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

CANDIDATES' ITEM RESPONSE ANALYSIS REPORT ON THE ADVANCED CERTIFICATE OF SECONDARY EDUCATION EXAMINATION (ACSEE), 2021

GEOGRAPHY

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CANDIDATES' ITEM RESPONSE ANALYSIS (CIRA) REPORT ON THE ADVANCED CERTIFICATE OF SECONDARY EDUCATION EXAMINATION (ACSEE) 2021

113 GEOGRAPHY

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FOREWORD

The report on the Candidates Item Response Analysis (CIRA) for the 2021 Advanced Certificate of Secondary Education Examination (ACSEE) for Geography subject has been prepared by the National Examinations Council of Tanzania (NECTA). The aim of this report is to provide feedback to different education stakeholders including: students, teachers, parents, education administrators, school managers, policy makers and the general public on the performance of candidates in Geography subject. It also aims to show the extent to which the instructional goals and objectives were met. The National Examinations Council of Tanzania believes that, this report shall serve as a basis for enabling all educational stakeholders to identify proper measures to take in order to improve candidates' performance in future examinations administered by the Council.

The analysis shows that the general performance of the candidates in this subject was good (85.3%). The good performance was observed in 12 out of the 13 topics examined. The candidates had good performance in the topics of Timber Industry, Sustainable Mining, Manufacturing Industries, Study of Soil, Environmental Friendly Tourism, Livestock Keeping, Population and Development, Application of Statistics in Geography, Space Dynamics, Water Masses, The Dynamic Earth and Consequences and Topographic Map Interpretation. However, the candidates had average peformance in the topic of Photograph Interpretation.

Factors that may have contributed to the candidates' higher performance in this examination include; the ability to understand the demands of the questions, having basic knowledge of the subject matter, possessing skills in computing, good mastery of the English language and essay writing skills. The candidates who scored lower marks depicted contrary attributes. In this report, the analysis of each question has been done and different categories of information have been shown by figures and graphs.

The National Examinations Council of Tanzania is grateful to all Examination Officers and other stakeholders who provided valuable assistance during the preparation of this report.

Dr. Charles E. Msonde
EXECUTIVE SECRETARY

1.0 INTRODUCTION

This report intends to evaluate the performance of candidates in Geography subject on the Advanced Certificate of Secondary Education Examination (ACSEE) 2021. The Geography examination consisted of two papers (Paper One and Two).

Paper one consisted of two sections; A and B with a total of seven (7) questions. The candidates were required to attempt five questions. Section A had three questions from the following topics; *Topographic Map Interpretation, Application of Statistics in Geography* and *Photograph Interpretation*. Candidates were required to choose two questions. Question number 1 was compulsory. Section B had four questions set from the topics of *the Dynamic Earth and Consequences, Water Masses, Space Dynamics* and *Study of Soils*. The candidates were required to attempt anythree questions from this section.

Paper two had a total of seven (7) questions which were set from the following topics; *Population and Development* and *Regional Focal Studies:* (*Livestock Keeping, Timber Industry, Environmental Friendly Tourisms, Sustainable Mining* and *Manufacturing Industries*). The candidates were required to attempt a total of five questions, whereby question number 1 was compulsory.

This report provides an analysis on the performance of the candidates in each question by showing what the candidates were required to do as well as the strengths and weaknesses of their responses. Samples of the candidates' answers have been shown to illustrate their responses. In the analysis, the performance in each topic is ranked as weak, average and good if the percentage of candidates' scores lies in the range of 0 to 34, 35 to 59 and 60 to 100 respectively. The candidates' performance has been summarised in the appendix whereby green colour represents good performance while, yellow and red colours imply average and weak performances respectively.

A total of 42,861 candidates sat for the ACSEE 2021 Geography subject out of which 42,618 (99.92%) candidates passed while, 53 (0.08%) candidates failed. Generally, the performance of the candidates in 2021 increased by 0.2 percent compared to that of 2020 in which 99.72 percent of candidates passed while, 0.28 percent failed.

It is expected that the report will be useful to all educational stakeholders. it will also enable teachers and students to improve the teaching and learning process in the Geography subject.

2.0 ANALYSIS OF THE CANDIDATES' PERFORMANCE IN EACH QUESTION

The Advanced Certificate of Secondary Education Examination (ACSEE) in Geography subject is designed to test candidates' ability to grasp and apply knowledge in various situations. It also tests the ability to reason, demonstrate, analyse and interpret various Geographical phenomena such as; maps, statistics, photographs, physical features, water, climate, soils, population and regional focal studies.

2.1 113/1 GEOGRAPHY PAPER ONE
Section A: Topographic Map Interpretation, Application of Statistics in Geography and Photograph Interpretation.

2.1.1 Question 1: Topographic Map Interpretation

Candidates were required to study carefully the map extract of Mwanza sheet (33/2) provided, and then answer the questions that followed. The question consisted of six parts; (a), (b), (c), (d), (e) and (f). The candidates were required to; (a) Find the position of a Chimney if a candidate at Nganza Hill grid reference 896147 saw a chain of smoke from the Chimney at bearing 45^0 and a teacher at Nyabulogoya Hill grid reference 917148 saw the same smoke at bearing 315^0; (b) Describe the site and layout of Mwanza town; (c) Show the bearing of Saa Nane Island Game Reserve at grid reference 876191 from Maliza Hill grid reference 958101; (d) By using two evidences from the map, identify the type of climate of the area; (e) State the importance of R.F. scale given on the map and (f), Explain four functions of Mwanza town by giving evidences from the map. Total marks allocated for this question were 25.

This question was compulsory, and therefore it was attempted by all 42,858 (100%) candidates whereby 5,805 (13.5%) scored from 15 to 25 marks, 28,107 (65.6%) scored from 9 to 14.5 marks and 8,946 (20.9%) scored from 0 to 8.5 marks. The general performance for this question was good since 79.1 percent of the candidates scored 9 marks and above. Figure 1 illustrates the candidates' performance for this question.

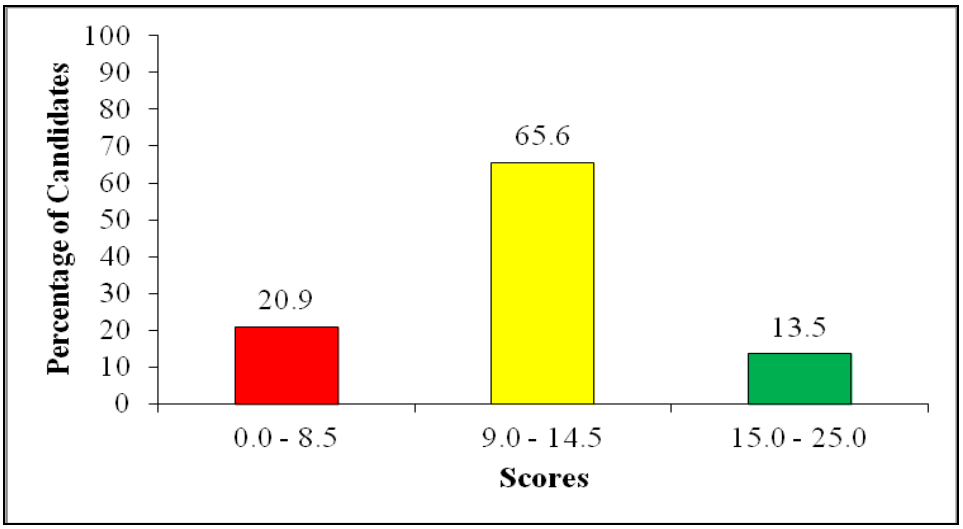


Figure 1: *Candidates' Performance in Question 1*

The analysis showed that, the 5,805 (13.5%) candidates who scored from 15 to 25 marks were aware of Topographic Map Interpretation. This was particularly on determining the position on the map, calculating bearing of object/feature, identifying the climate of an area, stating the importance of scale and functions of towns.

In part (a), the majority of candidates managed to identify the position of the Chimney in grid reference as *907158*. In part (b), most of the candidates were able to describe the site and layout of Mwanza town. They managed to identify characteristic features on the mapped area and to interpret natural and artificial features on the map. Most of the candidates were able to describe site as the location of Mwanza town which is *at the shore of Lake Victoria beside Kirumba bay.* They were also able to describe the layout of Mwanza town as; *settlements are concentrated beside Kirumba bay while other settlements are located along all weather roads and scattered settlements are found around Nyasaka (925228) Buganga Hills and Mkuyuru*. Some of the candidates were able to explain natural and artificial features found on the map.

In part (c), the candidates were able to locate the position of Saa Nane Island Game Reserve in bearings from Maliza Hill grid reference 958101 as 315^0. In part (d), some of the candidates were able to identify the type of climate of the area as *Modified Equatorial Climate* with the following evidences: *Latitudinal position as the area is located along the belt of*

Equatorial region that is 2^0 35` South of the equator and *the nature of vegetation is characterised with scrubs, papyrus trees, swamps and scattered cultivation which depicts Modified Equatorial Climate*.

In part (e), most of candidates described R.F scale and then pointed out the importance of R.F scale given on the map as: *is used in calculating areas of different figures on the map, calculating distance, reduction or enlargement of the maps, calculating gradient and vertical exaggeration* and *determining content of the mapped area.*

In part (f), they explained the functions of Mwanza town with evidence from the map such as; *supply of social services due to the presence of health centres; dispensaries and hospitals; institutes and schools which are located almost all over the mapped area, trading activities due to the presence of market centre at grid reference 903172; administrative offices located at Mwanza town sub urban such as Mwanza Municipality. Transport and communication activities which are conducted through water via Lake Victoria as evidenced by Kamanga Ferry. There is also rail transport via Tanzania Central Railway*. Moreover, there is *road transport evidenced by all weathered road bound surface covering almost all over the map*; *fishing activities due to the presence of lake Victoria*, *industrial activities due to the presence of industrial area around grid reference 955194, tourism activities due to the presence of Saa Nane Island Game Reserve, Kirumba bay and beaches along the Lake* and *agricultural activities due to the presence of scattered cultivation around grid reference 945177.*

However, their scores varied from 15 to 25, depending on the strengths and accurateness of their responses as some of candidates were not able to get all the items correctly. Extract 1.1 is an example of a good response.

01. a) The position of the chimney is at grid reference 907 158.

b) The site of Mwanza town is influenced by the following factors:

Presence of Lake Victoria the presence of the water body has influenced the location of Mwanza town as it used as a source of water, means of navigation and for fishing and tourism purposes.

Presence of social services such as health centers and churches and mosques that are located around the mapped area ardot grid 907 168. Such that settlement is established due to availability of social services.

Presence of security and stable political factor or condition. This is evidenced by the presence of police stations and prisons and that sitting is done in areas with security.

Presence of good transport system has also influenced siting of Mwanza town. Example presence of roads from Mwanza town to Buhongwa at southern part of the map as well as marine transport in the lake Victoria.

01. b) The layout of Mwanza town involves the following patterns:

Nucleor settlement layout that is found especially around grid 890:220 influenced by presence of social services, the presence of markets as well as roads and ports or harbours.

Linear settlement layout that is found along the roads and the coast of Lake Victoria, as evidenced at the central part of the map.

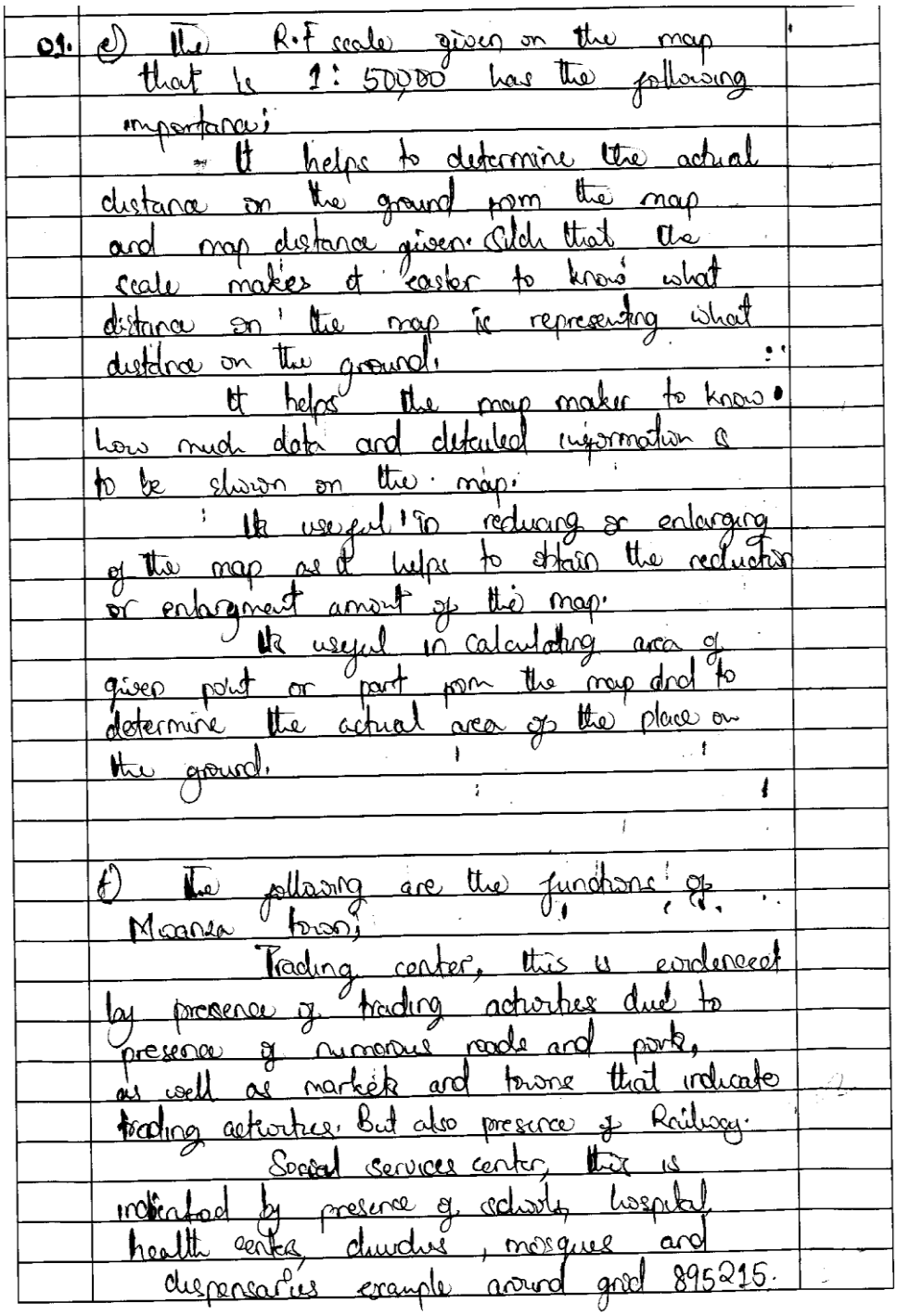
Scattered settlement layout is also found at the South eastern part around Miko hills and also around Bulale hill.

c) Bearing of Saa Nane Island Game reserve from Maliza Hill is 315°

d) The climate of the mapped area is Equatorial climate, but as modified equatorial climate. This is evidenced by;

The latitude of the mapped area at 2° 35' S of the equator that indicates equatorial climate.

The presence of lake victoria, permanent and temporary rivers as well as seasonal swamps also indicate moderate to high rainfall thus showing a modified equatorial climate.



01. a) The R.F scale given on the map that is 1 : 50,000 has the following importance:

It helps to determine the actual distance on the ground from the map and map distance given. Such that the scale makes it easier to know what distance on the map is representing what distance on the ground.

It helps the map maker to know how much data and detailed information is to be shown on the map.

It useful in reducing or enlarging of the map as it helps to obtain the reduction or enlargement amount of the map.

It useful in calculating area of given point or part from the map and to determine the actual area of the place on the ground.

b) The following are the functions of Moanza town;

Trading center, this is evidenced by presence of trading activities due to presence of numerous roads and ports, as well as markets and towns that indicate trading activities. But also presence of Railway.

Social services center, this is indicated by presence of schools, hospital, health centers, churches, mosques and dispensaries example around grid 895215.

Extract 1.1: A sample of a correct response to question 1

On the other hand, 28,107 (65.6%) candidates who scored from 9 to 14.5 marks were able to answer few parts of the question correctly. Some mixed

correct and incorrect answers while, others did not attempt some parts of the question. For example, one candidate provided incorrect type of climate as; *Tropical climate* with the evidences of equatorial climate such as; *the area receives heavy rainfall* and *the area lies within latitude 0^0 to 20^0 North and South of the Equator*. In part (e), one candidate wrote the importance of vertical photograph instead of R.F scale as follows: *it is used in map making* and *it is used for plotting contours.* Those incorrect answers depicted inadequate knowledge those candidates had on topographical map interpretation.

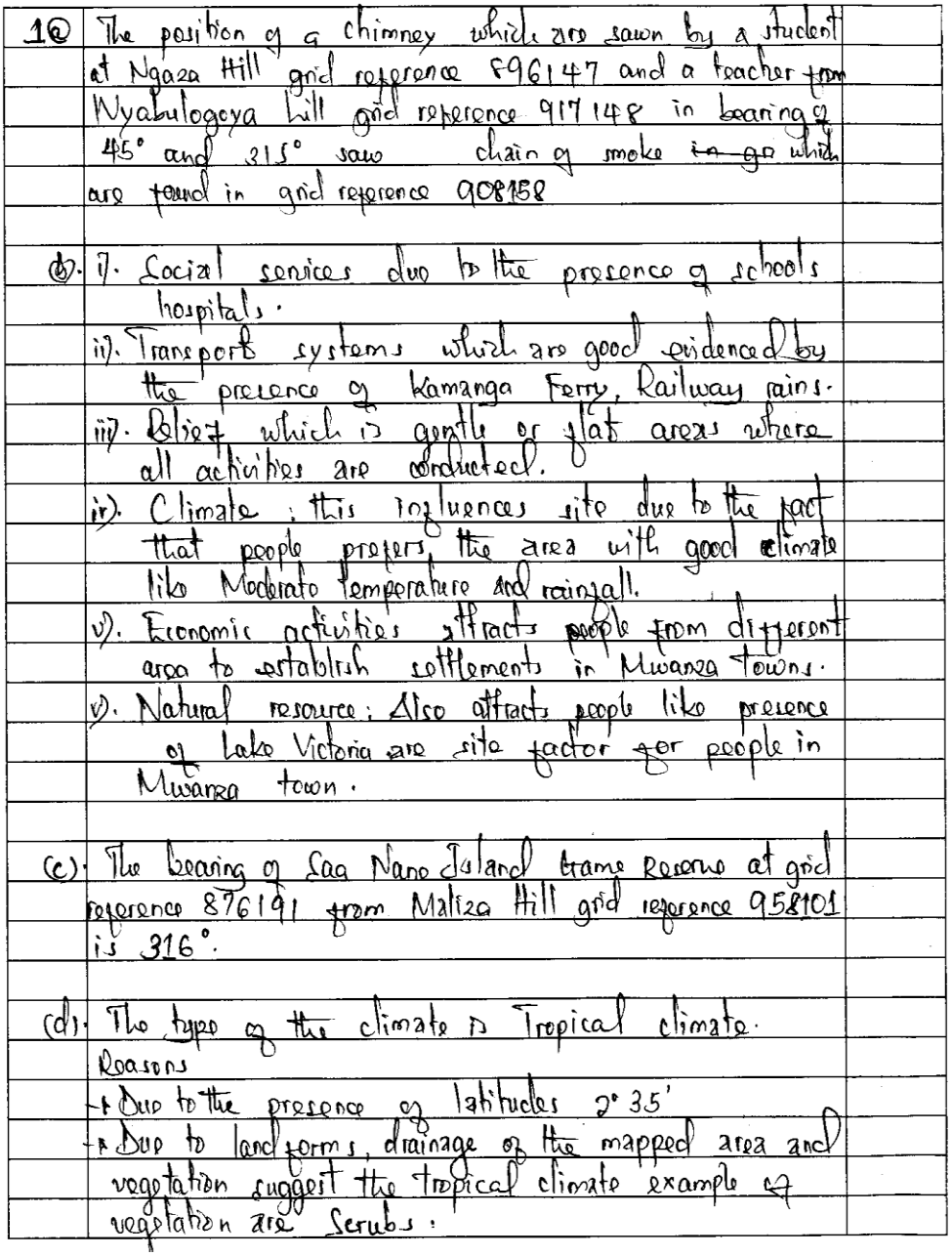
Further data analysis showed that, 8,946 (20.9%) candidates who scored from 0 to 8.5 marks had inadequate knowledge of the subject matter as only few candidates were able to identify position of Chimney in part (a). For example, one candidate wrote *the backward bearing 135^0* instead of *bearing 315^0*.

In part (b), some candidates failed to identify the site and description of the layout of Mwanza town. For example, some candidates identified the site of Mwanza town by using direction as *North East, Northern part of the map* while, others named drainage pattern as site of Mwanza town. For example, one candidate wrote the site of Mwanza town that *it is located at the Northern hemisphere*. They mentioned activities taking place in the area such as; *fishing activities*, *transportation* and *social services* as its layout.

In part (c), most of the candidates failed to determine the bearing of Saa Nane Island Game Reserve. One candidate for example wrote *416^0*. This indicates that, the candidates in this category lacked knowledge and skills of reading grid references and bearings. In part (d), many candidates failed to identify the correct type of climate with evidences, as most of them mentioned other types of the climates like *Semi – desert climate* and *Tropical or Equatorial climates* with incorrect reasons to support their responses. These candidates did not consider the most important guideline in interpreting the type of climate, that is latitude 2^0 35' which is within the belt of equatorial region.

In part (e), some candidates mixed correct and incorrect importance of R.F scale while, others did not answer this part of the question. In part (f), some candidates wrote factors which influence the growth of town such as; *availability of schools, availability of infrastructures, availability of water*

bodies and *availability of medical centres*. Others did not attempt this part of the question. Extract 1.2 represents such a weak response from one of the candidates who answered this question.


1@ The position of a chimney which are sawn by a student at Ngaza Hill grid reference 896147 and a teacher from Nyabulogoya hill grid reference 917148 in bearing of 45° and 315° saw chain of smoke ~~in~~ go which are found in grid reference 908158

(b). i). Social services due to the presence of schools hospitals.
ii). Transport systems which are good evidenced by the presence of Kamanga Ferry, Railway rains.
iii). Relief which is gentle or flat areas where all activities are conducted.
iv). Climate ; this influences site due to the fact that people prefers the area with good climate like Moderate temperature and rainfall.
v). Economic activities attracts people from different area to establish settlements in Mwanza towns.
vi). Natural resource ; Also attracts people like presence of Lake Victoria are site factor for people in Mwanza town.

(c). The bearing of Saa Nane Island Game Reserve at grid reference 876191 from Maliza Hill grid reference 958101 is 316°.

(d). The type of the climate is Tropical climate.
Reasons
- Due to the presence of latitudes 2° 35'
- Due to landforms, drainage of the mapped area and vegetation suggest the tropical climate example of vegetation are Scrubs.

Extract 1.2: A sample of an incorrect response to question 1

2.1.2 Question 2: Application of Statistics in Geography

This question required the candidates to study carefully the following scores awarded to 40 candidates in Geography test at one of Secondary Schools in Tanzania and answer the questions that followed:

66, 87, 79, 74, 84, 72, 81, 78, 68, 74, 80, 71, 91, 62, 77, 66, 87, 72, 80, 77, 76, 83, 75, 71, 83, 67, 94, 64, 82, 78, 77, 67, 76, 82, 78, 88, 66, 79, 64 and 71.

This question had three parts (a), (b) and (c). The candidates were required to; in part (a), prepare a frequency distribution table with the lowest class interval of 60-64. In part (b), from the distribution table prepared in (a), calculate (i) Mean score, (ii) Median (iii) Mode and in part (c), describe the nature of statistical data in Geography. The total marks allocated for this question were 15.

The question was answered by 23.316 (54.4%) candidates. The general performance on this question was good since 21,867 (93.8%) candidates scored 5.5 marks and above. Data analysis on this question showed that 17,457 (74.9%) candidates scored from 9 to 15 marks, 4,410 (18.9%) scored from 5 to 8.5 marks and 1,449 (6.2%) scored from 0 to 5 marks. Figure 2 illustrates the performance on this question.

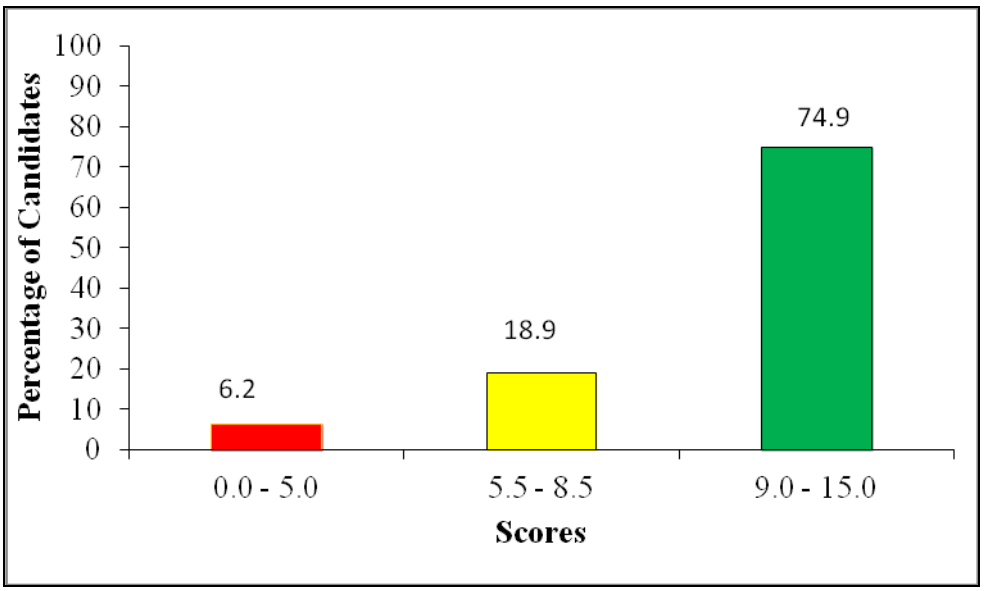


Figure 2: *Candidates' Performance in Question 2*

Further data analysis showed that, 17,457 (74.9%) candidates who scored from 9 to 15 marks understood the demands of the question. They revealed adequate knowledge and skills on the topic of application of statistics in Geography, especially on the concept of calculating statistical measures of central tendencies and interpretation of data.

In part (a), majority of the candidates managed to prepare frequency distribution table with the lowest class interval of 60 – 64. In part (b), most of the candidates were able to compute statistical measures of central tendencies by using correct formula as follows:

(i) Mean score

$$\text{Mean } (\ddot{x}) = \frac{fx}{f}$$

$$= \frac{3040}{40}$$

$$= 76$$

Therefore, mean score = 76

(ii) Median

$$\text{Median} = L + \frac{(n/2 - cfb)}{fm} \cdot I$$

$$= 75 - \frac{0.5\,(40/2 - 3 + 6 + 7)}{11} \cdot 5$$

$$= \frac{74.5\,(20 - 16)}{11} \cdot 5$$

$$= 74.5\,\frac{(4)}{11} \cdot 5$$

$$= 74.5\,\frac{(20)}{11}$$

$$= 74.5 + 1.82$$

Therefore, the median = 76.32

(iii) Mode

$$\text{Mode} = L + \frac{(t1)}{t1 + t2} i$$

$$= 74.5 + \frac{(4)}{t4 + 3} \cdot 5$$

$$= 74.5 + \frac{(4)}{7} \cdot 5$$

$$= 74.5 + \frac{(20)}{7}$$

$= 74.5 + (2.85)$

Therefore, Mode = $77.35 \approx 77$

In part (c), some of the candidates were able to describe clearly the nature of statistical data in Geography as: *discrete data*, *continuous data*, *individual data* and *grouped data.* The candidates were competent in applying calculations in statistical measures of central tendencies hence they were able to score higher marks. The quality and clarity in their responses led to variations in their scores. Extract 2.1 shows a sample of correct responses from a candidate who performed well on this question.

2 a). FREQUENCY DISTRIBUTION TABLE

Class interval	X	f	fX
60 - 64	62	3	186
65 - 69	67	6	402
70 - 74	72	7	504
75 - 79	77	11	847
80 - 84	82	8	656
85 - 89	87	3	261
90 - 94	92	2	184
		40	3040

2b) i) From Mean $\bar{x} = \frac{\Sigma fx}{\Sigma f}$

where $\Sigma fx = 3040$ and $N = 40$

$\bar{x} = \frac{3040}{40}$

$= 76.$

i. The mean score is 76.

2b) ii) From Median $= L + \left(\frac{N/2 - n_b}{n_w}\right) c.$

2b) ii) Now $L = \left(\frac{N}{2}\right)^{th}$ value.

$= \left(\frac{40}{2}\right)^{th} = 20^{th}$ value.

From the table $L = 74.5$

$C = 5 \quad N = 40 \quad n_b = 16 \quad n_w = 11$

$\text{Median} = 74.5 + \left(\frac{\frac{40}{2} - 16}{11}\right) 5$

$= 76.32.$

∴ The median is 76.32.

2b) iii) From $\text{Mode} = L + \left(\frac{t_1}{t_1 + t_2}\right) c.$

$L = 74.5 \quad t_1 = 4 \quad t_2 = 3 \quad c = 5.$

$\text{Mode} = 74.5 + \left(\frac{4}{4+3}\right) 5$

$= 77.36.$

∴ The mode is 77.36.

2 c) Nature of statistical data can be as follows:

(i) Discrete data - This is the data which occurs in whole numbers only. It can not be expressed in decimals for example, the number of people is 65.

(ii) Grouped data - This is the data which is represented in a range for example from 64 - 69.

(iii) Continous data - This type of data is the one with no end, for example the number of people from the age of 20 and above.

(iv) Individual data - this type of data occurs in whole numbers but for a single item. For example, the scores in a geography test are 66, 87, 79, 74, 59, and 94.

Extract 2.1: A sample of a correct response to question 2

On the other hand, 4,410 (18.9%) candidates who scored from 5 to 8.5 marks revealed an inadequate knowledge and skills on the application of statistics in Geography topic, especially on the concept of calculating statistical measures of central tendency and nature of statistical data.

In part (a), some of the candidates managed to prepare a frequency distribution table with the lowest class interval of 60-64 while, others failed to prepare it. Other candidates failed to prepare frequency distribution table, but managed to write down the correct formula. For example, one candidate tabulated a frequency distribution correctly, yet failed to calculate mean score, median and mode.

In part (c), some candidates mixed correct and incorrect answers about the nature of statistical data in Geography, while others did not attempt this part of the question. The variation of their scores was attributed to the way they responded to the question.

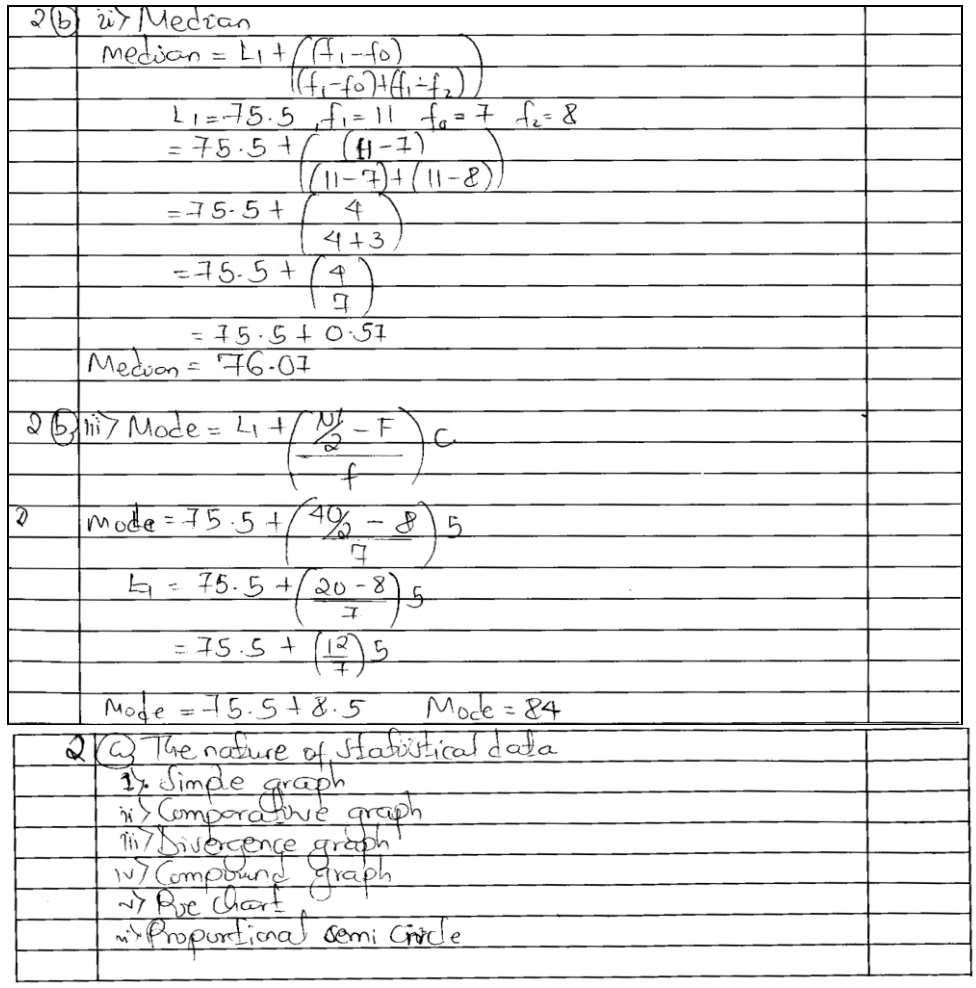
Moreover, 1,449 (6.2%) candidates who scored from 0 to 5 marks lacked knowledge and skills on the topic on Application of Statistics in Geography, especially on calculating measures of central tendency and nature of statistical data. Those candidates failed to put into practice the knowledge of application of statistics in Geography. Some candidates for example, in part (a), were able to write the lowest class interval of 60 – 64 only without tabulating while, others were not able. One candidate for example, wrote the correct class interval as: *60 -64, 65 – 69, 70 – 74, 75 – 79, 80 – 84, 85 – 89, 90 – 94,* but did not do any calculations.

In part (b), some candidates were able to write the correct formula but, failed to calculate (i) Mean score (ii) Median and (iii) Mode while, others failed to compute any statistical measures. One candidate for instance provided the correct formula of only two statistical measures but, failed to compute their values such as;

$$\text{Mean } (\bar{x}) = \frac{\sum fx}{\sum f}$$

$$\text{Mode} = L + \left(\frac{t1}{t1 + t2}\right)i$$

In part (c), some of the candidates did not understand the requirements of the question, as they mentioned types of data instead of nature of data. One candidate for example, wrote *Primary data* and *Secondary data* while, another candidate wrote *Qualitative* and *Quantitative data*. Some of the candidates gave two types of sources of Geographical data. One candidate for example, wrote *Primary source of data* and *Secondary source of data*. On the other hand, some candidates provided inadequate responses on the the nature of statistical data in Geography and others mixed correct and incorrect responses. Examples of incorrect responses were: *Descriptive data* and *Categorical data*. Extract 2.2 shows a sample of incorrect response on this question.



Extract 2.2: A sample of an incorrect response to question 2

In extract 2.2, the candidate mixed up the formula for Median and Mode in part (b). The candidate also used median formula to calculate mode and used the formula for calculating mode to calculate median. In part (c) the candidate had misconceptions as he/she mentioned ways used to present data instead of the nature of statistical data in Geography.

2.1.3 Question 3: Photograph Interpretation

The candidates were required to carefully study the photograph given and then answer the questions which followed. The question had six parts; (a), (b), (c), (d), (e) and (f). The candidates were required to: (a) Name the types of photograph, (b) Give four advantages of the type of the photograph named in (a), (c) With evidence, state the time when the photograph was taken, (d) Name the physical features seen on the photograph, (e) State two possible causes of the physical features named in (d) and (f) Describe the physical process taking place in the area. The total marks allocated for this question were 15.

PHOTOGRAPH

The question was answered by 19,536 (45.6%) candidates. The analysis showed that the general performance was average since 10,857 (55.6%) candidates who attempted it scored 5.5 marks and above. Further data analysis showed that, 3,122 (16%) candidates scored from 9 to 15 marks,

7,735 (39.6%) scored from 5.5 to 8.5 marks and 8,679 (44.4%) scored from 0 to 5 marks as illustrated in figure 3.

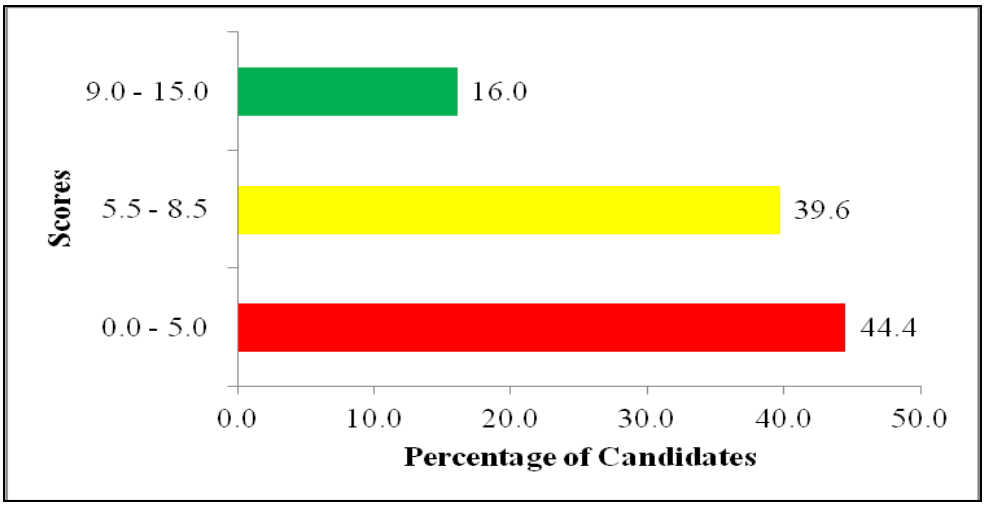


Figure 3: *Candidates' Performance in Question 3*

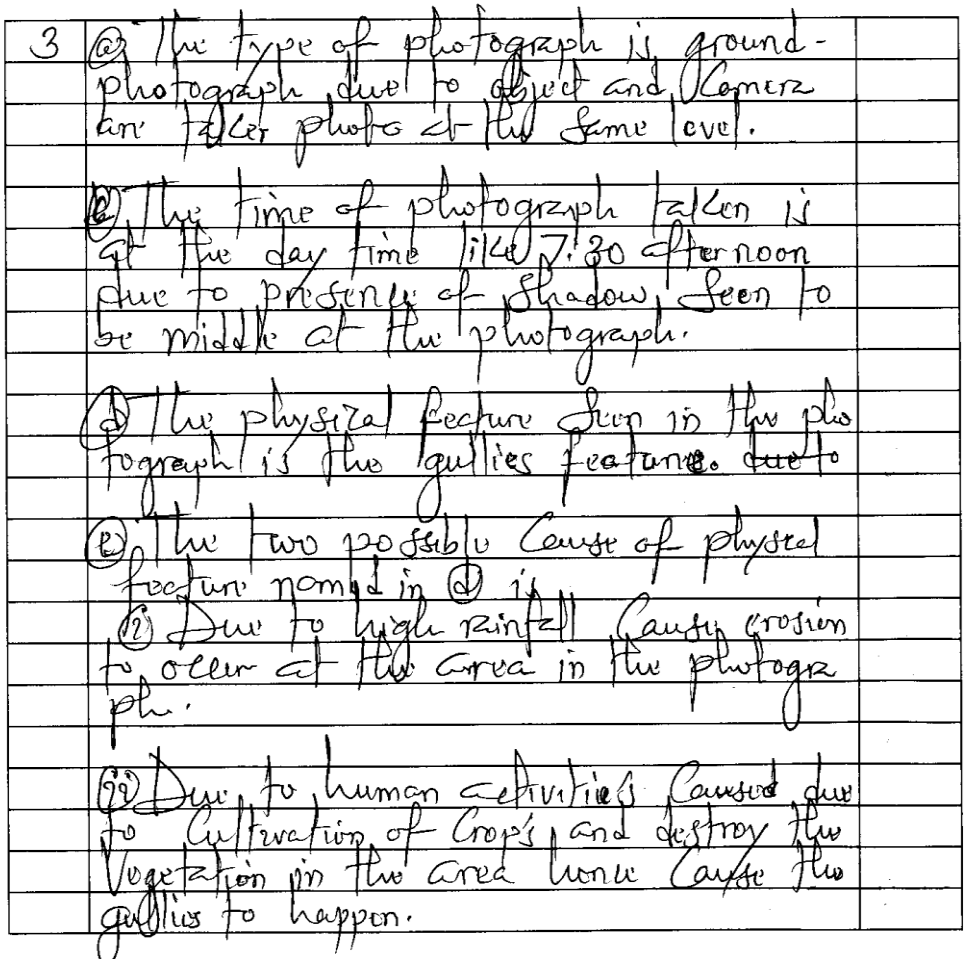
Further data analysis showed that, the 3,122 (16%) candidates who scored from 9 to 15 marks were knowledgeable on the topic on the Photograph Interpretation topic. This is because managed to answer the question correctly despite the fact that there were variations of marks which was due to the strengths and weaknesses of their responses.

In part (a), the candidates were able to identify the type of photograph as *Ground level photograph*. In part (b), they gave advantages of the type of photograph named in (a) such as; *It provides instant record of the landscape at a given time, it helps to keep records of different features for different purposes, a familiar picture is presented in a contrast to unfamiliar views, the print of ground photograph can replace a great deal of verbal description* and *the grounds photograph taken can be used as an aid to field sketching mapping.*

In part (c), most of the candidates managed to identify the time when the photograph was taken as *noon time due to the fact that the tree shadow at the foreground appears to be around the tree, it is a sunny noon.* In part (d), most of the candidates were able to identify the physical feature seen in the photograph as *Gullies.*

In part (e), the candidates stated possible causes of physical features named in (d) including: *water erosion especially, when rill erosion becomes more developed, human activities as it often begins with the removal of natural vegetation be it forest or grasses as a result of overgrazing or poor farming methods* and *can either be a result of combination of landslide, down warping with association of rainfall/running water.*

In part (f), the candidates were able to describe the physical process taking place in the area as *gully erosion occurs when heavy rainfall rushes down steep slope cutting deep grooves into the land. The grooves became deepens and widened to form gullies which eventually cut up the land to give badlands.* Extract 3.1 shows the good response for question 3.

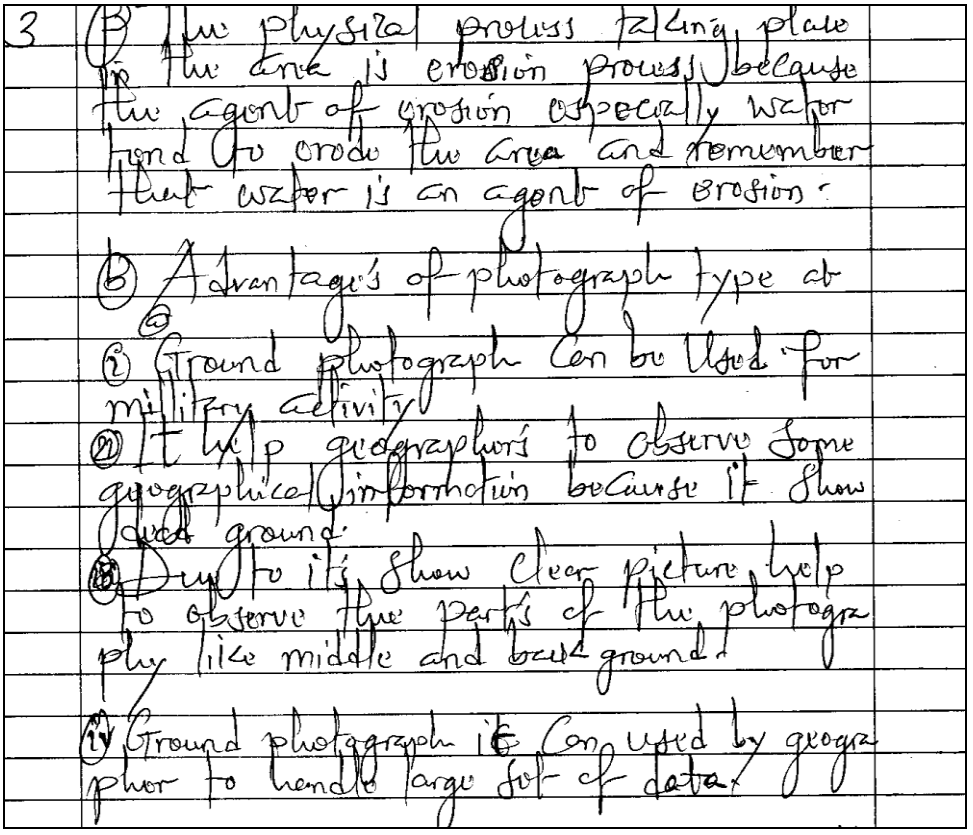

3 (a) The type of photograph is ground-photograph due to object and camera can take photo at the same level.

(b) The time of photograph taken is at the day time like 7.30 afternoon due to presence of shadow seen to be middle at the photograph.

(c) The physical feature seen in the photograph is the gullies features due to

(e) The two possible cause of physical feature named in (d) is
(i) Due to high rainfall cause erosion to occur at the area in the photograph.

(ii) Due to human activities caused due to cultivation of crops and destroy the vegetation in the area hence cause the gullies to happen.



Extract 3.1: A sample of a correct response to question 3

Furthermore, the 7,735 (39.6%) candidates who scored from 5.5 to 8.5 marks had an inadequate knowledge and skills on the topic on Photograph Interpretation. Some of those candidates answered correctly some parts of the question while, others mixed correct and incorrect answers. Some of the incorrect answers in part (a) were *low oblique* and *high oblique photographs* instead of *ground level photograph* and in part (f) were *weathering* and *volcanic activities* instead of *erosion process*.

Moreover, the 8,679 (44.4%) candidates who scored from 0.5 to 5 marks showed lack of knowledge and skills on the topic on Photograph Interpretation. This led to the candidates to provide incorrect answers in many parts of the question. Some of the candidates identified the correct type of photograph as *Ground level photograph* in part (a), while, others wrote other types of photographs such as *Low Oblique photograph* and *High Oblique photograph*. This indicates that, these candidates were not aware of the characteristics of each type of photograph.

In part (b), most of the candidates were not able to give four advantages of the type of photograph named in (a). For example, one candidate had a confusion between map and photograph as he/she wrote advantages of a map such as; *it is used to show distribution of settlement, population* and *human activities,* instead of the advantages of ground level photographs which are; *It provides instant record of the landscape at a given time, it helps to keep records of different features for different purposes, a familiar picture is presented in a contrast to unfamiliar views, the print of ground photograph can replace a great deal of verbal description* and *the grounds photograph taken can be used as an aid to field sketching mapping.*

In part (c), most of the candidates were not able to identify the time when the photograph was taken with evidences. For example, one candidate stated that the photograph was taken *in the morning due to the presence of shadow in the Western side* while, another candidate wrote that *it was evening due to the absence of shadow*.

In part (d), some candidates failed to name the physical features seen in the photograph. Instead they mentioned features which are formed as results of Earth's movement. For example, one candidate wrote *Escarpment* while another candidate named *Rift valleys*. On the other hand, some candidates mentioned features which are formed as a result of wind movement in desert area such as; *Rock Pedestals* and *Zeugens,* instead of *Gullies*.

In part (e), some of the candidates stated only one possible cause of the physical features named in part (d) and others provided incorrect answers. For example, one candidate wrote forces which lead to the formation of various landforms such as; *folding* and *faulting* instead of *water erosion* and *human activities*. In part (f), most of the candidates failed to mention the physical process taking place in the area. They listed agents of erosion such as; *running water, ice, wave* and *wind* instead of *gully erosion*. Extract 3.2 is an example of the incorrect responses.

3 a) The type of photograph is Vertical Aerial photograph. This evidenced by the following factors;
- It show only the top view of the objects
- The scale decreases from fore to back.
- Also features shown are small in size.

This evidence that the photograph is vertical Aerial photograph.

b) i) Vertical aerial photograph is used by Catographers in map making.
ii) It is used in showing relief features on the earth's surface like hills.
iii) It is essential for geographical studies like climate and relief determination
iv) The type of photograph shows the features of various objects which are found on remote sensing.

c) The photograph was taken at Evening. This due to the fact that the shadow lie on East, This evidence that the photograph was taken at evening.

d) The physical features seen on the photograph is ~~Hills and Cliffs~~ Hills and Grooves.

e) i) Soil erosion, which erode some parts of the land
ii) presence of hard and impermiable rock on the earth's surface.

Extract 3.2: A sample of an incorrect answer to question 3.

In extract 3.2 the candidate wrote *vertical aerial photograph* as a type of the photograph in part (a), instead of *ground photograph*. In part (b), the candidate also wrote advantages of vertical aerial photograph instead of the advantages of ground photograph which are; *It provides instant record of the landscape at a given time, it helps to keep records of different features for different purposes, a familiar picture is presented in a contrast to unfamiliar views, the print of ground photograph can replace a great deal of verbal description* and *the grounds photograph taken can be used as an aid to field sketching mapping.* In part (c), the candidate wrote that *the photograph was taken at evening,* instead of *noon time due to the fact that the tree shadow at the foreground appears to be around the tree, it is a sunny noon.* Finally in part (e), the candidate wrote *soil erosion,* instead of either *water erosion, landslide* or *down warping*.

Section B: The Dynamic Earth and Consequence, Water Masses, Space Dynamics and Study of Soils.

2.1.4 Question 4: The Dynamic Earth and Consequences

The candidates were given the statement that "In a Form Five classroom, a Geography teacher stated that, "Sedimentary rocks are said to be both industrial raw materials and sources of energy". Then they were required to support the teacher's statement with eight points. The total marks allocated for this question were 20.

This question was answered by 25,503 (59.5%) candidates. The general performance was good since 20,723 (81.3%) candidates who attempted it scored 7 marks and above. Data analysis showed that 10,367 (40.7%) scored from 12 to 20 marks, 10,356 (40.6%) scored from 7 to 11.5 marks and 4,780 (18.7%) scored from 0 to 6.5 marks. Figure 4 illustrates the performance for this question.

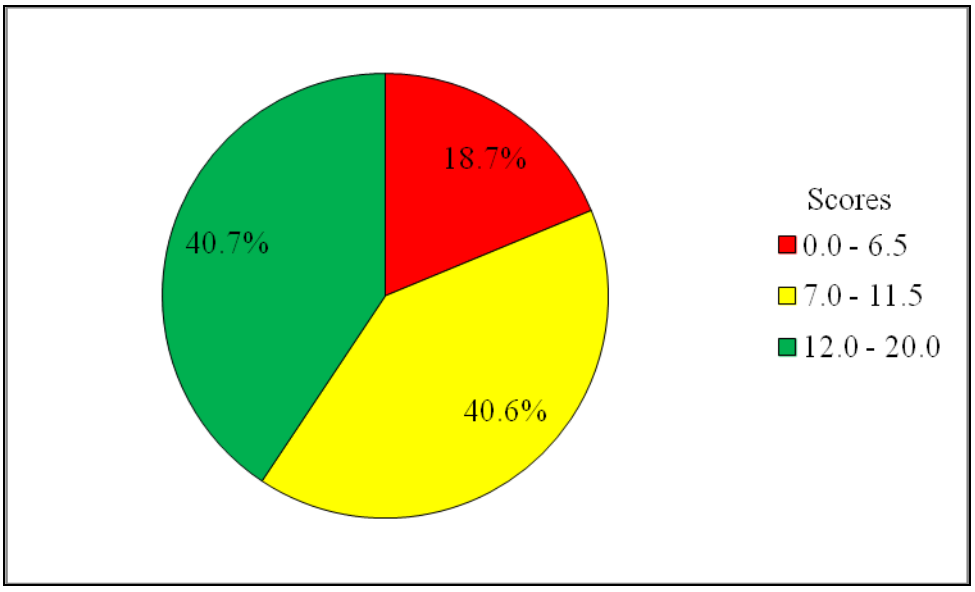


Figure 4: *Candidates' Performance in Question 4*

Further data analysis showed that, 10,367 (40.7%) candidates who scored from 12 to 20 marks had knowledge of the structure of the Earth, particularly on the materials of the Earth and their characteristics. They were able to describe sedimentary rocks according to their mode of formation such as; *Sedimentary rocks are formed from the deposition of sediments by wind, water or ice. After deposition, the sediments are lithified to form layers known as strata.* Some of the candidates managed to classify sedimentary rocks into three groups; *organically formed sedimentary rocks, mechanically formed sedimentary rocks* and *chemically formed sedimentary rocks.*

Most of the candidates explained the importance of sedimentary rocks as industrial raw materials and as sources of energy as follows; *Chalks and limestone are used in manufacturing of cement in the cement industries. They are also used in brick manufacturing industries. Examples are sand stone and siltstone which are mechanically formed. Also Sedimentary rocks like rock salt, potash are used in the manufacturing of salt both for human and other uses. Also, they are used in the manufacturing of chemicals like the agrochemical and fertilizers respectively. Sedimentary rocks like Silica are used in the manufacturing of glasses. Some other sedimentary rocks like potash and salt rock are important raw materials in soap manufacturing industries. Some organically formed rocks like coral reef*

are used in the manufacturing of decorations. Gypsum is crushed to make plaster of Parish (Pop) and ceiling boards and *some rocks contain salts such as Nitrates and Phosphates which are used on making industrial fertilizers.*

The candidates also managed to describe the importance of sedimentary rocks as a source of energy in the following ways: *Organically formed rocks like coal are used as fuel in both homes and industries. Oil (Petroleum) occurs in sedimentary rocks which when extracted and refined is used to run machines. Moreover, natural gas occurs in sedimentary rocks and it is used as fuel in homes and factories.* The variations of their marks were due to the difference in the strengths and accurateness of their responses. Extract 4.1 is a sample of good responses on this question.

4. Sedimentary Rocks refers to the type of the rocks which are formed when weathered materials are accumulated, Cemented and Compacted together, this kind of rocks they can Undergo metamorphism to form another kind of rocks also they contain fossils, they are formed in strata also they do not Contain Crystalls. Sedimentary rocks are Catogorised into Various forms like mechanically formed Sedimentary rocks Such as mudstones, Organically formed Sedimentary rocks Such as coal and chemically formed Sedimentary rocks Such as Silt. Sedimentary rocks are Said to be both Industrial raw materials and Sources of energy.

Sedimentary Rocks are Said to be Industrial raw materials because are Used in the Industry to manufacture Various products, among of those products are as follows.

Sedimentary rocks are Used in the Industry to manufacturer Cement; rocks like limestones are used as raw-materials for making Industrial products like cements which are Used for building for example Some Industries are located at Tanga region where there are availability of limestone for easy manufacturing of cement for example Simba Cement.

Sedimentary rocks are Used to produce Various chemicals which are Used for Various purposes. rocks like phosphate and potash are Used for making chemicals for Various purposes like painting.

Sedimentary rocks are Used in the Industry for manufacturing glass; Some kind of this rocks are Used as raw materials for making glass for example Silica. products which is produced can also be Used for making, windows, doors, and domestic appliances

4. Sedimentary rocks are Used for manufacturing fertilizers. Some sedimentary rocks like phosphate and potash are also Used in the Industry for making fertilizers like NPK which are Used to Increase Nutrients in the Soil and promote the growth of Crops So as to ensure production of high yield of Crops

Sedimentary Rocks are Used for making Bricks; Some kind of this rock like mudstone and Sandstones are Used in the Industry to manufacture bricks which are Used for Construction of Various things like houses and bridges.

Xpart from Sedimentary rocks to be Industrial raw materials they can also be the Source of energy because they Contribute in making fuels Such as;

Oil (Petroleum), Sedimentary rocks are Used as the Source of oil because Sedimentary rocks are weathered materials mostly fossil materials which when are deposited beneath the earth Surface for long period of time it leads to the formation of oil which is Used for running machines in the Industry.

Natural Gas, Sedimentary rocks Contribute to the formation of Natural gas because of decomposition of dead Organic matter which staying for long period of time Under the earth Surface for example Natural Gas Obtained at Mtwara, Tanzania, it is Used for Various purposes like cooking and even running Some machines

Coal, Sedimentary rocks are the Source of the formation of the coal Under the ground because of the decomposition of dead Organic matters (fossils) staying for long period of time, for example coals which are obtained at Kiwira in Mbeya, they can also be Used for cooking heating and running Some machines in the Industries.

To Sum Up; Sedimentary rocks has many great potentials which results to the development of Industries and Country at large therefore these rocks are Suppose to be Utilized effectively so as to bring about those Development.

Extract 4.1: A sample of a correct response to question 4

Furthermore, 10,356 (40.6%) candidates who scored from 7 to 11.5 marks had an inadequate knowledge and skills on the topic on the structure of the Earth particularly on general materials of the Earth. Some candidates managed to provide relevant introduction of sedimentary rocks, classified them according to their mode of formation, but gave out few importance of these rocks. In addition, some managed to give relevant introduction and importance of sedimentary rocks, while others provided relevant introduction but mixed up correct and incorrect explanations of some importance of sedimentary rocks. One candidate for example, managed to provide relevant introduction of sedimentary rocks, but mixed up correct and incorrect importance of sedimentary rocks as raw materials and sources of energy. Incorrect importances were: *sedimentary rocks are source of tourist attraction* and *source of soil formation*.

Moreover, 4,780 (18.7%) candidates who scored from 0 to 6.5 marks lack knowledge and skills on the types of rocks, rocks classification and their importance. Their weak responses indicated that they did not understand the demands of the question as some of them gave relevant introduction, but mixed up correct and incorrect answers.

Some of the candidates gave inadequate introduction of sedimentary rocks and few importances. In addition, some candidates failed to provide introduction and classification of rocks, but they mentioned only one importance of sedimentary rocks while, others provided the general importance of rocks instead of the importance of sedimentary rocks. For example, one candidate wrote rocks are: *source of tourists' attraction, source of soils formation, provides habitat for living organisms like plants and animals* and *source of national income.* Extract 4.2 is a sample of incorrect responses from one of the candidates who attempted this question.

04 Rock is a aggregate of soil parts/particle. Sedimentary rock are formed by sediment. They undergo Metermorphism to form metamorphic rocks. Sedementary Rocks are not only Industrial raw materals and sources of energy but also as follows.

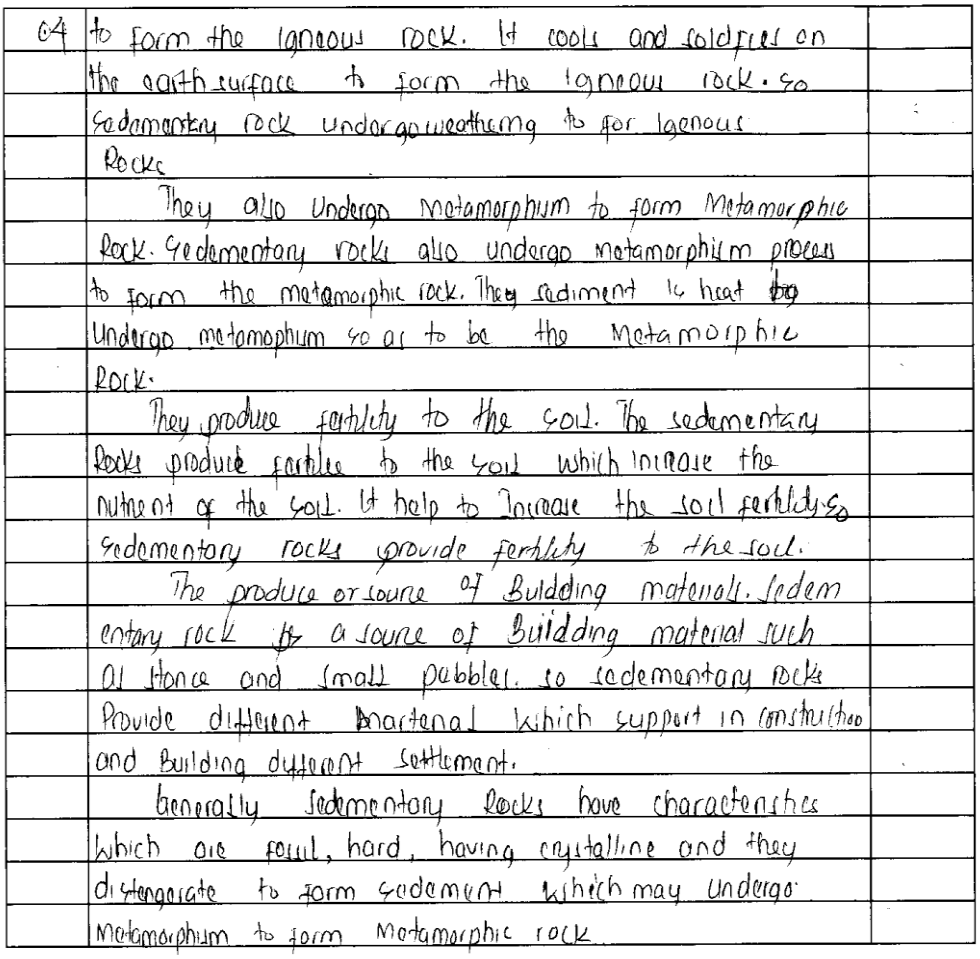
They store underground water. Also sedementary Rocks perform a duty of storing the underground which help domestic use and for animal drinking. The store clean water which helpful to human being. So the sedementary rocks they also store underground water.

They undergo fossil change to form minerals and humus. They have fossil change for forming different mineral which support the formation of soil and help in increase nutrient to the soil. They provide Humus which increase the presence of nutrient in the soil.

They are crystalline in nature. Sedimentary rocks are also crystalline producing different sources of energy which help in forming of landslides and land shapes. The sedementary rocks contain different so of energy. Where the undergo metamorphism to form the Metamorphic rocks.

They are hadd and non stressed. Sedementary rock in nature are usually hard because of forming by sediments. The sediments makes the sedementary rocks to be hard and non stressed. So the sedementry Rocks are hard and non stressed because of formed by sediment.

They undergo weathring to form igneous rocks. Also the sedementry rock undergo the weathering process of disintegration into small particle so as to rock and soil particles and


04 to form the igneous rock. It cools and solidfies on the earth surface to form the igneous rock. So sedimentary rock undergo weathering to for Igenous Rocks

They also Undergo metamorphism to form Metamorphic Rock. Sedimentary rocks also undergo metamorphism process to form the metamorphic rock. They sediment is heat by Undergo metamophism so as to be the Metamorphic Rock.

They produce fertility to the soil. The sedimentary Rocks produce fertile to the soil which increase the nutrient of the soil. It help to Increase the soil fertility. So sedimentary rocks provide fertility to the soil.

The produce or source of Budding material. Sedimentary rock is a source of Building material such as stone and small pebbles. So sedimentary rocks Provide different Material which support in construction and Building different settlement.

Generally sedimentary Rocks have characteristics which are fossil, hard, having crystalline and they disintegrate to form sediment which may undergo metamorphism to form Metamorphic rock

Extract 4.2: A sample of incorrect response to question 4

In extract 4.2, the candidate explained the general characteristics of rocks such as; *they are crystalline in nature, they undergo metamorphism to form metamorphic rocks (*characteristics of sedimentary rocks*)* and *they are hard and non stratified (*characteristics of igneous rocks*)* instead of explaining how sedimentary rocks are used as raw materials in the industries and also as sources of energy as per the question requirements.

2.1.5 Question 5: Water Masses

The question required the candidates to justify the statement that; "Coastal landforms are significant to human lives", by giving six points. The total marks allocated for this question were 20.

This question was attempted by 28,905 (67.4%) candidates. The overall performance of this question was good since 23,557 (81.5%) candidates who attempted it scored 7 marks and above. Further data analysis showed that, 8,327 (28.8%) candidates scored from 12 to 20 marks, 15,230 (52.7%) scored from 7 to 11.5 marks and 5,348 (18.5%) scored from 0 to 6.5 marks. Figure 5 illustrates the performance on this question.

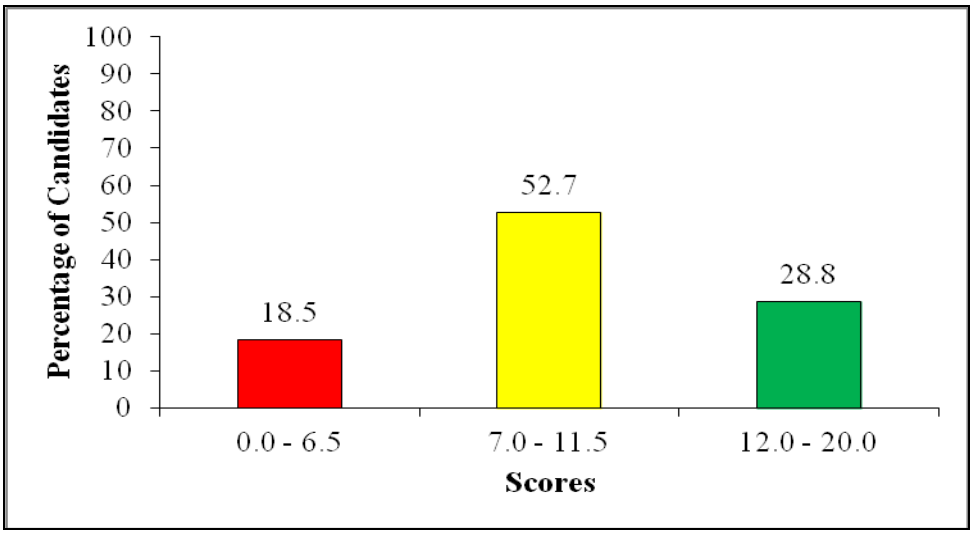


Figure 5: *Candidates' Performance in Question 5*

Further data analysis revealed that, 8,327 (28.8%) candidates who scored from 12 to 20 marks had adequate knowledge of the Water Masses topic especially the significance of coastal landforms. This is due to the fact that the question demanded high level of analytical and reasoning skills.

Some of the candidates managed to score higher marks because they were able to justify the significance of coastal landforms. One candidate for example, justified the significance of coastal landforms to human lives as follows: *they are essential breeding sites for aquatic creatures;* they *provide sources of raw materials for various industries. They are a site for alluvial soil which is used for construction and centre for agriculture, the features act as natural protection against strong waves, leisure sites for tourists, they provide sites for human settlement and deep, well sheltered harbours have been developed from submerged coastlines.* Strengths and weaknesses of their responses caused candidates to vary in their scores. Extract 5.1 represents a sample of good responses.

5. Coastal landforms are the type of landforms formed along the coast of the oceans due to wave actions. Coastal landforms includes Tombolo, Beaches, cliffs and coral reefs. Coastal landforms are mainly due to wave erosion or wave deep deposition. Coastal landforms can be highlands and lowlands: The coastal landforms have the following importance to human lives;

Facilitates construction of harbours and ports; most of harbours and ports are constructed along the coastal landform which a deep valley. Due to the presence of fiord coast, easy construction of harbour and port is ensured.

Acts as tourist attraction; some features along the coast tend to act as honeypot because of the beautiful ~~scenic that~~ scenic that they offer. Example a sand beach can be a very good tourist attraction centre.

Provides recreation zone for human; some landforms on the coastal area acts as recreation zone by swimming and playing games. Example Beach are good example of coast landforms that is formed due to deposition of sand, shingles
People normally recreate themselves by ~~footch~~ swimming or play beach soccer or volley.

Fishing zone and breeding; some landform in the ocean coast act as fishing grounds and sometimes act as breeding ground. Example in the Barrier Reefs and

-5- atoll, they are considered to be fishing ground due to availability of fish food, simplifying the fishing activity.

Source of Raw materials; the landforms along the ~~Beach~~ coast provide raw materials for undertaking different activities. Example the sand along the Beach can be used for construction purposes and coral and Limestone region can be used as raw materials in cement industry.

Protection against dangerous wave actions; some feature along the coast tend to act as Barrier so as to prevent dangerous wave action from attacking the land. Example the cliffs tend to protect the land from the wave action.

Generally; the coastal landforms are not static since they keep on changing due to continuous action of wave along the coast leading to formation and modification of the coastal landforms.

Extract 5.1: A sample of a correct response to question 5

On the other hand, 15,230 (52.7%) candidates who scored from 7 to 11.5 marks had inadequate knowledge and skills on the topic on Water Masses. They failed to justify accordingly how coastal landforms are significant to human lives. Some of the candidates in this category managed to give the introduction of coastline but explained partially the importance of coastal landforms and did not conclude. Some candidates provided irrelevant introduction with few importance of coastal landforms with insufficient conclusion. Others mixed correct and incorrect responses on the significance of the coastal landforms.

Moreover, 5,348 (18.5%) candidates who scored from 0 to 6.5 lacked the knowledge and skills on the topic on Water Masses, hence they scored lower marks. In this category, some of the candidates failed to provide relevant introduction of coastline and the significance of coastal landforms. Some of candidates provided irrelevant introduction and failed to explain the significance of coastal landforms. Others explained the significance of tourism, instead of coastal landforms. For example, one candidate wrote *source of foreign exchange, growth of towns and cities, source of income and source of employment*.

2.1.6 Question 6: Space Dynamics

In this question, the candidates were given the statement that "Asha was travelling from Dar es Salaam to Mbeya. While on the way she started to experience changes of temperature from hot to cold and she did not understand why". Then, they were asked as expert in climatology to analyse eight factors which affect the temperature of a place.

This question was attempted by 34,577 (80.7%) candidates. The general performance on this question was good since 31,842 (92.1%) candidates scored 7 marks and above. Data analysis showed that 19,303 (55.8%) scored from 12 to 20 marks, 12,539 (36.3%) scored from 7 to 11.5 marks and 2,735 (7.9%) scored from 0 to 6.5 marks. Figure 6 illustrates the performance of the candidates on this question.

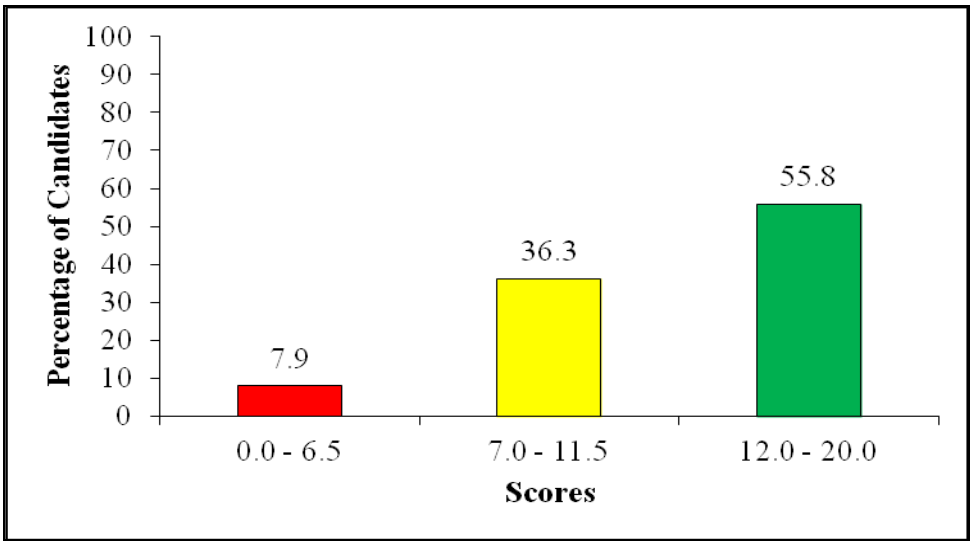


Figure 6: *Candidates' Performance in Question 6*

Further data analysis showed that, 19,303 (55.8%) candidates who scored from 12 to 20 marks showed adequate knowledge and skills on the topic on Space Dynamics, especially on the concept of climatology. They provided relevant introduction of temperature as *the degree of hotness and coldness of the atmosphere. It is influenced by the amount of heat in the atmosphere*. They managed to described clearly the factors which affect the temperature on that area as *latitude, altitude, aspect, cloud cover, distance from the sea, maritime affect continental effect, length of the day, soil colour, distance from the sun, vegetation, winds* and *ocean currents.* Also, they provided relevant conclusion. The strengths and weaknesses in their responses caused variations in their scores. Extract 6.1 is an example of correct response to this question.

6. Temperature; It is the degree of hotness or coldness of the body. Temperature is measured by thermometer and it's expressed in degree centigrade. Temperature of an area is not constant, it tends to vary from place to place, or from time to time due to some climatical factors or physical factors.

The following are the factors affecting temperature of an area.

Distance from the sun; Areas which are near to the sun perihelion regions tends to experience very high temperature due to radiation from the sun, while Areas which are far away from the sun example aphelion regions they experience low temperature due to great distance from the Sun at approximately 152 millions km.

Distance from the sea; Areas which are near to the sea example in costal areas like Pwani and Dar-es-salaam in Tanzania tends to experience high temperature because sea absorbs much solar radiation and emits during night, But also in areas which are far away from the sea tends to experience low temperature example in desert regions.

Nature of the Earth's surface; Temperature is also affected by the nature of the earth's surface example in areas covered with water bodies the rate of temperature is high simply because water is a good absorber of solar energy from the sun, but areas covered with land there is low temperature this is because land it absorb very little amount of sun rays and the most it reflects back this is because Land has no uniform colour.

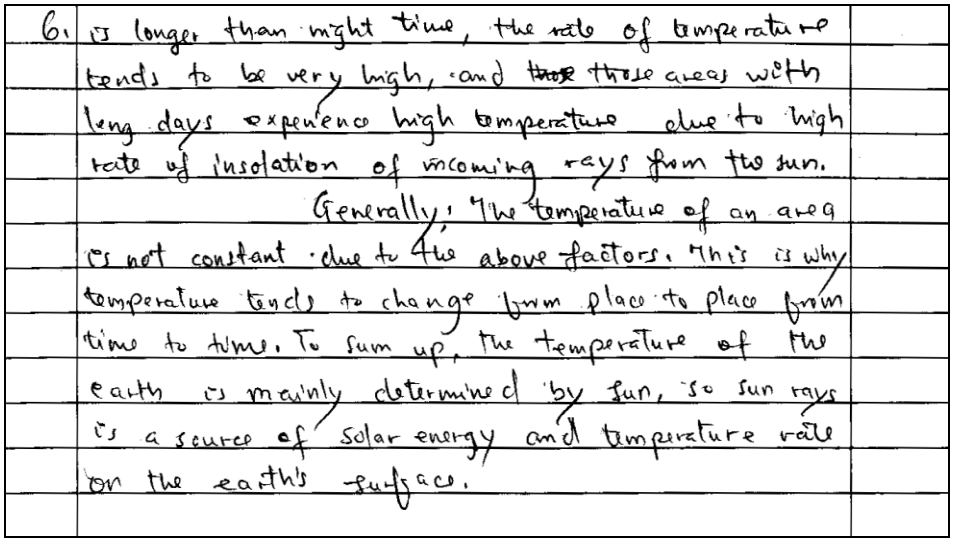
6. Altitude; Is the decrease in temperature due to increase in altitude; The temperature of an area is affected by altitude just because in high land there is low temperature but in low land there is high temperature this is because of environmental lapsrate; Example at the top of mound kilimanjaro there is low temperature while at the bottom there is high temperature.

Aspect; This is the side of the mountain which is exposed to the sun; So side of mountain which is exposed to the sun experience high temperature due to absorbtion of sun rays while areas, or side of mountain which is not exposed to the sun receives low temperature.

Clouds cover; Areas which is covered with clouds tends to experience low temperature, this is because clouds acts as an insulator from the incoming rays from the sun. But in areas where there is clear sky tends to experience high temperature due to absorption of sun rays example in desert areas, there is no clouds cover.

Ocean currents; In areas where there is warm oceanic currents tends to have high temperature rate example along Mozambique there is warm oceanic currents. While areas with colel ocean currents, the rate of temperature is very low example along Beinguela there is cold ocean currents so temperature is very low.

Length of the day and night; The leng of the day and night also affects the rate of temperature of an area. This is because insolation takes place during the day. So if day time


6. is longer than night time, the rate of temperature tends to be very high, and ~~those~~ these areas with long days experience high temperature due to high rate of insolation of incoming rays from the sun.

Generally, The temperature of an area is not constant due to the above factors. This is why temperature tends to change from place to place from time to time. To sum up, the temperature of the earth is mainly determined by sun, so sun rays is a source of solar energy and temperature rate on the earth's surface.

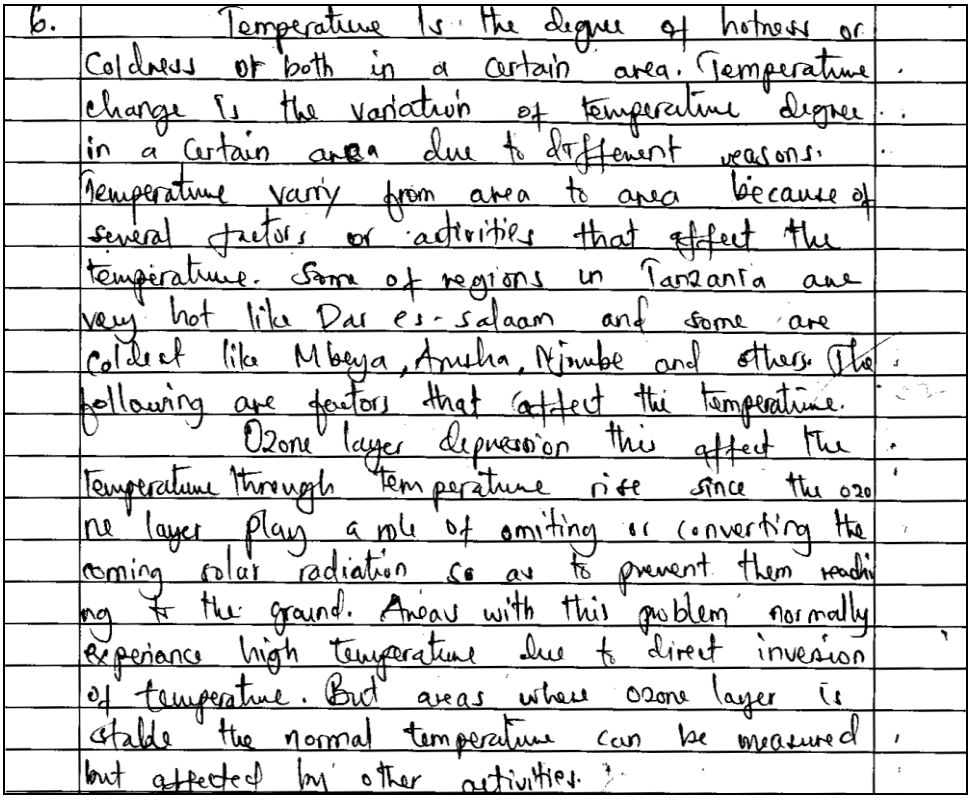
Extract 6.1: A sample of a correct response to question 6

Furthermore, the 12,539 (36.3%) candidate who scored from 7 to 11.5 marks showed inadequate knowledge and skills on the topic on Space Dynamics, especially on the concept of climatology. Some candidates in this category provided relevant introduction of the atmospheric temperature and explained insufficiently the factors affecting temperature. Some provided relevant introduction, but mixed up correct and incorrect factors affecting temperature of an area.

In addition, others gave irrelevant introduction of the atmospheric temperature of the atmosphere, explained few factors affecting temperature and did not conclude. For example, one candidate mixed correct and incorrect factors affecting temperature of a place and did not conclude. The candidate wrote; *human activities* and *rotation of the Earth* as factors affecting temperature. On the other hand, others failed to provide correct meaning of temperature of the atmosphere but managed to explain few factors affecting temperature. For example, one candidate wrote *temperature is the centigrade of the place.* This candidate did not understand that centigrade is the unit of temperature. Therefore, the candidates' average score on this question is a reflection of their relatively inadequate knowledge of the climatology.

Moreover, the 2,735 (7.9%) candidates who scored from 0 to 6.5 marks lacked knowledge and skills on the Space Dynamics topic especially on the

concept of climatology. They showed lack of the content of subject matter, especially on analysing factors affecting climate. Some candidates were able to define temperature in the introduction, explained partially few factors affecting temperature and did not conclude. Some managed to explain only few factors affecting temperature, did not write an introduction and conclusion. Others gave correct definition of temperature, but explained other geographical concepts which were not related to the concept of climatology. For example, one candidate wrote relevant introduction of temperature but provided other geographical terms which were not related to the concept of temperature such as; *changes of sea level, amount of humidity, presence of the large water bodies, shifting of the continents during continental drifting* and *nature of human activities* as factors affecting temperature. Another candidate wrote *atmospheric humidity, components of air* and *presence of water bodies* as factors affecting temperature. Extract 6.2 is a sample of such weak response.



6. Temperature is the degree of hotness or coldness of both in a certain area. Temperature change is the variation of temperature degree in a certain area due to different reasons. Temperature varry from area to area because of several factors or activities that effect the temperature. Some of regions in Tanzania are very hot like Dar es-salaam and some are coldest like Mbeya, Arusha, Njombe and others. The following are factors that affect the temperature.

Ozone layer depression this affect the Temperature through temperature rise since the ozone layer play a role of omiting or converting the coming solar radiation so as to prevent them reaching to the ground. Areas with this problem normally experiance high temperature due to direct inversion of temperature. But areas where ozone layer is stable the normal temperature can be measured but affected by other activities.

Burning of fossil fuels, these after being heated they normaly produce energy but during the process of burning ~~the~~ heat normally rise in a certain area because of heat. For example coal and oil fuel all these promote the increase of temperature from the normal situation. Energy consuption affect the temperature since it led to the increase of hotness degrees. For example in areas with natural gases experience this.

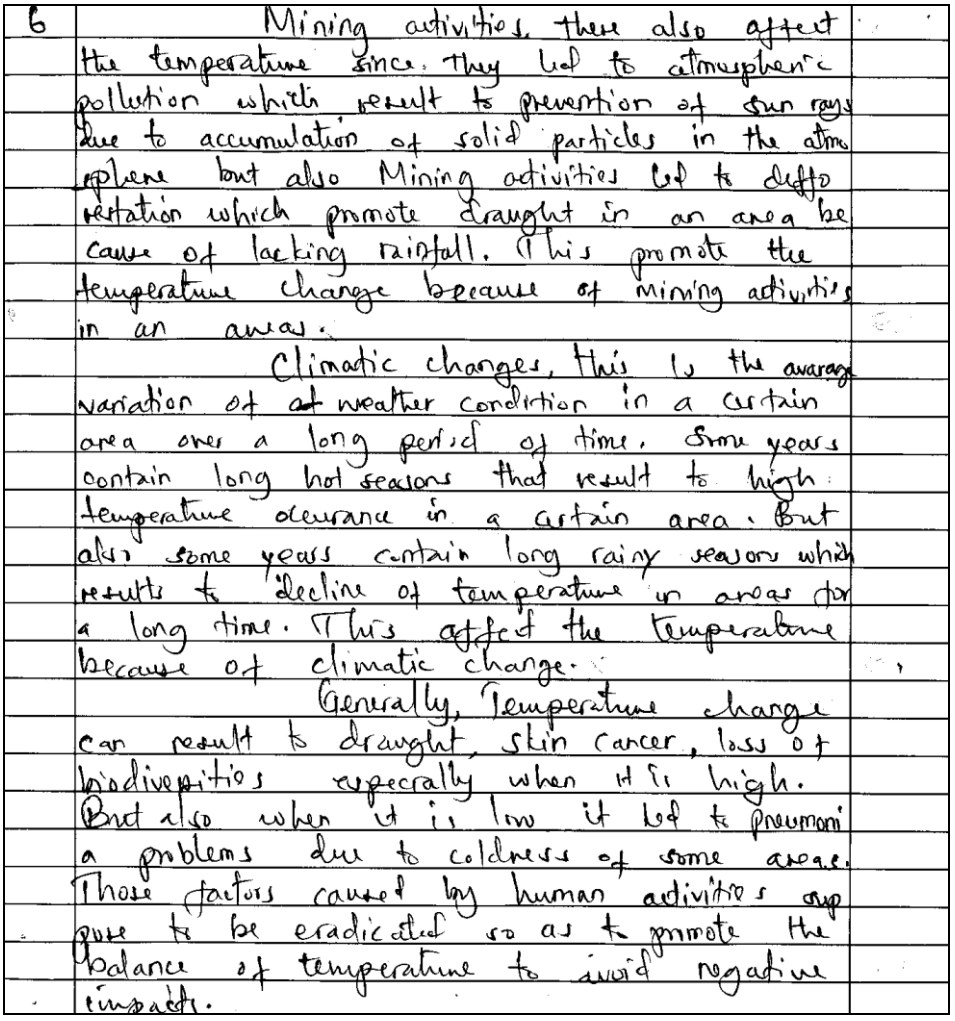
Eruption of volcanoes. This promote the occurance of dark smoke to the atmosphere and burning of vegitation which result to loss of vegitation that are responsible for limiting the

6 sun rays to avoid direct reaching to the ground. volcanoes led to increase of of temperature because of green house gases effect due to thick smokes and burning the vegitation.

Industrial activities also led to the affection of temperature since smokes are being produced to the atmosphere that led to green house effect that prevent the penetration of sun rays to the ground thus the change of temperature. Areas with few industries are different with areas with many industries because of green-house gases. For example India there are many industries which make them to experience increase of temperature.

. Vegitation cover, this also is a factor which affect the temperature since areas with many trees are seems to have low temperature while areas with less or no vegitation experience high temperature. Good example is the Forest of Amazon, it contain low temperature because of being covered by many trees. Also in desert area's like saharan Desert there is high temperature due to lack of vegitation that regulate the sun rays.

Testing of nuclear weapons. These are heavy weapons that promote the rise of temperature because of nuclear reaction during explosion. Also it can led to ozone layer destruction ~~as~~ if it is directed to the atmosphere. This can cause the inversion of radiations due to destruction of layer for converting the radiations so as to avoid the direct reaching to the ground. This also affect the temperature


6 Mining activities, there also affect the temperature since they led to atmospheric pollution which result to prevention of sun rays due to accumulation of solid particles in the atmosphere but also Mining activities led to deforestation which promote draught in an area be cause of lacking rainfall. This promote the temperature change because of mining activities in an areas.

Climatic changes, this is the avarage variation of ~~at~~ weather condition in a certain area over a long period of time. Some years contain long hot seasons that result to high temperature occurance in a certain area. But also some years contain long rainy seasons which results to decline of temperature in areas for a long time. This affect the temperature because of climatic change.

Generally, Temperature change can result to draught, skin cancer, loss of biodiversities especially when it is high. But also when it is low it led to pneumonia problems due to coldness of some areas. Those factors caused by human activities ought to be eradicated so as to promote the balance of temperature to avoid negative impacts.

Extract 6.2: A sample of an incorrect response to question 6

In extract 6.2, the candidate provided relevant introduction of temperature. Instead of explaining factors affecting temperature, the candidate explained causes of environmental pollution such as; climatic changes, ozone layer depletion, burning of fossil fuels, eruption of volcanoes, industrial activities, testing of nuclear weapons and mining activities.

2.1.7 Question 7: Study of Soils

Candidates were given the statement that; “In Chekereni village, farmers were observing changes of their farm produce to worse condition and rampart soil erosion in the village and their farms” as agricultural expert,

they were required to explain to farmers how soil erosion is a product of both natural factors and human activities in eight points.

This question was answered by 39,350 (91.8%) candidates. The general performance was good since 37,970 (96.5%) of the candidates who attempted it scored 7 marks and above. Data analysis showed that 22,103 (56.2%) candidates scored from 12 to 20 marks, 15,867 (40.3%) scored from 7 to 11.5 marks and 1,380 (3.5%) scored from 0 to 6.5 marks. Figure 7 illustrates the performance of the candidates on this question.

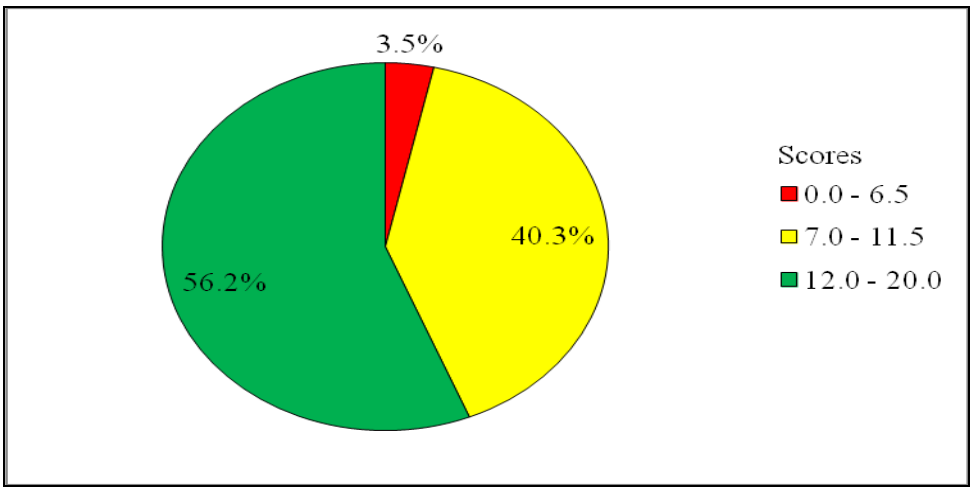


Figure 7: *Candidates' Performance in Question 7*

Further data analysis showed that 22,103 (56.2%) candidates who scored from 12 to 20 marks revealed adequate knowledge of the Study of Soils topic on especially on the concept of soil erosion specifically on the factors influencing soil erosion; both natural and human activities. Despite the fact that candidates in this category scored higher marks, their marks varied due to the strengths and weaknesses of their points. Some candidates for example gave relevant introduction of soil erosion, provided eight factors that influence soil erosion as both natural and human activities such as; *farming activities, deforestation, mining activities, overgrazing, burning of vegetation* and *construction activities.* They further explained natural factors that lead to soil erosion which include: *mass wasting, acid rains, nature of the surface, nature of the rock structure and climate.* Extract 7.1 illustrates such good responses.

07. Soil refers to the uppermost layer of the earth's surface on which plants can grow. It consists of unconsolidated materials like organic matters, inorganic matter and water as well as air.

Soil erosion refers to the process in which soil is removed by agents of erosion like moving water and wind. There is normal soil erosion and accelerated soil erosion. Soil erosion is caused by both natural factors and human activities.

In this regard, the following are the natural factors for soil erosion;

Climatic factor associated with high rainfall. Rainfall can lead to soil erosion especially in areas which recieve high amount of rainfall. Water drops of the rainfall hits the ground as a result of making it detached from the bedrock. Away from detaching it, rain water also takes away soil particles as a result to erosion. This is much depends on the vegetation cover of the area and the slope. Thus this is a natural cause of soil erosion.

Slope or gradient of the land also accelerate soil erosion. In a general meaning, slope is the escapment of the land, mostly from up ward to the downwards. Areas which have steep slopes have high accelerated soil erosion since it becomes easy for the detached materials to move downward away from where they were formed. Thus most of areas which are found in

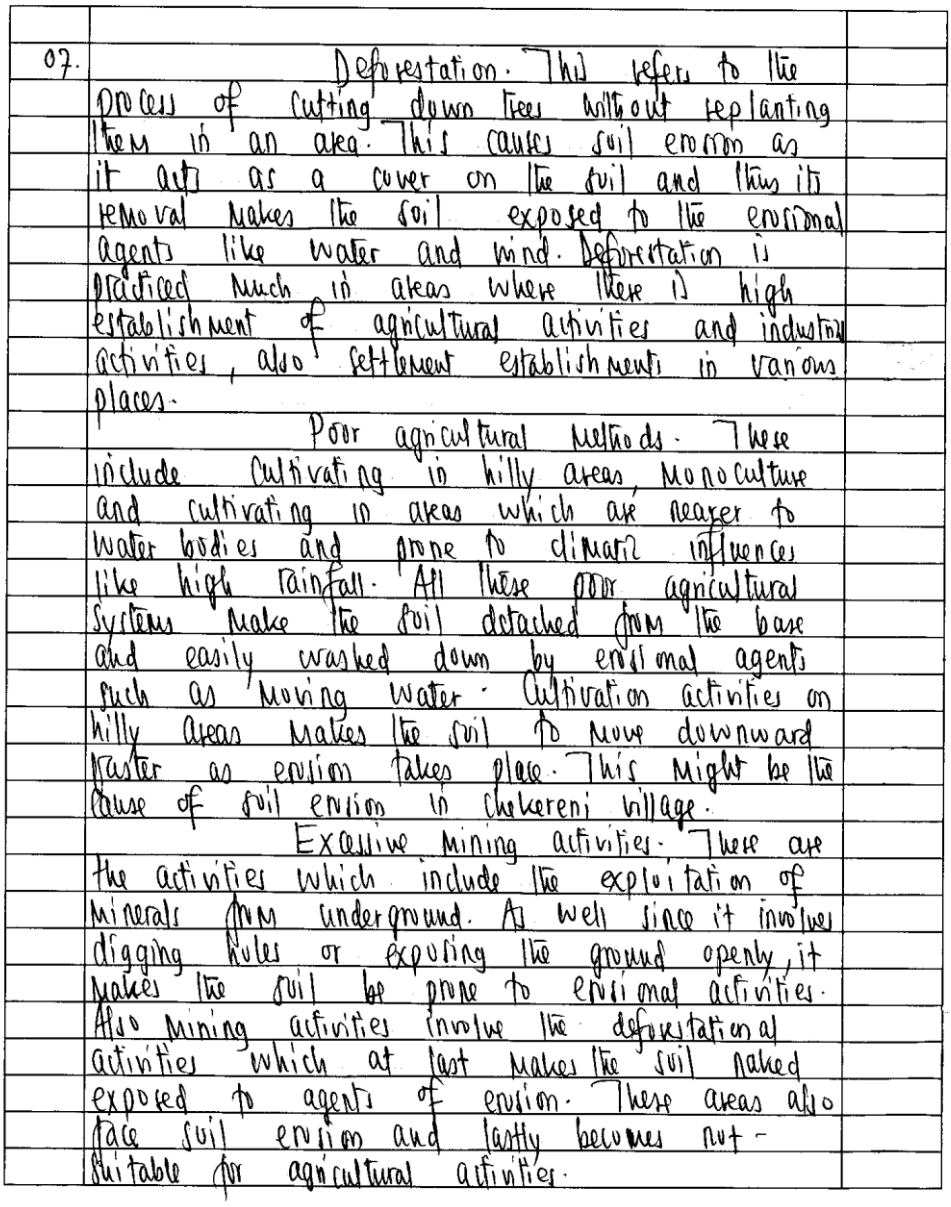
07. hilly areas are affected by soil erosion.

Nature of the soil particles may lead to erosion if it is loose. Soil erosion is also dependant upon this natural factor. Some soil particles are loose naturally from the time of its formation, this kind of soil particles are free to move in case water rains and transport them. Thus, naturally soil erosion depends on soil itself and its texture. This is disastrous in areas where soil has not undergone full processes of the formation.

Mass wasting also influences soil erosion. This is the process in which the loose and weathered materials are moved downward by the gravitation force. Mass wasting influences soil erosion as through its processes it takes with it loose soil materials which are weathered from high lands to low lands. For example through mud flow, soil erosion is likely to occur as it saturated with water.

On the other side, human activities can lead to the occurence of soil erosion in the following ways;

Overgrazing especially in pastoral societies causes soil erosion. This is the habit of having many animals like cows, goats and so on, on the area which is little compared to the number of animals kept. It is practiced much in pastoral societies like in Maasai lands. Overgazing makes the soil to be more loose from its base and thus making erosional agents to move them to different places freely.


07. Deforestation. This refers to the process of cutting down trees without replanting them in an area. This causes soil erosion as it acts as a cover on the soil and thus its removal makes the soil exposed to the erosional agents like water and wind. Deforestation is practiced much in areas where there is high establishment of agricultural activities and industry activities, also settlement establishments in various places.

Poor agricultural methods. These include Cultivating in hilly areas, Monoculture and cultivating in areas which are nearer to water bodies and prone to climate influences like high rainfall. All these poor agricultural systems make the soil detached from the base and easily washed down by erosional agents such as moving water. Cultivation activities on hilly areas makes the soil to move downward faster as erosion takes place. This might be the cause of soil erosion in Chekereni village.

Excessive Mining activities. These are the activities which include the exploitation of minerals from underground. As well since it involves digging holes or exposing the ground openly, it makes the soil be prone to erosional activities. Also mining activities involve the deforestational activities which at last makes the soil naked exposed to agents of erosion. These areas also face soil erosion and lastly becomes not - suitable for agricultural activities.

Extract 7.1: A sample of a correct answer to question 7

Furthermore, the 15,867 (40.3%) candidates who scored from 7 to 11.5 marks indicated inadequate knowledge and skills on the topic on Study of Soils, particularly soil erosion. Some of the candidates gave relevant introduction of soil erosion, explained few factors influencing soil erosion (both natural and human activities) with relevant conclusion. Some gave partial introduction, explained few factors that influence soil erosion and did not conclude. Some provided irrelevant introduction of soil erosion and

explained only human activities that influence soil erosion and did not conclude. Others provided relevant introduction of soil erosion but mixed up correct and incorrect natural factors and human activities that cause soil erosion and did not write conclusion. Examples of incorrect responses were: *loss of biodiversity, lead to desertification,* and *decline in agricultural production*. This candidate did not to understand that these are the effects of soil erosion.

Moreover, the 1,380 (3.5%) candidates who scored from 0 to 6.5 marks showed inadequate knowledge of the concept of soil erosion. Some candidates provided irrelevant introduction, explained few factors of human activities and gave incorrect conclusion. Some gave relevant introduction, but failed to provide natural factors for soil erosion. Others wrote irrelevant introduction of soil erosion, explained effects instead of causes of soil erosion with irrelevant conclusion. These poor responses made the candidates to score lower marks. For example, one candidate provided relevant introduction of soil erosion and provided the resultant features of soil erosion such as; *soil erosion leads to the formation of various landforms such as; valleys, basins and water bodies,* instead of causes of soil erosion. Extract 7.2 represents a sample of weak responses on this question.

7. Soil Conservation; is the process of preserving soil for proper and sustainable Use. The following way of preserving soil erosion.

Afforestation and Reafforestation; This is process of ~~preserving~~ planting trees this may lead to soil Conservation and can lead to the increase of soil Fertility and Texture may lead to the growth of plants well

Mulching; is the process of Covering Crops with glasses in order to Restore Moisture this is also prevent ~~not~~ soil Erosion but also its may lead to the Better Crops that Increase of Crops in the field.

Contour farming; is the process of Cultivating plants in Contour line This process help to growth of plant well but also its may lead to prevention of Soil erosion.

Terracing; is the process of Cultivating Crops By terraces A farmer who want to produce alot of product must use Terracing Method since its store water and prevent it from soil erosion

Agroforestation; is the process of planting trees and Crops in order to prevent soil Erosion this

7. Is good Because they preserve water in the root that can be used to grow those ~~plants~~ crops in the field.

Crop rotation; Is the process of changing the crops in each plot through out of the year this ~~is~~ you can include monocotyledon and ~~dycotide~~ dycotyledon which are maize and beans this help farms to produce in quantity and quality production.

Intercropping; This to method is ~~fe~~ profitable Because a ~~fe~~ farmer can get Benefit by producing alot of products ~~since~~ since there is two Type of crops that is cultivated.

Covering crops; Is the process of planting crops ~~in~~ which can cover the crops and help to Restore moisture that help in plants or ~~growth~~ grow well

Therefore; This ~~met~~ methods can help a farmer to prevent the farm from soil erosion to get alot of ~~Yet~~ Yield of better quality and quantity.

Extract 7.2: A sample of an incorrect response to question 7

In extract 7.2, the candidate explained agricultural practices that protect soil from erosion such as; *afforestation, reforestation, mulching, contour ploughing, terracing, crop rotation, intercropping planting cover crops* instead of human activities which lead to soil erosion.

2.2 113/2 GEOGRAPHY PAPER TWO

This paper consisted of seven questions which were set from two topics; *Population and Development* and *Regional Focal Studies*. Question 1 and 2 were set from the topic on Population and Development while, questions 3,4,5,6 and 7 were set from the topic of Regional Focal Studies and the sub-topics of *Livestock keeping and management, Sustainable use of forestry, Environmental friendly tourism, Sustainable mining* and *Manufacturing industries*. The candidates were required to answer a total of five questions whereby, question number one (1) was compulsory. Each question weighed 20 marks.

2.2.1 Question 1: Population and Development

The question was compulsory and required the candidates to support the statement that, "population growth is a serious problem in developing countries" with seven points.

The question was answered by 42,861 (100%) candidates. The general performance on this question was good since 39,051 (91.2%) candidates scored 7 marks and above. Detailed data analysis showed that, 31,783 (74.1%) candidates scored from 12 to 20 marks, 7,268 (17%) scored from 7 to 11.5 marks and 3,810 (8.9%) scored from 0 to 6.5 marks. Figure 8 illustrates the performance on this question.

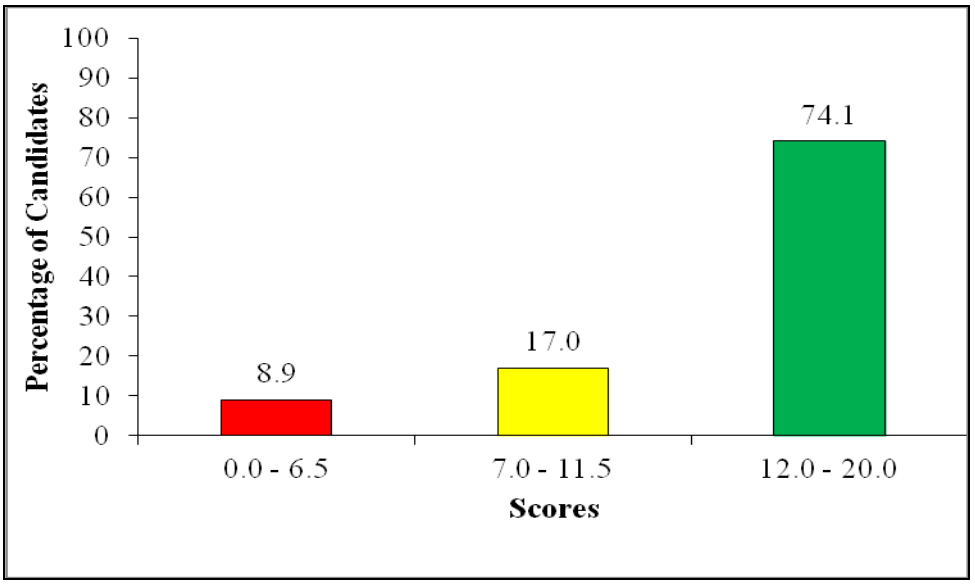


Figure 8: Candidates' Performance in Question 1

Further data analysis showed that, the 31,783 (74.1%) candidates who scored from 12 to 20 marks understood the demand of the question. They had good writing skills, were able to support the statement that population growth is a serious problem in developing countries and provided relevant conclusion. For instance, one candidate defined population growth as *the change in population in a certain geographical unit at a specific period of time where it is the determinant of the population size which is measured by the annual percentage increase*. The candidate also explained the problems brought by population growth as; s*low growth of GDP, food shortage, exhaustion of resources, environmental problems, unemployment and underemployment, inadequate social services, political and social conflicts, social misconducts and spread of diseases.* The variation in their scores was determined by the strengths of their responses. Extract 8.1 is a sample of the correct responses from one of the candidates for this question.

1. Population growth refers to the increase in the number of people living in a certain geographical areas at a specific time of period. Developing countries are countries which are still struggling to attain economic development in the country for example most of the African countries like Tanzania, Kenya and Uganda. It is true that population growth is a serious problem in developing countries due to the following;-

Increase in unemployment; an increase in the number of people in a particular country especially in -those developing countries where there is low technology and poor infrastructures many of this people will lack places to work and earn their living standard which will help them in daily running of their lives and to cater for their basic needs for example food.

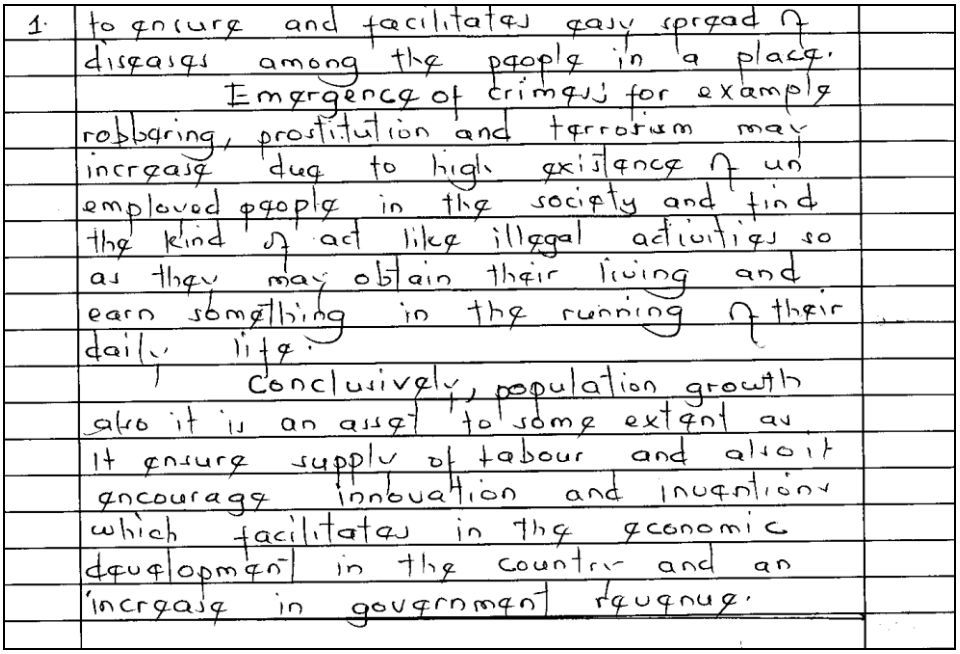
Exhaustion of resources; for example mineral resources will be exhausted due to high competition since that the available resources may be low compared to the number of people living over that specific country where as every one will be having a dream of obtaining the resources so as to satisfy their wants and reach to their maximum as human tries to maximize their wants with the available limited resources. Hence exhaustion of resources.

1. Congestation in towns; for example in health centers and education institution like school -there will be a huge number of people since that an increase in the number people may result in rural-urban migration where people go in search of economic opportunities so as to run their daily living and earn something to help them in their life.

Increase in government burden; for example the government should construct more education centers, health centers and other administrative institution so as every citizen to be in a position to receive better services from their government something which may retard other development activities to take place in the country.

It may lead to deforestations; in searching of settlement people may cut down the trees without replacing them and establish their daily residence which bring about very big problem in the environment for example it may lead to desertification of an area since the area will be barren and formation of rainfall will be very low.

Spread of diseases; for example Corona, cholera and HIV and typhoid may be spread easy from one person to another due to high number of people which facilitates easy contact among people


1. to ensure and facilitates easy spread of diseases among the people in a place. Emergence of crimes for example robbering, prostitution and terrorism may increase due to high existence of un employed people in the society and find the kind of act like illegal activities so as they may obtain their living and earn something in the running of their daily life. Conclusively, population growth also it is an asset to some extent as it ensure supply of labour and also it encourage innovation and inventions which facilitates in the economic development in the country and an increase in government revenue.

Extract 8.1: A sample of a correct response to question 1

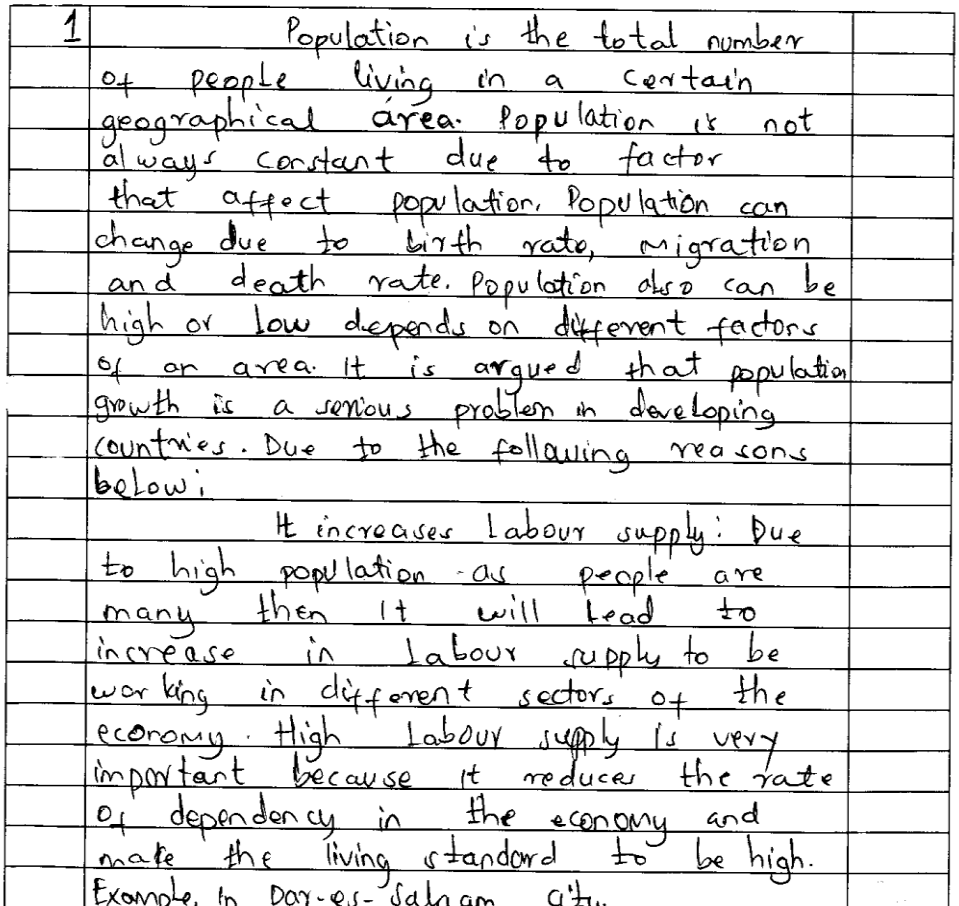
Moreover, the 7,268 (17%) candidates who scored from 7 to 11.5 marks revealed inadequate knowledge which obscured them to provide the required number of points as the question demanded. Some of their responses were mixed up with correct and incorrect answers while, others were dominated by the repetition of points. This might have led them to score the range of 7 to 11 marks. Examples of incorrect answers were; *overpopulation, occurrence of natural calamities, eruption of instabilities, leads to rural depopulation as many people migrate from rural areas to urban areas and lack of development in advancing technology.*

On the other hand, the 3,810 (8.9%) candidates who scored from 0 to 6.5 marks showed lack knowledge and focus on answering this question. Some of the candidates failed to provide the required number of points as per question demand. The few points provided were not even well explained.

Some of the candidates in this category provided correct introduction of population growth, but explained the factors that led to the causes of population growth such as; *poor population policy, poor family planning, early marriages, and women are not empowered and also religious beliefs* instead of problems brought by population growth.

Other candidates explained the causes of high population growth such as: *cultural factors, availability of enough food, high fertility, poverty among the people, religious factors, problems of modernisation and poor population policy,* instead of the problems caused by population growth. Some candidates concluded by providing irrelevant conclusion.

Others explained problems facing developing countries such as; *poor nutrition, poor social services, high mortality rate, poor infrastructure, low level of science and technology, low life expectancy and presence of poverty, poor nutrition, poor social services, high rate of mortality, dependency on agricultural sector and poor infrastructures,* instead of explaining problems brought by the by population growth in developing countries. They failed to provide any conclusion. Extract 8.2 is a sample of incorrect response from one of the candidates.


1

Population is the total number of people living in a certain geographical area. Population is not always constant due to factor that affect population. Population can change due to birth rate, migration and death rate. Population also can be high or low depends on different factors of an area. It is argued that population growth is a serious problem in developing countries. Due to the following reasons below;

It increases labour supply: Due to high population as people are many then it will lead to increase in labour supply to be working in different sectors of the economy. High labour supply is very important because it reduces the rate of dependency in the economy and make the living standard to be high. Example, in Dar-es-Salaam city.

- It lead to expansion of Markets: due

1. to high population It lead to expansion of markets because their is high labour availability that are involved in different sector of the economy. Thats why most part of the urban areas in Tanzania have high developed markets than in the rural areas because their is high population compared to the rural areas. Example, In urban areas of Tanzania.

Encourages specialization: when people are many every individual wishes to be employed due to this it creates specialization at work to avoid congestion and conflicts at work. Due to specialization It enhances faster accomplishment of work and creates development to people due to faster accomplishment of jobs Example, In Manufacturing and Mining sector.

It ensures proper utilization of resources: high population ensures their is fully utilization of resources in the economy and hence avoiding the resources to stay idle without being utilized. Normally in the urban areas resources are more utilized than in the rural areas because in the urban areas their is high population compared to the rural areas where people are few. Example, exploitation of mineral resources.

Increases labour Mobility: When the population is high it creates high labour mobility. The presence of high Labour mobility it leads to transfer of technology from one place to another and transfer of technology helps in the development of industries of Tanzania. People becoming they start to move from one place to another for work, hence improves their living standard through work. Example, through International trade.

It is source of high revenue to government: due to high population in the developing countries as people are involved in various activities they create high revenue to government because they contribute through their job opportunities in the economy hence revenue it helps the government its daily duties. Examples, through taxes and rent.

It leads to development of local industries: high population leads to development of local industries as people they are highly involved in different activities to earn income and improve their living. Through this different industries are being established and hence people are employed to work so as they get wages and improve their living standard too. Example, food processing industries.

Generally, high population has both the positive and negative to the environment of people. Hence if there is overpopulation may to problems like environmental pollution and overutilization of resources that retards economic development of a country.

Extract 8.2: A sample of an incorrect response to question 1

In extract 8.2 the candidate explained the importance of population growth such as; *increase labour mobility, expansion of market, encourages specialisation, ensures proper utilization of resources, increases labour supply and leads to development of local industries,* instead of problems caused by population growth in developing countries.

2.2.2 Question 2: Population and Development

The question required candidates to examine four negative effects of high populated areas and suggest four measures to overcome the situation. It was attempted by 38,853 (90.6%) candidates of which 31,933 (82.2%) scored from 12 to 20 marks, 6,660 (17.1%) scored from 7 to 11.5 marks and 260 (7%) candidates scored from 0 to 6.5 marks. The general performance for this question was good since 38,593 (99.3%) candidates scored 7 marks and above. Figure 9 illustrates candidates' performance for this question.

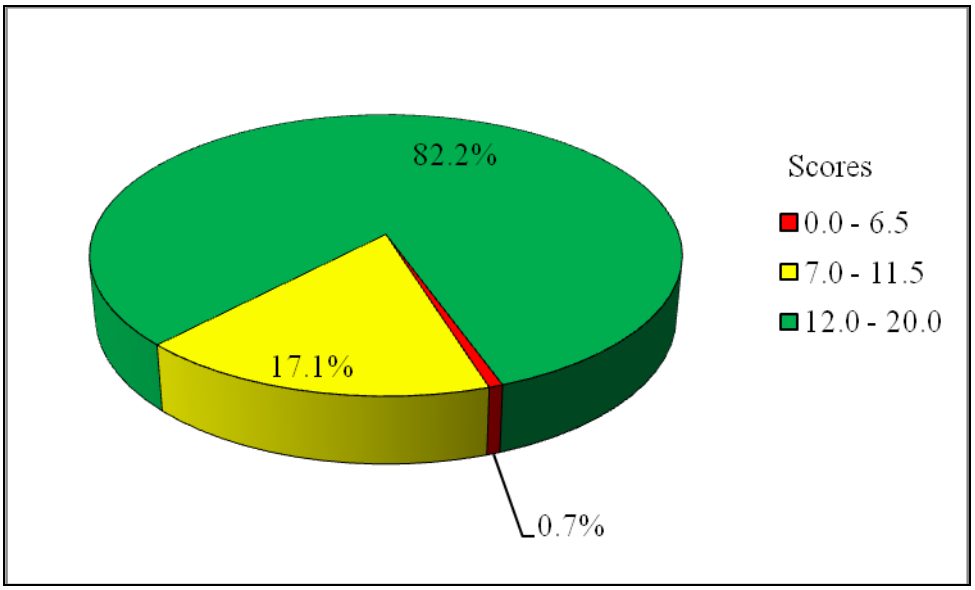


Figure 9: Candidates' Performance in Question 2

Further data analysis indicated that, 31,933 (82.2%) candidates who scored from 12 to 20 marks had adequate knowledge of the subject matter. They provided relevant introduction, examined the negative effects of high populated areas and suggested correct measures to overcome the situation. One candidate for example examined the negative effects of highly populated areas as; *high rate of unemployment, environmental degradation,*

housing problem, traffic congestion, spread of diseases and low level of income.

The same candidate also suggested the correct measures to overcome the situation as; *formulation of appropriate population policy, to promote and improve the health and welfare women status and children, to promote education, to promote sustainable relationship between environments and the available resources and man power mobilization*. The variations in their scores were determined by the strength and correctness of their responses. Extract 9.1 represents a sample of a correct response from one of the candidates for this question.

02. Population is the increase of number of people in a certain or specific geographical area. African cities such as Dar-es-Salaam, Mbeya, Mwanza, Kigoma, Bujumbula, Mombasa, and Nairobi experience high population this may be due availability of employment opportunities and availability of social services such as hospitals, schools, Market and so forth. The following are the negative effect of high populated areas:-

Spread of desease, due to high population can lead to the spread of deseas especiall eruption deseases like Corona(COVID 19). Example, during COVID19 seasion in Tanzania the spread of this desease was in Dar-es-salaam this is due to high population. Therefore African countries should control the population in cities because there some areas has zero population.

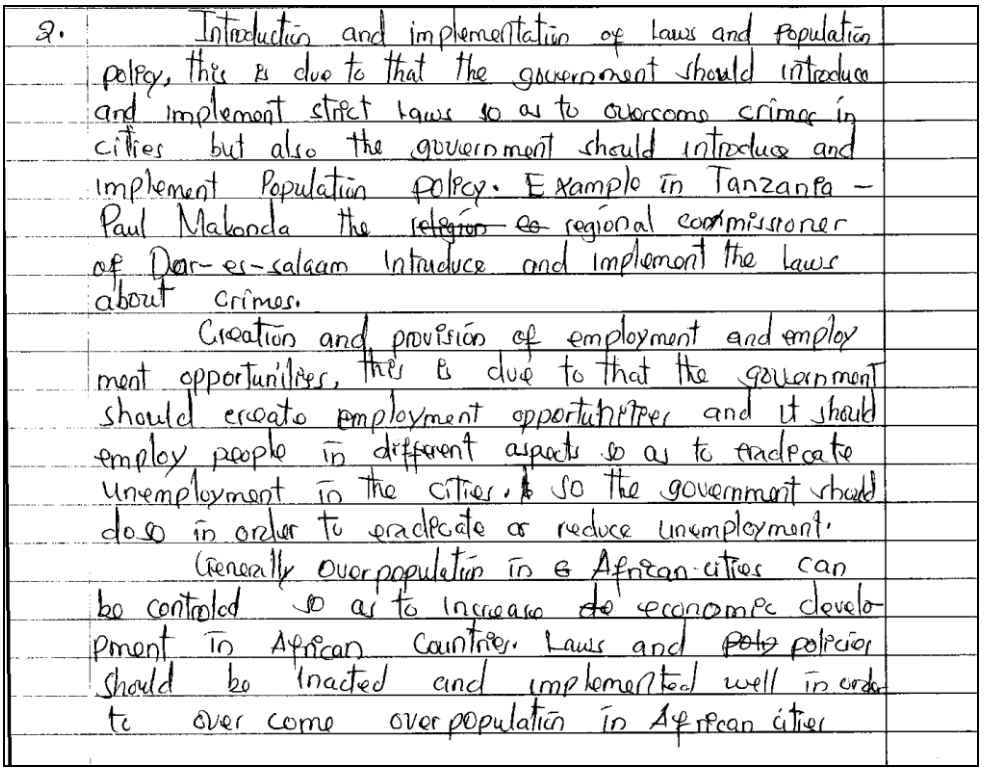
Increase of Crimes, this is due to that the increase of population increase the numbe of Crimes and criminals increase. Example previous day in Dar-es-salaam there was emergence of Panyaroad group which was based robbering people. Therefore population in cities should be controled or otherwise there should be strong security so as to eradicate crimes.

2. Unemployment, this is due to that the increase number of people in cities lead to unemployment because of high competition in term of education level and skilled skills together with experties. Example in Mwanza Tanzania there many people who a jobless due to over population. Therefore the government should creat employment opportunities so as to overcome unemployment problem.

Increase number of dependant people and bagers this is due to that overpopulation increase number of dependant people such as the first childrens and number of bagers. the increase number of bagers and dependant people increase also government expenditure. Example in Bujumbura there is high dependant people. Therefore the government should control population in cities so as to reduce number of dependant people. The following are the measures to overcome problems.

Provision of social services in rural areas, this is due to that so as to overcome Population growth or overpopulation problems in cities areas, there should be provision of social services in rural areas as now days Tanzanian government and Rwanda - government do. So the government should provide social services such as Health centre to reduce overpopulation in cities.

Provision of education about the effect of over Population in a certain area. The government of a certain area should provide education to her citizen on the effect of overpopulation both negative and positive. Example people in the cities can be educated about different effect such as spread of deseas and so forth.


2. Introduction and implementation of laws and Population policy, this is due to that the government should introduce and implement strict laws so as to overcome crimes in cities but also the government should introduce and implement Population policy. Example in Tanzania - Paul Makonda the ~~religion~~ ~~co~~ regional commissioner of Dar-es-salaam Introduce and implement the laws about crimes.

Creation and provision of employment and employment opportunities, this is due to that the government should create employment opportunities and it should employ people in different aspects so as to eradicate Unemployment in the cities. & so the government should do so in order to eradicate or reduce unemployment.

Generally Overpopulation in ~~6~~ African cities can be controlled so as to increase ~~de~~ economic development in African Countries. Laws and ~~pol~~ policies should be Inacted and implemented well in order to over come overpopulation in African cities

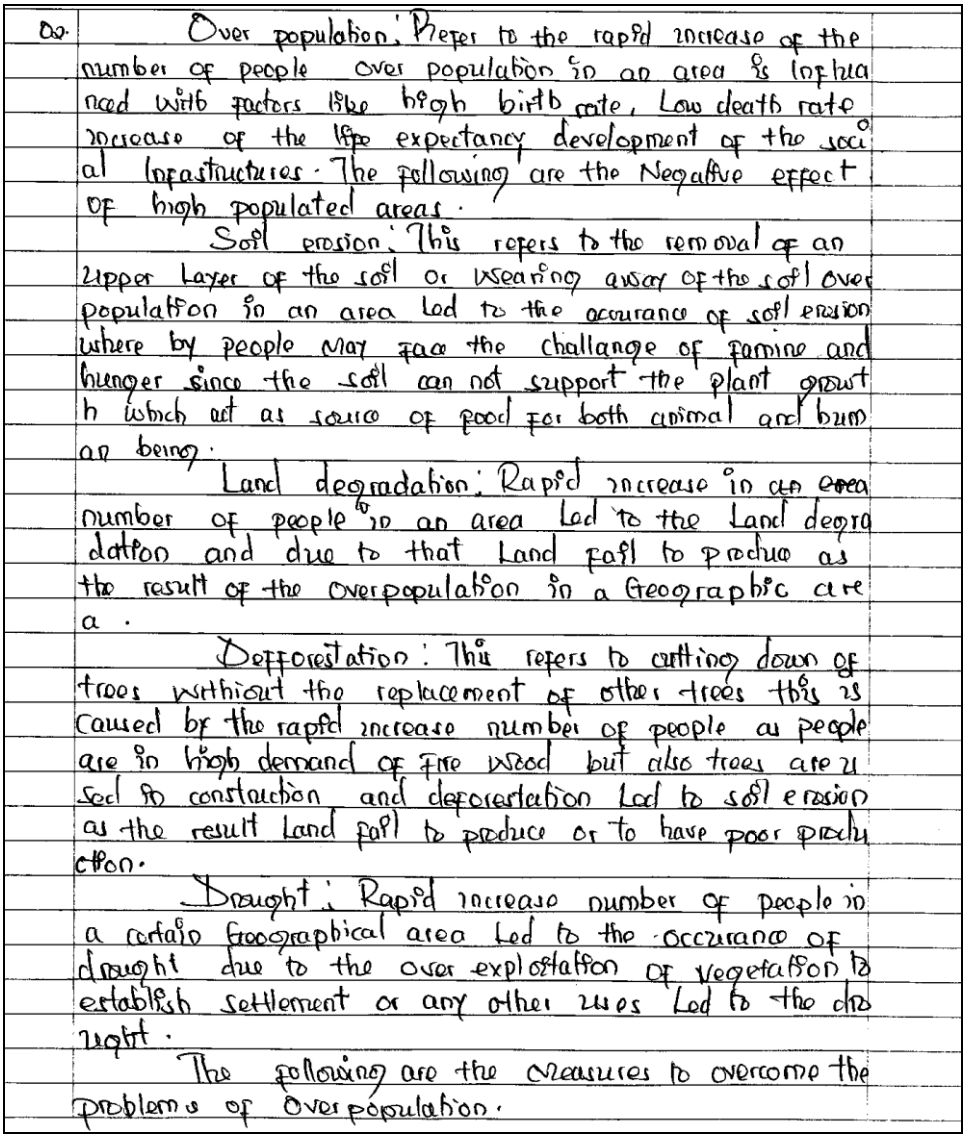
Extract 9.1: A sample of a correct response to question 2

Further analysis indicated that, 6,660 (17.1%) candidates who scored from 7 to 11.5 marks had inadequate knowledge and skills on the subtopic of population growth and social economic planning, especially on the concept of negative effects of high populated areas.

Some of the candidates gave relevant introduction and they insufficiently explained the negative effects of high populated areas. Yet they failed to suggest measures to overcome such effects of high populated areas. Some provided irrelevant introduction with wrong negative effects of high populated areas. However, they managed to suggest few correct measures to overcome the effects of high populated areas. Others mixed correct and incorrect negative effects of high populated areas. Examples of incorrect effects were *conflicts, natural calamities* and *marriage condition*.

On the other hand, the 260 (7%) candidates who scored from 0 to 6.5 marks were not competent on the subtopic on population growth and thus they failed to meet the demands of the question. Some of the candidates gave relevant introduction on high populated areas, but they examined

insufficiently few negative effects of high populated areas. In addition, they did not suggest the correct measures to overcome the situation. One candidate for example mixed up the correct and incorrect effects of populated areas as well as suggestions to overcome the situation. Examples of incorrect effects provided by some of the candidates were *marriage condition, civil wars, acid rains, global warming* and *ozone layer depletion*. Incorrect measures suggested were: *maintaining industrial activities, to avoid bad cultural believes* and *recycling of wastes*. Extract 9.2 is a sample of an incorrect response from one of the candidates for this question.



Over population: Refer to the rapid increase of the number of people over population in an area is influenced with factors like high birth rate, Low death rate increase of the life expectancy development of the social Infrastructures. The following are the Negative effect of high populated areas.

Soil erosion: This refers to the removal of an upper Layer of the soil or wearing away of the soil over population in an area led to the occurance of soil erosion where by people may face the challange of famine and hunger since the soil can not support the plant growth which act as source of food for both animal and human being.

Land degradation: Rapid increase in an area number of people in an area led to the Land degradation and due to that Land fail to produce as the result of the overpopulation in a Geographic area.

Defforestation: This refers to cutting down of trees without the replacement of other trees this is caused by the rapid increase number of people as people are in high demand of fire wood but also trees are used to construction and deforestation Led to soil erosion as the result Land fail to produce or to have poor production.

Drought: Rapid increase number of people in a certain Geographical area Led to the occurance of drought due to the over exploitation of vegetation to establish settlement or any other uses Led to the drought.

The following are the measures to overcome the problems of Overpopulation.

02. Encourage afforestation and reforestation. This refers to planting trees where there is never exist any tree before and planting trees where there is other tree have been cut this help to solve the problem of deforestation caused by rapid increase of the number of the people.

Provision of employment opportunity to the people because overpopulated areas face the challange of Unemployment therefore through Providing Education employment it help to solve the problem.

Find an alternative sources of energy rather than depending on trees only because depend ing energy resources from trees contributed to de right and deforestation other sources include wind energy solar energy, tidal energy the use of gas It help to solve drought problem.

Establishment of Irrigation system to solve the problem of drought Irrigation system will help to develope Agriculture activities which will solve the Problem of hunger and famine and therefore drought Problem will be solved.

Generally: Overpopulation in a certain Geographical area is influenced with factors like decline of death rate and increase of the birth rate but also Increase the life expectancy Overpopulation Led to ad equate provision of social services, Increase of cri mes easy spread of deseases and Unemployment to Many people.

Extract 9.2: A sample of an incorrect response to question 2

In extract 9.2 the candidate explained environmental problems such as; *soil erosion, land degradation, deforestation and drought*. Furthermore, the candidate elaborated ways on how to combat those environmental problems such as; *afforestation, employment opportunities, alternative energy sources, and establishment of irrigation system,* instead of elaborating four negative effects of high populated areas and suggesting four measures to overcome the situation.

2.2.3 Question 3: Livestock Keeping and Management

This question required the candidates to describe four negative impacts of livestock keeping on the environment and suggest four appropriate measures to overcome the problem. The question was attempted by 23,383 (54.6%) candidates. Data analysis showed that, 12,605 (53.9%) candidates scored from 12 to 20 marks, 9,888 (42.3%) scored from 7 to 11.5 marks and 890 (3.8%) scored from 0 to 6.5 marks. The general performance of the candidate for this question was good since 22,493 (96.2%) candidates scored 7 marks and above. Figure 10 illustrates the performance for this question.

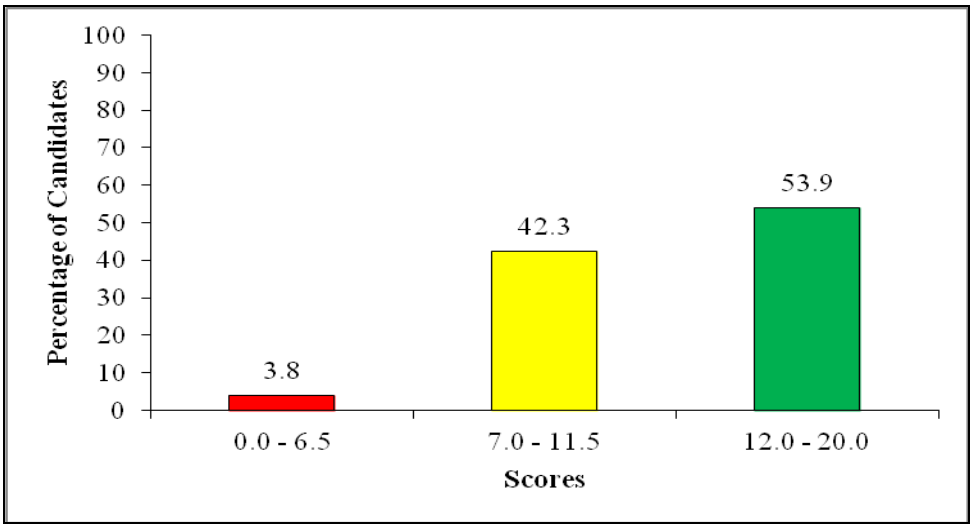
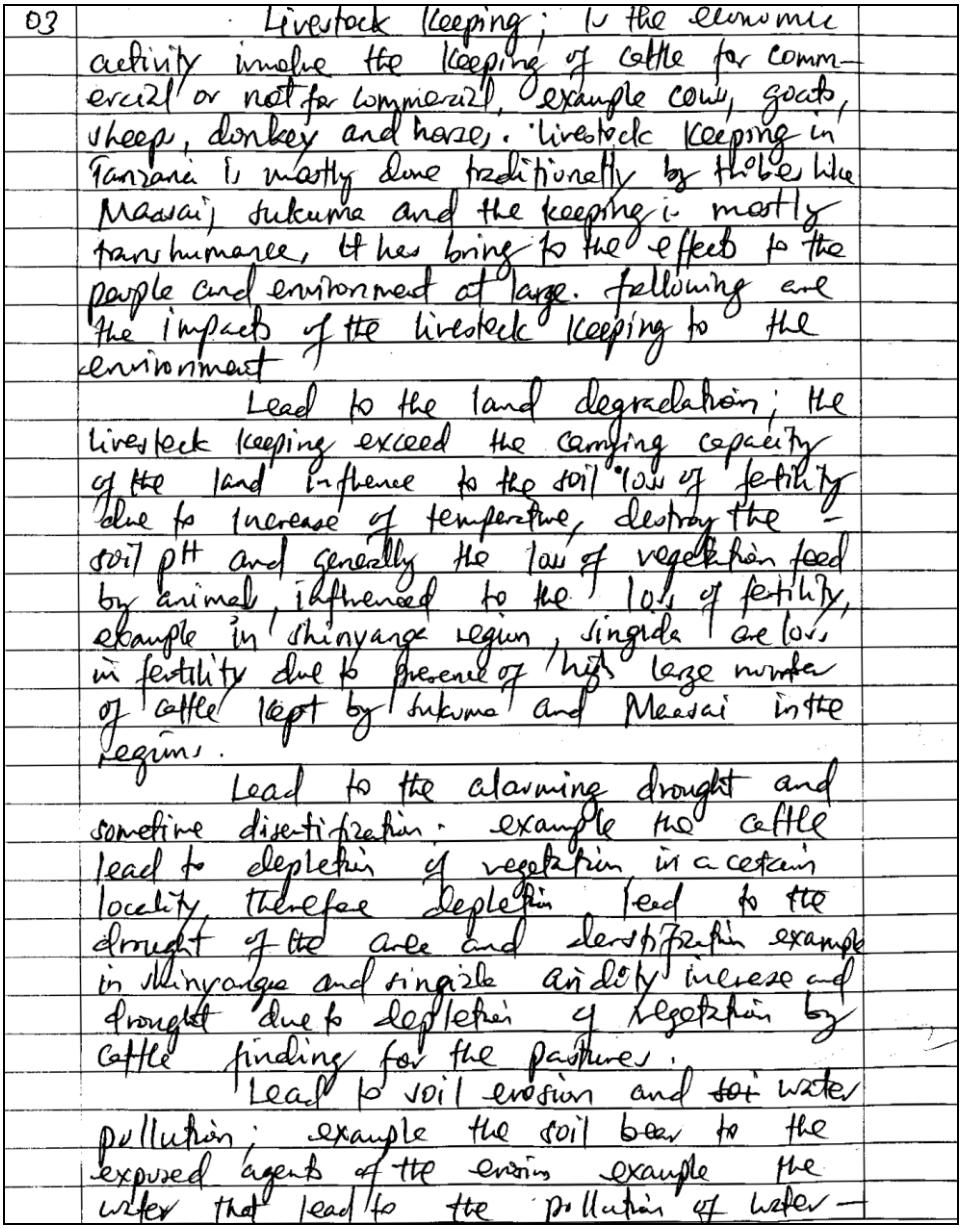


Figure 10: Performance Candidates in Question 3

Data analysis revealed that, 12,605 (53.9%) candidates who scored from 12 to 20 marks demonstrated adequate knowledge and skills on livestock keeping and management subtopic. The candidates in this category gave correct introduction of livestock keeping. They described clearly the four negative impacts of livestock keeping on the environment and suggested four appropriate measures to overcome the problems.

One candidate for example, provided correct introduction of livestock keeping, and explained the negative impacts of livestock keeping as; *land degradation due to overgrazing, it leads to environmental pollution, some diseases which affects animals can affect people economically, livestock keeping leads to drought or desertification due to destruction of vegetation.* The candidate also suggested four appropriate measures to overcome the

problems such as; *destocking, the use of fenced padlock, proper land use, diversification of the economy* and *mass education*. Moreover, the candidate managed to provide relevant conclusion. The variations of candidates' scores in this category depended on the quality of their answers and the elaborations they made in each point. Extract 10.1 is a sample of correct responses on this question.

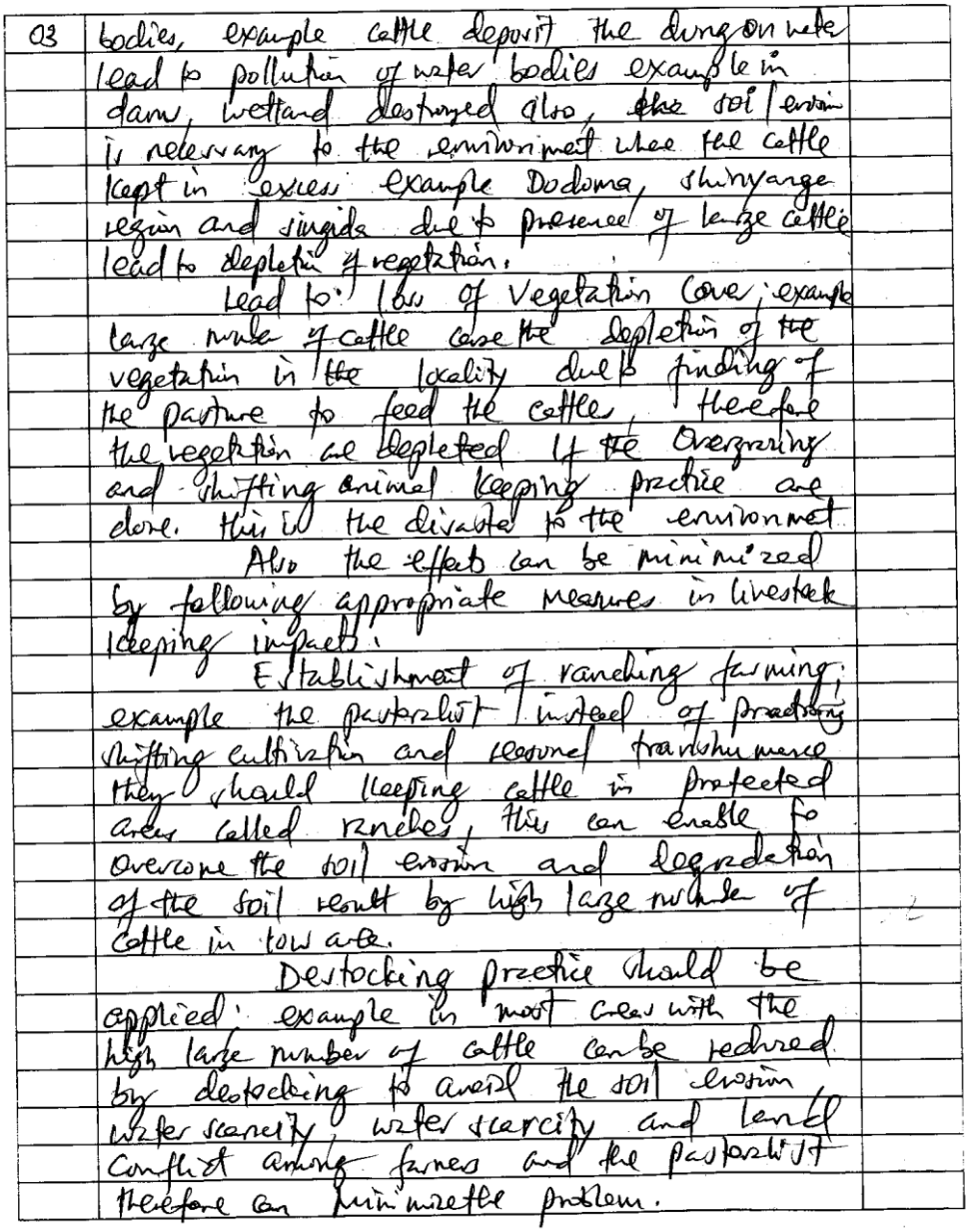


03 Livestock keeping; is the economic activity involve the keeping of cattle for commercial or not for commercial, example cows, goats, sheep, donkey and horse). livestock keeping in Tanzania is mostly done traditionally by tribes like Maasai, sukuma and the keeping is mostly transhumance, it has bring to the effects to the people and environment at large. following are the impacts of the livestock keeping to the environment

Lead to the land degradation; the livestock keeping exceed the carrying capacity of the land influence to the soil low of fertility due to increase of temperature, destroy the soil pH and generally the low of vegetation food by animal, influenced to the low of fertility, example in shinyanga region, singida are low in fertility due to presence of high large number of cattle kept by sukuma and Maasai in the region.

Lead to the alarming drought and sometime desertification. example the cattle lead to depletion of vegetation in a certain locality, therefore depletion lead to the drought of the area and desertification example in shinyanga and singida are daily increase and drought due to depletion of vegetation by cattle finding for the pasture.

Lead to soil erosion and ~~to~~ water pollution; example the soil bear to the exposed agents of the erosion example the water that lead to the pollution of water—


03 bodies, example cattle deposit the dung on water lead to pollution of water bodies example in dam, wetland destroyed also, the soil erosion is relevant to the environment when the cattle kept in excess example Dodoma, shinyanga region and singida due to presence of large cattle lead to depletion of vegetation.

Lead to: loss of Vegetation Cover, example large number of cattle cause the depletion of the vegetation in the locality due finding of the pasture to feed the cattle, therefore the vegetation are depleted if the Overgrazing and shifting animal keeping practice are done. this is the divasta to the environment

Also the effect can be minimized by following appropriate measures in livestock keeping impact:

Establishment of ranching farming: example the pastoralist instead of practicing shifting cultivation and seasonal transhumance they should keeping cattle in protected area called ranches, this can enable to overcome the soil erosion and degradation of the soil result by high large number of cattle in low area.

Destocking practice should be applied: example in most area with the high large number of cattle can be reduced by destocking to avoid the soil erosion water scarcity water scarcity and land conflict among farmers and the pastoralist therefore can minimize the problem.

Extract 10.1: A sample of a correct answer to question 3

Furthermore, the 9,888 (42.3%) candidates who scored from 7 to 11.5 marks revealed inadequate knowledge to meet the demands of the question. They described few negative effects of livestock keeping on the environment. Some candidates mixed correct and incorrect measures to overcome the problem. Also, some of them provided incorrect conclusion. For instance, one candidate provided relevant introduction of livestock keeping as; *human activity which deals with keeping animals like goats,*

cows and other related animals and provided negative impacts such as; *deforestation, soil erosion, leads to the loss of biodiversity and leads to global warming* with wrong explanations. The candidate suggested the following as the measures to overcome the problem: *improvement of science and technology, afforestation and reforestation, enacting and formulation of policy and introduction of proper methods of disposal and animal waste and chemicals*. Lastly, the candidate provided irrelevant conclusion. Other candidates explained only few negative impacts of livestock keeping while, others suggested only appropriate measures to overcome the situation.

However, 890 (3.8%) candidates who scored from 0 to 6.5 marks showed to lack knowledge of the negative impact of livestock keeping and the environment. Some of those candidates failed to provide relevant introduction. They explained few correct negative impacts of livestock keeping on the environment and suggested few correct measures to overcome the problems. One candidate for example, suggested incorrect measures such as; *introduction of good market, avoid overgrazing, establishment of range land and government support*. The candidate also managed to give relevant conclusion. Another candidate suggested the following incorrect measures; *establishment of laws, provision of education, provision of loans to the farmers and provision of science and technology, stopping pastoralist from moving with their cattle and establishment of ranches*

Examples of incorrect effects explained by the candidates were: *harsh climatic condition, population increase, animal attack from diseases, insufficient capital, poor quality of pastures, poor climate, low level of capital and poor storage and processing factories.* Extract 10.2 presents a sample of the candidate who failed to meet the demand of question 3.

3. Livestock Keeping is the process of keeping or rearing of animals such as hen, Cow, goats, Livestock keeping in Tanzania is mostly benefit to the enterpreneurship. The folowing are the Negative Impacts of Livestock Keeping on the environment and four measures to overcome the problems. Respectively.

Soil erosion; this is where by the upper soil is washed away so the livestock keeping make or affect the soil to be eroded

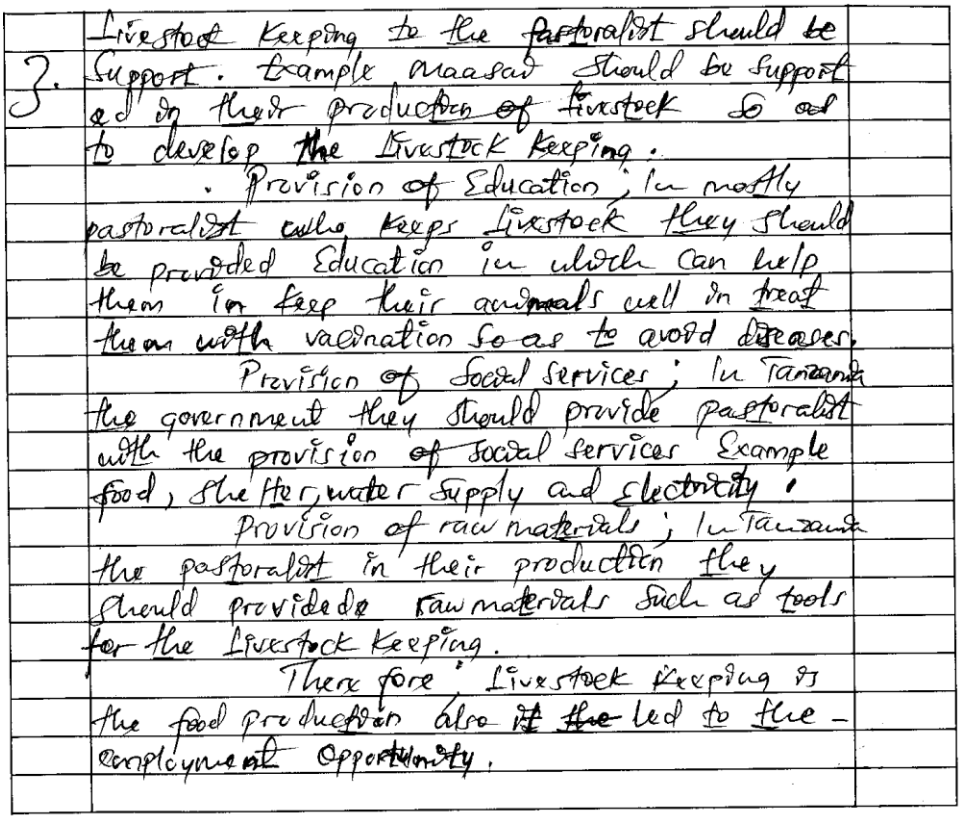
Low technology; this is where by the pastoralist they lack technology also when they keep their livestock its not in a good area, so Tanzania Livestock technology is low Example Maasai they have large numbers of animals or cows and they have no specific place to fed them.

Low Capital; In this also the pastoralist they lack capital in which they could help them on their production of Livestock.

Diseases; In this most of the Tanzanians animals they face diseases to their Livestock keeping since they lack vaccine or vaccination thats why they get diseases and die Others.

Soil erosion: In this most of the Tanzanians animals or Livestock they led into soil erosion where by the soil is being eroded due to the large number of Livestock. The following are measures to overcome the problem.

Goverment Support; In this most of


3. Livestock keeping to the pastoralist should be support. Example maasai should be supported in their production of livestock so as to develop the livestock keeping.
. Provision of Education; In mostly pastoralist who keeps livestock they should be provided Education in which can help them in keep their animals well in treat them with vaccination so as to avoid diseases.
Provision of Social services; In Tanzania the government they should provide pastoralist with the provision of social services Example food, shelter, water supply and electricity.
Provision of raw materials; In Tanzania the pastoralist in their production they should provided raw materials such as tools for the livestock keeping.
Therefore Livestock keeping is the food production also it led to the employment opportunity.

Extract 10.2: A sample of an incorrect response to question 3

In extract 10.2, the candidate explained problems encountered by livestock keeping such as; *low technology, low capital, lack of government support* and *diseases* instead of the impacts of livestock keeping on the environment.

2.2.4 Question 4: Sustainable Use of Forest

This question required candidates to give an account of eight factors which led to the development of timber industry in the Parana Pine Forests of Southern Brazil. The question was answered by 27,910 (65.1%) candidates. Data analysis showed that, 21,291 (76.3%) candidates scored from 12 to 20 marks, 6,390 (22.9%) scores from 7 to 11.5 marks and 229 (0.8%) scored from 0 to 6.5 marks. The general performance for this question was good since 27,681 (99.2%) candidates scored from 7 to 20 marks. Figure 11 gives more illustrations of the candidates' performance on this question.

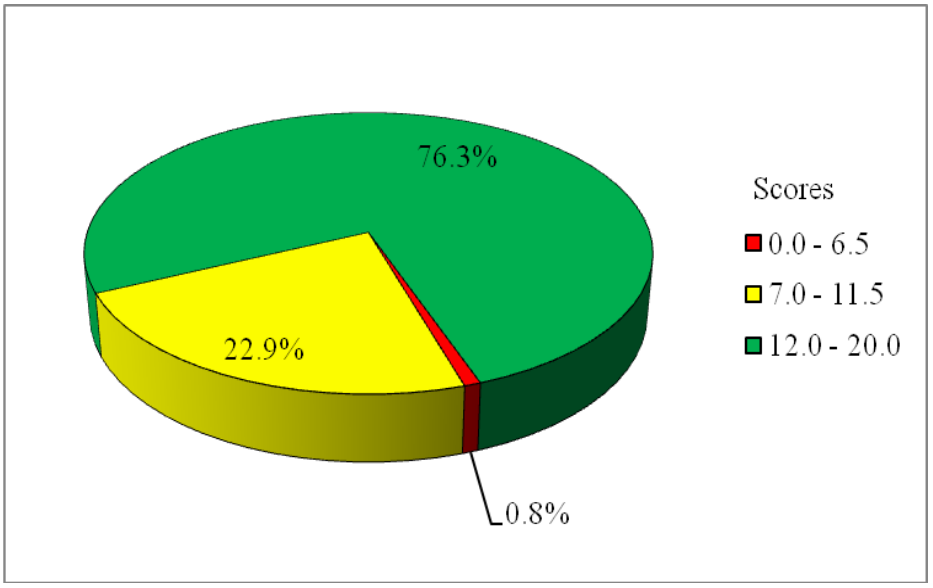


Figure 11: *Candidates' Performance in Question 4*

The 21,291 (76.3%) candidates who scored from 12 to 20 marks revealed adequate knowledge of the subject matter. They managed to give an account of eight reasons for the development of timber industry in Parana Pine forests of Southern Brazil. One candidate for example provided relevant introduction and explained eight factors which led to the development of timber industry in the Parana pine forest of southern Brazil. The factors were; *accessibility of market, presence of good tree species which are in demand of the world market, forest management and land use, government support, application of innovative technology, improvement of transport and communication, good climatic condition and availability of skilled labour.* The candidate also gave relevant conclusion.

The variations in their scores were due to the varying strengths of their responses. Extract 11.1 is a sample of a correct response from one of the candidates who answered this question.

04. Timber industry refers to the sustainable exploitation and processing of timber as forest resources by man. Brazil is a country located in South America which is the one of the leading producer of timber products especially the Parana pines. The zones which largely produce timber products include the Parana Pines at Amazonia basin. The following are factors for development of timber industry particularly parana pines in Brazil;

Presence of abundant labour, these are used in the cutting and packing of the logs in the lorries also there are some skilled labour who monitor the whole processes of harvesting the timber products. Such that the labour attained also in neighbouring countries such as Chile, Argentine and Colombia in South America.

Adequate capital, Brazil had invested much in the timber as one of its most sector which contribute to the high Gross National Product and Gross Domestic Products. both the private and public sectors has invested capital by ; buying acres of trees, buying machines that are complex than chainsaws and paying the labour both skilled and unskilled working in the forest.

Good transport and communication system, there is cheap transport attained through the rivers within the Amazonian basin which is used in the transporting of logs to the industrial area for further processing and manufacturing also various permanent roads established reaching to the interior for easy transportation of logs and labour.

Adequate market, Parana pines peculiarly in Brazil are of high demand in the world and are of scarce non found in other forest reserves hence lead to the monopolizing of the market of world to Brazil herself. Parana pines used for example in quality furnitures and paper.

04. Good climatic condition, Amazonian basin in Brazil is blessed with Equatorial climate characterizing high rainfall and high rainfall throughout the year hence lead to the trees to be prosperous and take a short gestation period to be mature for their exploitation to make the timber products.

High government support, the government of Brazil had supported much timber industry due to its contribution to be the first income generator interms of foreign exchange. The government has conducted various measures for example establishment of ministry of forestry and its resources, strict monitoring of the forest areas and enactment of strict policies concerning forestry conservation measures.

Role of investors, these include foreign and domestic individuals who had invested in the timber industry. They play roles such as importing technology from abroad where as it is applied in the Amazonian basins and also establish various industries to which the logs are processed and manufactured, for example British Amazonia Timber Cooperation and Brazilian local timber industries.

High science and technology, Brazil has advanced technology in the production of timber products and processing together with manufacturing them. This led to high number of industries concerned on timber manufacturing, processing for example Brazilian Tiger Industry Limited and the Rio Brothers Timber Industries Limited.

All in all timber industries has various advantages since they contribute to foreign exchange and employment.

Extract 11.1: A sample of a correct response to question 4

Furthermore, the 6,390 (22.9%) candidates who scored from 7 to 11.5 marks possessed inadequate knowledge of the content of subject matter. Other candidates provided correct introduction, managed to account for few correct factors that led to the development of timber industry in Southern Brazil with poor conclusion. Some provided irrelevant introduction and mixed correct and incorrect factors which led to the development of timber industry with poor conclusion. Examples of incorrect factors were; *creation of employment, development of industries, source of income, development of science and technology* and *source of government revenue*.

On the other hand, the 229 (0.8%) candidates who scored from 0 to 6.5 marks revealed lack of knowledge of the factors which led to the development of timber industry in the Parana Pine forest of Southern Brazil. As a result, they responded insufficiently to the question by providing few correct points. For instance, one candidate explained the effects of timber industry as; *deforestation, loss of biodiversity, soil erosion, water pollution, and decline of other activities, increase of crimes, land degradation and scarcity of trees,* instead of factors which led to the development of timber industry in southern Brazil. Extract 11.2 is a sample of such a weak response.

4. Timber industry is the manufactured of timber forest such as Parana pine forest of Southern Brazil. The causes of timber industry are availability of capital availability of skilled and unskilled labour and availability of infrastructure. The following are account of factors which led to the development of timber industry in the Parana pine forests in Southern Brazil.

* Availability of pest and diseases because pest and disease in parana pine forests it destroy plant leaves and cause plant to be thinker plant and dead of plant root example in Southern Brazil it failed to control pest and diseases.

Bad Climatic condition. because when climatic changed in very high rainfall it cause soil erosion into the plant and remove the upper layer of the soil which have contain soil fertility. So Parana pine forests are rembued with high rain fall when was present of Southern Brazil.

low level of education and training. in Southern Brazil many people are not use good planing to protect Parana pine forest as well as to protect them with pest and diseases by used some fertilizer such as NPK and CAN.

lack of ~~ele~~market in both internal and external market in ~~to~~ case

4 product a when getting from Parana Pine forests such as clothes it failed to sell that product to other nation because there is not international market.

Poor infrastructure; such as transport and communication when in transport there are poor road and railway when people are used to transfer product and raw material as well as people from Parana pine forest to an industries or to market.

Poor government support; because in Southern Brazil there is poor government support such as to introduce fund capital or to buy fertilizer when are used to protect Parana pine forest with pest and diseases.

Lack of enough capital; because Parana pine forest it failed to controlled due to lack of enough capital when is used to paid labour and to buy different fertilizers and equipment when are used to control Parana pine forest

Availability of unfertility soil; because in some part of Southern Brazil is not soil fertility to growth of Parana pine forest and make lowest in that area because Parana pine forest income and increase in Productivity into an industry

Extract 11.2: A sample of an incorrect answer to question 4

In extract 11.2 the candidate explained factors which hinder the development of timber industry such as; *availability of pests and diseases, bad climatic conditions, low level of education and training, lack of market, poor infrastructures, poor government support and lack of enough capital* instead of accounting for the development of timber industry in the Parana pine forest of southern Brazil in eight reasons.

2.2.5 Question 5: Environmental Friendly Tourism

The question required candidates to provide eight points which justifies that, "South Africa is endowed with geographical and non-geographical factors for the development of tourism industry. The question was opted by 15,342 (35.8%) candidates of which, 9,174 (59.8%) scored from 12 to 20 marks, 5,594 (36.5%) scored from 7 to 11.5 marks and 574 (3.7%) scored from 0 to 6.5 marks. The general performance on this question was good as 14,768 (96.3%) candidates scored 7 marks and above. Figure 12 illustrates the performance on this question.

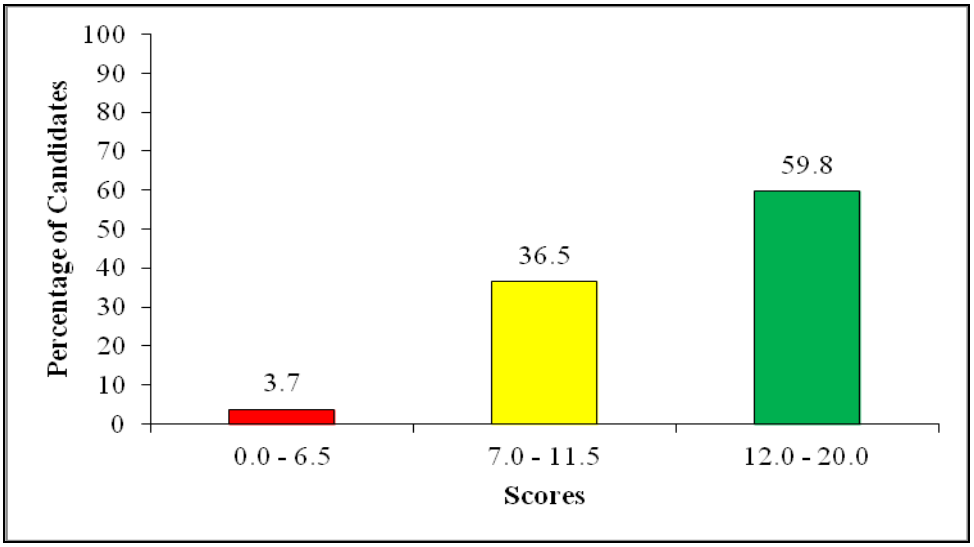
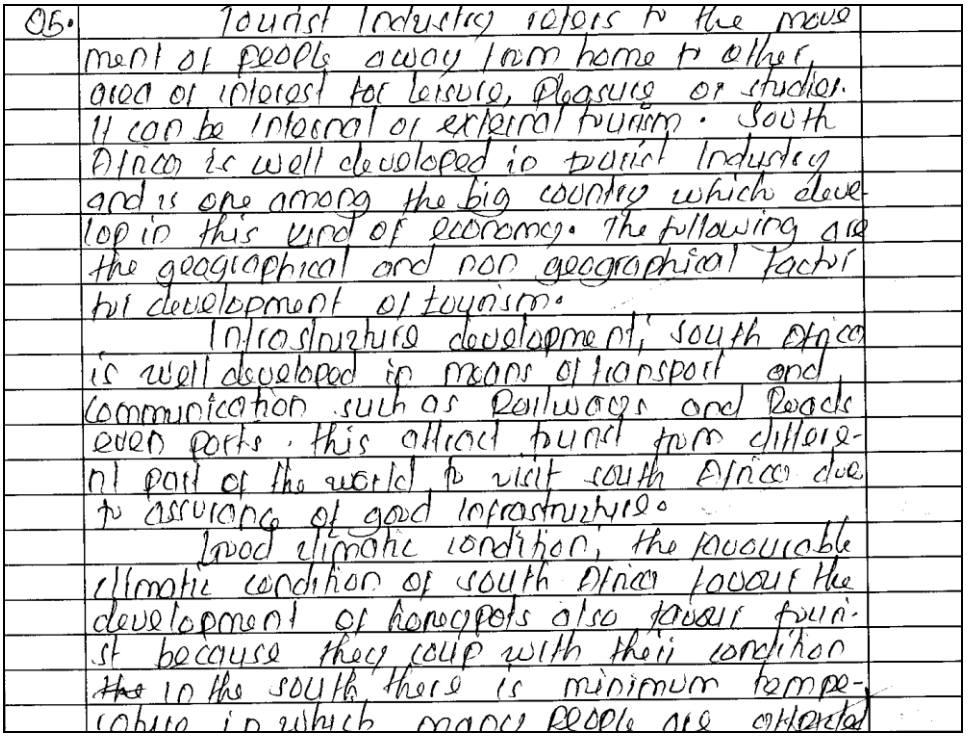


Figure 12: *Candidates' Performance in Question 5*

Further data analysis revealed that, 9,174 (59.8%) candidates who scored from 12 to 20 marks showed adequate knowledge of the geographical and non-geographical factors which led to the development of tourism industry in South Africa. Some candidates in this category managed to provide relevant introduction about tourism industry in South Africa with relevant conclusion.

One candidate for example, provided relevant introduction by defining tourism as *the movement of the people away from their home to other places for interest, leisure, pleasure or studies.* The candidate also explained geographical factors which led to the development of tourism industry in South Africa such as; *the presence of national parks and game reserves like the Pines berg, the landscape which create beautiful scenery which attracts tourists such as; craters, mountains and escarpments, climatic condition which allows tourism activities and whale watching and penguin route.* Again the candidate also explained human factors as; *Presence of museums like the Municipal Museum, good social services, capital availability, availability of skilled people, good transport system, availability of power supply especially the Hydro-electric power, involvement of local community in wildlife conservation and cultural events like African music and festivals.* Finally, the candidate managed to provide relevant conclusion on the contribution of tourism industry to the economic development of South Africa. Extract 12.1 is a sample of a correct response to this question.


06. Tourist Industry refers to the move
ment of people away from home to other
area of interest for leisure, pleasure or studies.
It can be internal or external tourism. South
Africa is well developed in tourist Industry
and is one among the big country which deve-
lop in this kind of economy. The following are
the geographical and non geographical factor
for development of tourism.
Infrastructure development, south Africa
is well developed in means of transport and
communication such as Railways and Roads
even ports. this attract tourist from differe-
nt part of the world to visit south Africa due
to assurance of good infrastructure.
Good climate condition, the favourable
climatic condition of south Africa favour the
development of homeports also favour touri-
st because they coup with their condition
the in the south there is minimum tempe-
rature in which many people are attracted

Advanced social services; the services like hotels which are very advanced and specialized by for international tunist. For example, at limpompo. This enable many people from different part of the world to reach in south Africa.

Relief; south Africa characterized by the area of low land. Example, in limpompo and mpumalanga in which there is gentle slope (flat area) that the fruit farming is well established. So many people from different places they are going for research and some for studying. This accelerate the development of tourism.

Hospitality of the people; the people of south Africa they are hospitality and they convice people to come in their country. This accelerate many people to visit in south Africa.

Development in advertisment; they advertise their tunist attraction within and outside their country through different media. so the number of tunist are increase day after day. Example in kwa-zulu natal.

Available of capital; south Africa is one among developed country and it have large capital to invest in the development of industry inform of modernizing the honey Pody this cause the increase in tunist.

Political stability; there is no occurance of wars in south Africa, people live peaceful, so attract many people of different countries to visit in south Africa.

Tourist Industry have influence social, political and economic life of south Africa citizen by providing employment, increasing income and diversification of economy.

Extract 12.1: A sample of a correct response to question 5

On the other hand, 5,594 (36.5%) the candidates who scored from 7 to 11.5 marks demonstrated inadequate knowledge of the factors for the development of tourism in South Africa. Some of the candidates in this category provided relevant introduction of tourism. They explained few correct geographical and non-geographical factors which led to the development of tourism industry in South Africa. For example, one candidate gave relevant introduction by defining tourism industry as; *the industry that involve the movement of people from one place to another for leisure, pressure or study*. However, the candidate mixed up correct and incorrect geographical and non-geographical factors for the development of tourism in South Africa. The candidates' strengths and weaknesses of the responses accounted for the variations in the scores.

Moreover, the 574 (3.7%) candidates who scored from 0 to 6.5 marks were not competent on the topic tested. They lacked the focus on the subject matter as the result they ended up scoring lower marks. Some of the candidates provided relevant introduction of tourism but they provided incorrect geographical and non-geographical factors for tourism development in South Africa. Examples of incorrect factors were; *relief, favourable rivers, advanced technology, political stability and good government support,* which were also incorrectly explained. Extract 12.2 is a sample of incorrect answer for this question.

05 Tourist Industry is the Industry consitof tourist attraction where people Travel from their home place to tourist sector for leisure, pleasure or studies. South Africa is on of improved country economically, socially and politically when compaining to other countries. South Africa is well improved in tourist sector as it comprises of recreational site, Hospitality of the people, Good accomodation presence of attractive and impressive land scape which attract people hence visit South Africa. Due to it development there are some factors that hinder development of Tourist Industry in South Africa

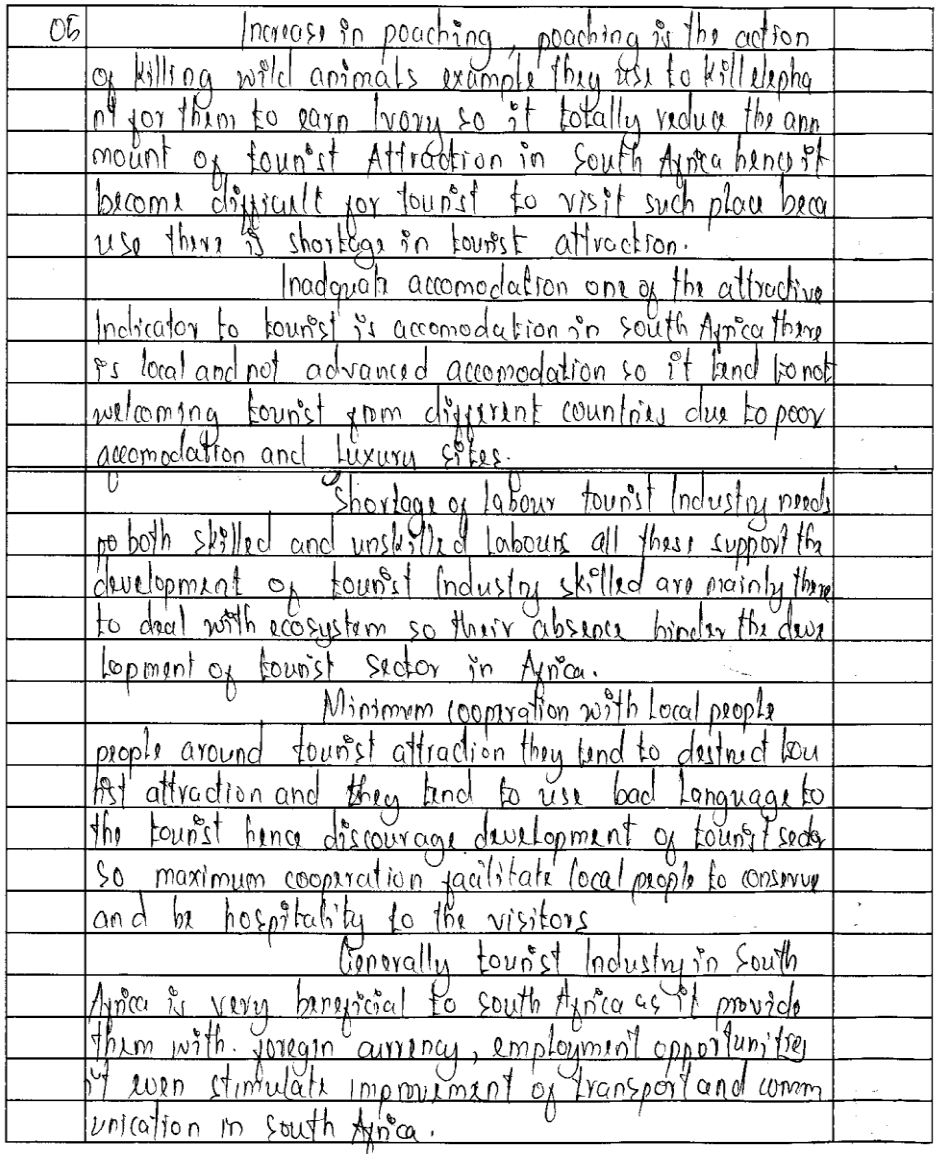
The following the factors both geographical and non geographical that hinder development of tourist Industry.

Inadquate publicity and advertstment, for development of tourist Industry advertstment and publicity is needed so as to attract people from different countries and places and Increase in tourist industry development fail to develop due to Inadquate publicity

Poor climatic condition South Africa has got poor conducive climate to attract visitors from different places hence limit the development of tourist Industry in South Africa the climate is very winter hence do not support tourist

Inadquate capital tourist Industry needs huge capital for Investment and accomplish all ~~Improve~~ Important activities in tourist sector hence Inadquate capital hinder the development of tourist Industry as it fail to meet the demand.

Poor government support government of South Africa is not cooperative in Improving tourist attraction and other important facilities which will accelarate development of tourist Industry in South Afri


06 Increase in poaching, poaching is the action of killing wild animals example they use to kill elepha nt for them to earn ivory so it totally reduce the amn mount of tourist Attraction in South Africa hence it become difficult for tourist to visit such place beca use there is shortage in tourist attraction.

Inadequate accomodation one of the attractive Indicator to tourist is accomodation in south Africa there is local and not advanced accomodation so it tend to not welcoming tourist from different countries due to poor accomodation and luxury sites.

Shortage of labour tourist Industry needs pe both skilled and unskilled labours all these support the development of tourist Industry skilled are mainly there to deal with ecosystem so their absence hinder the deve lopment of tourist sector in Africa.

Minimum cooperation with local people people around tourist attraction they tend to destruct tou rist attraction and they tend to use bad language to the tourist hence discourage development of tourist sector so maximum cooperation facilitate local people to conserve and be hospitality to the visitors

Generally tourist Industry in South Africa is very beneficial to south Africa as it provide them with. foregin currency, employment opportunities it even stimulate improvement of transport and comm unication in South Africa.

Extract 12.2: A sample of an incorrect answer to question 5

In extract 12.2 the candidate described general factors which hinder the development of tourism industry such as; *inadequate publicity and advertisement, poor climatic conditions, inadequate capital, poor government support, increase in poaching, in adequate accommodation and shortage of labour* instead of the factors which led to tourism development in South Africa.

2.2.6 Question 6: Sustainable Mining

The question required candidates to examine seven problems facing gold mining industry in Tanzania. The question was attempted by 39,083 (91.2%) candidates. The general performance for this question was good because 38,518 (98.6%) candidates who scored from 7 to 20 marks. Data analysis showed that 23,015 (58.9%) scored from 12 to 20 marks, 15,503 (39.7%) scored from 7 to 11.5 marks and 565 (1.4%) scored from 0 to 6.5 marks. Figure 13 illustrates performance on this question.

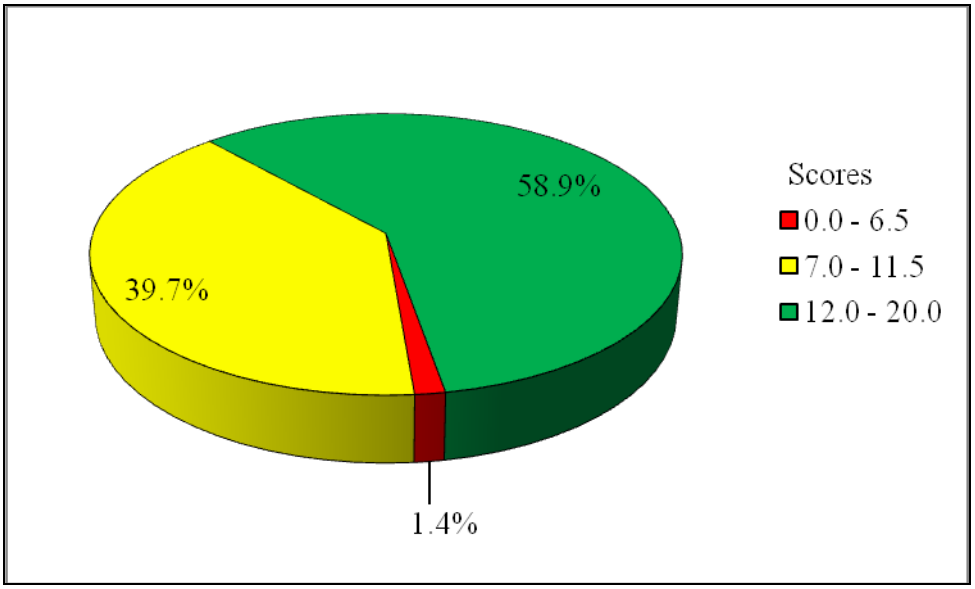


Figure 13: Candidates' performance in question 6

Further data analysis revealed that, 23,015 (58.9%) candidates who scored from 12 to 20 marks interpreted well the demands of the question and their ideas were well presented and related to the question. Most of the candidates in this category gave relevant introduction about mining in Tanzania. They correctly examined seven problems facing gold mining industry in Tanzania and provided relevant conclusion.

For example, one candidate defined mining industry as; *the industry that involves the extraction of minerals from the ground where technical knowledge is highly needed as well as understanding the nature and mode of occurrence of mineral ore. In Tanzania gold mining is conducted in some parts such as Kahama, Geita and Bulyankulu*. Furthermore, the candidate examined the seven problems facing mining industry in Tanzania

as; *low level of education and technology, lack of capital, mining accidents, price fluctuation, environmental degradation, mineral exhaustion, unreliable power supply, political reasons and theft of minerals*. The candidate also wrote a relevant conclusion by suggesting possible solutions to be taken to minimize the examined problems as: *the government should invest and develop other sectors such as trade and tourism, conserving the degraded areas and explore new sites and conduct sustainable mining*. Extract 13.1 is a sample of the correct response for this question.

6. The mineral sector is the sector which involves mining activities. Mining refers to the extraction of minerals from underground. In Tanzania, the mining sector has high contribution to the generation of income, but not only that, also, the provision of employment opportunities, the growth of towns and cities, and the development of industries. In Tanzania, minerals like gold, diamond, copper, and Tanzenite are mined in different regions such as Mwadui

6. Geita, Mererani and many other places. Companies like Geita Gold mine, Anglo - Ashanti Gold Mining company and Barrick Gold company are responsible for the extraction of minerals in their respective regions. However, the sector is encountered by several setbacks.

The following are the setbacks encantered by the Mineral sector in Tanzania.

Exhaustion of gold deposits;

There is over exploitation of the gold dipositi in the gold mines in Tanzania. This is because, there are large deposits of gold in Tanzania, hence they are exploited by the mining companies. Example, the Barrick Gold Mining company is the 7th leading producer of gold in the world but also the most exploitative company of gold resulting to exhaustion of gold dipositi in Geita.

Poor Sciena and technology;

Most of the Tanzanians are poor hence, low advancement in sciena and technology. This has affected the whole mineral sector especially the gold mineral mining. But also, the gold obtained is of low quality hence accounting for its low price and continous price fluctuations in the world market. In addition, poor sciena and technology discourages the miners to carry on with their mining activities as hurdles developes. Example, advanced sciena and technology like the use of Mineral blasting is not present in Tanzania. Instead Poor technology like the open shaft method is used accounting for poor quality gold minerals.

6. Existence of corruption; The prevailing corruption has led to the decline of the mineral sector in Tanzania. But also, increase in corruption activities has created over-exploitation of the gold mineral in Tanzania, leading to exhaustion of gold deposits especially in Geita where by much gold is mined. But also, corruption discourages, the government and the private sectors to give full support. Example, In Tanzania, the Makinikia scandal of 2016, had reduced the gold in the gold deposits by 10%.

Shortage of power; Tanzania solely depends on Hydro Electric Power (HEP) generation for the production of electricity. This energy source provides less required electricity for the production of gold. But also, the heavy machines in the gold mines, require stable and sufficient power supply for the development of the gold mining industries and companies. Example, Tanzania has not yet exploited the coal reserves in Songwe Kiwira and Katewaka Mchuchuma which are believed to produce most efficient electricity in various sectors.

Limited markets; and price fluctuations of gold in the world market; Gold from Tanzania, Faces stiff competition from the world's famous gold producers like Mali, and South Africa which produce high quality gold (as a mineral) and gold products like grills, jewellery and many others. This has reduced the development of gold mining sector as the gold

6. obtained in Tanzania is of low quality and less demanded. Example, in 2015, the price of the gold from Tanzania declined by 10% compared to previous years. In addition gold exports decreased by 20% in the same year.

Lack of enough capital; The gold mining Industry Lacks enough capital for its development. The available capital is used in retaining workers as well as purchasing new technology interms of machines and tools. The government in collaboration with the private sectors allocate inadequate capital in the gold mining Industry in Tanzania resulting to is underdevelopment. Example, only 15% of the total Gross National Product (GNP) is allocated to the gold mining Industry, which certainly it is not enough.

Presence of poor infrastructures; Presence of poor infrastructures like roads, and railway Lines has reduced the productivity of the gold mining industry. Presence of poor quality roads has reduced the transportation of gold in bulk. But also, presence of poor feeder roads in the interior has discouraged the transportation of gold from the mines to the industries and from the industries to the markets. Example, the roads in Geita Gold mine are very poor.

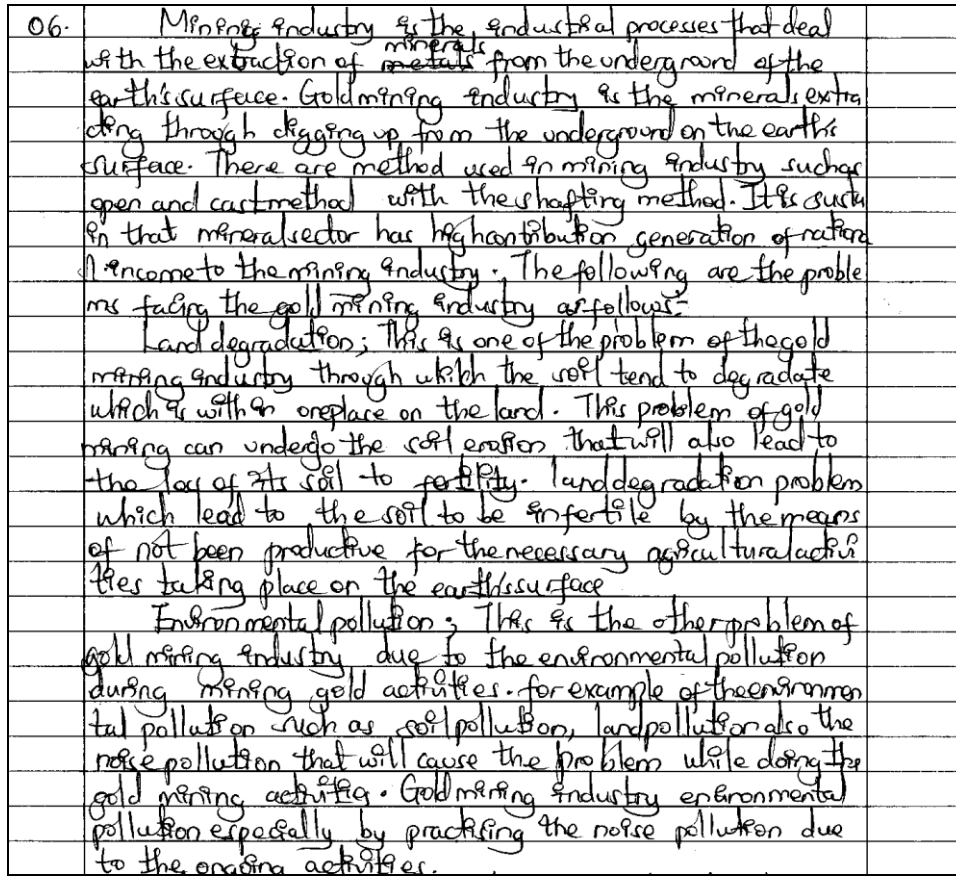
Conclusively, the gold mining industry in Tanzania, has managed to contribute to the economic development of Tanzania because, it has provided employment opportunities, the growth of towns and cities like Geita, the development of industries and the diversification of the economy.

Extract 13.1: A sample of a correct response to question 6

Further analysis indicated that, 15,503 (39.7%) candidates who scored from 7 to 11.5 marks demonstrated inadequate knowledge about problems facing gold mining industry in Tanzania. Some candidates in this category provided relevant introduction about gold mining industry but they

examined insufficiently the problems facing gold mining in Tanzania. Some of the candidates managed to write relevant introduction, but provided few problems facing gold mining in Tanzania with irrelevant conclusion. Others mixed correct and incorrect problems facing gold mining industry in Tanzania. Examples of incorrect problems explained were; *shortage of food for labour, civil wars, land conflict and land degradation.*

Moreover, 565 (1.4%) candidates who scored from 0 to 6.5 marks lacked knowledge about gold mining in Tanzania, especially the problems facing the sector. Some of those candidates provided relevant introduction of mining but examined few problems facing gold mining industry in Tanzania with irrelevant conclusion. Examples of incorrect problems were; *eruption of diseases, civil wars among the people and invasion from foreigners*. Their marks varied because of their disparities and weaknesses of their responses. Extract 13.2 is a sample of an incorrect response from one of the candidates who answered this question.



06. Mining industry is the industrial processes that deal with the extraction of minerals from the underground of the earth's surface. Gold mining industry is the minerals extracting through digging up from the underground on the earth's surface. There are method used in mining industry such as open and cast method with the shafting method. It is such in that mineral sector has high contribution generation of national income to the mining industry. The following are the problems facing the gold mining industry as follows:-

Land degradation; This is one of the problem of the gold mining industry through which the soil tend to degradate which is with in one place on the land. This problem of gold mining can undergo the soil erosion that will also lead to the loss of the soil to fertility. land degradation problem which lead to the soil to be infertile by the means of not been productive for the necessary agricultural activities taking place on the earth's surface

Environmental pollution; This is the other problem of gold mining industry due to the environmental pollution during mining gold activities. for example of the environmental pollution such as soil pollution, land pollution also the noise pollution that will cause the problem while doing the gold mining activity. Gold mining industry environmental pollution especially by practising the noise pollution due to the crushing activities.

Global warming; This is due to the highly extent of temperature increasing that affect the earth surface. When gold mining industry activities through digging up of the minerals from the underground it tend to the temperature increase on the ground. Gold mining industries when digging of the minerals it involve the distance downward the extracting hole that may led to increase of temperature to the earth's

06 surface and led to the global warming on the ground surface.

Destruction of properties; The other problem on gold mining activities leds to the destroying of the properties. This happen when the gold mining activities are been practised near the surrounding of people lives that may destruct houses and other properties such as business places, that is one of the problem for the gold mining industry.

Death of organisms; Ip problem facing gold mining industry is the death problem of the organisms that occur when the mining activities takes place. The death of organism as known as the animal and plants species due to the quakes of the land hence when animals were in movement the tend to led up to death of the organisms in the gold mining industry.

Defforestation; The other problem of the gold mining is defforestation, the cutting down of trees where there were tree. This is the problem when trees are been cut off they tend to start the mining activities, so that was the problem that facing the gold mining industry, due to the sector that encountered by several setback.

Unemployment; The problem facing gold mining industry is unemployment opportunities, that no labours for the extracting of minerals, thus led to the problem facing the gold mining industry due to the both the skilled and unskilled labour not found for the cause of unemployment opportunities in the industry.

Generally in gold mining industry is the metal that is been extracted as mineral in Tanzania that get the country to be well developing due to its presence of minerals such as gold, copper, tin which led in economic development sector in the country.

Extract 13.2: A sample incorrect answer to question 6

In extract 13.2 the candidate explained the environmental problems caused by mining industry in Tanzania such as *land degradation, environmental pollution, global warming, death of organisms* and *deforestation* instead of problems facing gold mining in Tanzania.

2.2.7 Question 7: Manufacturing Industries

This question required candidates to justify, by giving eight points the statement that "Tanzania has abundant raw cotton production, but is still lagging behind on textile industry". This question was opted by 26,780 (62.5%) candidates whereby 20,810 (77.7%) scored from 12 to 20 marks, 5,542 (20.7%) scored from 7 to 11.5 marks and 428 (1.6%) scored from 0 to 6.5 marks. The general performance on this question was good since 26,352 (98.4%) of the candidates who attempted it scored from 7 to 20 marks. Figure 14 illustrates the performance of the candidates for this question.

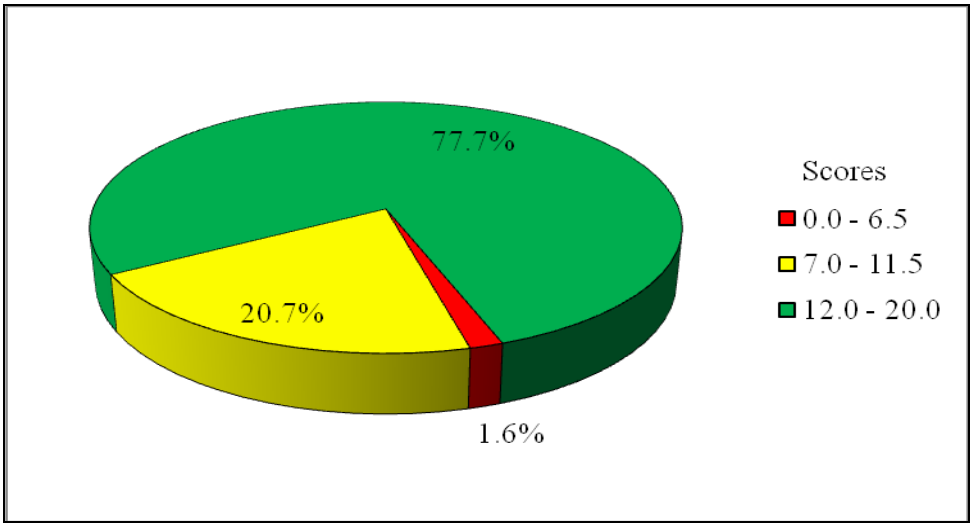
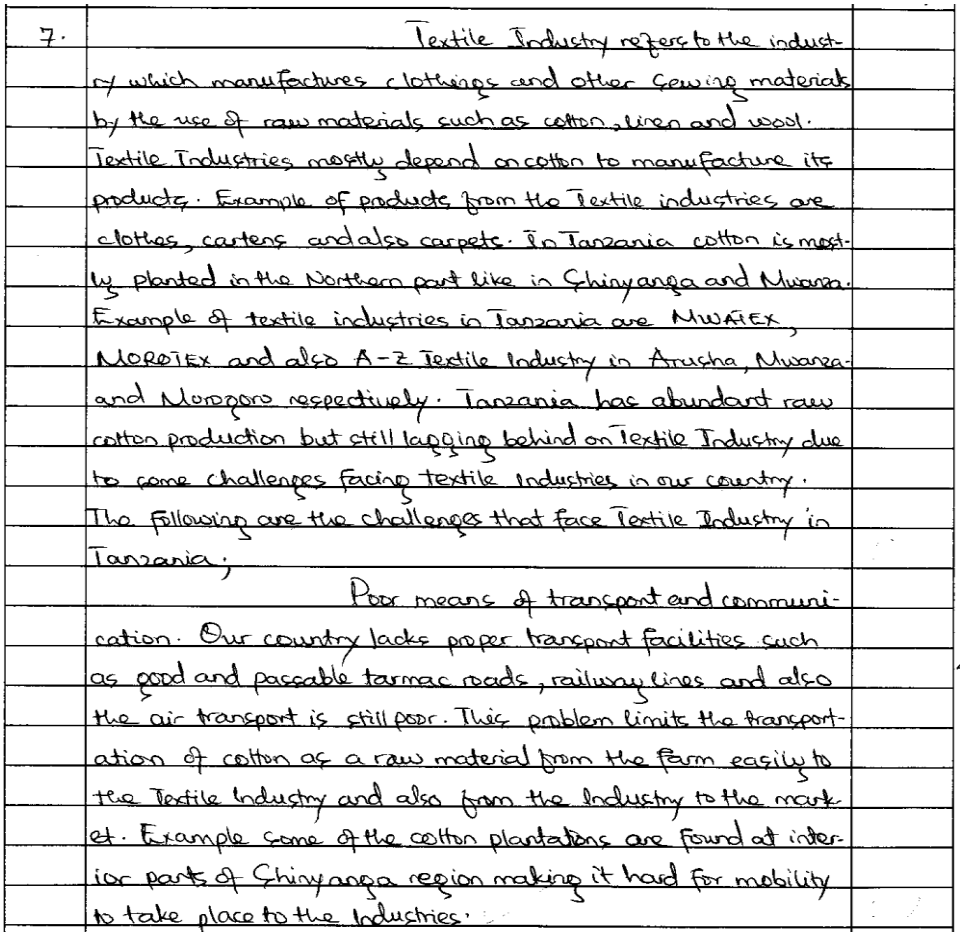


Figure 14: *Candidates' Performance in Question 7*

Data analysis revealed that, 20,810 (77.7%) candidates who scored 12 to 20 marks showed adequate knowledge about textile industries in Tanzania, specifically on the reasons for lagging behind. Most of the candidates in this category gave relevant introduction and explained eight reasons to justify lagging behind of textile industry in Tanzania, despite of abundant raw cotton production.

One candidate for instance, provided relevant introduction by defining the textile industry as: *the industry which deals with the manufacturing of clothes from cotton, wood, silk, rayon or linen. The major producing cotton regions in Tanzania are Shinyanga, Mwanza and Tabora and most of the earlier textile industries in Tanzania are Mwanza textile (Mwatex), Kilimanjaro textile (Kilitex) and Urafiki textile industry which is located in Dar es Salaam*. The candidate also provided the correct reasons for the industries to lag behind such as; *high cost of production, installation and running industries, poor infrastructure network, poor market for textile products, low price of cotton from farmers, low level of science and technology, low quality of cotton produced by farmers, unreliable power supply for running industries, poor capital availability from investors and insufficient management of textile***.** Furthermore, the candidate concluded by suggesting the possible solutions to the challenges facing textile industry in Tanzania. Extract 14.1 is a sample of a correct answer for this question.



7. Textile Industry refers to the industry which manufactures clothings and other sewing materials by the use of raw materials such as cotton, linen and wool. Textile Industries mostly depend on cotton to manufacture its products. Example of products from the Textile industries are clothes, curtens and also carpets. In Tanzania cotton is mostly planted in the Northern part like in Shinyanga and Mwanza. Example of textile industries in Tanzania are MWATEX, MORETEX and also A-Z Textile Industry in Arusha, Mwanza and Morogoro respectively. Tanzania has abundant raw cotton production but still lagging behind on Textile Industry due to some challenges facing textile industries in our country. The following are the challenges that face Textile Industry in Tanzania;

Poor means of transport and communication. Our country lacks proper transport facilities such as good and passable tarmac roads, railway lines and also the air transport is still poor. This problem limits the transportation of cotton as a raw material from the farm easily to the Textile Industry and also from the Industry to the market. Example some of the cotton plantations are found at interior parts of Shinyanga region making it hard for mobility to take place to the Industries.

Stiff competition from other Textile Industries abroad. Our Textile industries experience a huge and stiff competition from the neighbouring and even abroad countries. This is because products from abroad are believed by most of the Tanzanians to be of a better quality compared to those produced by our own textile industries. This may discourage production to our textile industries for they lack market. Example the Tanzania textile industry suits are not of good quality compared to those from abroad.

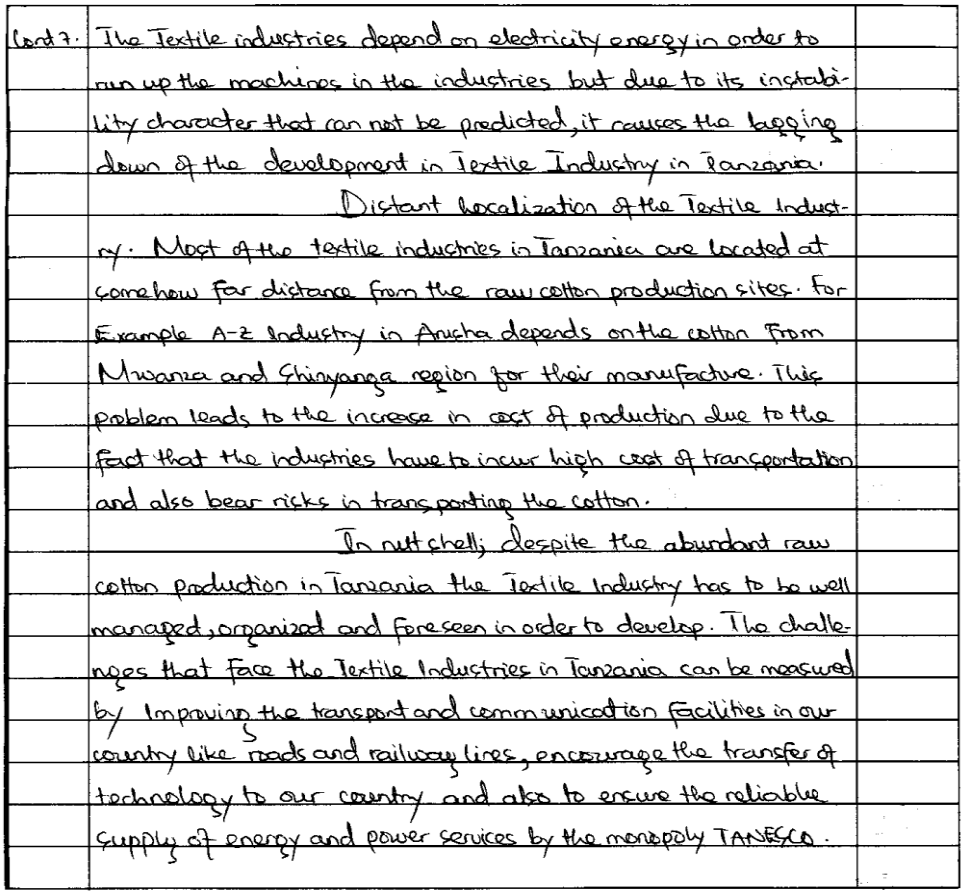
Cont: 7. Low level of technology. The technology which is used in the Textile Industries in Tanzania is still not well advanced. This leads to the production of low quality products and also the quantity will be low. Example the use of advanced technology such as robots who ensure efficiency and accuracy and also computers is still not employed or transfered to our country thus causing under utilization.

Lack of skilled manpower. The labourers who are employed in the Textile industries in Tanzania most of them are unskilled who work just by experience and not by profession. This leads to non-existence of innovations in the production or manufacturing activity and therefore no contribution made to the industry rather than performing the same activity through out.

Insufficient Capital to further up the industries. The textile industries in Tanzania lack enough capital which can be used to expand their manufacturing activities like employing more skilled labour and also purchase of heavy and more powerful machines which can be helpful in the production of quality products and in a large quantity.

Lack of full support from the government. The government of Tanzania fails to provide full support to the textile industries like provision of incentives and also loans which they can use to expand their industrial activities. This makes it hard for the Textile industries in Tanzania to develop despite the abundant raw cotton production present.

Energy and Power problem in Tanzania. In Tanzania there is a very big problem of supply and assurance of energy and power especially Electricity energy.


(cont 7. The Textile industries depend on electricity energy in order to run up the machines in the industries but due to its instability character that can not be predicted, it causes the lagging down of the development in Textile Industry in Tanzania.

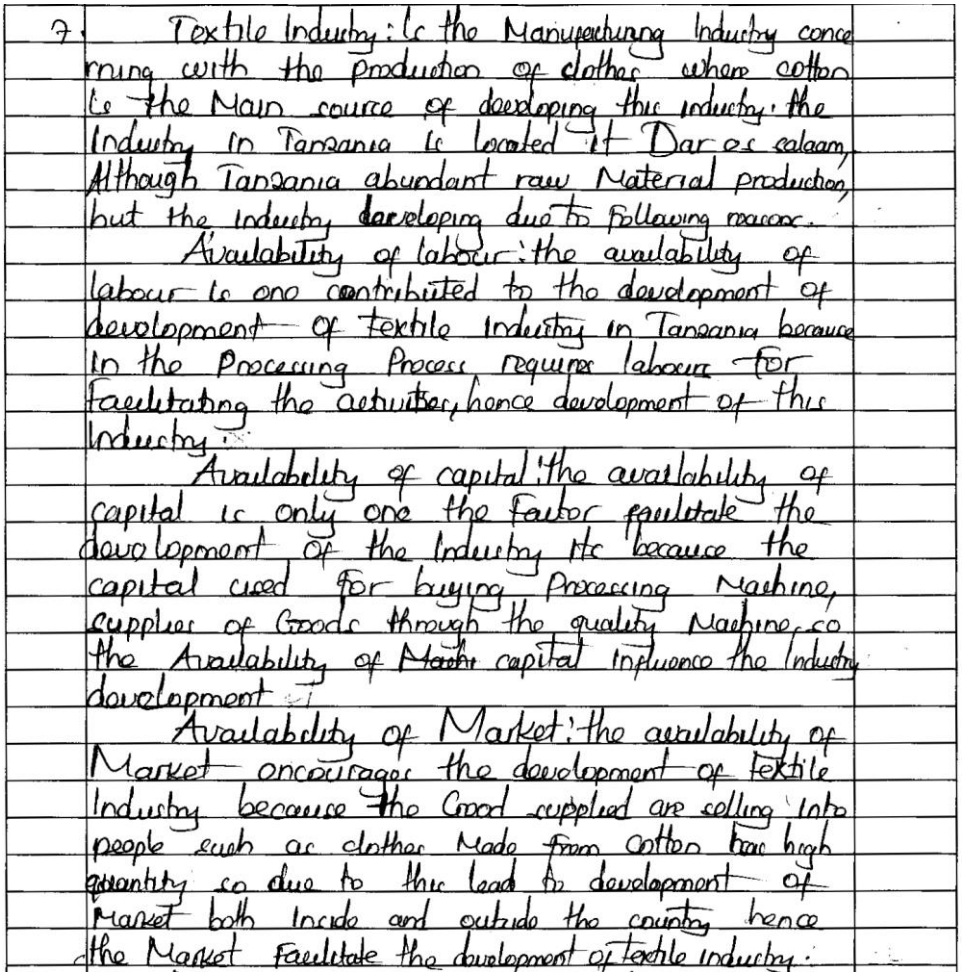
Distant localization of the Textile industry. Most of the textile industries in Tanzania are located at somehow far distance from the raw cotton production sites. For Example A-Z Industry in Arusha depends on the cotton from Mwanza and Shinyanga region for their manufacture. This problem leads to the increase in cost of production due to the fact that the industries have to incur high cost of transportation and also bear risks in transporting the cotton.

In nutshell; despite the abundant raw cotton production in Tanzania the Textile Industry has to be well managed, organized and foreseen in order to develop. The challenges that face the Textile Industries in Tanzania can be measured by Improving the transport and communication facilities in our country like roads and railway lines, encourage the transfer of technology to our country and also to ensure the reliable supply of energy and power services by the monopoly TANESCO.

Extract 14.1: A sample of a correct response to question 7

Further analysis of the responses showed that, the 5,542 (20.7%) candidates who scored from 7 to 11.5 marks portrayed inadequate knowledge about manufacturing industries specifically on the factors that hinder the development of textile industries in Tanzania. Some candidates provided relevant introduction of textile industries. They analysed inadequately the factors which led to the failure of textile industries and they provided irrelevant conclusion. Others managed to give correct introduction of textile industries but they gave few reasons for the lagging behind of textile industries in Tanzania with relevant conclusion. For instance, one candidate defined incorrectly textile industry as: *industry which deals with the transferring and manufacturing of goods and services within the industry, this industry may produce the semi-finished goods or finished goods which help to meet the demand of the consumers.* In addition, the candidate mixed up correct and incorrect points.

On the other hand, the 428 (1.6%) candidates who scored from 0 to 65 marks indicated lack of knowledge about manufacturing industry in Tanzania specifically problems facing textile industries. Some candidates failed to provide relevant introduction. They mixed up correct and incorrect points and ended up with irrelevant conclusion. One candidate for example, provided irrelevant introduction and explained the importance of textile industries such as; *employment creation, provision of support to other sectors, leads to the improvement of social services, leads to improvement of infrastructures, improves the living standard of the people, increases national income, and facilitates the reduction of crimes in the state;* instead of factors which hinder the development of textile industries. The variation in their scores was a result of weaknesses and strengths of their responses. Extract 14.2 is a sample of incorrect answers for question 7.



7. Textile Industry: Is the Manufacturing Industry concerning with the production of clothes where cotton is the Main source of developing this industry. the Industry in Tanzania is located at Dar es salaam, Although Tanzania abundant raw Material production, but the industry developing due to following reasons.

Availability of labour: the availability of labour is one contributed to the development of development of Textile Industry in Tanzania because in the Processing Process, requires labours for facilitating the activities, hence development of this Industry.

Availability of capital: the availability of capital is only one the Factor facilitate the development of the Industry its because the capital used for buying Processing Machine, supplies of Goods through the quality Machine, so the Availability of ~~Machi~~ capital influence the Industry development.

Availability of Market: the availability of Market encourages the development of Textile Industry because the Good supplied are selling into people such as clothes Made from cotton has high quantity so due to this lead to development of Market both Inside and outside the country hence the Market Facilitate the development of textile industry.

Availability of power supply: the power supply influencing the development of textile industry its because the power supply influencing the machine activities such as electricity also water supply influencing the development of textile industry although cotton production is lower.

7 8. Availability of Infrastructures: Infrastructures include Transport and communication system, such as road railway this Faulitates the development of textile industry because thes the transport system Faulitates the development of ~~trade~~ the industry its because this enables to transports Manufactured Goods from the industry to the Market, also raw Materials from where they are Produced to the industry.

GOVernment policy: Also the Government policy has contributed to the development of textile industry its through this policies done by the Government such as "Tanzania Industrialization" stimulate the development of the textile industry which are pulled by late Dr. John pombe Magufuli in five years stimula te the development of the this textile industry.

Availability of Modern Machine: the availabili ty of Modern Machine contributed to the developme nt of Textile industry in industries although we have low science and technology but there modern tools which used in processing the raw Materials lead to the developing of the industry.

Therefore: the Mineral sector has the contribu tion to the generation of national income, apart from this there is effects from Gold Mining in Tanzania such as Environmental degradation, loss of biodiversi ty the land exhaustion, soil erosion etc.

Extract 14.2 is a sample of an incorrect response to question 7

In extract 14.2, the candidate explained the factors for the development of any industry such as *availability of labour, availability of capital, availability of market, availability of power supply, availability of infrastructures, government policy* and *availability of modern machines*; instead of the reasons to justify that textile industry in Tanzania is lagging behind despite of abundant cotton production.

3.0 PERFORMANCE OF CANDIDATES IN EACH TOPIC

The analysis of candidates' performance in Paper One shows that, candidates had good performance in 6 topics out of 7 topics examined because they scored 35 percent and above. These topics are: *Study of Soils (96.5%), Application of Statistics in Geography (93.8%), Space Dynamics (92.1%), Water Masses (81.5%), The Dynamic Earth and Consequences (81.3%)* and *Topographical Map Interpretation (79.1%).* However, the candidates had average perfomance of 55.6 percent in the topic of *Photograph Interpretation.* Moreover, in Paper Two, the candidates had good performance in all the 6 topics examined because they scored 35 percent and above. These topics are: *Timber Industry (99.2%), Sustainable Mining (98.6%), Manufacturing Industries (98.4%), Environmental Friendly Tourism (96.3%), Livestock Keeping (96.2%)* and *Population and Development (95.3%).*

The candidates performed well in these topics because of their ability to follow the required paper instructions, identify the demands of the questions and good mastery of the subject matter. Moreover, most of those candidates demonstrated good proficiency of English language in answering questions that required explanations, as they wrote grammatical correct and meaningful sentences with logical arrangement of essays.

The reasons which made the candidates to get average performance in the topic of *Topographical Map Interpretation* were; providing fewer points than instructed, mentioning correct points without satisfactory explanations, mixing up correct with incorrect concepts and inability of the candidates to extract information from photograph and linking the extracted information with real life situation.

The comparison of candidates' performance between 2020 and 2021 shows that, in 2020 the performance was good in 10 topics, average in 1 topic and weak in 2 topics while, in 2021 the performance was good in 12 topics and average in 1 topic. Therefore, the performance of the candidates in 113 Geography Advanced Certificate of Secondary Education Examination (ACSEE) 2021 topic wise has increased. The candidates' performance has not changed in *Sustainable Mining, Manufacturing Industries, Study of Soils, Environmental Friendly Tourism, Population and Development, Space Dynamics and Water Masses* topics which were good. In addition,

there was an increase of performance of the topic of *Topographic Map Interpretation* which had average performance in 2020 to good performance in 2021. The comparison of the analysis of the candidates' performance in each topic for 2020 and 2021 is summarized in the appendix. The green colour indicates topics with good performance, yellow colour indicates topics with average performance and red colour indicates topics with weak performance.

4.0 CONCLUSION

The general performance of the candidates in Geography subject for the Advanced Certificate of Secondary Education Examination (ACSEE) 2021 was 85.3 percent which is good. The analysis shows that the candidates' good performance was a result of their ability to identify the demands of the question, their knowledge and skills on the subject matter, their competence in English language and possession of calculating skills. Thus, the candidates with weak performance revealed lack of these skills.

5.0 RECOMMENDATIONS

Basing on the observations made through Candidate's Item Response Analysis (CIRA), the following recommendations are put forward in order to improve the performance of upcoming candidates in this subject:

(a) Classroom teaching and learning processes should be endowed with practical activities. It is always believed that a student learns better if the whole process is supported by concrete materials that give them the experience and first-hand information. This might help students to gain competence in calculating, measuring and analysis in different practical activities.

(b) Teachers should guide the students in the correct ways of reading and interpreting different kinds of photographs.

(c) Teachers should guide the students in extracting relevant information from different kinds of photographs and link the extracted information to real life situation/phenomena on the ground.

Appendix

Comparison of candidates' Performance by Topic in 2020 and 2021 Years

S/N	Topic	2020			2021		
		Number of questions per topic	Percentage of candidates who scored an average of 35 Percent or more	Remarks	Number of questions per topic	Percentage of candidates who scored an average of 35 Percent or	Remarks
1.	Timber Industry				1	99.2	Good
2.	Sustainable Mining	1	96.2	Good	1	98.6	Good
3.	Manufacturing Industries	1	90.7	Good	1	98.4	Good
4.	Study of Soils	1	84.8	Good	1	96.5	Good
5.	Environmental Friendly Tourism	1	92.3	Good	1	96.3	Good
6.	Livestock Keeping				1	96.2	Good
7.	Population and Development	2	66.5	Good	2	95.3	Good
8.	Application of Statistics in Geography				1	93.8	Good
9.	Space Dynamics	1	66.1	Good	1	92.1	Good
10.	Water Masses	1	95.8	Good	1	81.5	Good
11.	The Dynamic Earth and Consequences				1	81.3	Good
12.	Topographical Map Interpretation	1	54.2	Average	1	79.1	Good

S/N	Topic	2020			2021		
		Number of questions per topic	Percentage of candidates who scored an average of 35 Percent or more	Remarks	Number of questions per topic	Percentage of candidates who scored an average of 35 Percent or	Remarks
13.	Photograph Interpretation				1	55.6	Average
14.	Position behaviour and structure of the Earth	1	96.3	Good			
15.	Transport and communication	1	81.8	Good			
16.	Sustainable Use of Fuel And Power	1	68.6	Good			
17.	Field Research Strategies	1	34.5	Weak			
18.	Simple Survey and Map Making	1	19.7	weak			