest the possible land use such as; *subsistence crop cultivation, mixed farming, nomadic pastoralism, tourism* and *reserved areas for different species*. For example, one of candidates suggested the land use of the area correctly as *subsistence crop cultivation* and *reserved areas for different species*.

In part (c), the candidates were required to suggest the three possible regions where the photograph might have been taken. The possible regions were; *Iringa, Morogoro, Singida, Tabora, Shinyanga, Kilimanjaro* and *Dodoma*. For example, one candidate managed to suggested the possible regions where the photograph was taken as; *Morogoro, Iringa* and *Singida*. In part (d), the candidates were required to describe the relief features shown in the photograph. The correct features found in the photograph were *valley, Fold Mountain, saddle* and *spur*. For example, one candidate mentioned *mountains* and *valleys which were correct*. In part (e), the question required the candidates to explain the formation of the relief features found in the background. The correct answer was *the Fold Mountains are formed due to the influence of tectonic forces that cause the horizontal earth movement which causes compression with rocks*. Most of the

candidates managed to explain the forces that led to the formation of the features found in the photograph.

The variation of the candidates' scores depended on the clarity of their responses. Extract 7.1 is a sample of a good response from one of the candidates.

7 a) BAOBAB TREES

b) Land uses that may be suitable in the area are

- i) Pastoralism due to the presence of shrubs and few grasses on the area
- ii) Cultivation of crops like Millet, Sorghum can be conducted as there is arable land and there is no ^{big} population or building to hinder it. Millet and sorghum are examples of drought resistant.

c) Possible regions in Tanzania are

- i) Dodoma
- ii) Singida
- iii) Tabora

d) - Mountain features of the ground
- Saddle between the two mountains

e) The relief feature found in the background is formed by the process of folding which occurs by the processes of compressional forces to the original rock.

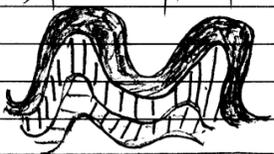


original rock



action of compressional force

The resultant feature (mountain/hill) formed after folding.



Extract 7.1: A sample of a candidate's good response.

In extract 7.1, the candidate provided correct responses in parts (a), (b), (c), (d) and (e).

Analysis from candidates' responses indicates that most of the candidates who scored from 0 to 2.5 marks had insufficient knowledge and skills in the photograph reading and interpretation because some of them failed to provide correct answers in all parts. Moreover, candidate's poor performance was due to failure to understand the requirement of the question, as they responded contrary to the demands of the question. In part (a), the candidates were required to name the dominant trees in the photograph. The analysis shows that some of the candidates failed to give the correct name of the dominant trees and provided wrong responses such as; *Bamboo, sugar cane, Palm tree and Coffee*, instead of *Baobab tree*. Other candidate mentioned *Polje* as the dominant trees which is in correct in real sense *Polje* is the feature found in limestone region. Further analysis shows that some of the candidates presented the name of the dominant trees in the photograph by using Swahili language such as *Ubuyu trees* and *Mbuyu*. This shows that the candidates were aware of the dominant tree found in the photograph but due to poor proficiency of English Language they failed to provide the name of the tree in the required language.

In part (b), the candidates were required to name two land uses that might be suitable for the area. Most of the candidates in this category failed to name the land uses that might be suitable for the area. Others provided incorrect land use. For example, one candidate wrote; *land alienation* and *land desert* as the land use in the photograph.

In part (c), the candidates were required to suggest the possible regions in Tanzania where the photograph might have been taken. Most of the candidates in this category failed to suggest the possible regions in Tanzania where the photograph might have been taken. For example, one candidate mentioned *Mwanza, Ruvuma* and *Rukwa*. The other mentioned climatic zones of the world such as *Desert area* and *Equatorial area*.

In part (d), the candidates were required to describe the relief features shown in the photograph. Most of the candidates failed to describe the relief features shown in the photograph as most of them were distracted by the word "features" which made them to mention the features shown in the photograph instead of describing the relief features found in the photograph. For instance, one candidate mentioned *dense forests, Baobab trees* and *small thicket*, while another mentioned trees and road.

In part (e), the candidates were required to explain the formation of the relief feature found in the back ground. Some of the candidates provided inadequate explanation of the formation of the relief feature found in the background. Other

misconceived the demand of the question. For instance, one candidate mentioned concepts related with weather and climate of the area such as; *Sunshine availability*, the *cold climate*, *winter* and *rainfall*. Another candidate explained concepts related to volcanic activities such as: *solidification of magma that was found in the photograph*. Based on the analysis of candidates' responses, poor English language proficiency was also a problem to some of the candidates in attempting this question. Extract 7.2 is a sample of poor responses from a candidate.

| | | |
|----|---|--|
| 7. | a - Name of the dominant trees is ground. | |
| | b - Presence of climate condition | |
| | - Provided shelter for the animals. | |
| | c - Enjoyment peoples from this place | |
| | - Presence of animals. | |
| | - Presence of foreign money and employment | |
| | d - Climate condition | |
| | - Presence of cold | |
| | e - Good climate condition: Presence of good climate condition in the area because of the photograph seen and climate this because of climate condition is low so it lead the climate condition in the area of photograph, presence of good climate condition in the area is the source of climate in the area. | |
| | - Low temperature: Lack of temperature in the forest this is because peoples that live in the area is peoples, or peoples that enjoyment in the area is know that in this area temperature is low, it lead animals die. | |
| | - Presence of drought: Presence of drought in this area because drought is the source in presence water in the forest and it lead animals die so this is a big problem that animals cannot live good or live well animals in the area die because of drought because drought this cause lack of water in the forest, lack of rainfall in the area, lack of shelter, lack of food in the area or forest, this is all causes that lead the drought in the area. | |
| | - Rainfall: Presence of rainfall in the forest is very important because animals they depend rainfall for saving life so without rainfall in the forest it lead animals die and it lead the drought. | |

Extract 7.2: A sample of a poor response from one of the candidate.

In extract 7.2, the candidate misconceived the demand of the question. In part (a) he/she mentioned ground as the dominant tree, instead of *Baobab tree*. In part (b) he/she mentioned climatic condition, instead of two land uses. In part (c) he/she mentioned *enjoyment of pupils, presence of animals*, instead of the possible regions where the photograph was taken. In part (d), he/she mentioned *climatic condition* instead of relief features of the area. In part (e), the candidate explained about climate, instead of showing the formation of relief features.

The candidates who scored from 3 to 6.5 marks had inadequate knowledge and skills in the photograph reading and interpretation. These candidates provided partial descriptions of the answers in some parts of this question, which shows inadequate knowledge of the subject matter.

In part (a), some candidates were able to name the dominant tree found in the photograph such as: *Baobab trees*, while others misconceived the question demand. For example, one candidate mentioned *Mahogany*. In part (b), some candidates provided two correct uses of the land that might be suitable for the area such as *tourism* and *research site*, while others provided incorrect uses. For example, one candidate mentioned the land uses as *lumbering* and *irrigation farming*. In part (c), some candidates were able to suggest the possible regions where the photograph might have been taken such as: *Iringa, Morogoro* and *Dodoma*. Others provided wrong regions such as: *Ruvuma, Rukwa* and *Tanga*.

In part (d), some candidates provided partial description of the features shown in the background of the photograph. Others gave the correct descriptions of relief features such as: *valley* and *fold mountains* while, another candidate provided wrong description of the relief features such as; *dense forest* and *there is small thicket*. In part (e), some candidates explained correct features shown in the photograph, while others failed to explain the formation of relief features found in the background. Others candidates provided partial explanations. For instance, one candidate explained that the formation of the features found on photograph is *due to eruption of magma*. The disparity in their scores was a result of strengths and weakness of their responses.

2.3 SECTION C: ESSAY QUESTIONS

2.3.1 Question 8: Solar System

The question required the candidates to describe how Rose will prove to her grandmother that the earth is spherical by using six evidences. The question tested candidates' knowledge on Solar system.

This question was opted by 159,650 (37.7%) candidates, of which 57,665 (36.1%) scored from 0 to 4 marks. Analysis shows that majority of candidates (54.0%) scored from 4.5 to 9.5 marks, and 15,701 (9.8%) scored from 10 to 15 marks. The performance in this question was average because 63.9 percent scored from 4.5 to 15. Figure 8 illustrates such a performance.

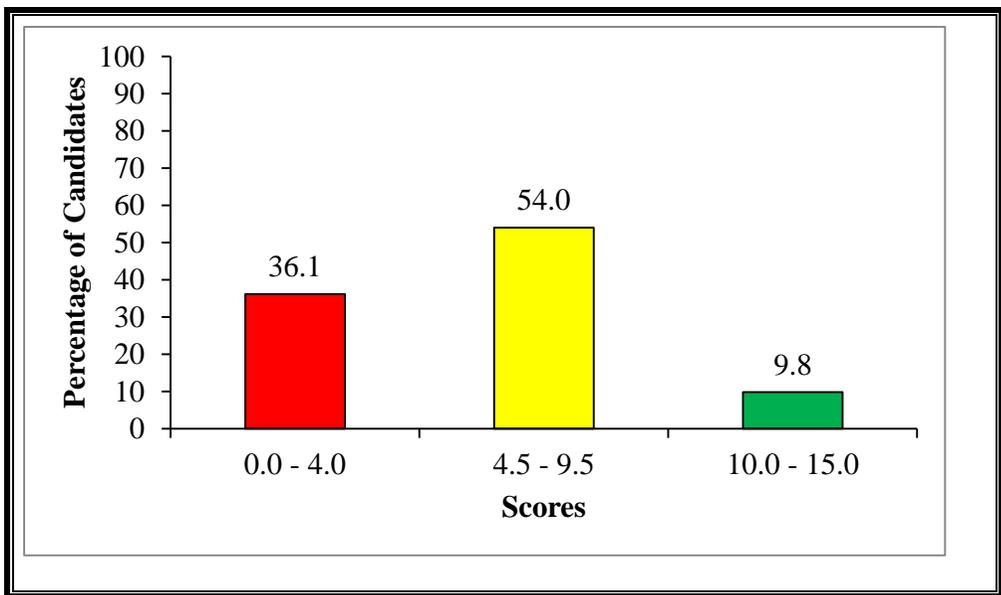
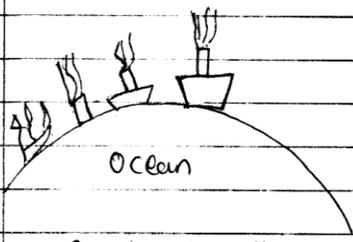
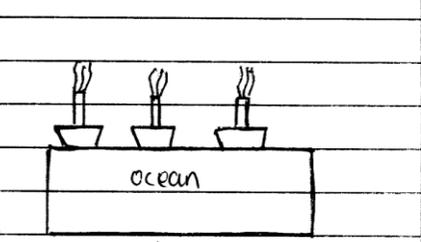


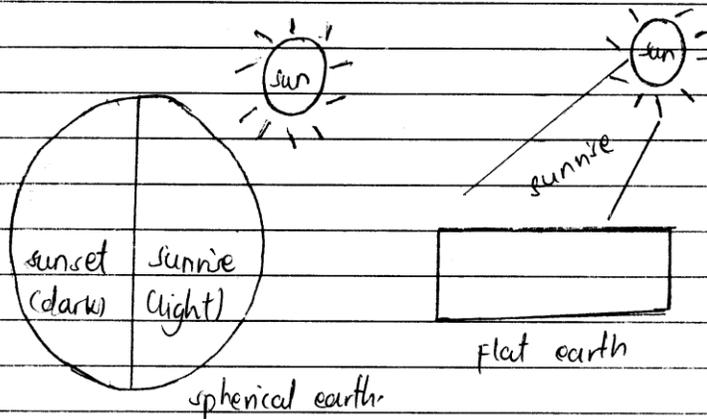
Figure 8: Trend of the candidates' performance in question 8.

The candidates who scored from 10 to 15 marks understand the demand of the question. However, some were not able to provide the required number of points as the question demanded, while others mixed up the correct and incorrect points. For example, one candidate provided correct introduction, he/she explained evidences such as *aerial photographs*, *lunar eclipse*, *day and night*, *ship visibility* and *circumnavigation of the earth*. Also the candidate ended with a relevant conclusion. Majority of the candidates in this category describe the six pieces of evidence which prove that the earth is spherical by providing clear explanations and employing appropriate essay writing skills. For example, one candidate provided correct points such as *circumnavigation of the earth*, *ship visibility*, *aerial photograph*, *sunrise and sunset*, *the moon eclipse*, *the earth's horizon*,

surveying with poles on level ground and the shape of other planets. However, the variations of their scores were determined by the strengths and correctness of their explanation. Extract 8.1 is a sample of a response from a candidate who performed well.

| | | |
|---|--|--|
| 8 | <p>Earth is the third planet from the sun in the solar system that supports life. Living organisms like plants and animals are only found on Earth since it has oxygen to support life. Many scientists tried to suggest different shapes of the Earth some say it is round, others flat and some say it is a box. The scientists kept on researching for the correct shape of the Earth and it was found that it was not a perfect round. It is flattened on some sides but is round. This shape is known as spherical shape. The following are the evidences to prove that the earth is spherical:</p> | |
| | <p>Ships visibility, it is said that when one stands from a shore and observe a coming ship first he or she will see smoke, then the chimney, then part of ship finally the whole ship. If the earth could be flat the whole ship could be seen at once.</p> | |
|  |  | |
| | <p>a spherical earth a flat earth.</p> | |
| | <p>Sunrise and sunset. Due to the rotation of the spherical earth, part of the earth experiences sunrise (day time) while the other part experiences sunset (night time or dark time). If the earth could be flat, everyone could experience sunrise or sunset at the same time.</p> | |

8



Aerial photograph, the satellites that have been sent to outspace has proved the earth spherical because the astronomers who have also travelled to outspace and the satellites have presented the photograph of the earth in which it appears spherical. Thus it proves the earth is spherical.

Circumnavigation of the earth surface. This is done when one navigates or travel the earth from a fixed point to the end without stopping. It is found that the person will stop or come back to the fixed starting point.



| | | |
|--|--|--|
| | Position of the polar star. The polar star | |
| | tends to move from one point to another when | |
| | observed in the sky due to the spherical shape of the | |
| | earth. If it could be flat the star could not change | |
| | position. | |
| | | |
| | | |
| | conclusively, it is proved that the earth is | |
| | spherical in shape that is not a perfect circle. It is | |
| | also evidenced that during lunar eclipse the shadow of | |
| | the earth is casted on the moon. The shade appears to | |
| | be spherical in shape. | |

Extract 8.1 A sample of the candidate's correct response.

In extract 8.1, the candidate managed to describe the evidence which proves that the earth is spherical in shape and supported them with a well labeled diagrams.

The candidates who scored from 4.5 to 9.5 marks had partial knowledge of the subject matter. Their responses varied from one candidate to another due to clarity of points. Their responses were characterized by irrelevant explanations of points, provision of few points as required and a mixture of correct and incorrect points. For example, one candidate provided correct and incorrect pieces of evidence such as *seasonal of the year, the earth, ship visibility, circumnavigation of the earth, lunar eclipse and solar eclipse*

The candidates who scored from 0 to 4 marks demonstrated inadequate knowledge in the topic of solar system specifically on the evidence of the shape of the earth. For example, some of the candidates managed to provide relevant introduction with some few correct points but without a conclusion. Other candidates mentioned few correct points but failed to provide relevant introduction and conclusion. Analysis from candidates' responses in this group shows that most of the candidates who scored low marks misconceived the question demand, while others lacked knowledge of the subject matter. For

example, the candidates provided wrong responses such as: explaining on the effects of the earth rotation, instead of the evidence which proves that the earth is spherical, such as; *day and night, climate change and rise and fall of sea level*, explaining on the structure of the earth such as: *Barysphere, Asthenosphere, Lithosphere and Sima*. Others provided irrelevant responses such as *formation of landforms, formation of volcanic eruption, rotation of earth surface, presence of mountain, river and sea and different soil formation*. Furthermore, the analysis indicates that some were not able to provide relevant introduction and conclusion, while others had poor English language proficiency. Extract 8.2 is a sample of such a weak performance.

Q: By Using the Internal Structure of the Earth the following are the reasons on how Rose will prove to her grandmother that the earth is spherical.

The Internal Structure of the Earth.
 According to Understanding the grandmother of Rose on top there is the internal structure of the earth. ~~the~~ Earth is the source of light of people life and other animals.
 Earth is the one that make people and to live and to seek for food and their people activities.
 All in all I think the grandmother of Rose will be able to know about earth.

Extract 8.2: A sample of the candidate's poor response in question 8.

In extract 8.2, the candidate explained the internal structure of the earth, instead of the evidence which prove that the earth is spherical.

2.3.2 Question 9: Water Management for Economic Development

This question required the candidates to justify that Hydro Electric Power (HEP) is environmental friendly energy but still has damaging effects on the environment.

This question was opted by 219,287 (51.7%) candidates. The analysis of the candidates' responses indicates that 179,423 (81.85%) candidates scored from 0 to 4 marks, 35741 (16.3%) scored from 4.5 to 9.5 marks, and 4,123 (1.9%) scored from 10 to 15 marks. The general performance in this question was poor because 18.2 percent scored between 4.5 to 15 marks. Figure 9 indicates such a performance.

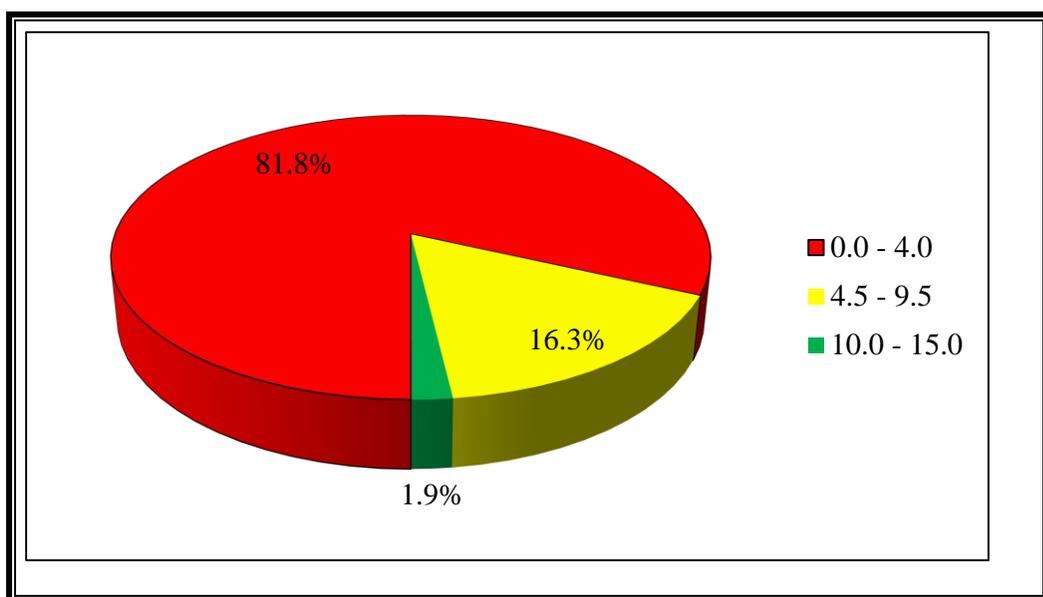


Figure 9: Trend of the candidates' performance in question 9.

The analysis of the candidates' responses indicated in table 9 shows that the majority of the candidates (81.8%) performed poorly in this question. The main reasons for the candidates' poor performance were: inadequate knowledge on the subject matter and majority they did not understand the demand of the question. Most of the candidates who scored low marks showed insufficient knowledge on the subject matter. For instance, one candidate failed to provide a good introduction; he/she mentioned few points with inadequate explanation such as, *loss of biodiversity, soil erosion and water pollution*. Another one failed to give a

good conclusion. Most of the candidates who scored from 0.5 to 4 marks mixed correct and incorrect points, while others provided few points. For example, one candidate wrote *the increase of production of electricity, the increase transportation of water, deforestation, it improves national income and loss of soil fertility*.

Some of the candidates in this group misinterpreted the question as they explained the importance of Hydro Electric Power instead of the damaging effects of HEP to the environment. For example, one candidate wrote; *development of agriculture, employment opportunities and improvement of transport and communication*. Moreover, other candidates explained the factors which hinder the development of HEP project, including; *capital problem, poor government support, poor infrastructure, low technology, poor transport and communication* while other candidates explained incorrect answers which have no direct relation with the question. For example, one candidate explained the effects of high population growth, such as; *eruption of diseases, increase of prostitution, high rate of crime and robbery, environmental pollution and irresponsibility*. Furthermore, most of the candidates in this group had poor essay writing skills. Extract 9.1 is a sample of poor responses.

9. Hydro-Electric power is the power or energy which is produced from the water. Hydro-electric power is a very important power or energy in environmental. How? Hydro-Electric power is a source of energy and the energy from the Hydro-Electric power helps people in cooking food also produces the electricity which is a source of light.

The following are the points which it still the damage effects on the environment.

Hydro-Electric power is a source of light, due to this occurs that hydro-electric power helps to produce the source of light which is used to produce light in the people and the country.

If the country has a poor source of light, many effects like thefts may be caused.

Hydro-Electric power produces energy which is used in domestic like cooking. Due to this point that hydro-electric power helps in the production of energy which is used in cooking food and other activities.

Hydro-electric power improves the sector of communication and transport also the hydro-electric power improves the sectors of communication and transport to the people. Example in Tanzania, has a railway transport which uses electric power.

Improvement of science and technology, Hydro-electric power also helps to improve the improvement of science and technology to the people and also helps to improve the poverty in the country and to the people.

| | |
|----|--|
| 9. | Hydro -electric power help in development of industries due to this point it was very true that hydro -electric power supports the development of industries in countries because the large number of industries used electricity in production. |
| | Improvement of poverty, the hydro -electric power also helps to the people to improved the poverty how, people opened our trade like selling juices, fish, meat in the butcher people used electric to store our products like fish. |
| | conclusion, Hydro -electric power is very source of energy because helps people to stop to used the firewood in cook and to makes good conditions of forest which is animal wild and also Hydro -electric power improvement of science and technology. |

Extract 9.1: A sample of poor responses, from a candidate.

In extract 9:1 the candidate explained the importance of HEP production instead of the damaging effects of HEP to the environment.

The candidates who scored from 4.5 to 9.5 marks had moderate knowledge and skills in this question. Some candidates were able to write an introduction and provide some examples on Hydro Electric Power (HEP) project in Tanzania. Furthermore, they managed to mention few effects without justifying them as the

question demanded. Others tried to mention the effect of the Hydro Electric Power (HEP) on the environment but they partially explained without giving any examples. Their conclusion was also irrelevant.

The candidates who scored from 10 to 15 marks had clear understanding of the effects of the Hydro Electric Power on environment. The strengths and accuracy of their points made their scores to vary.

Some of the candidates were able to provide correct introduction of Hydro Electric Power (HEP) and correctly explained the effect of Hydro Electric Power on environment. For example, one candidate wrote, *clearing of vegetation, disturbance to the wildlife habitats, loss of the arable agricultural land, environment refugees, collapse of dam, excessive evaporation and it may accelerate earth quake*. Also they ended up with relevant conclusion. Extract 9.2 illustrates a sample of good responses from one of the candidates.

9 Hydro - electric power plant (HEP) is the project that produces electricity through running water. It is true that Despite that, Hydro electric Power (HEP) it is environment friendly energy but it still have damaging effect on the Environment. The following are Points that Justifies the Statement.

Hydro electric power cause deforestation, in the Environment. This is the process which involves Cutting down of trees. HEP cause deforestation especially when Preparing an area for Conducting harnessing. Example dams.

Hydro electric power cause Soil erosion in the Environment. This process involves removal of the Upper layer of the Earth Surface. In Hydro electric power it cause soil erosion through activities Example, When preparing areas for Collecting water, Path ways of water Pipes.

Hydro electric power cause water pollution. The water which are Used in Producing electricity are passed during different machines and pipes this lead to water pollution. Since chemicals are added from water that are from equipments Example electric water and pipes.

Hydro electric power cause noises to the Environment. When production of Electricity takes places in the Machines, they gives out noises which leading to Disturbance in the Environment. Therefore hydroelectric power HEP is the Environmental damaging since it gives out noises which leads to the Environmental pollution.

| | |
|---|---|
| 9 | <p>Hydro electric Power causes death of people and Other Environ animals in the Environment the death of people are mostly caused by the running water in the Collecting area where Production of electricity takes place.</p> <p>Hydro electric Power causes Soil pollution of Enviromental pollution. This Involves Introduction of harmful Substances to the Soil. Hydro electric power Cause Soil pollution by the wastes and remains that Used in Costruction purposes. Example Iron, Plastic wires. They caused Soil pollution in the Environment.</p> <p>Generally Despite the fact that, Hydro - Electric power (HEP) has damaging effects on the Environment, it is also Important Since it brings electricity to people, it Creates employment Opportunity and it is also enviromental friendly energy.</p> |
|---|---|

Extract 9.2: A sample of a candidate's correct response.

In extract 9.2, the candidate has managed to justify that Hydro Electric Power (HEP) has damaging effects on the environment.

2.3.3 Question 10: Manufacturing Industries

In question ten (10) candidates were required to explain six factors which hinder rapid development of manufacturing industries in Tanzania.

This was the most opted question, as it attracted 401,854 (94.8%) candidates. The analysis of the candidates' responses indicates that 190,531 (47.4%) candidates scored from 0 to 4 marks, 120,872 (30.1%) candidates scored from

4.5 to 9.5 marks and 90,451 (22.5%) scored from 10 to 15 marks. Table 10 illustrates the candidates' performance in question 10.

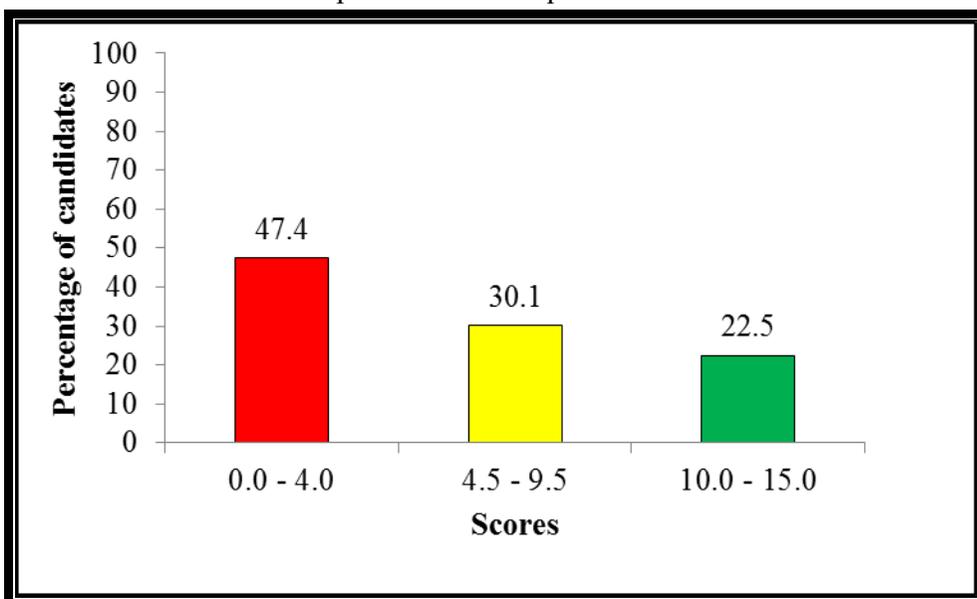


Figure 10: Trend of the candidates' performance in question 10.

The candidates who scored from 10 to 15 marks had adequate knowledge of the subject matter. They understood the demand of the question and provided relevant answers. Most of the candidates managed to explain clearly the six factors which hinder rapid development of manufacturing industries in Tanzania. For instance, one candidate wrote; *in adequate capital investment to develop local manufacturing industries, lack of political will to develop local manufacturing industries, poor market, poor technologies, inadequate skilled labour, and poor infrastructure, unreliability of power supply and lack of raw materials.* The candidates showed good skills in essay writing. However, some of the candidates were not able to exhaust all the required points; this is what made them to have variation in their scores. Extract 10.1 is a sample of good responses.

10. Manufacturing industries refers to the industries which deal with manufacturing of raw materials, processing them and turn them into either light products such as milk, jewelries, leather bags and chalks or into heavy products such as cars, tractors, aeroplanes and so on. In Tanzania, manufacturing industries is one of the sector that paves way to the development of the nation, but there are some factors which hinders our country to be further promote to development of these industries, the factors include ÷

Unavailability of labour. This refers to the people who ensure production in industries. In Tanzania, labour is very hard to look for. Since alot of educated skilled men run to white collar jobs such as bosses and managers going to cities such as Mbeya, Arusha and Dar. As a result raw material production remain stagnant and underdevelopment of manufacturing industries

Technology insufficiency. This refers to the science skills put in production. A lot of Tanzanians still depend on handhoe for production and also family labour for production. This ensures low raw materials supply to the industries, this factor hinders development of industries, instead

10. adequate provision of technology should be invested to ensure that production is high in terms of quality and quantity.

Insufficient capital provision. This refers to the money needed to run business, manage sector, ensure market and paying labour (workers). Due to high dependency rate, our country fails to budget enough money to support sectors such as industries. This is because a huge debt we have created in the developed and industrialized countries such as USA and Britain. As a result even some activities are budgeted by them through World Bank and SAP policies.

Market unavailability. This refers to the areas of sales of products obtained. In Tanzania, industrial products that are produced are of very low and durable quality goods. As a result we ourselves fail to create market to buy our own products to the extent that European products are much better. Likewise to the world markets, our products are categorized to the low quality that most do not purchase. This fact makes us stagnant in this sector.

Transport problems. This refers to various infrastructures such as roads, railway

| | | |
|----|--|--|
| 10 | <p>true that we are facing several infrastructure development and transport development, but it is not enough to say that we have reached. Since they are some rural places like Mikingani, Mtwara, Singida where these facilities have not reached. So as a result raw materials from here are not transported on time.</p> <p>Insufficient government support. This refers to the government appraisal in sectors such as industries. In Tanzania agriculture is heavily supported despite of the efforts of economic diversification, this results to hinderance in industrial sectors, As a result produce are not profitable sold and underdevelopment of such industries continue.</p> <p>Conclusively, ways to struggle to prevent this hinderance is by working hard to raise revenue in our country to create profit that will be used to support industrial sector by ensuring capital, technology and labour availability and lastly the government should cooperate to upraise the manufacturing industries by ensuring transport and market availability.</p> | |
|----|--|--|

Extract 10.1: A sample of the candidate's good response.

In extract 10.1, the candidate has explained six factors which hinder rapid development of manufacturing industries in Tanzania.

The candidates who scored from 4.5 to 9.5 understood the demand of the question, but were not able to provide the required number of points. Some of them mixed correct and incorrect points. This is due to the limited knowledge on the subject content. The analysis shows that majority of the candidates provided partial explanations of their points, which probably affected their performance because they scored not more than 9.5 marks. For example, one candidate managed to give correct introduction and provided some points which were not explained clearly and sufficiently such as, *inadequate infrastructure, shortage of labour, lack of government support, shortage of the capital, shortage of energy and power*. The candidate provided wrong conclusion. However, the variations of their marks were determined by the strengths and weakness of their response.

The candidates who scored low marks (0 to 4) in this question demonstrate inadequate knowledge on manufacturing industries in Tanzania, while others failed to understand the demand of the question. Majority of them were distracted by the word “development” hence they explained explain the factors which enhance the development of manufacturing industries. For example, one candidate wrote; *availability of capital, availability of power of energy, availability of market, availability of labour, availability of raw materials, availability of transport and communication*. Some of the candidates misconceived the meaning of the word “hinder” as a result they explained the negative effects of manufacturing industries in Tanzania. For example, one candidate wrote; *environmental pollution, loss of aquatic animals, increase in the rate of spread of diseases, child labour, emission of gases and environmental degradation* while other candidates explained the importance of manufacturing industries. For example, one candidate wrote; *it helps to increase income, it creates employment, it helps to get food from manufacturing industries, source of tourism and it helps to get labour*.

Further analysis from the candidates’ responses shows that, some of the candidates provided irrelevant introduction and conclusion. They also mixed up correct and incorrect reasons on the factors influencing the development of manufacturing industries in Tanzania. For example, one of the candidates responded on the problems facing manufacturing industries in Tanzania such as: *poor transport and communication, lack of capital, insufficient labour power, poor market and unavailability of enough raw materials*, instead of factors influencing the development of manufacturing industries in Tanzania. Hence irrelevant and insufficient responses led them to score low marks. Extract 10.2 is a sample of such poor responses.

10.

Industries are places where many goods are manufactured by using technological processes which lead to high better yield in production, manufacturing industries those are places also used for production of goods and services example production of clothes and other products, there are some factors which hinder rapid development of manufacturing industries in Tanzania, the following are those factors :-

Environment degradation, this is the one of the factor which hinder the rapid development of manufacturing industries in Tanzania due to the increasing in number of industries also the rate of disposing the waste especially liquid waste increase too.

people lose their lands due to establishment of industries, also by looking to this point we can see, when the industries are established in certain area in Tanzania, many people lose their land for agricultural or settlements without giving them other areas to live.

Increasing emission of harmful gases, we know that when industries are in process, produce very large amount of smoke which contain harmful gases which contribute to ~~harmful~~ global warming example of harmful gases is carbon dioxide which is green house gas which affect Tanzania and world in large.

Loss of aquatic animals like fishes, this occurs due to the production of liquid wastes from industries which contain relatively poisonous things, due to this many of most aquatic animals

| | |
|-----|---|
| 10. | affected and that most of these liquid wastes are disposing to sources of water example oceans, lakes and even rivers. |
| | Increase the rate of spreading diseases for instance HIV/AIDS, this may occur when the manufacturing industry is established to certain place, many workers example we white people it means from the outside cont centine Africa use the women around that area as sexual objects by giving to them money, this this may increase spreading of diseases like HIV/AIDS. |
| | Child labour, on the other hand the rapid development of manufacturing industries in Tanzania may lead to child labour this is because most of parents argues their children to sell various of items example food or icecreams withend without sent them to school thus this increase child labour. |
| | Conclusively, the explanations above are about the factors which hinder the rapid development of manufacturing industries in Tanzania, these factors may be seen to various parts in our country example at Mtwara region due to the establishment of Dangote Cement Industry and these factors should eradicated to make manufacturing industries are beneficial to our country. |

Extract 10.1: A sample of a candidate's poor response.

In extract 10.1, the candidate explained the negative impacts of manufacturing industries in Tanzania, instead of the factors which hinder rapid development of manufacturing industries in Tanzania.

3.0 PERFORMANCE OF THE CANDIDATES IN EACH TOPIC

The analysis shows that the Geography paper had 10 questions set from 15 topics. These topics are; *Structure of the Earth, Solar System, Forces that affect the earth surface, Climate, Agriculture, Sustainable Use of Forest Resources, Soil, Weather, Map Reading and Interpretation, Application of Statistics, Elementary Survey and Map Making, Introduction to Research, Photograph Reading and Interpretation, Sustainable Use of Power and Energy Resources and Manufacturing Industries.*

The analysis of candidates' performance in CSEE 2019 in each topic shows that the candidates had the average performance in 14 topics which were tested in 7 questions. Generally, the candidates got average performance in the following topics: *Application of Statistics (64.7%), Solar system (63.9%), Manufacturing Industries (52.6%), Elementary Surveying and Map Making (46.8%) Photograph reading and Interpretation (45.9%), Introduction to Research(43.7) and 59.5 percent* were from the topics of *Structure of the Earth, Solar system, Forces that affect the Earth's Surface, Soil, Climate and Natural Regions, Agriculture, Weather, Sustainable Forestry and Population* (Which were tested in multiple choice items)

Further analysis shows that the candidates had poor performance in 3 topics which they were tested in questions 2, 9, and 3. The topics were; *Forces that Affect the Earth's Surface (27.6%), Sustainable use of power and energy resources (18.2%) and Map Reading and Interpretation (10%).*

4.0 CONCLUSION

The general performance in the Geography subject in CSEE 2019 was average. The analysis shows that this performance was a result of several factors such as the candidates the ability of the candidates to identify the demand of the question, their knowledge on the subject matter and proficiency in the English Language. Additionally, statistical skills in computation and drawing of graphs and a cross section were other factors which contributed to the candidates'

performance in this subject. Therefore, the candidates with poor performance demonstrated their weaknesses on the aforementioned skills.

5.0 RECOMMENDATIONS

Based on the observation made during analysis of the candidates' item response the following are recommended in order to improve the performance of prospective candidates in this subject.

- (i) Map interpretation skills should be emphasized. This area should be given more time and perhaps more strategies should be employed especially on how to measure distances in the map, the way the scale is to be converted and interpreting other information presented in the map. Practical activities in different topic should also be given more attention in order to improve students' skills in drawing, measuring and calculating.
- (ii) Teachers should encourage candidates to read various resources, such as, books, pamphlets and online internet resources in order to raise knowledge of different academic related with Geography subject.
- (iii) 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 student to build self confidence in any assessment because the students will be familiar with necessary terms used in assessments items.
- (iv) Teachers should encourage students to improve their English language through reading different books. This will help them to familiarize with different terms used in assessments and especially those terms specific for Geography.

Summary of the Candidates' Performance per Topic

| S/N | Topic | Question Number | Percentage of candidates who scored 30% and above | Remarks |
|-----|---|-----------------|---|---------|
| 1. | Application of Statistics | 4 | 64.7 | Average |
| 2. | Solar system | 8 | 63.9 | Average |
| 3. | Structure of the Earth, Solar system, Forces that affect the Earth's Surface, Soil, Climate and Natural Regions, Agriculture, Weather, Sustainable Forestry and Population. | 1 | 59.5 | Average |
| 4. | Manufacturing Industries | 10 | 52.6 | Average |
| 5. | Elementary Surveying and Map Making | 5 | 46.8 | Average |
| 6. | Photograph Reading and Interpretation | 7 | 45.9 | Average |
| 7. | Introduction to Research | 6 | 43.7 | Average |
| 8. | Forces that Affect the Earth's Surface | 2 | 27.6 | Weak |
| 9. | Sustainable use of power and energy resouces | 9 | 18.2 | Weak |
| 10. | Map Reading and Interpretation | 3 | 10 | Weak |

