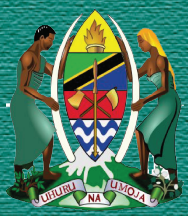


THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

CANDIDATES' ITEM RESPONSE ANALYSIS (CIRA) REPORT ON THE ADVANCED CERTIFICATE OF SECONDARY EDUCATION EXAMINATION (ACSEE) 2025

GEOGRAPHY

THE UNITED REPUBLIC OF TANZANIA

MINISTRY OF EDUCATION, SCIENCE AND TECHNOLOGY

NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

CANDIDATES' ITEM RESPONSE ANALYSIS (CIRA) REPORT ON THE ADVANCED CERTIFICATE OF SECONDARY EDUCATION EXAMINATION (ACSEE) 2025

113 GEOGRAPHY

Published by:
The National Examinations Council of Tanzania,
P.O. Box 2624,
Dar es Salaam, Tanzania.

TABLE OF CONTENTS

FOREWORD

The National Examinations Council of Tanzania (NECTA) has prepared the report on the Candidates' Item Response Analysis (CIRA) for the 2025 Advanced Certificate of Secondary Education Examination (ACSEE) in the Geography Subject.

This report aims to provide feedback to different educational stakeholders, including students, teachers, parents, policymakers, and the public in general, on the performance of the candidates in the Geography subject. It also aims to show the extent to which the instructional goals and objectives have been achieved.

In this report, the analysis of each question is covered and supported by statistical data, which have been presented in figures and graphs. Factors that may have contributed to the candidate's ability to answer the examination questions correctly and score high marks included the candidate's ability to recognise the demand of the questions, basic knowledge of the subject matter, skills in computing and drawing, good mastery of the English language, and essay writing skills. The candidates who scored lower marks portrayed contrary attributes.

The National Examinations Council of Tanzania believes that this report shall serve as the basis for enabling all people, including educational stakeholders, school managers, teachers, parents, and students, to identify proper measures to be taken to improve students' performance in the future examinations administered by the Council.

Lastly, the National Examinations Council of Tanzania would like to express its appreciation to all Examination Officers and stakeholders who provided valuable support during the preparation of this report.

Prof. Said Ally Mohamed
EXECUTIVE SECRETARY

1.0 INTRODUCTION

The 2025 Advanced Certificate of Secondary Education Examination (ACSEE) in Geography subject covered the 2010 syllabus and adhered to the 2019 examination format (revised version). The examination consisted of 113/1 Geography paper 1 and 113/2 Geography paper 2.

Paper 1 consisted of two sections, A and B, with a total of seven (7) questions. The candidates were required to answer five questions. Section A consisted of three (3) questions from the topics of *Topographic Map Interpretation, Simple Survey and Map Making* and *Field Research Strategies.* The candidates were required to answer two questions from this section; question number one was compulsory. Section B had four questions, which were set from the following topics: *Position, Behavior and Structure of the Earth, Water Masses, Study of Soils*, *Dynamic Earth and Consequences.* The candidates were required to attempt three questions from this section.

Paper 2 consisted of seven (7) questions set from the topics of *Population and Development* and *Regional Focal Studies* in the following subtopics: *Manufacturing Industries, Livestock Keeping and Management, Sustainable Use of Fuel and Power, Sustainable Mining,* and *Sustainable Use of Forestry*. The candidates were required to attempt a total of five (5) questions, whereby question one was compulsory.

This report assesses candidates' performance on each question by showing what they had to do and the strengths and weaknesses of their answers. Samples of the candidate's responses are illustrated in each question.

In this analysis, the performance of candidates in each topic is ranked as good, average, and weak if the percentage of candidates' scores ranged from 60-100, 35-59, and 0-34, respectively. The candidates' performance is summarised in the appendix, where green, yellow and red colours are used to represent good, average and weak performances, respectively.

A total of 73,997 candidates sat for the ACSEE 2025 Geography subject, of which 73,798 (99.99%) passed and 199 (0.01%) failed.

Generally, the performance for the ACSEE 2025 increased by 0.02% compared to ACSEE 2024, in which 59,815 (99.97%) candidates passed and 276 (0.03%) failed.

2.0 ANALYSIS OF THE CANDIDATES' PERFORMANCE IN EACH QUESTION

The Advanced Certificate of Secondary Education Examination (ACSEE) in Geography subject intends to measure the candidate's ability to comprehend and apply knowledge and skills in numerous situations. It also assesses the ability to outline, calculate, explain, analyse, describe, examine, evaluate and interpret various geographical phenomena, including physical features, map work, population studies, climate variations and draw conclusions on observations made.

2.1 113/1 GEOGRAPHY ONE

SECTION A: Topographic Map Interpretation, Simple Survey and Map Making and Field Research Strategies.

2.1.1 Question 1: Topographic Map Interpretation

In this question, the candidates were required to study carefully the map extract of Mvomero sheet (165/4) provided and then to respond to the following questions:

(a) *Outline two ways which have been used to show relief of the mapped area*.

(b) *Calculate the distance of the road from grid reference 260006 to 323059 in kilometers.*

(c) *Explain three major economic activities carried out in the area.*

(d) *Name the type of drainage pattern found in the mapped area and how does it relate to relief of that area.*

(e) *Briefly explain four factors that have influenced population distribution in the area.*

(f) *Describe four factors that have affected the composition of the given map* and

(g) *Find the time at which the bus arrived at Kibaoni grid reference 260005 if it left Mandera grid reference 227982 at 11:30 am and travelled at the speed of 50km/hr.*

The question carried 25 marks. It was answered by 73,997 (100%) candidates. The general performance was good because 63,836 (86.27%) candidates scored 7 marks and above. Further analysis showed that, 12,110 (16.37%) candidates scored 15 to 25 marks, 51,726 (69.90%) scored 7 to 14.5 marks and 10,161 (13.73%) scored 0 to 6.5 marks, as illustrated in Figure 1.

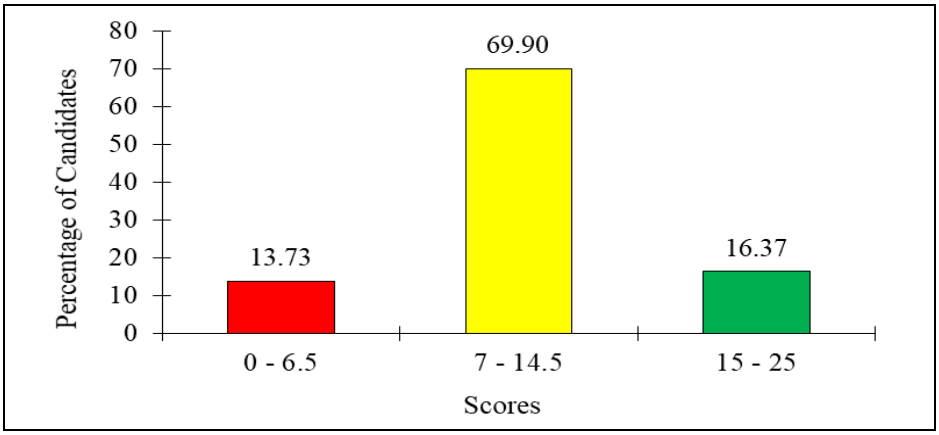


Figure 1: *Candidates' performance for question 1*

More analysis showed that 12,110 (16.37%) candidates who scored 15 to 25 marks had sufficient knowledge of observing, interpreting, analysing, calculating and evaluating different phenomena in topographical maps. In part (a), they correctly outlined two ways which have been used to show relief of the mapped area, which are: *Contour* and *Trigonometrical station* around grid reference *288012.* In part (b), they calculated the distance of the road from grid reference 260006 to 323059 in kilometres as;

Map distance from grid reference 260006 to 323059=18.4 cm
Map scale = 1:$^{1}/_{2}$ km or 1:50000

1cm = 50,000 (1/2km)
18.4cm = x
$^{1}/_{2}$kmx 18.4cm
1cm
= 9.2 km

The actual distance of the road from grid reference 260006 to 323059 ranged from *9 to 9.5 km.*

In part (c), they explained three major economic activities carried out in the area, which are: (i) Trading due to the presence of all-weather roads from Wami prison to Kibaoni, from Mandera to Kibaoni, and from Mkundi to Mvomero. Also, the presence of a market in the Mvomero area indicates the existence of trade in the area. (ii) Agriculture due to the presence of Wami River farms to the east and west of the mapped area. Also, the presence of the Chamkole plantation indicates the existence of agriculture in the area; (iii) Fishing due to the presence of rivers at the Northern part of the mapped area, which indicates the existence of fishing activity and (iv) Lumbering activities due to the presence of forests and woodland in the northern part of the mapped area.

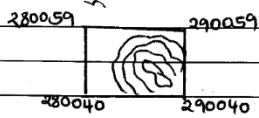
In part (d), they identified the type of drainage pattern and its relationship to relief in the mapped area as a dendritic drainage pattern. This is because most streams join the main river at an acute angle. For example, at the Northern part, there are many streams joining the main river at an acute angle. Relief in the region has influenced the drainage of the area. For example, many rivers flow from the Northern part of Mvomero, where there is a steep slope that has been indicated by close contours, directing to the Southern part with spaced contours in the lowland area.

In part (e), they explained the four factors that have influenced population distribution in the mapped area, which are; (i) Relief for example lowland areas like Mvomero are more populated as compared to highland areas). (ii) Social services such as schools, a market and hospitals at Mvomero suburban, which influenced high population compared to the area with poor social services. (iii) Transport and communication, such as roads from Mandera Kibaoni to Mvomero, have influenced high population compared to other areas with poor transport and communication. (iv) Arable land in the southern part, which influences agriculture and the availability of water sources.

In part (f), they described four factors that have affected the composition of the given map, which include (i) Date of compilation: for example, the map of Mvomero was compiled in 1970 by the Ministry of Land-Government of the United Republic of Tanzania. (ii) Purpose of the map: to show the relief and other physical features (both man-made and natural

features). (iii) Scale of the map used, Example 1: 50,000, Nature of the geographical areas and land represented. (iv) The nature of the geographical area affected the map composition because some of the features were not clearly seen due to highlands, lowlands and manmade features, which became obstacle to other features like rivers, buildings and vegetation cover, which were either at the back of the other features or were not clearly seen; (v) Level of technology, The map has been prepared using old technology and hence has few features compared to the maps drawn using modern technology, like computers and satellite images.

In part (g), they calculated the time that the bus would reach at Kibaoni and concluded that the bus will arrive at Kibaoni at 11:34 am, as it has been portrayed in extract 1.1, which is a sample of a correct response for question 1.

1	a) i) Trigonometrical station which is found at grid reference 288041. i.e ▽ 580.	
	ii) Use of contour lines in the north left part of the map above grid line 02 e.g.	
		
	b) SOLUTION	
	Map distance = 18cm	
	Scale 1: 50,000 -> 1cm to 0.5km.	
	1cm ± 0.5km	
	18cm ± ? (x)	
	1cm × x = 18cm × 0.5km	
	x = 9km	
	∴ Distance of the road from grid reference 260006 to 323059 is 9km	
	c) i) Trading economic activity due to presence of a market (MKt) at grid reference 290082.	
	ii) Forestry / Lumbering economic activity due to presence of a forest at the North West corner of the map on grid reference 220050	
	iii) Agriculture due to presences of East and West Wami River Farms found entirely in the southern part of the map.	

i d/ Dendritic drainage pattern; this is the layout of the river and its tributaries which is in form of tree branches, as shown at grid reference 230033.
- The relief that gives rise to dendritic drainage pattern is alternate layers of hard and soft rocks in highland areas.

e/ i/ Presence of availability of good social services Here is high population at around grid reference 279030 due to presence of dispensaries, Hospital and School at grid reference 285032.

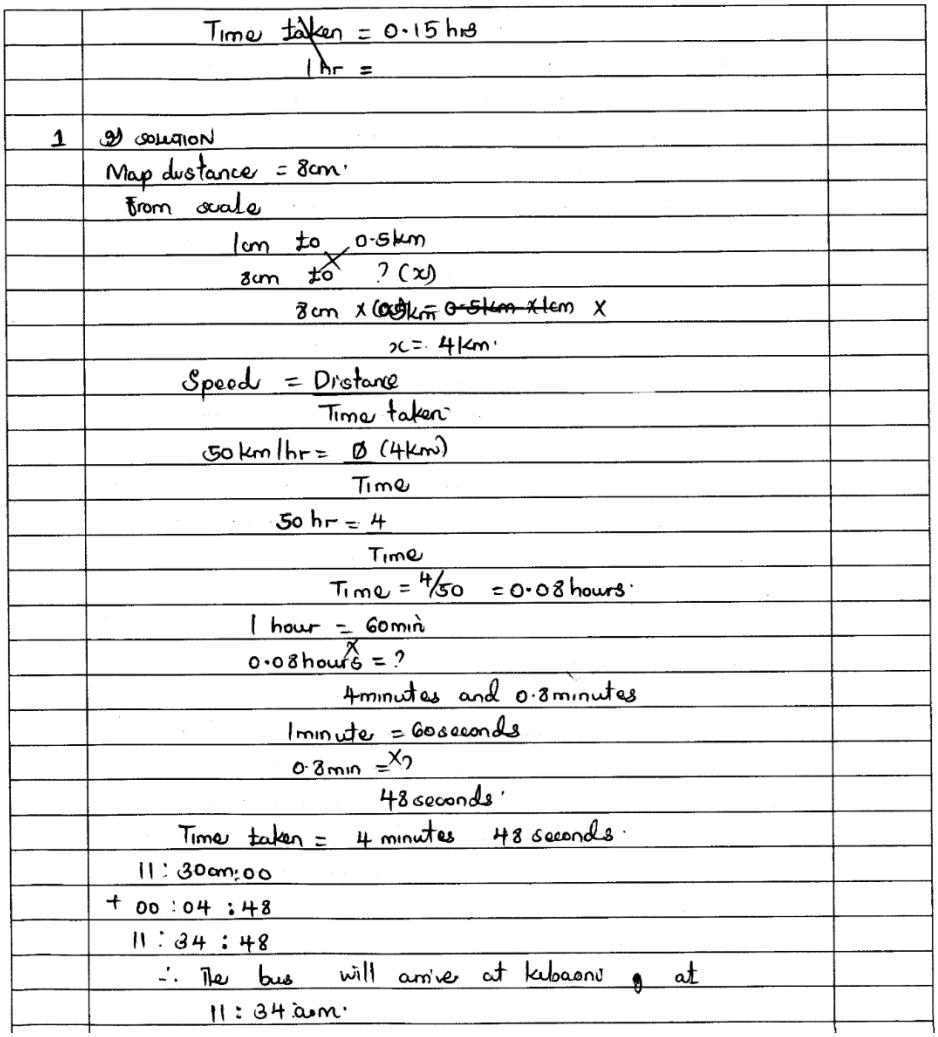
ii) Presence of good infrastructures and transport systems which enables the existing population to move from their homes to farms e.g from grid reference 240990 along the road to grid reference 215963.

iii) Presence of hostile/poor vegetation that does not support settlement activities as well as agriculture activities. The Eastern part of the map is highly dominated by scrubs which pushes away human settlement.

iv) Availability of economic opportunities like agricultural activities which covers a large portion of the Southern part of the map also attracts people to reside near the Estates and farms. Hence availability of economic opportunities affects population distribution.

f/ i) Scale of the map, when a given area is taken by the same cartographer, at the same time of the year with different scales, Here will be difference in composition since large scale shows many details and few contents and vice versa.

ii) level of technology used,
When a cartographer uses advanced levels of technology to produce maps of a given area many features will be included compared to when low technology is used, hence level of technology affects the composition of the map.



Extract 1.1: A sample of the correct response for question 1

Additionally, the majority of the candidates (69.90%) who scored 7 to 14.5 marks had moderate knowledge and skills on the topic of *Topographic Map Interpretation*. In part (a), some candidates correctly outlined one way used to show relief of the mapped area, while others outlined *colouring* and *hachure* methods as the way used to present relief features in the area, which was incorrect. In part (b), some candidates managed to measure the distance of the road from grid reference 260006 to 323059, but they failed to calculate the distance of the road in the mapped area in kilometres due to a lack of mathematical skills.

In part (c), some candidates identified the major economic activities in the area, but they failed to provide correct evidence which illustrates the identified economic activities in the mapped area. Some mentioned *transportation* as the major economic activity, which was incorrect. In part (d), some of the candidates identified the type of drainage pattern but failed to clarify its relationship to relief in the region, while others identified the wrong drainage pattern found in the mapped area.

In part (e), some candidates identified a few factors that influenced population in the mapped area, while others mixed correct and incorrect factors, such as *the drainage system, soil, social services* and *relief,* as the factors that have influenced the population distribution of the area. In those answers provided, the correct ones were *relief* and *social services*. In part (f), some candidates mixed up correct and incorrect factors which affected the composition of the given map, while other candidates wrote incorrect answers like *key, title, latitude* and *content* of the map. In part (g), some candidates found the distance from Mandera to Kibaoni as *8 cm* but failed to find the time that the bus will reach Kibaoni, while others failed to calculate both the distance and time.

On the other hand, 10,161 (13.73%) candidates who scored 0 to 6.5 marks had inadequate knowledge of *Topographical Map Interpretation* skills. In part (a), some candidates outlined one way which was used to show relief in the mapped area, while others presented incorrect methods of presenting relief on the map, such as spot *height, colouring, benchmarks, hill shading and hachuring,* because these methods of presenting relief on topographical maps have not been used in that particular map.

In part (b), they failed to calculate the distance of the road because of insufficient mathematical skills for calculating. Some candidates provided the map distance but failed to change it into kilometres by using the map scale. For example, one candidate measured correctly the length of the road as *18.4 cm;* when converted to scale, the candidate obtained *21.96 km* as the ground distance, which was incorrect.

In part (c), they provided a few economic activities without giving evidence from the map. Some candidates failed to differentiate between economic activities and social activities, in such a way that they mentioned *the presence of hospitals, schools* and *churches* as economic activities. Others mixed economic activities and social activities, such as

trading *and markets, with the presence of water, roads, schools, hospitals* and *dispensaries.* In part (d), some candidates identified the type of drainage pattern but failed to explain its relationship to relief of the mapped area, while others wrote ;trellis, *radial* and *rectangular drainage patterns* which was incorrect answers.

In part (e), some candidates explained the factors for population change such as *birth*, *death* and *migration* instead of factors which influenced population distribution in the mapped area. In part (f), some of the candidates provided the essentials of the topographical map such as *title, margin, legend, map scale, direction indicator,* while others presented contents found in the topographical map, such as *roads, railway, mountains* and *valleys,* instead of factors affecting the content of topographical maps.

In part (g), most of the candidates failed to find the time at which the bus will arrive at Kibaoni because of insufficient mathematical skills in calculating time by using the location on the map. Some calculated the map distance from Mandera to Kibaoni with a map scale of 1:50,000 without using the speed of a bus 50 km/hr while others failed to calculate the time that the bus arrived at Kibaoni.

2.1.2 Question 2: Simple Survey and Map Making

This question demanded the candidates to: *(a) explain briefly seven equipment used in chain survey and (b) draw a well-labelled diagram showing how one can use the rectangle method to avoid a pond obstacle in chain survey by using four points.*

The question carried a total of 15 marks. It was answered by 23,817 (32.20%) candidates. The general performance was good because 17,310 (72.68%) candidates scored 5.5 marks and above. Further analysis showed that 7,316 (30.72%) candidates scored 9 to 15 marks, 9,994 (41.96%) scored from 5.5 to 8.5 marks, and 6,507 (27.32%) scored 0 to 5 marks, as has been illustrated in Figure 2.

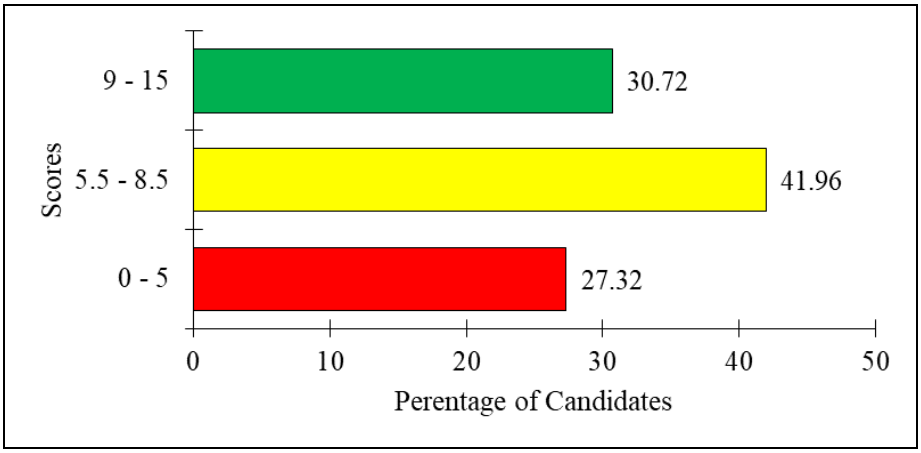
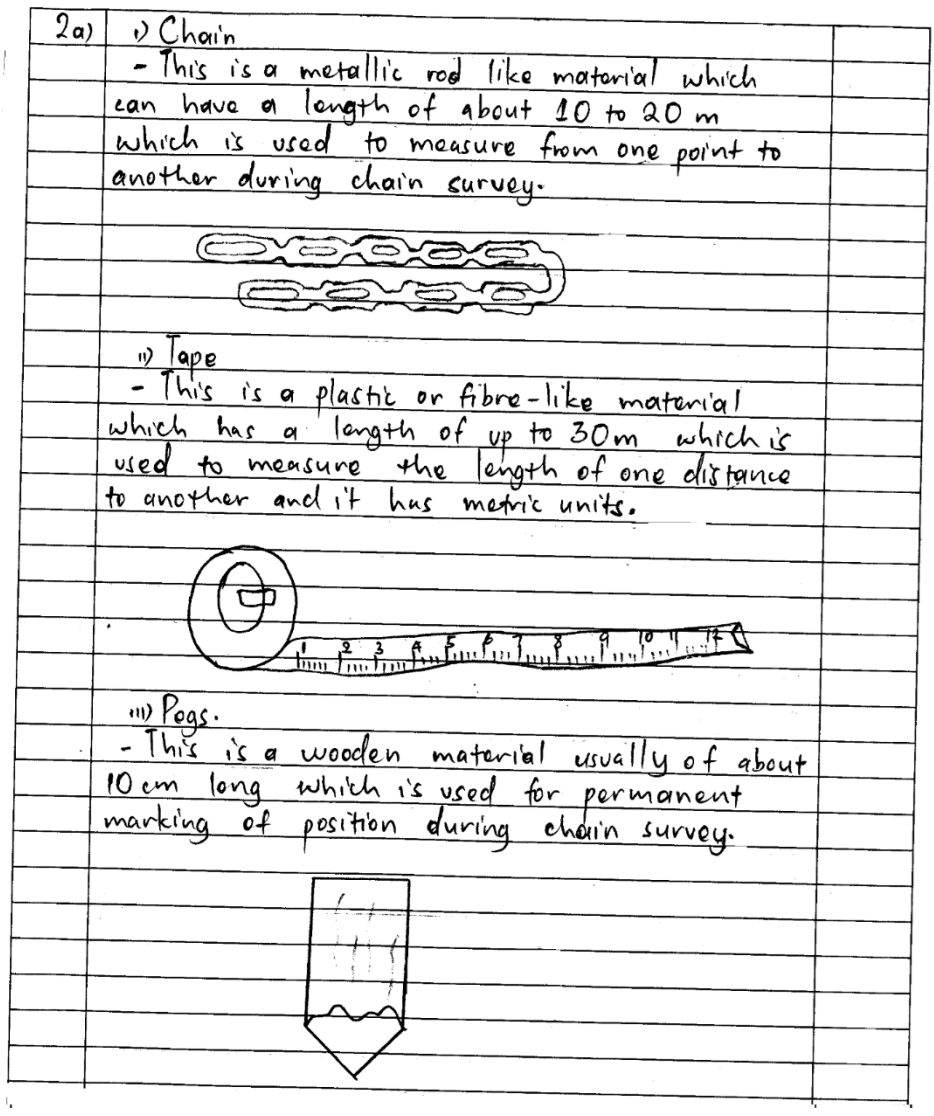


Figure 2: *Candidates' performance for question 2*

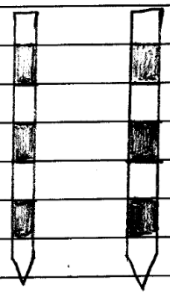
More analysis showed that 7,316 (30.72%) candidates who scored 9 to 15 marks had sufficient knowledge on the topic of *Simple Survey and Map Making*. Those candidates explained seven equipment used in chain survey in part (a), which are *(i) The chain has length of 20 cm or 30 cm and is made of tempered steel wire; it is used to measure distance on the ground. (ii) Tape is made from steel strip or fibreglass with a length of 10cm. The tape measures either 20cm or 30cm. It is used to measure on the ground. (iii) Surveyor's band: made from a steel strip which is rolled into a metal frame with a winding handle and a length of 30 m, 50 m or 100 m. It is used to measure long distances. (iv) Cross staff is made of metal or wood with eye slits at right angles, and used to measure right angles from the line of traverse. (v) Ranging rods are poles of wood or light metal 2 m, 2.5m or 3 m long; hey are used to mark points and aligning straight lines. (vi) Arrows are thin steel skewers for marking points on the ground. (vii) Pegs are wooden pegs 40mm square and 50cm long to mark position permanently during survey. (viii) A good quality notebook about 150 mm by 100 mm spiral-bound at the top. Used for recording necessary information, (ix) Offset rods are similar to ranging rods. They are used for aligning the offset over traversing and (x) Abney level and Clinometer are used for insuring the chain or tape is on horizontal plane while taking measurements.* Most of those candidates supported their answers with a well-labelled diagram despite the fact that those diagrams were not one of the requirement of the question.

In part (b), the candidates drew a well-labelled diagram to show how one can use a rectangle method in a chain survey to avoid a pond obstacle. Those candidates followed the right procedures for avoiding a pond obstacle in a chain survey, which are: *Establish points C and D besides the obstacle along the line of traverse, establish two perpendiculars CE and DF of equal length to overlap obstacle, measure the distance between E* and *F*; Then *EF to CD* and thus distance *AB = EF+ DB.* Extract 2.1 is a sample of a correct response for question 2.



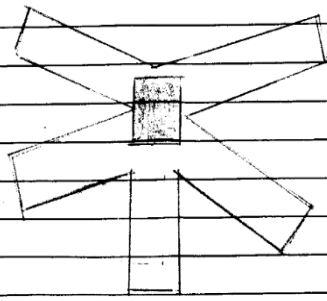
2a) iv) Ranging pole.

- This is a medium sized pole which has a length of 5 m which is painted either black and white or red and yellow to ensure visibility which is used for temporary marking of stations.



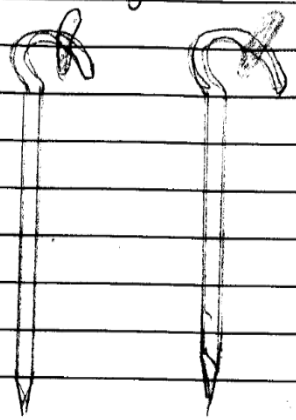
v) Cross staff.

- This is an equipment which is used by the surveyor to eliminate any angles which might occur in the process of chain survey.



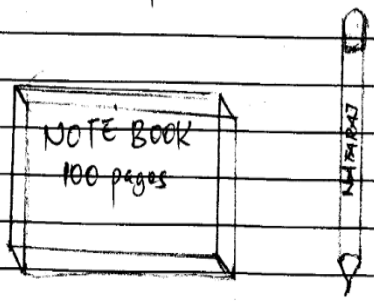
2a) vi) Arrows.

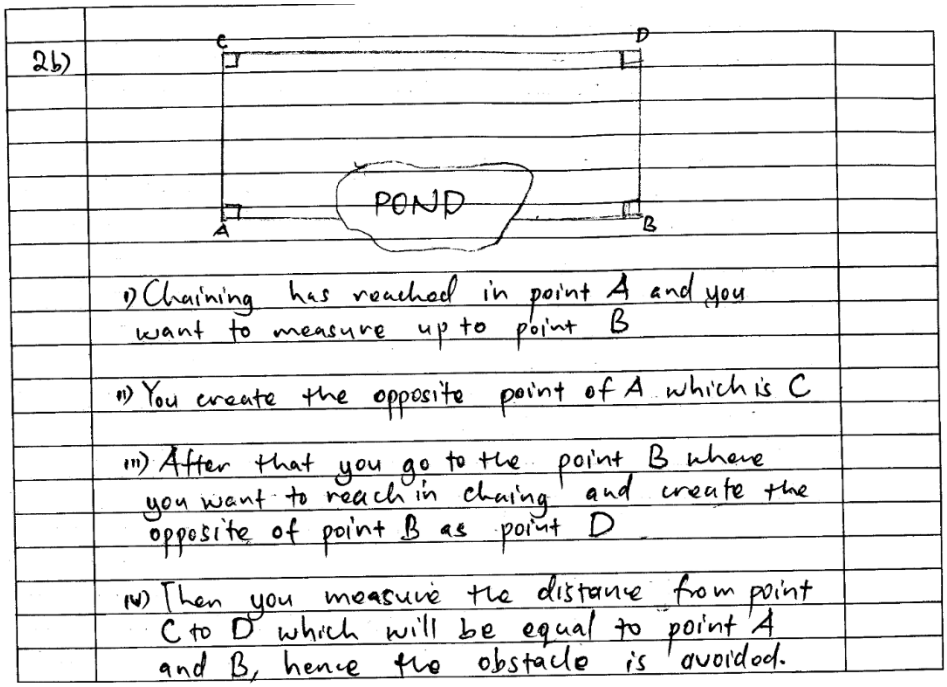
- These are the rod like structures which the surveyor uses them to demarcate temporary stations usually are tied up with either red or yellow strings to ensure visibility.



vii) Notebook and pencil.

- These are the important equipments used in chain survey which are used to note down the measurements which are found in the whole process of chaining.





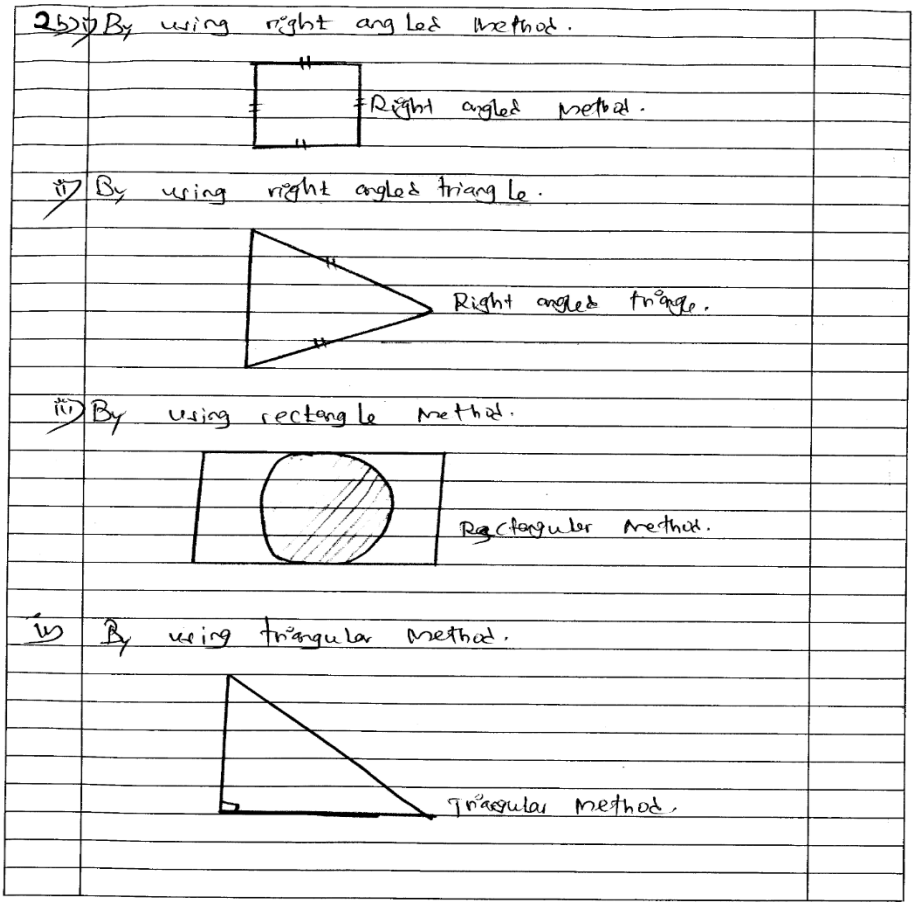
Extract 2.1: A sample of correct response for question 2

In extract 2.1, the candidate explained correctly the equipments used in the chain survey and correctly drew the diagrams of those equipments although, the diagrams in 2(a) were extra.

Furthermore, 9,994 (41.96%) candidates who scored from 5.5 to 8.5 marks had moderate knowledge about *Simple Survey* and *Map Making*. Some candidates explained correctly the seven equipments used in a chain survey but failed to provide good procedures and draw a well labeled diagram of rectangular method of avoiding a pond obstacle. Others mixed up correct and incorrect equipments used in chain surveys, such as *umbrellas, abney level, ruler, plumb bob, rubber and pencil*.

Conversely, the 6,507 (27.32%) candidates who scored 0 to 5 marks had little knowledge about *Simple Survey and Map Making*. The candidates were not able to explain seven equipment used in a chain survey in part (a) and failed to draw a well-labelled diagram of the rectangle method of avoiding a pond obstacle in part (b). Others mentioned the seven equipment without explanations and provided incorrect procedures for avoiding a pond obstacle in part (b). Examples of the procedures on how

to avoid a pond obstacle in a chain survey were to *establish two points, measure the distance of the established points, put the number of measures in a, b, c* and d, and then *calculate the numbers obtained.* Those candidates revealed inadequate knowledge on Simple Survey and Map Making especially on equipment used in chain survey and the procedure of avoiding a pond obstacle in chain survey. Extract 2.2 is a sample of an incorrect response for question 2(b).



Extract 2.2: A sample of incorrect response for question 2(b)

In extract 2.2, the candidate mentioned and drew methods used to overcome obstacles in chain surveys, which are *right angles, rectangles* and *triangular methods,* instead of showing the procedures of using a rectangle method to avoid a pond obstacle in a chain survey.

2.1.3 Question 3: Field Research Strategies

The question required the candidates to describe nine stages that a researcher has to follow in order to obtain meaningful information. The question carried 15 marks.

The question was answered by 50,053 (67.60%) candidates. The general performance was good since 46,096 (92.09%) candidates scored 5.5 marks and above. Further analysis showed that 28,173 (56.28%) candidates scored 9 to 15 marks, 17,923 (35.81%) scored 5.5 to 8.5 marks and 3,957 (7.91%) scored 0 to 5 marks. Figure 3 illustrates the performance of candidates in this question.

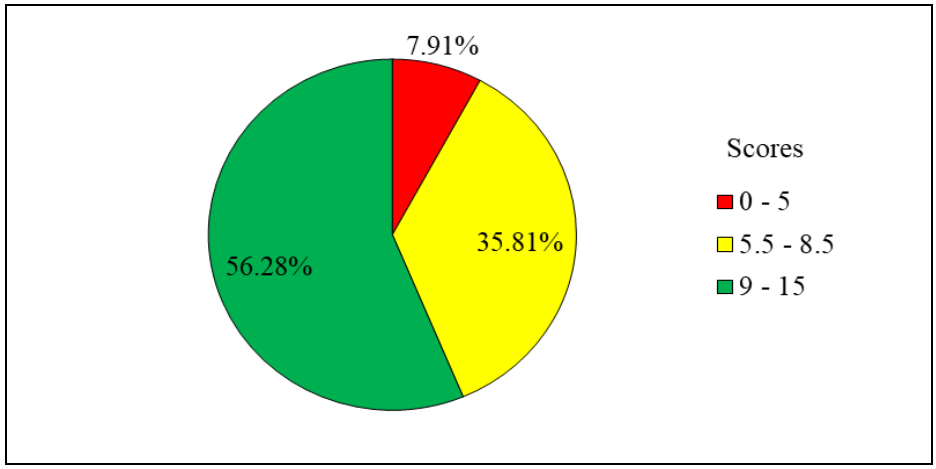


Figure 3: *Candidates' performance for question 3*

The majority of the candidates (56.28%) who scored 9 to 15 marks had adequate knowledge of *Field Research Strategies*, particularly on the stages of conducting research. Most of them provided relevant introductions by defining research as a *scientific and systematic process of collecting, examining, analysing and interpreting data*. They described nine stages of research that a researcher has to follow in order to obtain the meaningful information, which are formulating *the research problem, literature review, formulation of hypothesis and research questions, preparing the research design, data collection, data analysis, data presentation and hypothesis testing, data interpretation and report writing.* The candidates completed the task with a relevant conclusion. Extract 3.1 is a sample of a correct response for question 3.

3 Research is the process of collecting, analyzing compiling information from different data source for the aim of gaining knowledge and solving problems. Research problem is one of the stages of a research. The following are the stages of research that a researcher has to follow to obtain the meaningful information:

Problem identification. It is the first stage of a research, where a researcher identifies the problem at hand before working on it. The research problem should be of topic of interest, measurable and also have career goal consideration.

Literature review. This is the second stage where a researcher considers and checks past review works for the aim of relating it to the problem at hand. Literature review aids on avoiding repetition of concepts, also to fill gaps, knowing problems faced by a researcher in past research.

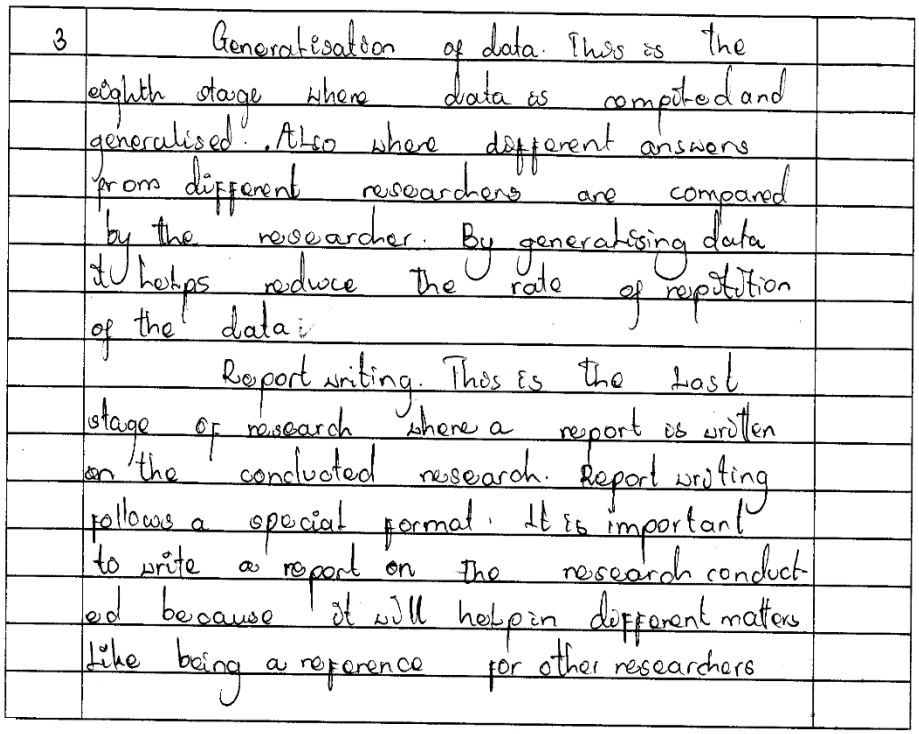
Hypothesis formulation. This is the third stage where hypothesis which is a tentative assumption made during research or a research problem. Hypothesis is important because it gives direction of expected findings. Thus it generally helps in the prevention of blind research.

3 Research design. This is the fourth stage which shows the activities that the researcher is going to carry out. Research design may be case study design and other types. It shows that the researcher is going to use, budget, methodology of research and also the purpose of research according to the problem on hand.

Data collection. This is the fifth stage of research where a researcher goes onto the field of research to collect required data for the research. Data collection involves many methods which bases on the purpose of research. They are observation, household survey and also transect walk.

Data analysis. This is the sixth stage where once data is collected it is analysed by the researcher. Data is correctly compiled analysed for different factors. Once the data is correctly analysed then it is ready for hypothesis testing.

Hypothesis testing. This is the seventh stage where when the hypothesis that was formulated is being tested if it is true or not. When the answers are true then there is no need of conducting another research but when the hypothesis formulated and the answer given are contradicting then the research has to be repeated

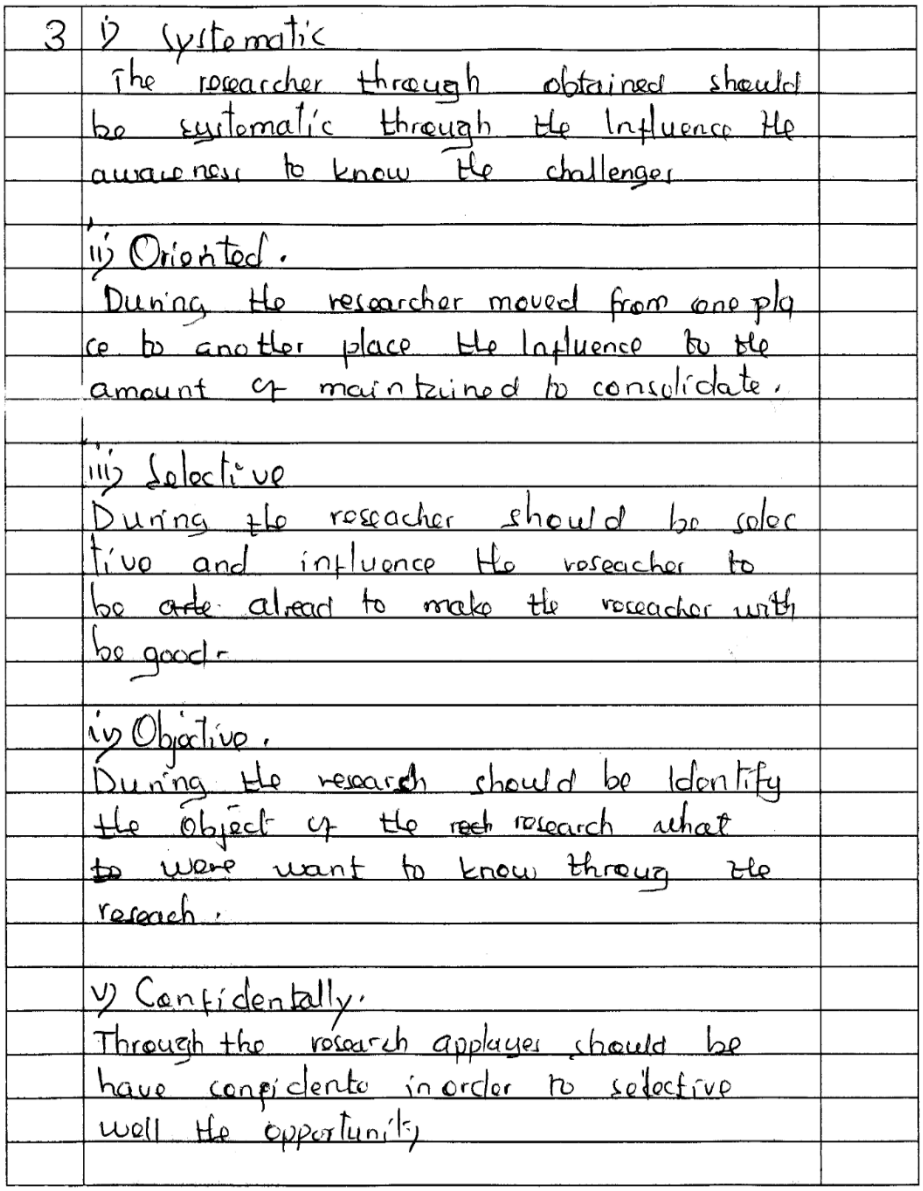

3 Generalisation of data. This is the eighth stage where data is compiled and generalised. Also where different answers from different researchers are compared by the researcher. By generalising data it helps reduce the rate of repitition of the data.

Report writing. This is the last stage of research where a report is written on the conducted research. Report writing follows a special format. It is important to write a report on the research conducted because it will help in different matters like being a reference for other researchers

Extract 3.1: A sample of correct response for question 3

Conversely, the 3,957 (7.91%) candidates who scored 0 to 5 marks lacked sufficient knowledge on *Field Research Strategies*, particularly on the stages of conducting research. Some of them misinterpreted the question by providing the importance of research, which is that it requires *solutions based on scientific studies, is a source of knowledge, existing theories and concepts, and a basis for government planning and decision-making* and *improves practice in production and the market of goods and services*. Other candidates listed the stages of field research without describing them, while others described the research stages randomly.

Others mixed stages of research with criteria of good research, like *identification of the problem, literature review, research being systematic, research being logical and empirical, and it should involve data collection and presentation*. This proves that those candidates misinterpreted the question and thus failed to meet its demand. Extract 2.2 is a sample of incorrect responses for question 3.


3 i) systematic
The researcher through obtained should be systematic through the influence the awareness to know the challenges

ii) Oriented.
During the researcher moved from one pla ce to another place the influence to the amount of maintained to consolidate.

iii) Selective
During the researcher should be selec tive and influence the researcher to be ~~arte~~ already to make the researcher with be good.

iv) Objective.
During the research should be identify the object of the ~~rech~~ research what ~~to~~ were want to know throug the research.

v) Confidentally.
Through the research applayer should be have confidento in order to selective well the opportunity

Extract 3.1: A sample of incorrect response for question 3

In extract 3.1, the candidate explained the qualities of a good research that are *systematic, oriented, selective, objective* and *confidential* instead of the stages that a researcher has to follow in order to obtain meaningful information.

2.1.4 Question 4: Position, Behaviour and Structure of the Earth

The question had the statement that, human life depends much on atmosphere. The candidates were required to support the statement by describing four main characteristics of atmosphere and, in five points, to give its importance.

This question was attempted by 69,947 (94.50%) candidates. The general performance was good since 66,773 (95.46%) candidates scored 7 marks and above. The analysis showed that 45,684 (65.31%) candidates scored 12 to 20 marks, 21,089 (30.15%) scored 7 to 11.5 marks and 3,174 (4.54%) scored 0 to 6.5 marks. Figure 4 illustrates performance in question 4.

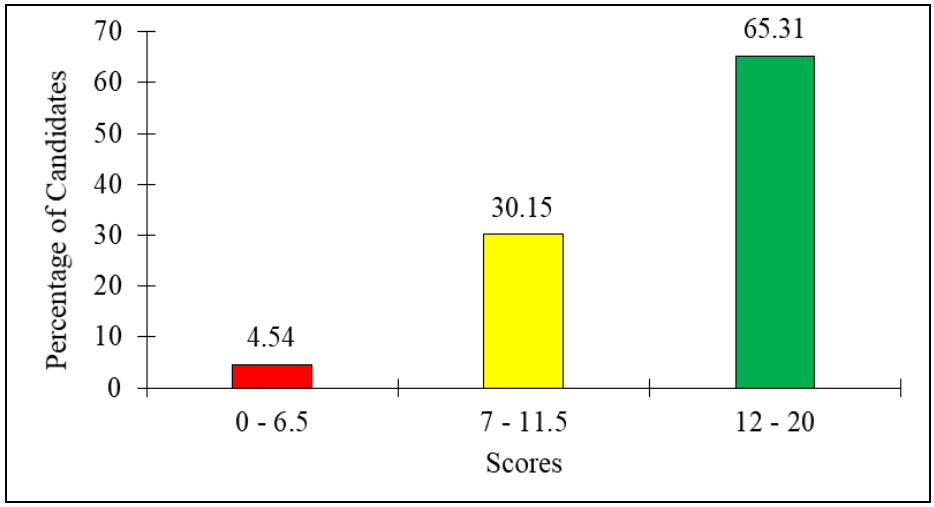


Figure 4: *Candidates' performance for question 4*

Further data analysis revealed that 45,684 (65.31%) candidates who scored 12 to 20 marks showed sufficient knowledge and skills on the topic of *Position, Behaviour and Structure of the Earth*, particularly on Atmosphere. For example, one candidate defined atmosphere; as *an envelope of transparent, odourless gases held to the earth by gravitational attraction*. Most of them described the main characteristics of the atmosphere as follows: it *is composed of several gases such as nitrogen, oxygen and others; it is divided into different layers based on temperature variations with altitude; it has both mass and weight, which vary with altitude; the mass and weight are lower at the higher altitude; the gases in*

the atmosphere contain variable quantities of water and solid matter such as dust and crystals of salt; and there is energy which exists in the atmosphere, where the source of energy is the sun.

In addition, majority of the candidates in this category explained the importance of the atmosphere as; *Nitrogen and oxygen play a role for plant growth, respiratory function- oxygen present in the atmosphere helps human being in the respiration, carbon dioxide in the atmosphere absorb long wave solar radiation hence heat balance, it plays a key role in weather patterns and climate, which are vital for agriculture and water supply in daily life, ozone layer in the atmosphere filters ultra- violet radiation from the sun, so it shields human and plant life, water vapour absorb outgoing terrestrial radiation hence help atmosphere energy balance* and *dust and crystals of salt present in the atmosphere attract water for condensation*. The candidates finalised with a relevant conclusion. Extract 4.1 is a sample of a correct response for question 4.

4. Atmosphere, refers to a thin layer of gases above the earth's surface. Atmosphere can also be defined as a layer or a thin blanket above the earth's surface the Earth's surface is consisting of the atmosphere which is divided into various layers as you extend to the outer space. All these layers play an important role. The Atmosphere highly is holded by the graviational forces acting on the earth's surface hence making it stable. The following are the characteristics of the atmosphere and its importances:-

It consists of gases; the atmosphere consists of various gases with it where by the largest gas that composes the atmosphere is Nitrogen gas which is made up of almost 78% in the atmosphere which nitrogen is useful for plants but also industrial activities depened on the nitrogen gas. The other one is Oxygen gas that make up almost 21% of the atmosphere this is the most important gas in the earth used to support life. The other gas is carbondioxide making 0.03% of the atmosphere together with other noble gases making 0.97% in the atmosphere. Hence this is one of the characteristics of the atmosphere.

It is divided into layers; the atmosphere consists of five layers as you go outer in space. The first layer is the troposphere which extends from 8 to 17 kms above the earth, it is essential for rain formations The other layer is stratosphere which lies from 17 to 50km above the earth. This is the layer made of the ozone layer which is essential for protecting the earth from diffdirect sun rays from the sun, hence it is important. The other layer is the Mesosphere from 50 to 80km and likewise the thermosphere and exosphere.

4. It consists living organisms; the atmosphere is made of both visible and invisible organisms, which carry out various activities in the atmosphere. The living organisms are holded together with the atmosphere with the gravitational forces. The atmosphere also use these organisms to faulitate activities such as promoting the plant growth encouraging various hydrolorlic activities. Hence this is another characteristics of the atmosphere.

It consists of water vapour; water vapour is the amount of water in the atmosphere. Where by the water vapour are normally invisible in most of times and water vapour in the atmosphere appears due to evaporation activities due to the water cycle. The water cycle happens due to processes such as evaporation, condensation, melting and precipitation, the main cause being the sun. Therefore the atmosphere is characterized with water vapour. The

The following are the importances of the atmosphere:-

Protects the earth from the harmful sun rays:- The atmosphere consists of a layer called stratosphere rising from the 17 to 50km, where by at 25km the stratosphere is characterized of an ozone layer made of 3 oxygen ~~atmos~~ atoms. In this layer the sun rays are trapped and hence prevents the harmful rays from reaching the sun but causing high temperature in the particular layer where this influences the temperature inversion process.

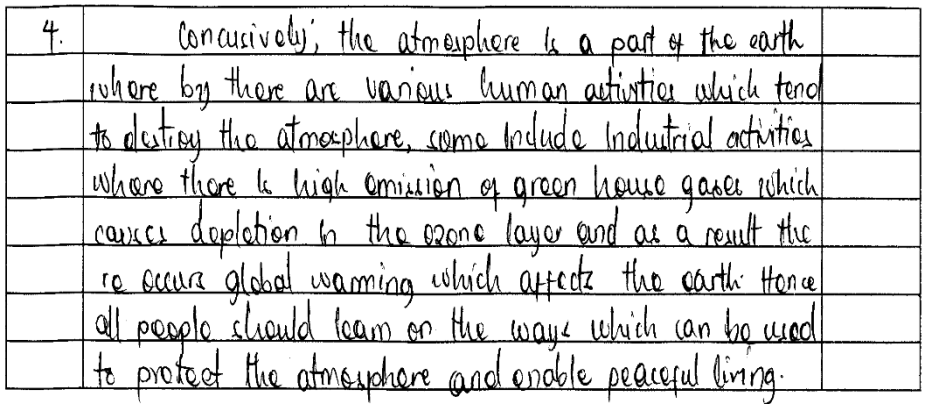
Formation of precipitation or rainfall; the atmosphere also plays a significant role in ensuring that the earth receives constant rainfalls unless there are climatic problems in an area. This is due to the presence of the troposphere which ensures the cloud formations

4. after evaporations have taken place and hence as the sun heats the earth helps to meet the rainfall as the clouds melt. Hence providing rainfall to the earth's surface

Facilitates wireless communication; the atmosphere also helps to give out communication processes or informations with the help of the ionosphere. Ionosphere is a layer located in the upper parts of the atmosphere where by it allows the free movements of electrons and ions and hence facilitates wireless communication in the atmosphere. This has facilitated the easy flow of ideas from one place to another in the earth's surface.

Provides a free area for air movement transport; the atmosphere also plays a great role in facilitating the air transport but also the movement of objects in the air. This is due to the conducivenes of the troposphere which allows the movements. The movement of air planes happens only in the troposphere since other layers have or lack conducive environment due to presence of strong winds of almost 3000 km/hr and high temperatures

Provides oxygen used for life and photosynthesis; Also as the atmosphere is made up of gases one being the oxygen gas. The oxygen gas is important the supporting of human and living organisms' lives but also supports the plant growth. The plant growth apart from depending only in the oxygen gas. It also sometimes uses the carbondioxide gas which is also provided by the atmosphere, hence helps to meet photosynthesis which is then used by the human beings and animals to get food and hence it helps to sustain life through food provision in the earth. Hence this is another importance of the atmosphere



Extract 4.1: A sample of correct response for question 4

Furthermore, the 21,089 (30.15%) candidates who scored 7 to 11.5 marks had moderate knowledge of the characteristics and importance of the atmosphere. Most of them explained two correct characteristics. They also identified five correct importances of atmosphere but explained them incorrectly.

On the other hand, the 3,174 (4.54%) candidates who scored 0 to 6.5 marks had inadequate knowledge of the concept of atmosphere. They provided a relevant introduction but failed to describe the main characteristics of the atmosphere. Some of them described the characteristics of the Earth, like *it is far from the sun, it rotates on its own axis* and it *has water bodies,* instead of the characteristics of the atmosphere.

Few candidates described the structure of the atmosphere and drew the vertical structure of the atmosphere, such as *the troposphere, stratosphere, mesosphere* and *thermosphere,* instead of the characteristics of the atmosphere. Another candidate described incorrect characteristics of the atmosphere, which are that *it is a vacuum, the atmosphere is supportive, the atmosphere is dynamic* and *the atmosphere is protective.* That indicated that those candidates misconceived the question demand. Extract 4.2 is a sample of an incorrect response for question 4.

4 atmosphere! Ulue Processes which
lead to formation of rain formed
which lead to the support of the livin
g organism in the areas so as to
increase amount of the soil The
following are main characteristic
of atmosphere

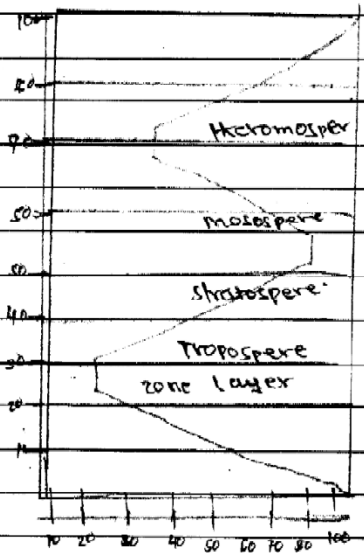
Troposphere! Ulhe first laye
r of Atmosphere which consist of 17
other gases dust and water vapour
It range from 17 to 50km The rise
in temperature is called temperat
ture inversion. Troposphere It support
the formation of living organism
which lead to formation of rain
which support living organism whi
which lead to increase amount of Tem
peratures.

Stroposphere! Ulhe second
layer of atmosphere which range fro
m 50 - 70 the low part of part of
structure is temperat the temperatu
re is constant It rise from -9 - 100°
The rise in temperatu is called
lapse rate because the rise in
temperature It support formation
of rain format which support plant
activities.

Mesosphere: Ulhe third
layer of atmosphere which experien
ce strong will the mesosphere It
range 50 to 100 The rise in Tempe

4 ture is called Temperate Inversion whi
ch lead to formation of soil formatio
n the surface so as to increase am
ount of water

thermosphere: the last layer of
atmosphere which support the form
ation of soil fertility because
it lead to the increase amount of
soil so as to increase amount of
formation of soil formation until
it not support people to live so
as it increase amount of formatio
n of the soil in the atmosphere.



Extract 4.2: A sample of incorrect response for question 4

In extract 4.2, the candidate described the layers of the atmosphere, which are *the troposphere*, *stratosphere*, *mesosphere* and *thermosphere*, and drew a vertical structure of the atmosphere to support the responses instead of explaining four characteristics and four importances of the atmosphere.

2.1.5 Question 5: Water Masses

The candidates were required to examine five geological structures which influence the formation of springs with the aid of well-labelled diagrams. The question carried 20 marks.

This question was attempted by 22,104 (29.90%) candidates. The general performance was good since 17,313 (78.33%) candidates scored 7 marks and above. The analysis showed that 10,065 (45.54%) candidates scored 12 to 20 marks, 7,248 (32.79%) scored 7 to 11.5 marks and 4,791 (21.67%) scored 0 to 6.5 marks, as illustrated in Figure 5.

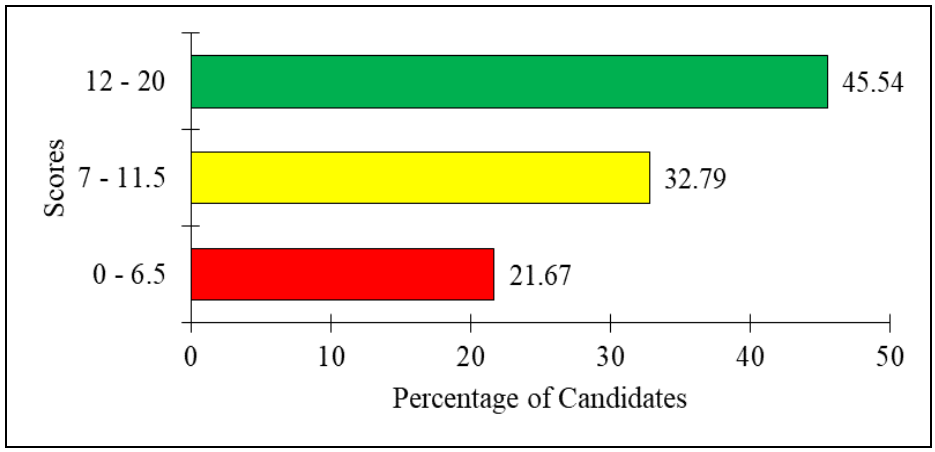


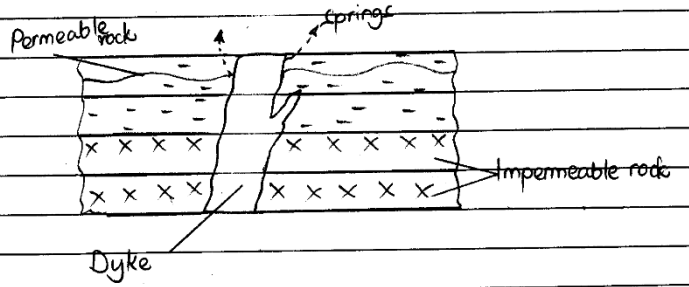
Figure 5: *Candidates' performance for question 5*

Data analysis revealed that 10,065 (45.54%) candidates who scored 12 to 20 marks had adequate knowledge on the topic of *Water Masses*, especially on groundwater. Majority of those candidates defined spring *as a natural flow or outflow of water from the ground to the surface.* They correctly examined five geological structures which lead to the formation of the spring, which are (i) *(i) at the foot or bottom of the scarp slope or deep slope of a cuesta where the water table is exposed, (ii) along a fault line where a permeable rock layer has been brought against the impermeable rock layer, (iii) where rocks are jointed, (iv) where a dyke cuts along the rock strata, (v) in limestone areas, (vi) in depressions, (vii) in gently sloping alternate layers of impermeable* and *permeable rocks and (viii) at the presence of permeable rock lying over impermeable rocks in a hill or mountain.* Moreover, the candidates drew well-labeled

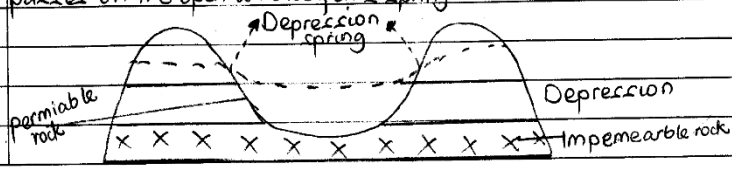
diagrams describing geological structures that influence the formation of springs. The variation of their marks was a result of the strengths and accuracy of their responses. Extract 5.1 is a sample of the correct response for question 5.

5. Spring is the natural outflow of water from the ground. Spring usually comes out in fissures of rocks or faults formed. Springs are mostly hot and located in areas where water table is near the surface. The springs usually help in various human activities such as irrigation, domestic activities and industrial activities. They mostly occur in lines of fault and the water gushing out is usually fresh. Does not just occur from nowhere but there are some geological structures which influence the coming out of springs, They are seen below;

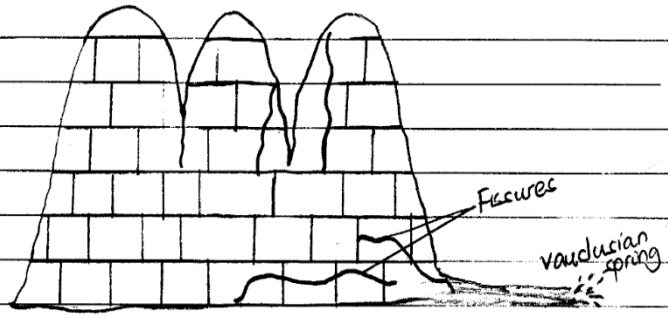
Springs occur at the dyke, as it is known dyke is a feature which cuts across the bedding plane vertically the country rock. Here the springs occur when dyke cuts across the permiable rock which is near the water table in which water comes out from the fault formed with the dyke. The dyke ~~formed is~~ forms spring called dyke spring as seen below;



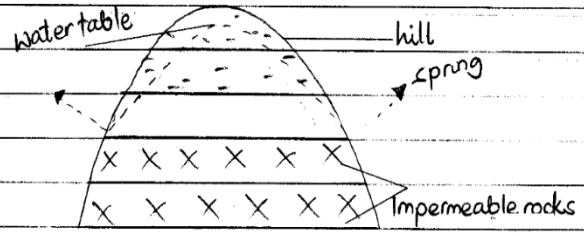
Presence of depression, it influences springs as depression is a basin shaped structure which cuts open. Hence springs forms when permeable rocks cuts openly the basin-like structure and forms depression springs. When the permeable rock passes on the open it hence forms spring.



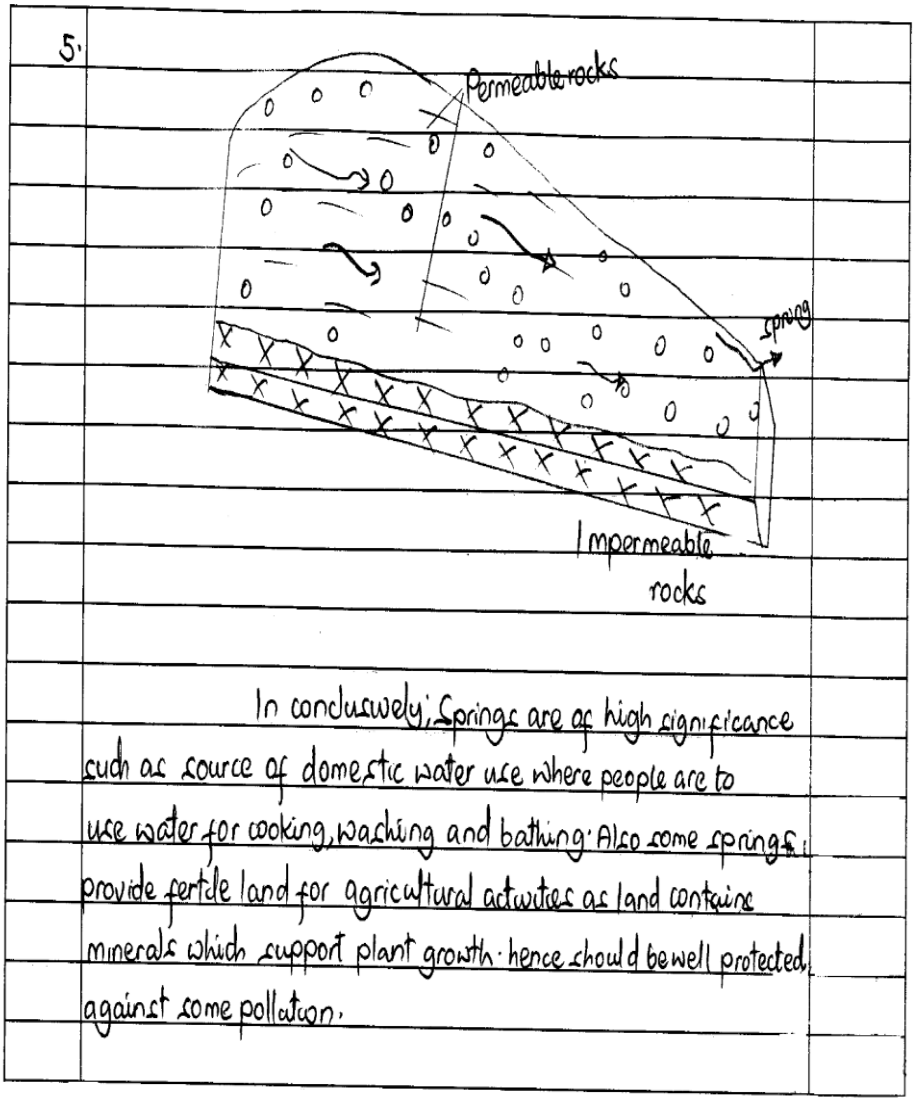
5. Springs is influenced with limestone rocks; Water percolates through the limestone rocks to the ground. Hence later through the fissures which are formed water also comes out in form of spring. This brings about Vauclusian spring which is formed at limestone region where fissures are found.



When the permeable rock lies on impermeable rock along the hills. Also hills influence the formation of springs because the permeable rock lies over impermeable and this makes the water table to meet the surface hence outflow of water as springs.



Lastly; When the gently sloped area there forms two slopes which are dip slope and scarp slope. In which springs are formed on both slopes depending on permiability. The scarp slope got permeable rock which allow water through faults and the dip slope also allows water in fissures and faults. Hence gives out faults.

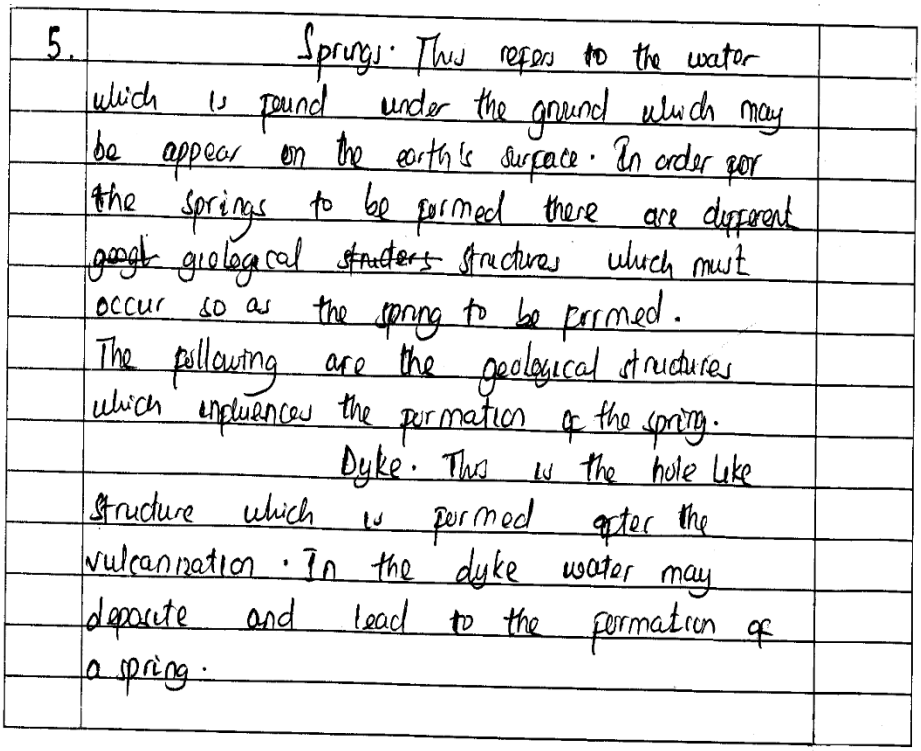


Extract 5.1: A sample of correct response for question 5

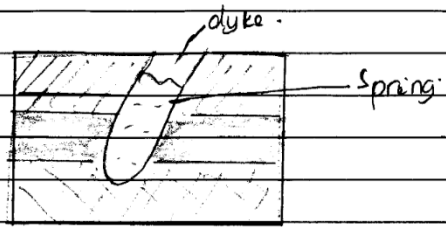
Furthermore, the 7,248 (32.79%) candidates who scored 7 to 11.5 marks portrayed moderate understanding of groundwater, specifically on how the springs are formed. Most of them explained few correct answers, while others failed to explain the points correctly, contrarily to the demand of the question.

On the other hand, 4,791 (21.67%) candidates who scored 0 to 6 marks revealed inadequate knowledge on the concept of groundwater,

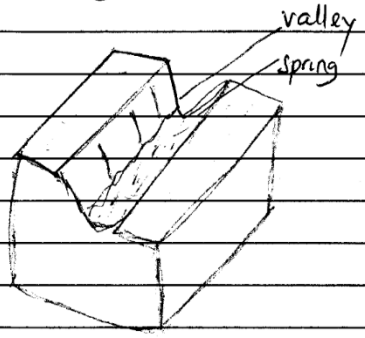
specifically on the formation of springs. Some candidates examined few geological structures which lead to the formation of springs and did not draw diagrams, while others drew incorrect diagrams. Other candidates examined incorrect geological structures which lead to the formation of springs, such as *high pressure in the rock, the presence of fissures,* and *the presence of hot materials* which are associated with volcanicity rather than the formation of springs. Some of the candidates explained the geomorphic processes which lead to the formation of Earth landforms such as *volcanic eruption, weathering, mass wasting, faulting* and *earthquakes*. Most of the candidates misconceived the questions with different erosional features, but they did not remember where they were formed. Extract 5.2 is a sample of an incorrect response to question 5.


5. Springs. This refers to the water which is found under the ground which may be appear on the earth's surface. In order for the springs to be formed there are different geological structures which must occur so as the spring to be formed.
The following are the geological structures which influences the formation of the spring.
Dyke. This is the hole like structure which is formed after the vulcanization. In the dyke water may deposite and lead to the formation of a spring.

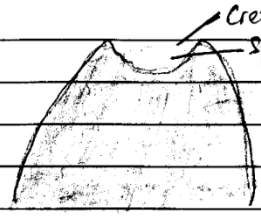
5



valley. This is the depression which is formed when the tectonic movement of the earth occurs. The water may deposite in those valley and leads to the formation of spring.

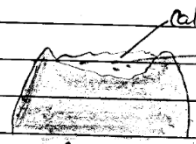


Cretor. This is the structure which is formed at the peak of the mountain after the vulcanic eruption. which may lead to the formation of the hole where water may deposite to form a spring.

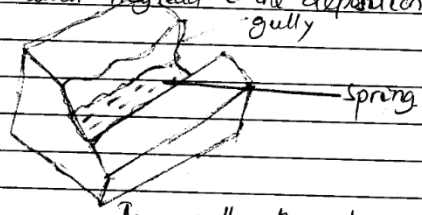


5

Caldela. This is the hole formed by volcanic activities at the peak of the mountain it is large than the cretor.



Gullies. This are features which are formed by the erosion of the soil of a certain place which may lead to the deposition of water.



In generally the above are the features which may lead to the deposition of water so as to form the spring. The water springs may be used for provision of energy, domestic use and also for irrigation purposes.

Extract 5.2: A sample of incorrect response for question 5

In extract 5.2, the candidate described various features formed due to geomorphic processes, such as *dykes*, *valleys*, *craters*, *calderas* and *gullies*, instead of the geological structure which leads to the formation of springs.

2.1.6 Question 6: Study of Soils

The candidates were required to examine eight processes which are involved in soil formation. The question carried 20 marks.

This question was attempted by 68,709 (92.90%) candidates. The general performance was good because 61,642 (89.72%) candidates scored 7 marks and above. Data analysis showed that 39,850 (58.00%) candidates scored 12 to 20 marks, 21,792 (31.72%) scored 7 to 11.5 marks and 7,067 (10.28%) scored 0 to 6.5 marks, as illustrated in Figure 6.

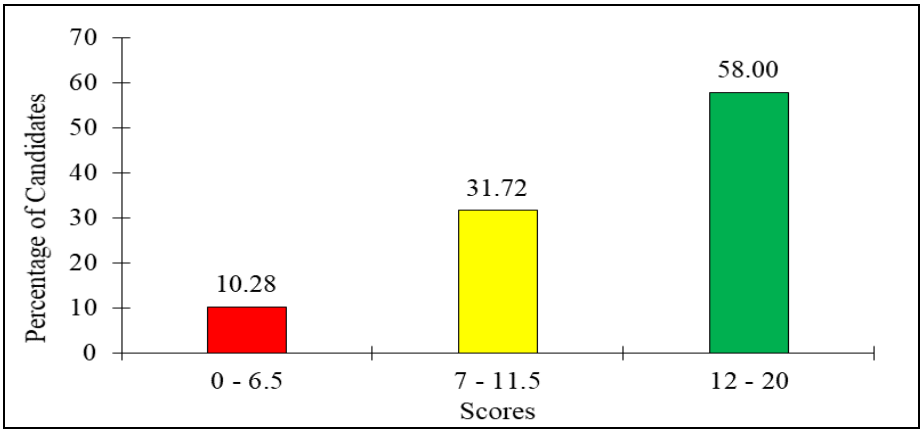


Figure 6: *Candidates' performance for question 6*

Further data analysis revealed that, 39,850 (58.00%) candidates who scored 12 to 20 marks had adequate knowledge on the topic of the *Study of Soils*. For example, one candidate defined soil as; *a layer of organic and weathered inorganic materials found on the earth's surface which is capable of sustaining plant growth*. The candidate examined correctly the processes which are involved in soil formation which are; *denudation, weathering, humification, organic sorting, mineralization, eluviation, leaching, illuviation, precipitation, eluviation, podsolization, gleying/waterlogging, calcification* and *salinization.* The candidate finalized the work with a relevant conclusion. Extract 6.1 is a sample of correct response for question 6.

6 Soil formation is the process which takes some years like thousands to millions of years in creating the soil. Sometimes we call it pedogenesis. there are some factors for it being clear like time, soil organisms, climate topography (relief) and parent rock material. but also there are some process that trigger like addition translocation, transportation for soil being moved

The following are the process of soil formation

Weathering is the initial process as the distintegration and breaking down of soil particles from rock (parent materials) either biological physicall or chemically means at exposure the surface of the earth this usually creates soil partcle for their use if parent rock is mafic so is fertile if felsic become poor one

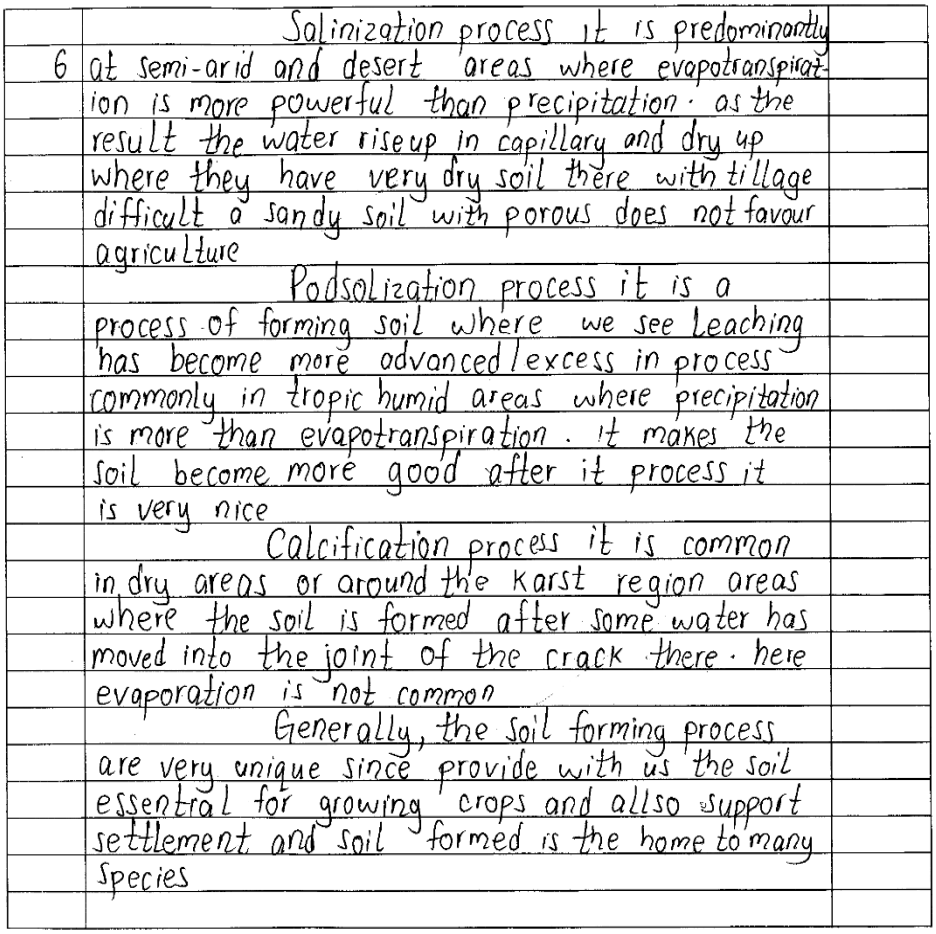
6 Leaching is the removal of the soluble material in solution form from top soil to under subsoil. there are materials like aluminium and iron particles that are dissolved into the soil and after some time compacted to form a certain soil type with uniform characteristics

Elluviation is the downwashing of the soluble and mineral materials down the soil profile infiltrating usually from top surface of the soil moves from A horizon moves to the B horizon so the materials are transported that leads to forming soil

Illuviation process we call it zone of accumulation because it is were all movement of materials re-deposition and in-washing of soil particles see seatle and do not move anywhere once acted upon with some factors like soil biota become more fertile and applicable to soil forming

Humification process a soil forming process whereby the dead organic material like rotton plant, tree or an animals after decayed and decomposed for some time it turns to organic matter that forms humus. mostly found in top soil that increase productivity in crops when applied and turns to soil

Cheluviation process is the process where chelates are formed. These are under the stage that when dead decayed organic matter continue to decay after some time produces some organic acids and humus in soluble form and combine with soil these help to create soil



Extract 6.1: A sample of correct response for question 6

In contrast, 7,067 (10.29%) candidates who scored 0 to 6.5 marks had insufficient knowledge on the topic of the *Study of Soils.* Some of them provided relevant introductions but explained incorrect processes of soil formation, while others explained factors for soil formation, which are *parent rock, organic matter, time* and *climate*. Other candidates explained the methods of maintaining soil fertility and conserving the environment, such as afforestation, *terraces, crop rotation, mixed farming, mulching, land reclamation* and *avoiding overgrazing,* instead of the processes of soil formation. Those incorrect responses showed that the candidates did not understand the demand of the question. Extract 6.2 is a sample of an incorrect response for question 6.

06. Soil formation. Is the process of marking soil to be fertile by using scientific and local method. The formation of soil lead to the increase of production through agriculture production. The process of soil formation involves the following process:-

Mulching: Is the process of soil formation that involves the use of ~~gto~~ grasses to cover the land area in order to release fertility in that area covered by grasses. Through that method the soil

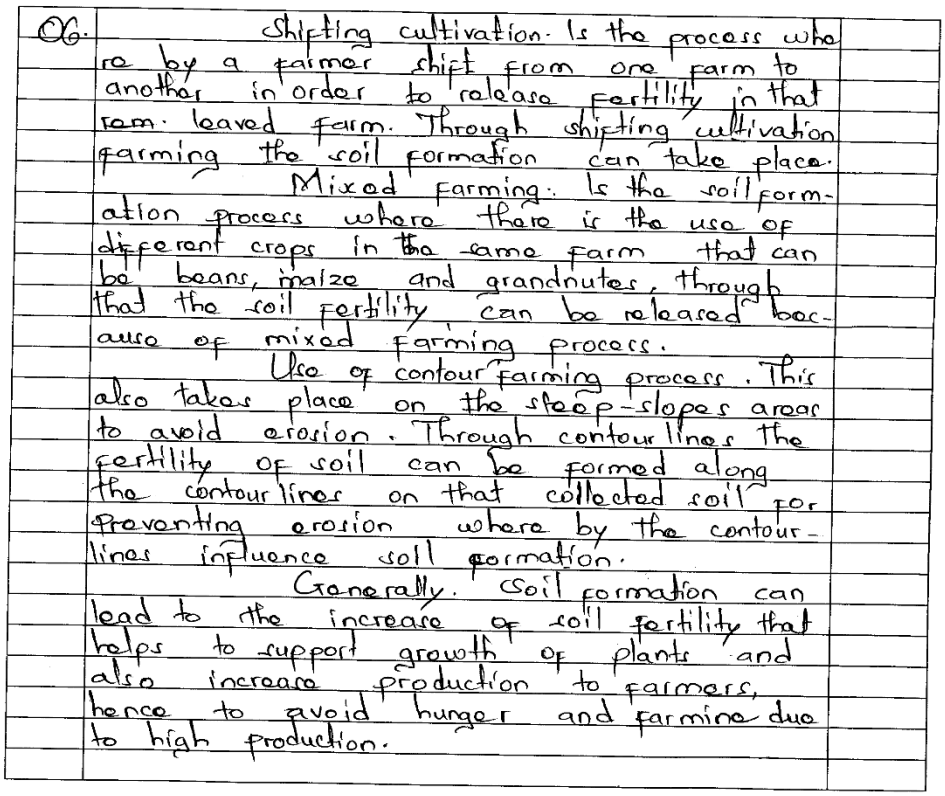
06. fertility can be ~~used in ord~~ improved which when improved supports agriculture activities to high production.

Terracing. Is the process of soil formation that take place in steep slope areas to avoid erosion. Through terracing the fertility of the soil can be released through the terraces that formed and collected in one area, hence contribute to fertile soil that contribute to the achievement of higher production.

Afforestation. Is the soil formation process that involve planting of trees in areas with no trees. The process lead to denser forest, where the presence of trees in an are help to protect water for growth of crops and other plants, hence soil formation.

Destocking. Is the process of reducing the number of livestock keeping in order to avoid erossion. Large number livestocks in small area lead to massive erosion of land that led to unfertile soil. Through destocking the soil formation can be formed.

Crop rotation. Is the soil formation process where a farmer use ~~to~~ crops that are the main sources in releasing of soil fertility in an area. This process involve soil fertility that helps much in soil formation ~~process~~ hence to support crop production.



Extract 6.2: A sample of incorrect response for question 6

In extract 6.2, the candidate explained the methods of improving soil fertility and conserving the environment, which are *mulching, terracing, afforestation, destocking, crop rotation, mixed cultivation* and *contour farming,* instead of the processes of soil formation.

2.1.7 Question 7: The Dynamic Earth and Consequences

The candidates were required to examine seven merits and four demerits of glaciated regions in human life. The question carried 20 marks.

This question was attempted by 60,503 (81.20%) candidates. The general performance was good since 52,923 (87.47%) candidates scored 7 marks and above. Detailed data analysis showed that 27,249 (45.04%) candidates scored 12 to 20 marks, 25,674 (42.43%) scored 7 to 11.5 marks and 7,580 (12.53%) scored 0 to 6.5 marks, as has been illustrated in Figure 7.

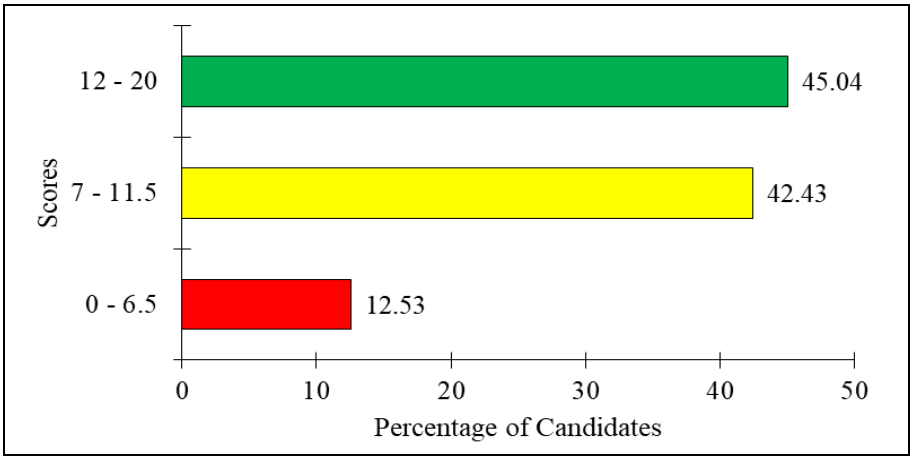


Figure 7: *Candidates' performance for question 7*

Further data analysis revealed that 27,249 (45.04%) candidates who scored 12 to 20 marks portrayed sufficient knowledge on the topic of *the Dynamic Earth and Consequences,* specifically on the subtopic of denudation and deposition. Those candidates provided a relevant introduction and correctly examined seven merits and four demerits of glaciated regions in human life. Majority of them defined glaciated regions as the *areas which were once covered by ice or have been covered by ice up to date which experience erosional and depositional features, like the Northern part of Europe Russia and Canada*.

Moreover, they examined the merits of glaciated regions to human life: *clay plains are very fertile and favourable for agriculture; they provide sites for hydroelectric power; glaciated regions provide tourist attractions; they provide good pasture in summer; outwash plains create recreational centres; they provide habitat for some species like bears; they provide sites for fish breeding like fjords; they are sources of water bodies; and they are important in moderating climates*. The candidates examined the demerits of glaciated regions, such as that *they lead to soil erosion, sand and outwash plains are infertile, boulders deposited by glaciers do obstruct farming and the use of machines, poor drainage is due to the deposition of moraines and drumlins, the addition of water in the sea and that they hinder transport and communication like moraines and ice blocks*. Extract 7.1 is a sample of the correct response for question 7.

7. Glaciated regions are regions which are usually occupied with ice. These regions usually experience large accumulation of ice. They are usually located on the northern part of the continent such as the Alps. They are usually divided into lowland and highland regions. The following are the merits of glaciated regions in human life,

They are source of tourist attractions; In the glaciated regions, there are various features such as pyramidal peaks, cirques, outwash plains which normally attract tourists from different countries. This has facilitated the increase of foreign currency in the country.

They act as a formation for fertile soil; In the glaciated regions, there are various processes which involve downfall of ice from the top to the ground. This leads to accumulation of materials which lead to fertile soils. For instance in the outwash plains there is fertile soils for crops cultivation such as wheat.

They provide good grazing lands for livestock. In the glaciated regions, there is a period of transhumance as during summer, there is good pasture in high mountains and during winter, there is good pasture in lowlands. Hence leading to transhumance. This facilitates rearing of animals such as goats and cattle especially in Norway.

They facilitate the generation of hydro-electric power; Due to the presence of waterfalls, it has facilitated the production of hydro-electric power by installing the water-turbine machines

7. in water sources hence ensuring of constant supply of electricity in the region.

They act as source of rivers for easy domestic uses; In the glaciated regions, there are various rivers being formed such as cique lakes which facilitate people to engage in using them for domestic purposes such as cooking, washing and drinking.

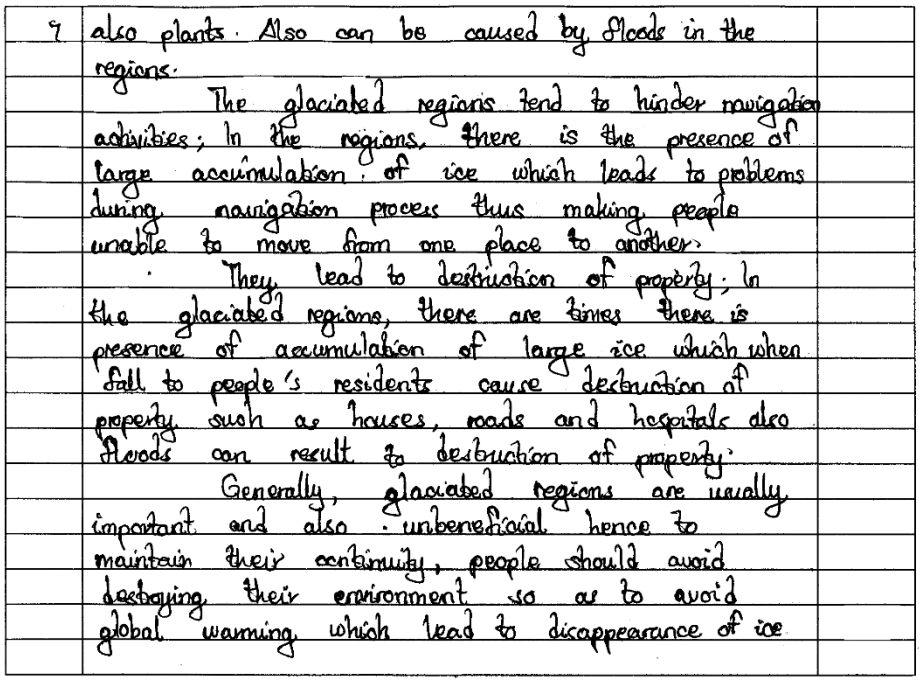
They act as a places for recreational activities; In the glaciated regions, many people to involve themselves in participating in various activities such as skiing, climbing mountains, skating and at some point even establishing sports competition. This has helped in increasing relations with other nations politically and socially.

They are source of raw materials; In the glaciated regions, there are various raw materials being found especially the building materials such as sand, gravel and pebbles. This helps in facilitating the construction of buildings easier.

The followings are the demerits of glaciated regions in human life;

They facilitate the occurence of floods; In the glaciated regions, it happens that sometimes the ice tends to melt, this causes increase of water which facilitate the occurence of floods which lead to death of animals and destruction of property.

They lead to occurence of death; This happens when the glaciated regions, the ice tend to fall from highlands to people living areas This leads to death of animals and people.


7 also plants. Also can be caused by floods in the regions.

The glaciated regions tend to hinder navigation activities; In the regions, there is the presence of large accumulation of ice which leads to problems during navigation process thus making people unable to move from one place to another.

They lead to destruction of property; In the glaciated regions, there are times there is presence of accumulation of large ice which when fall to people's residents cause destruction of property such as houses, roads and hospitals also floods can result to destruction of property.

Generally, glaciated regions are usually important and also unbeneficial hence to maintain their continuity, people should avoid destroying their environment so as to avoid global warming which lead to disappearance of ice

Extract 7.1: A sample of a correct response for question 7

On the other hand, 7,580 (12.53%) candidates who scored 0 to 6.5 marks revealed inadequate knowledge on the merits and demerits of glaciated regions to human life. Some candidates examined the features formed in glaciated regions like *cirques, pyramidal peaks, U-shaped valleys, hanging valleys, erratics* and eskers, while others described the features of karst regions such as *caverns, stalactites, stalagmites* and *hills* instead of the merits and demerits of glaciated regions.

Some of them examined the contributions of glaciation, such as *the formation of lakes, the promotion of the growth of plants, sources of employment,* and *sources of international recognition*. Other candidates explained the importance of glaciation as *(i) presence of vegetation, (ii) formation of water sources, (iii) formation of mountains and hills, (iv) volcanism, (v) increase in temperature,* and *(vi) increase in diseases*. Others explained incorrect demerits of glaciation, as it leads to environmental *pollution, the eruption of some tropical diseases, and the destruction of culture, and the area is not safe for human settlement*. Most of the candidates misconceived the question demand.

2.2 113/2 GEOGRAPHY 2

This paper consisted of seven questions which were set from two topics: *Population and Development* and *Regional Focal Studies*. Questions 1 and 2 were set from the topic of *Population and Development,* while questions 3, 4, 5, 6 and 7 were set from the *Regional Focal Studies* in the following subtopics: *Manufacturing Industry, Livestock Keeping and Management, Sustainable Use of Fuel and Power, Sustainable Mining,* and *Sustainable Use of Forestry Resources*. The candidates were required to attempt five questions, and each question carried 20 marks.

2.2.1 Question 1: Population and Development

The question was compulsory and required the candidate to use eight points to support the statement that Population explosion is a great social-economic disaster in Tanzania.

The question was attempted by 73,995 (100%) candidates. The general performance on this question was good since 72,581 (98.09%) candidates scored 7 marks and above. The detailed data analysis showed that 62,301 (84.20%) candidates scored 12 to 20, 10,280 (13.89%) scored 7 to 11.5 marks, and 1,414 (1.91%) scored 0 to 6.5 marks, as illustrated in Figure 8.

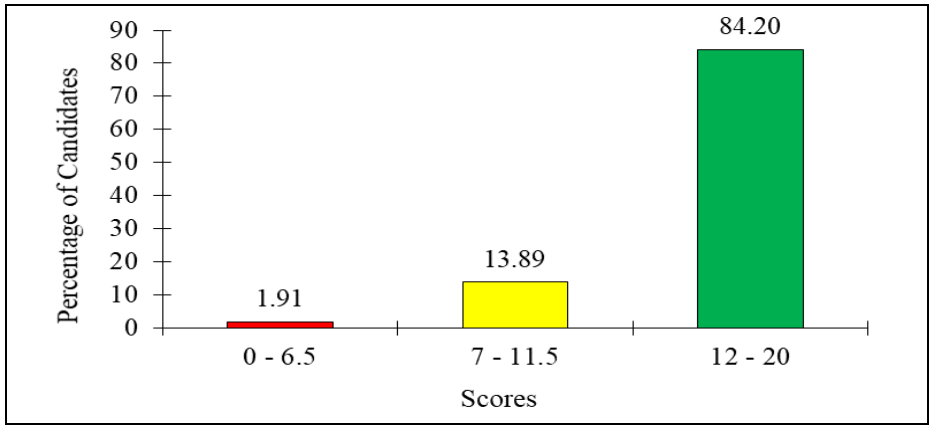
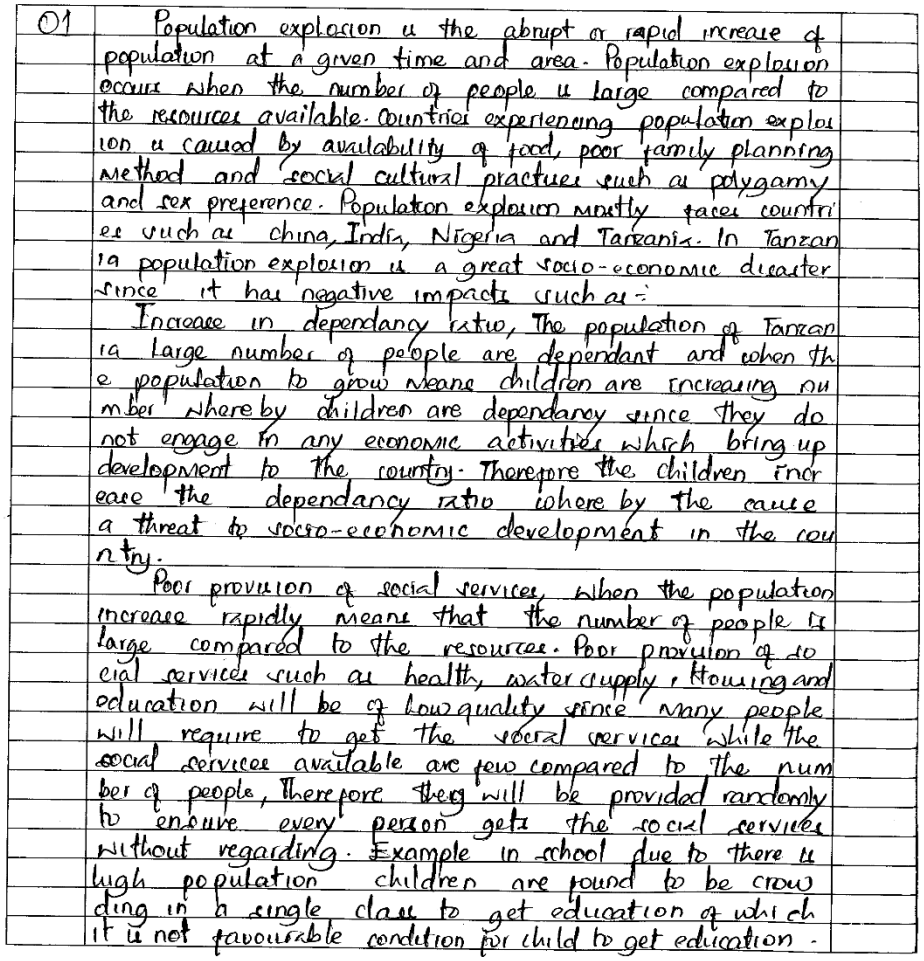


Figure 8: *Candidates' performance for question 1*

Further analysis showed that 62,301 (84.20%) candidates who scored 12 to 20 marks supported correctly the statement that population explosion is a great social-economic disaster in Tanzania. For example, one candidate defined population explosion as an *unusual, sudden or very rapid increase*

in the number of people compared to the available resources in an area for a given period of time. The candidate explained eight effects of population explosion in Tanzania such asit *has led to inadequate provision of social services, it has led to mass unemployment, Environmental degradation caused by overexploitation of resources, transport problems like traffic jams, outbreak and rapid spread of many diseases, rise of crimes, widening poverty margins, increase in dependence ratio, slowing down of industrial growth and limiting the chance of industrial expansion.* The candidate revealed adequate knowledge and skills on population issues, as they were well informed. Extract 8.1 is a sample of a correct response for question 1.



01 Population explosion is the abrupt or rapid increase of population at a given time and area. Population explosion occurs when the number of people is large compared to the resources available. Countries experiencing population explosion is caused by availability of food, poor family planning method and social cultural practises such as polygamy and sex preference. Population explosion mostly faces countries such as china, India, Nigeria and Tanzania. In Tanzania population explosion is a great socio-economic disaster since it has negative impacts such as:-

Increase in dependancy ratio, The population of Tanzania large number of people are dependant and when the population to grow means children are increasing number where by children are dependancy since they do not engage in any economic activities which bring up development to the country. Therefore the children increase the dependancy ratio where by the cause a threat to socio-economic development in the country.

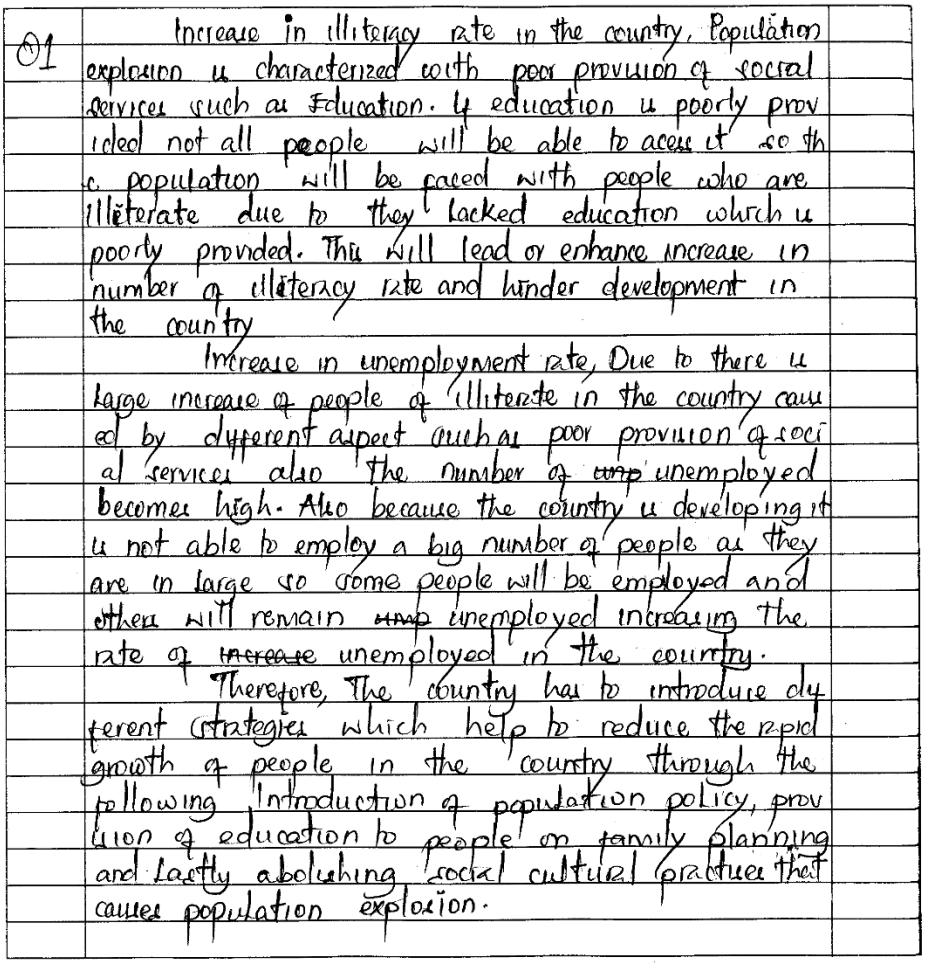
Poor provision of social services, when the population increase rapidly means that the number of people is large compared to the resources. Poor provision of social services such as health, water supply, housing and education will be of low quality since many people will require to get the social services while the social services available are few compared to the number of people, Therefore they will be provided randomly to ensure every person gets the social services without regarding. Example in school due to there is high population children are found to be crowding in a single class to get education of which it is not favourable condition for child to get education.

01 Increase in social crimes, Due to increase of large number of people in a population poverty and poor provision of social services are likely to disturb that population, so, people engage indifferent activities which some of them are illegal and enhance increase in social crimes such as theft, Cyber crimes, prostitution and drug abuse and trafficking. All these crimes increase because people have rapidly increase and they are finding a easy way to survive.

Environmental destruction, Rapid increase of people in a certain area goes in hand with destruction of environment because people will need to establish their settlement and do their economic activities which causes environment destructions such as cutting down of trees, Air pollution from industries, water pollution and poor waste disposal. All these pollution are caused due to rapid increase of people.

Over utilization of resources, In a populated country which the population is still increasing faces over utilization of resources where by people exploit natural resources without regarding in the future because the resources are not sufficient for the whole population so people exploit randomly to ensure survival of which thus causes over utilization of resources.

Increases the national budget, High rapid increase of people increases the budget to the nation of which can cause dept burden for the country since the government spend alot of money in controlling the population that has rapidly increased by adding social services and improving other infrastructures so thus brings back the development of the country.


01

Increase in illiteracy rate in the country, Population explosion is characterized with poor provision of social services such as Education. If education is poorly provided not all people will be able to access it so the population will be faced with people who are illiterate due to they lacked education which is poorly provided. This will lead or enhance increase in number of illiteracy rate and hinder development in the country

Increase in unemployment rate, Due to there is large increase of people of illiterate in the country caused by different aspect such as poor provision of social services also the number of ~~emp~~ unemployed becomes high. Also because the country is developing it is not able to employ a big number of people as they are in large so some people will be employed and others will remain ~~unp~~ unemployed increasing the rate of ~~increase~~ unemployed in the country.

Therefore, The county has to introduce different strategies which help to reduce the rapid growth of people in the country through the following Introduction of population policy, provision of education to people on family planning and lastly abolishing social cultural practices that causes population explosion.

Extract 8.1: A sample of correct response for question 1

Conversely, 1,414 (1.91%) candidates who scored 0 to 6.5 had insufficient knowledge on population explosion. Some of them explained the importance of population explosion, such as that *they provide employment and labour power*. Other candidates explained incorrect causes of population explosion, like *increases in rural-urban migration, poor family planning, increases in the ageing population, misallocation of resources,* and *poor government support*, instead of describing how population explosion is a disaster to social and economic development in Tanzania. Extract 8.2 is a sample of an incorrect response for question 1.

1. population explosion: Refers were the Increase of number of people from the certain area in a particular time. the population Influence the population Increase the faster which cause the people to Increase as Conquest of diseases, Improve birth rate, reduce mortality rate. The following are the great-socio-economic disaster in population explosion in Tanzania which are:

Improvement of Women status and Empowerment: the population explosion it help to support the Increase of women stat

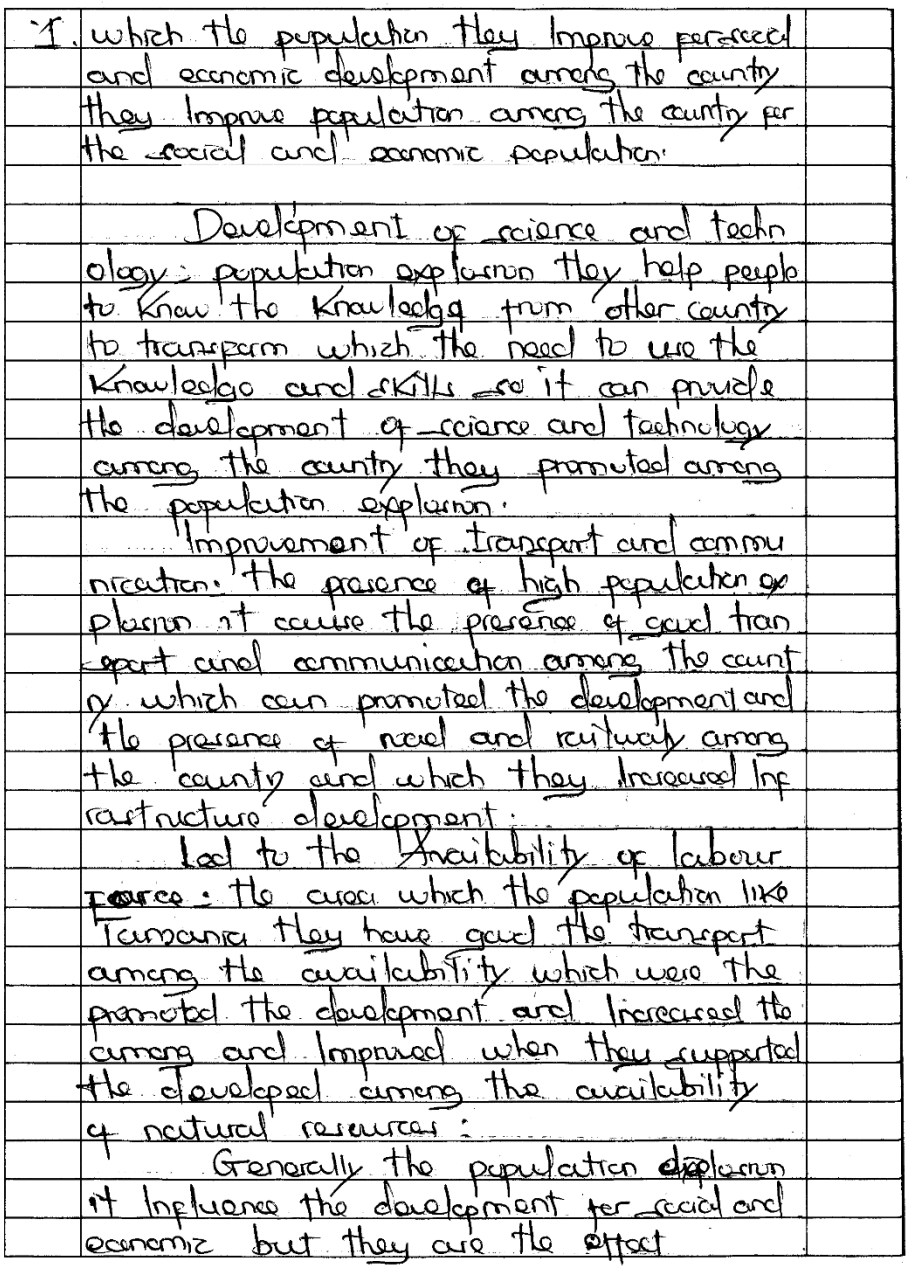
us among the country it help to promote the Increase of women empowerment among the Increase of population explosion among the country it they Influenced per the population.

Provision of social services: population explosion it help to promote the presence of good services example education, health, water and electricity it promoted the Increase of high population explosion it Influence the development among the country they were Increased among the social services per the population explosion.

Increase employment opportunity: the presence of Increase of people it help to Improve the development employment opportunity which they promoted among the country and it Influenced the Increased which where they Increased among the employment per economic development per population explosion.

Development of market: the Increase of market because they have presence of high population it Influence the country they supported among the country which they Increased per Increase of market per goods and services among the markets which were Influenced the economic development among the market availability.

Development of town and cities: due to the Increase of high population migration they supported the Increase of town and cities among the country they promoted the promote the town and cities among the countries


1. which the population they Improve perceed and economic development among the country they Improve population among the country per the social and economic population.

Development of science and technology: population explosion they help people to know the knowledge from other country to transperm which the need to use the knowledge and skills so it can provide the development of science and technology among the country they promoted among the population explosion.

Improvement of transport and communication: the presence of high population explosion it course the presence of good transport and communication among the country which can promoted the development and the presence of road and railway among the county and which they Increased Infrastructure development.

Led to the availability of laboure force: the cases which the population like Tanzania they have good the transport among the availability which were the promoted the development and Increased the among and Improved when they supported the developed among the availability of natural resources:

Generally the population explosion it Influence the development for social and economic but they are the effect

Extract 8.2: A sample of incorrect response for question 1

In extract 8.2, the candidate explained the importance of population explosions, which are *improvements in the status of women, provision of social services, increasing employment opportunities, development of markets, development of towns and cities, development of science and*

technology, improvement of transport and communication and *availability of labour force,* instead of explaining how population explosion is a disaster to the social and economic development of Tanzania.

2.2.2 Question 2: Population and Development

This question required the candidates to explain four physical and four social factors which influence population migration.

The question was attempted by 66,229 (89.50%) candidates. The general performance was good since 65,164 (98.39%) candidates scored 7 marks and above. Further analysis showed that 51,459 (77.70%) candidates scored 12 to 20 marks, 13,705 (20.69%) scored 7 to 11.5 marks and 1,065 (1.61%) scored 0 to 6.5 marks, as illustrated in Figure 9.

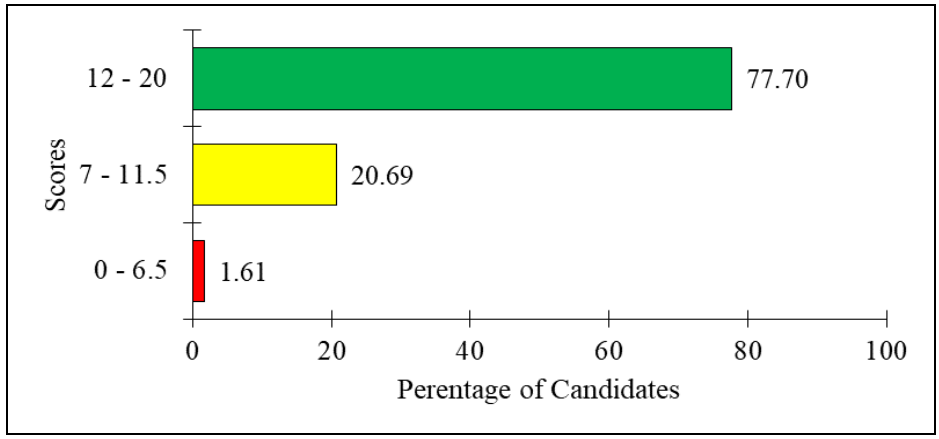


Figure 9: *Candidates' performance for question 2*

The detailed data analysis showed that 51,459 (77.70%) candidates who scored 12 to 20 marks understood the question demand. Those candidates explained correctly four physical and four social factors, which influence population migration. For example, one candidate defined migration as *the movement of people from one place to another which involves either a temporary or permanent change of place of residence and crossing a defined boundary which occurs over time and place.* The candidate explained physical factors for migration, which are good *climate, edaphic factors, relief of an area, natural hazards like earthquakes and volcanic eruptions, the presence of natural resources like mining places, and pests* and *diseases*. Moreover, the candidate explained social factors for migration, which are lack *of social services, population pressure, social*

conflicts, family relatives who may attract people to migrate, security factors, marriages and *divorce.* The candidate finalised the question with a relevant conclusion.

On the other hand, the 1,065 (1.61%) candidates who scored 0 to 6.5 marks demonstrated inadequate knowledge and skills about population migration. Few candidates gave incorrect physical and social factors for migration. Some of them mixed correct and incorrect factors for population migration by explaining causes of migration. One candidate explained *the influence of peer pressure, unemployment, poor infrastructure development, inadequate funds, famine and hunger* and *noise pollution* as physical and social factors for migration. Another candidate in the same category explained the physical factors for population migration as employment *opportunity, provision of social services, political stability, and proper provision of markets,* and the social factors as natural *calamities, natur, nature of the soil and geographical position* instead of four physical and four social factors which influence population migration. Those candidates misconceived the physical, social and natural factors for population migration. Those responses indicated that the candidates had limited knowledge about population migration.

2.2.3 Question 3: Manufacturing Industries

The question was *Examine eight factors behind rapid and modernized development of aircraft industry in the United States of America*.

The question was attempted by 62,689 (84.70%) candidates. The general performance was good since 61,887 (98.72%) candidates scored 7 marks and above. The detailed analysis showed that 51,114 (81.54%) candidates scored 12 to 20 marks, 10,773 (17.18%) scored 7 to 11.5, and 802 (1.28%) scored 0 to 6.5 marks, as illustrated in Figure 10.

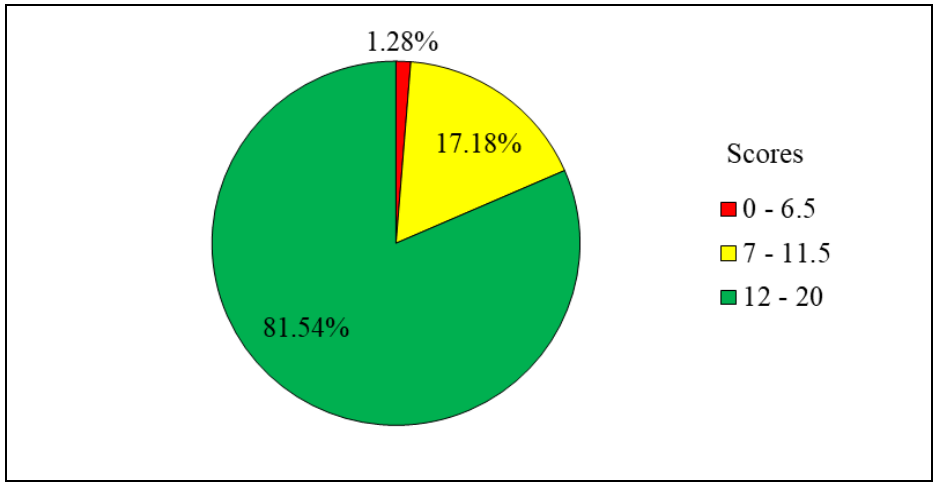


Figure 10: *Candidates' performance for question 3*

Further analysis indicated that 51,114 (81.54%) candidates who scored from 12 to 20 marks had sufficient knowledge on the topic of *Manufacturing Industries.* Majority of the candidates in this category provided a correct introduction to manufacturing industries and correctly examined the factors for the rapid development of the modernised aircraft industry in the USA, which are *research and technology, capital investment, availability of market, the influence of WWI, WWII, and the Korean and Vietnam wars, the development of outer space technology, the commercialisation of American aircraft industries, trust and honesty in business, good policy, government support* and *outbreak of cold war.* Extract 10.1 is a sample of correct response for this question.

3. Air craft industry. This is an industry mainly established for the purpose of manufacturing air craft vessels such as; aeroplanes, rockets and many other vessels. The air craft technology was firstly discovered by the two Wright brothers, who made several investigations, innovation and explorations on air space vessels. In the world today there are some countries dealing with air craft industry whereas United states of America <U.S.A> takes the lead, below are the factors behind rapid and modernized development of air craft industry in the united states of America <U.S.A>.

Conducting Research the country of U.S.A had many researches conducted on the air space industries, however there are various multinational companies supporting air craft industry, however America has organizations such as; National Aeronautics space Administration <NASA> help in the conduction of researches on the need of air craft industry whereas people also desire to explore the outerspace and the astronomical relationships of heavenly bodies, hence, the develop ment of the air craft industry.

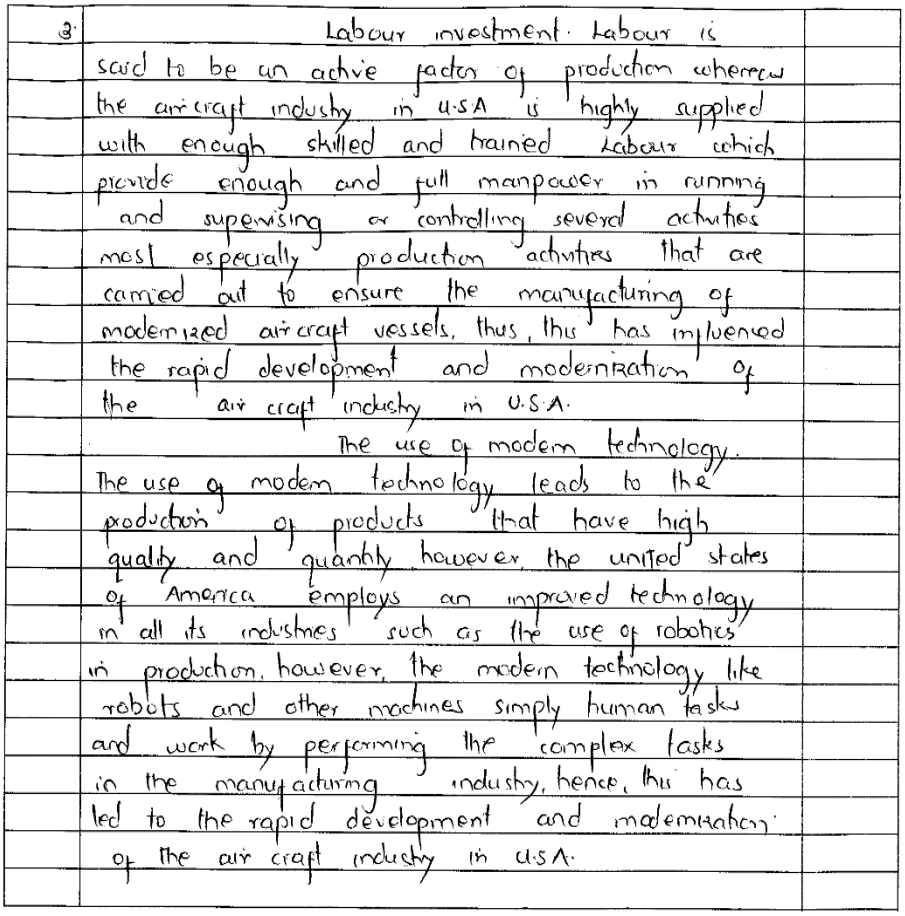
Market demand. Many countries around the world highly demand various air crafts such as aeroplanes, jets and many others for various purposes such as transportation of people, military purposes, innovations and many other reasons, thus, United states of America obtains its markets for the produced goods in many countries around the world, thus, leading to its development and modernization.

3. Influence of WWI, WWII, Vietnam war and korean war. This factor has contributed much on the rapid and modernized development of the aircraft industry in the united states of America whereas in the 1920's there were occurrence of several wars in various countries internally and externally, forexample in the WWI in 1939 there was a high demand for air crafts and also in the year 1945 during WWII there was also an increased demand for planes for millitary purposes, hence, rapid development of the industry.

Influence of cold war in 1947-1980.

Also cold war has influenced the rapid development and modernization of air craft industry in united states of America whereas, due to the cold war, the countries involved grew a high demand for several air crafts so as to improve their millitary activities, however, the high demand for the crafts and vessels lead to the rapid development and the modernization of air craft industry.

capital investment. Also this has influenced much the development and modernization of the air craft industry whereas the government of the united states of America is one among the strongest and wealthiest gavernments due to the high national income, however, the high national income has helped to government of America to provide full support by offering enough capital to run the industry and all its activities, hence, It has led to the rapid development of air craft industry.



3. Labour investment. Labour is said to be an active factor of production whereas the aircraft industry in U.S.A is highly supplied with enough skilled and trained labour which provide enough and full manpower in running and supervising or controlling several activities most especially production activities that are carried out to ensure the manufacturing of modernized aircraft vessels, thus, this has influenced the rapid development and modernization of the aircraft industry in U.S.A.

The use of modern technology.

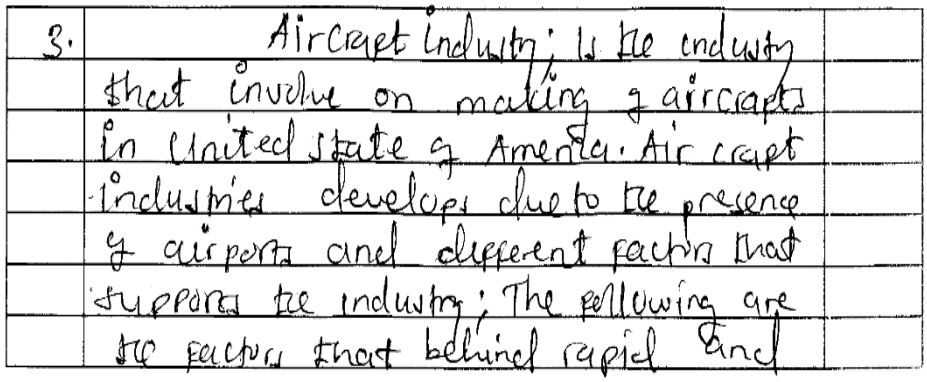
The use of modern technology leads to the production of products that have high quality and quantity however the united states of America employs an improved technology in all its industries such as the use of robotics in production. however, the modern technology like robots and other machines simply human tasks and work by performing the complex tasks in the manufacturing industry, hence, this has led to the rapid development and modernization of the aircraft industry in U.S.A.

Extract 10.1: A sample of correct response for question 3

Moreover, the 10,773 (17.18%) candidates who scored 7 to 11.5 marks revealed moderate knowledge of the factors causing rapid and modernised development of aircraft industries in the USA. Some of them explained a few correct factors. Examples of incorrect factors examined were good *climate conditions, cheap labour* and *a reliable power supply.*

On the other hand, 802 (1.28%) candidates who scored 0 to 6.5 marks examined few factors behind the rapid and modernised development of aircraft industries in the USA. Some of the candidates explained the factors for the development of aircraft industries as the *existence of raw materials, employment opportunities, government expenditure, the development of iron and steel industries* and *the improvement of transport and communication.* Some of them explained the incorrect factors for the

development of aircraft industries as the *need for a strong military and defence force, the need to supply the agricultural products, the presence of a high and developed iron and steel industry, an abundance of fuel and power supply* and *the presence of a lot of experts in the field*. Other candidates explained the factors behind the modernisation of the iron and steel industry in the USA as the *presence of labour, the presence of other engineering industries, science and research* and *the availability of raw materials.* Others explained incorrect factors behind the rapid and modernised development of aircraft industries in the USA, which are shortage *of capital investments, low level of science and technology, competition from other countries, inadequate transport and communication systems, insufficient raw materials, shortage of skilled labour and unskilled labour, inadequate good government support* and *shortage of reliable markets.* Extract 10.2 is an illustration of incorrect response for question 3.


3. Aircraft industry: is the industry that involve on making of aircrafts in United state of America. Air craft industries develops due to the presence of airports and different factors that supports the industry; The following are the factors that behind rapid and

3. modernized development of aircraft industry in the United state of America;.

Competition with other countries; Aircraft industry in united state of America faced challange of competition on aircraft industry with other countries that also involve on air manufacturing of aircraft. example Japan have a stiff competetion with United state of America on air craft industry, hence leads to the behind on development in the sector of aircraft industry.

Low Level of science and technology; United state of America have low Level of science and technology in their industry compared to the Level of science and technology in Japan, were by United state of America did not their technology did not Leads to the development in their industry of aircraft.

shortage of market; United state of America lacks market due to the lack of good quality of their aircrafts that made hence leads to the behind decline of marcet to both external and internal marcet on aircraft industry.

shortage of capital; United state of America experience shortage of enough markets which

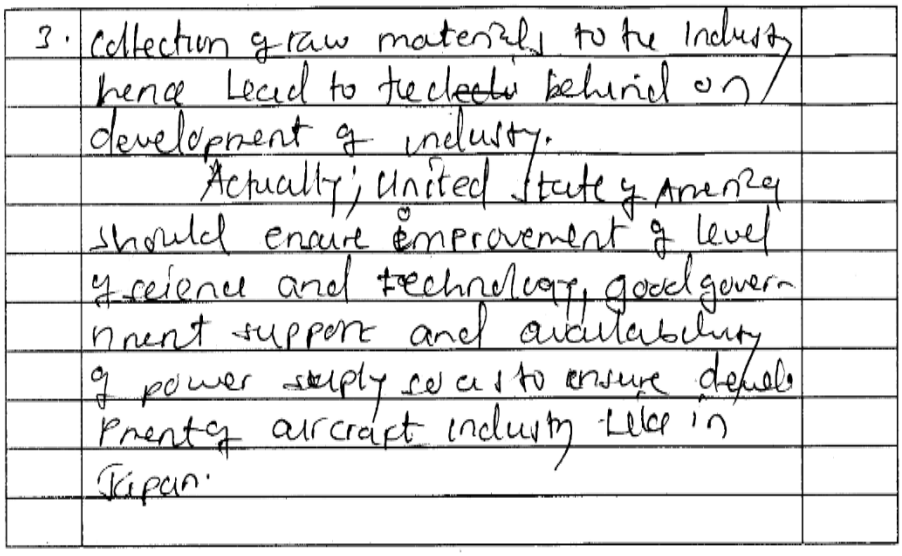
3. enable on buying of different modern tools for operation by industries also which enables on buying quality raw materials for the industrial use.

Shortage of raw materials; united state of America experiences shortage of enough raw materials example steel and iron which may be used on manufacturing of aircrafts to their industries hence leads to the behind rapid and modernized development compared to other country like Japan.

Shortage of power supply; united state of America have low power supply which used on operation of machines to the industry were by power supply example electricity supply and petrol and diesel are not enough on the operation of industrial machines.

poor government support; The government of United state of America did not support on the aircraft industry hence leads to the behind on development of the industry, were by in Japan the goverment support on provision of capital.

Shortage of skilled labour; United state of America experiences on shortage of skilled labour and unskilled labour for the



Extract 10.2: A sample of incorrect response for question 3

In extract 10.2, the candidate explained factors which hinder the development of aircraft industries, which are shortage *of capital, shortage of raw materials, low level of science and technology, competition from other countries, shortage of market, shortage of skilled labour, and poor government support,* instead of factors which enhance the modernisation of aircraft industries in the USA.

2.2.4 Question 4: Livestock Keeping and Management

The question demanded the candidates to explain three characteristics of sedentary livestock farming and give six problems facing livestock farming in Tanzania.

The question was answered by 16,562 (22.40%) candidates. The general performance was good since 16,236 (98.03%) candidates scored 7 marks and above. The detailed analysis showed that 13,506 (81.55%) candidates scored 12 to 20 marks, 2,730 (16.48%) scored 7 to 11.5 marks and 326 (1.97%) scored 0 to 6.5 marks, as illustrated in Figure 11.

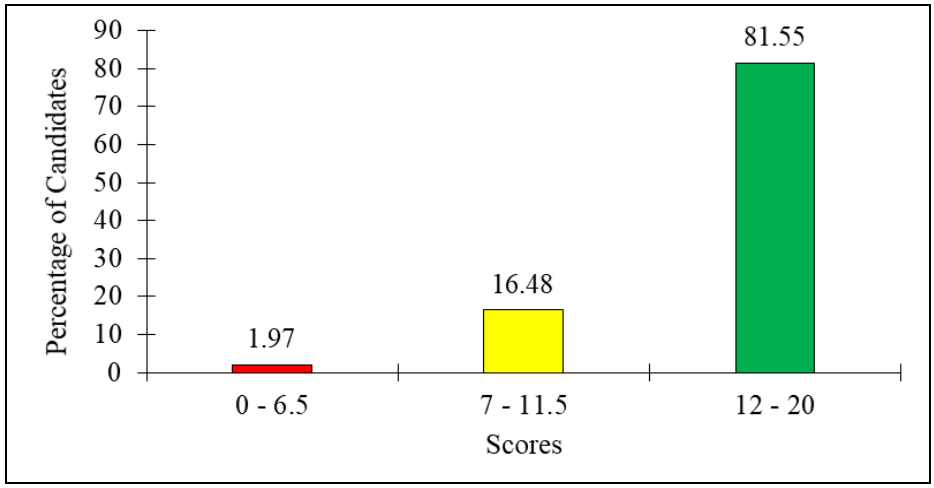


Figure 11: *Candidates' performance for question 4*

Further data analysis showed that 13,506 (81.55%) candidates who scored 12 to 20 marks had sufficient knowledge on the topic of *Livestock Keeping and Management* specifically on the subtopic of sedentary livestock keeping. For example, one candidate defined livestock keeping as farming that deals with keeping domesticated animals, birds, *and insects. It is the practice of keeping domesticated animals, such as cattle, goats, sheep, pigs, and poultry.* The candidate defined sedentary livestock keeping as *the process that involves keeping livestock in a permanent place. It is also known as zero grazing*. Furthermore, the candidate explained the characteristics of sedentary livestock farming/keeping, which are that it *involves high productivity as the method uses more advanced technology, there are few numbers of livestock which can be easily assisted, the livestock are kept in sheds so as to feed them easily, there is disease control, small land is required, it enables the keepers to engage in other economic activities such as trade,* and *it enables environmental conservation as livestock do not move from one place to another.*

Moreover, the candidate described the problems which face livestock keeping in Tanzania which are; shortage of grazing areas for large stocks, high prevalence of pests and diseases, population pressure, loss of water and grazing areas, lack of financial resources for water construction and harvesting equipment, low genetic potentials of the indigenous species for meat and milk production, lack of guaranteed securing land tenure and appropriate mechanization for land acquisition resulting to social conflict,

inadequate and weak extension and research services and dissemination of appropriate and suitable technology aimed at increasing livestock productivity, poor extension services at local levels due to insufficient experts, weak baseline information on livestock keeping, inadequate research facilities, inadequate participation of private sector and land use constraints. The candidate ended the essay with a relevant conclusion. Extract 11.1 is a sample of a correct response for question 4.

4. Sedentary livestock farming refers to the type of livestock keeping where the pastoralists have a permanent settlement with their animals and does not involve movement from place to place in search for pasture. The following are some of the characteristics of sedentary livestock farming;

Permanent settlement of farmer and his livestock. This type of livestock farming involves establishment of a permanent settlement where animals are kept in their sheds and there is no movement of livestock and pastoralist in search for water and pastures.

A farmer keeps few number of livestock unlike nomadic pastoralism, sedentary pastoralism involve keeping of few livestock at a permanent settlement. Whereas farmer keeps few livestock for easier management at household.

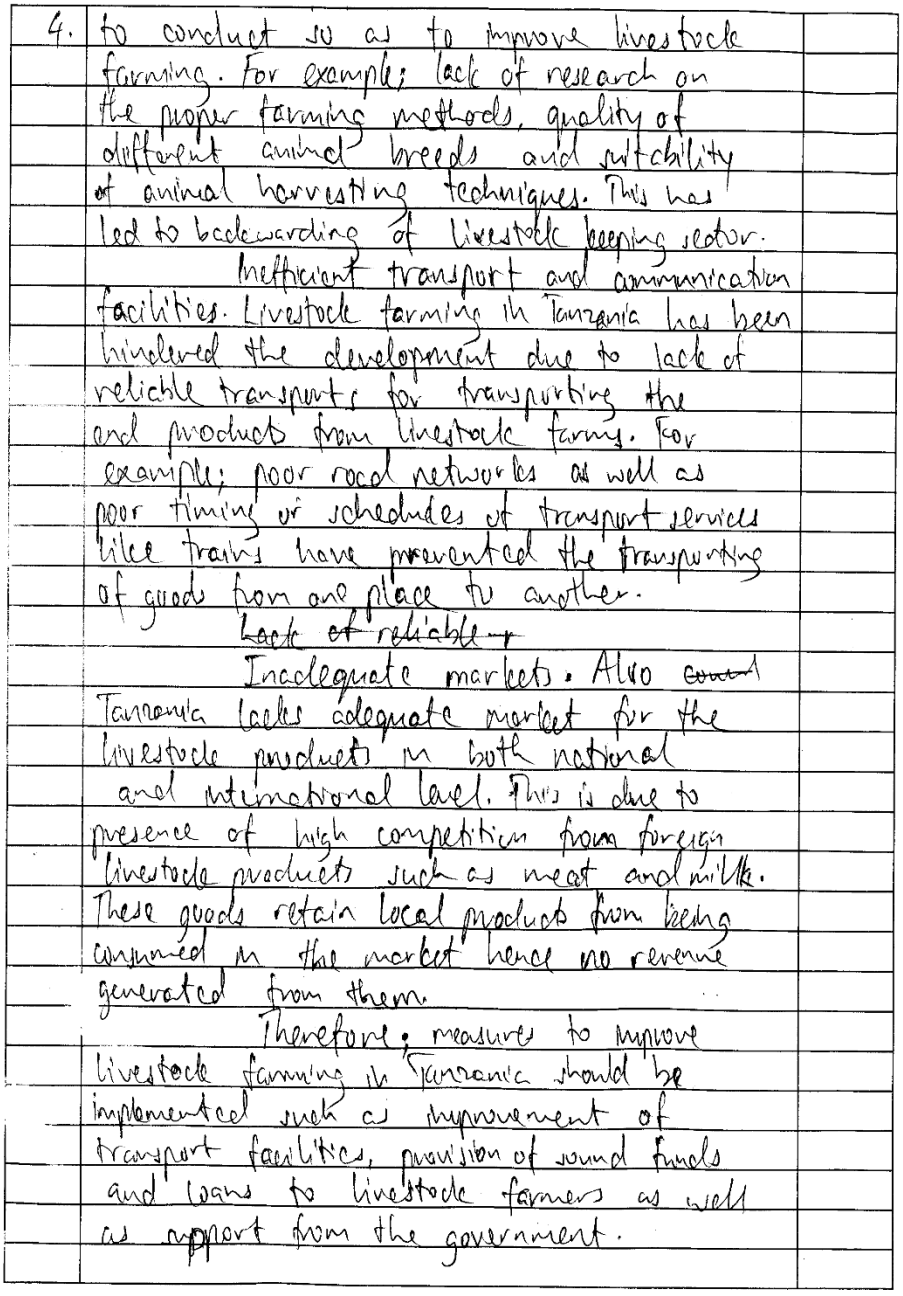
Sedentary livestock farming is also characterized by more use of artificial inputs such as pesticides. In the sedentary livestock farming, farmers apply artificial ~~on~~ inputs on their livestocks such as pesticides and use of synthetic products. Now the following are some of the problems that are being faced by ~~to~~ livestock farming in Tanzania;

4. Pests and diseases. Livestock farming in Tanzania has been challanged by the presence of different pests and diseases that affect livestock. For example, pests such as ticks and worms infast the livestock and diseases such as Trypanosoma, Bilharzia are prone to the livestock. For examples most cattle in Tanzania are affected by Trypanosoma which causes sleeping sickness to human beings.

Livestock farmers and peasants conflicts. Tanzania has also been facing the problems of occurrence of conflicts between peasants and pastoralists. These conflicts arise due to land problems as well as search for pasture. These conflicts have led to killing of cattle by peasants thus being a problem in the country. For example; conflicts between Maasai pastoralists and the Ngiedo peasants in North Tanzania.

Lack of sufficient capital. Also Tanzania pastoral farmers faces problems of lack of sufficient capital for conducting their activities. They lacks sound financial support for purchasing different inputs such as pesticides and animal vaccines. This has created a burden to the pastoralists hence the development of livestock farming in Tanzania become hindered.

Inadequate research on livestock farming. Also Tanzania faces problems of lacking the sound research facilities to


4. to conduct so as to improve livestock farming. For example; lack of research on the proper farming methods, quality of different animal breeds and suitability of animal harvesting techniques. This has led to backwarding of livestock keeping sector.

Inefficient transport and communication facilities. Livestock farming in Tanzania has been hindered the development due to lack of reliable transports for transporting the end products from livestock farms. For example; poor road networks as well as poor timing or schedules of transport services like trains have prevented the transporting of goods from one place to another.

~~lack of reliable~~

Inadequate markets. Also ~~cannot~~ Tanzania lacks adequate market for the livestock products in both national and international level. This is due to presence of high competition from foreign livestock products such as meat and milk. These goods retain local products from being consumed in the market hence no revenue generated from them.

Therefore; measures to improve livestock farming in Tanzania should be implemented such as improvement of transport facilities, provision of sound funds and loans to livestock farmers as well as support from the government.

Extract 11.1: A sample of correct response for question 4

Conversely, few candidates (1.97%) who scored from 0 to 6.5 marks revealed insufficient knowledge on sedentary livestock keeping in Tanzania, as they failed to meet the demand of the question. Most of them

mixed correct and incorrect characteristics; some explained only a few characteristics, while others explained a few correct problems facing livestock keeping in Tanzania. For example, one candidate explained three characteristics of nomadic livestock keeping, such as that *it involves shifting from one place to another, it is not permanent* and *it is seasonal*, instead of explaining the characteristics of sedentary livestock keeping.

2.2.5 Question 5: Sustainable Use of Fuel and Power

The question had a statement that 'Petroleum is widely produced in the world today.' The candidates were required to evaluate the importance of this resource in the world economy by giving eight points.

The question was attempted by 47,365 (64.00%) candidates. The general performance was good since 46,751 (98.71%) scored 7 marks and above. The detailed analysis showed that 38,075 (80.39%) candidates scored 12 to 20 marks, 8,676 (18.32%) scored 7 to 11.5, and 614 (1.29%) scored 0 to 6.5 marks. Figure 11 illustrates performance in question 5.

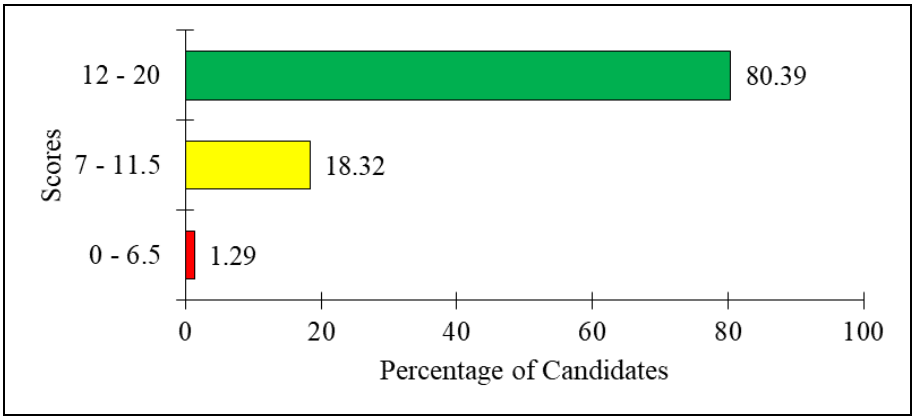
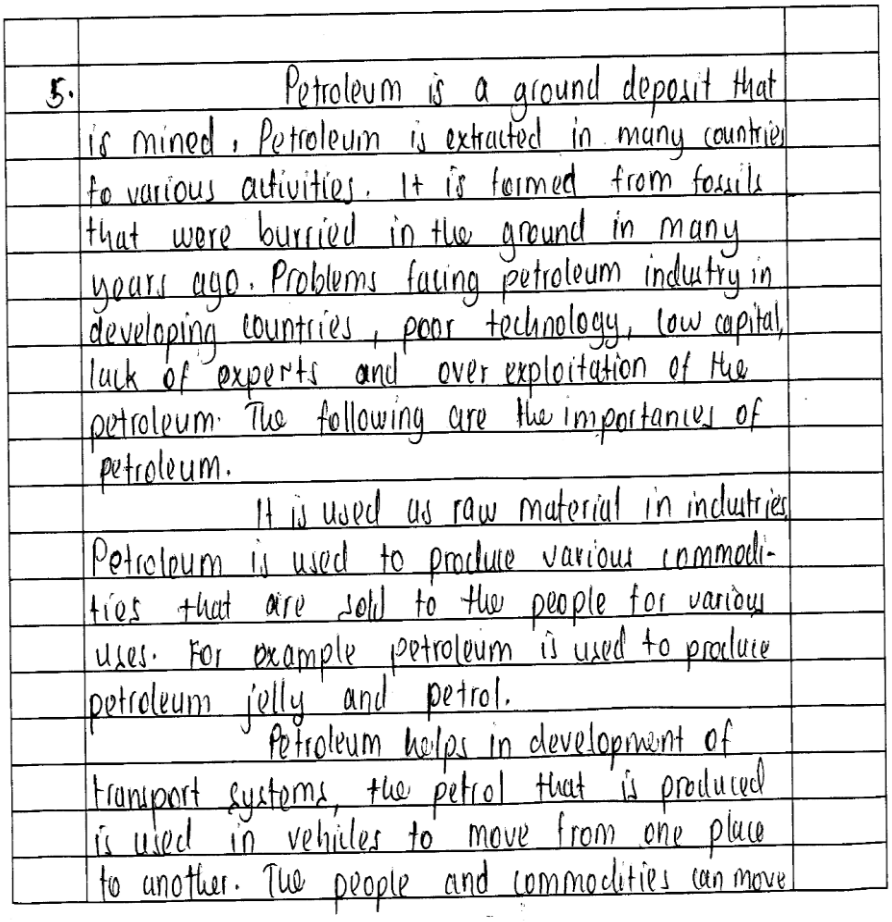


Figure 11: *Candidates' performance for question 5*

Further data analysis indicated that 38,075 (80.39%) candidates who scored 12 to 20 marks had sufficient knowledge on the topic of *Sustainable Use of Fuel and Power*, specifically on petroleum. Majority of the candidates in this category defined petroleum as *fossil energy, which is widely used by most people worldwide in the industries, commerce, agriculture and other fields*. They explained eight importance of petroleum in the world economy which are; *it is the source of energy to industries, petroleum supply lubricant to be used in the vehicles of all*

kind, it facilitates the development of transport and communication, it is the source of raw materials for the production of several chemicals, perfumes and coloring (paints), increases foreign currency, it is the source of employment, reduces reforestation for firewood and charcoal it is environmental friendly, leads to the development of trade, leads to development of industries, stimulates development of towns and cities also encourages development of other social services like school and hospitals around those center which produce that energy. Extract 12.1 is a sample of a correct response for question 5.



5. Petroleum is a ground deposit that is mined, Petroleum is extracted in many countries to various activities. It is formed from fossils that were burried in the ground in many years ago. Problems facing petroleum industry in developing countries, poor technology, low capital, lack of experts and over exploitation of the petroleum. The following are the importanies of petroleum.

It is used as raw material in industries Petroleum is used to produce various commodities that are sold to the people for various uses. For example petroleum is used to produce petroleum jelly and petrol.

Petroleum helps in development of transport systems, the petrol that is produced is used in vehicles to move from one place to another. The people and commodities can move

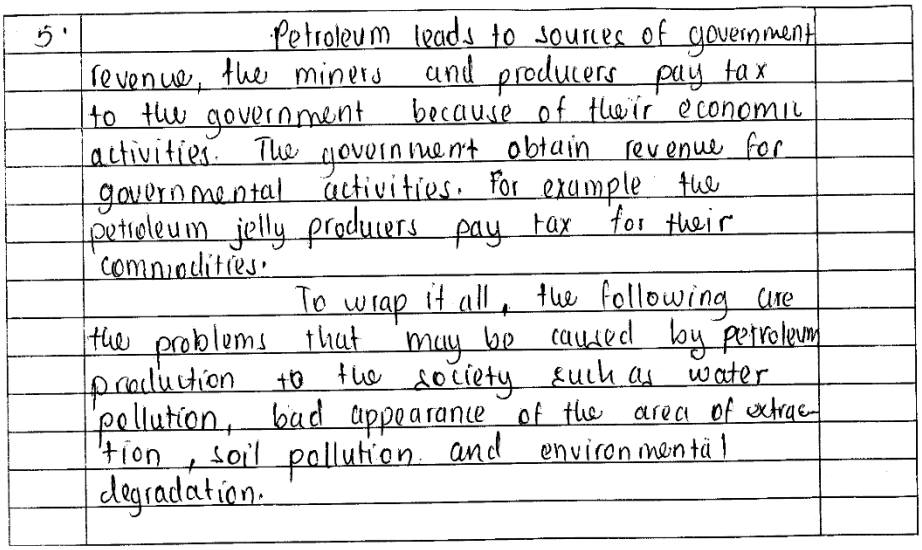
3. smoothly to various areas. For example cars burn petroleum to activate the engine.

Petroleum facilitates trade, the produced commodities from petroleum industries are being exchanged by producers in various countries and areas hence obtain money which is an income. For example exporting to other countries petroleum jelly.

It is a source of employment, the people who work in the petroleum mines, the petroleum industries get jobs so that they use the petroleum to produce goods. For example the industries producing commodities out of petroleum employ workers hence reduce unemployment.

It is a source of foreign currency, when petroleum is produced and manufactured it is being transported to various countries. The commodities being bought are paid by using the currency of other countries. The government hence obtain foreign currencies. For example Tanzania obtain the currency of Zambia through trading with their country.

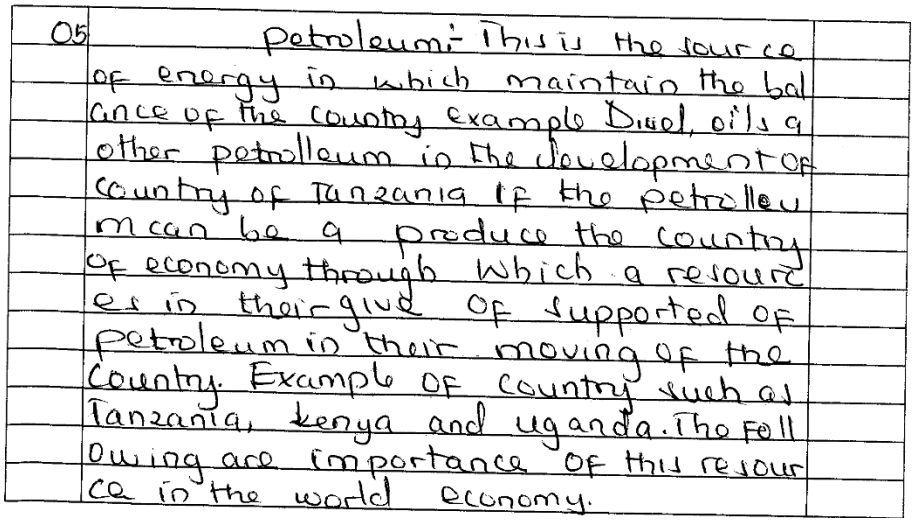
Petroleum is used in operating various machines in industries and other sectors. The machines ~~are~~ in some industries are operated by using petroleum. This facilitates the work of production in the country.


5. Petroleum leads to sources of government revenue, the miners and producers pay tax to the government because of their economic activities. The government obtain revenue for governmental activities. For example the petroleum jelly producers pay tax for their commodities.

To wrap it all, the following are the problems that may be caused by petroleum production to the society such as water pollution, bad appearance of the area of extraction, soil pollution and environmental degradation.

Extract 12.1: A sample of correct response for question 5

Conversely, few candidates (1.29%) who scored 0 to 6.5 marks evaluated the importance of petroleum in the world economy. Some candidates mixed correct and incorrect importance. Examples of incorrect importance provided by one candidate were cheap *labour, poor science and technology, unskilled labour force, lack of capital* and *unreliable rainfall.* Most of the candidates in this category failed to interpret the demand of the question. Extract 12.2 is a sample of an incorrect response for question 5.


05 Petroleum: This is the source of energy in which maintain the balance of the country example Diesel, oil's a other petrolleum in the development of country of Tanzania if the petrolleum can be a produce the country of economy through which a resources is their-give of supported of petroleum in their moving of the country. Example of country such as Tanzania, kenya and uganda. The Following are importance of this resource in the world economy.

05 Influence government suppo
rt: This means that the country of Ta
nzania should be a maintainance abo
ut the resource of petroleum in w
hich the support of government in
the development of country Exam
ple Tanzania are the source of
Supporting of Influence of gov
ernment in their country.

Influence of foreign policy: Th
is means that the government of Tanz
ania petrolleum can be a influence
d of foreign currency through which h
ave a support of economy in their
source of petroleum in their sourc
e of energy in their country.

~~Improvement of~~ Good of Inf
rastructure: This means of good of Inf
rastructure through which have petrol
eum can be developed of country
in which the maintainance of influ
ence of raw material in their develo
ped of country in their country exam
ple Roads, railway and lines in the
resource of the country.

Finally: However the resources of
the country of Tanzania can be the dev
elopment of petroleum in their cou
ntry such as Oil, diesel and other pe
troleum in their country.

Extract 12.2: A sample of incorrect response for question 5

In extract 12.2, the candidate failed to provide a relevant introduction and explained factors which led to the development of petroleum, such as *government support, the influence of foreign policy* and *good infrastructure,* instead of explaining the importance of petroleum in the world economy. Furthermore, the candidate faced a language barrier.

2.2.6 Question 6: Sustainable Mining

The question was *Despite its importance for economic development, mining industry has a lot of problems. With reference to Tanzania, examine eight problems caused by this sector*.

This question was attempted by 66,473 (89.80%) candidates. The general performance was good because 61,556 (92.60%) candidates scored 7 marks and above. The detailed analysis showed that 51,604 (77.63%) candidates scored 12 to 20 marks, 9,952 (14.97%) scored 7 to 11.5 marks and 4,917 (7.40%) scored 0 to 6.5 marks, as illustrated in Figure 12.

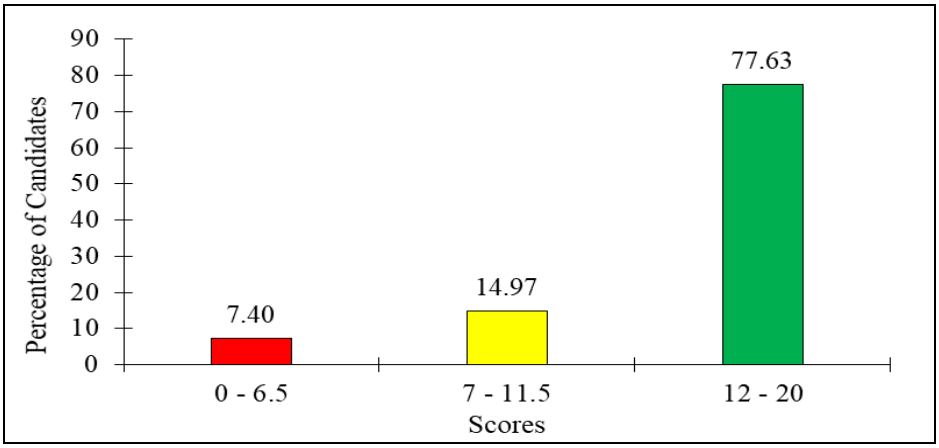


Figure 12: *Candidates' performance for question 6*

More analysis revealed that 51,604 (77.63%) candidates who scored 12 to 20 marks had adequate knowledge on the topic of *Sustainable Mining*. Those candidates presented their ideas correctly by examining the problems caused by mining sector. For example one candidate examined the problems caused by mining sector as*; water pollution, high population pressure in mining centers, death of miners due to accident, decline in other sectors of the economy since many people rush to mining sectors, it has led to occurrence of political conflicts and civil strike , rapid decline or exhaustion of the mineral deposits because of the over exploitation, brutal treatment of the local miners where some of them are killed brutally and others are forced out of mining centers to let foreign or private companies to operate, very poor condition of workers in mining centers, long term tax release to the mining companies which leads to loss of government revenues, loss of biological diversity, airborne diseases, noise*

pollution and land degradation. Extract 13.1 is an illustration of a correct response for this question.

06. Mining: Refers to the extraction of Minerals from the ground such as diamond and Gold. In Tanzania there is Seven region which are essential for Mining activities such as Kagera also despite its importance for economic development, Mining industry has a lot of problem. The following are problem caused by Mining industry.

It led to dettorestation; Mining industry it can led to the dettorestation in a certain area in order to get space for the Mining activities to take place in that place so that dettorestation it can led to loss of biodiversity and other economic problem so that are the one of the problem that are caused by Mining industry.

It led to water pollution; When the mining activities it takes place near the water resources that it can led to the water pollution which may turn to led effect to the living Organisms so also that are problem that are caused by the Mining industry.

It led to loss of biodiversity; Due to dettorestation and water pollution that it can led to the loss of biodiversity that are found on the forest and water like wild animal and fishes so also that are the one of the problem that are occurred due to mining industry.

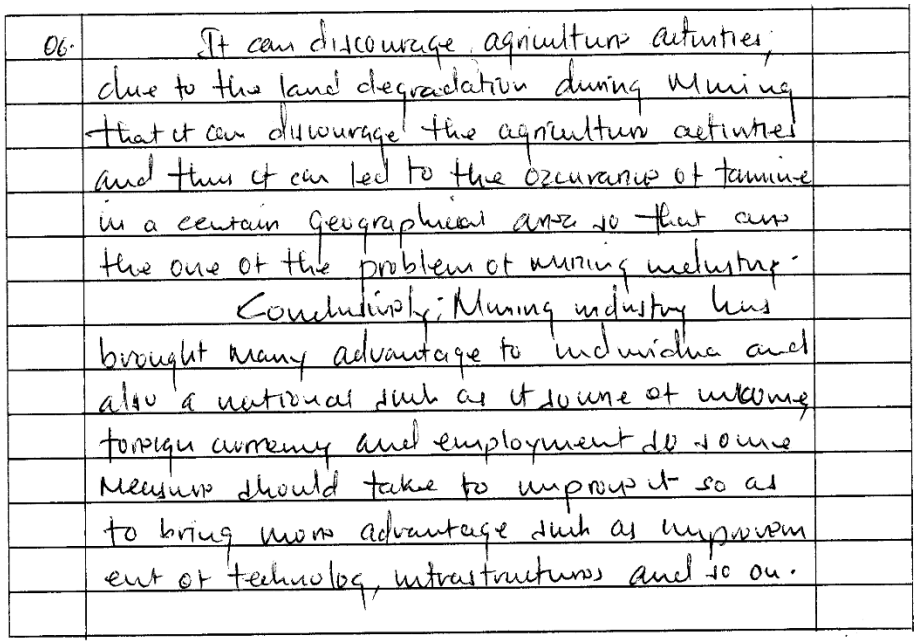
It led to the noise pollution due to the use of Machines during the Mining activities and use of bombs

06. On quarrying rocks that can led to the noise pollution and when it was found near the people settlement it can affect them so thus are potrayed as the problem associated by the Mining industry.

It leed to land degradation; Due to the mining activities that it can leed to the formation of large holes on the land that can not full filled so that it can leed to land degradation and due to this it discourage agriculture production so also that are the one of the problem brought by Mining industry.

It led to air pollution; Also the Mining industry it can leed to air pollution thus it due to the smoke that it was produced by Machines that are used in the Mining process and thus can led to the emption of disease in the society so that are the one of the problem of Mining industry.

Sometimes it can led death to the people; Due to the use of Machines and people to enter in the large holes that it can cause to be in a risk so that it can sometimes led to the death of people during that activities so also that are the one of the problem that are formed due to the mining activities



Extract 13.1: A sample of correct response for question 6

On the other hand, the 4,917 (7.40%) candidates who scored 0 to 6.5 portrayed inadequate knowledge on the problems caused by the mining sector. Some provided few problems with insufficient explanations; others mixed correct and incorrect problems caused by the mining sector. Examples of incorrect responses provided by the candidates were such as lack *of science and technology, lack of capital, lack of skilled labour, poor infrastructure, shortage of market, poor mining policies, shortage of areas for investments, and high competition from other countries*.

Others had poor essay writing skills. Some of the candidates misinterpreted the question by explaining factors which hinder the development of the mining sector, such as *lack of a reliable market, lack of enough power supply, communication network problems, lack of enough professionals, lack of enough capital, poor infrastructure* and *poor government policy,* instead of problems caused by the mining sector in Tanzania. These candidates failed to interpret the demand of the question, which made them score lower marks. Extract 13.2 is a sample of an incorrect response for question 6.

06. Mining; These is the process of extraction of minerals such as gold, Tanzanite and copper which are extrated from their chief ores thus which are very important in life.

Mining sector Industry; these is the economic human activity associated with the process of extracting of minerals in the Industry thus mining industry in Tanzania it is affected by different problem despite of its importances there effects affect it is relatively growth as follows.

Poor developed infrastructures; the mining Industry in Tanzania is associated with the the problem of the poor infrastructures thus they have no good infrastructure which can withstand the avalability of the raw materials needed in the mining industry thus due to this problem it has affected the mining sector Industry in such away that these has contributed to the poor yield in the minining Industry

Capital intensive; Lack of capital in mining Industry it has been a problem that has affected the mining sector due to the process that the capital Intensive it has largely much contributed to the poor yield in the process of mining Industry as an impact of it thus capital Intensive has affected mining Industry.

Lack of enough power supply; also there is another factor which has created the problem in mining sector where the mining sector is largely affected by the lack of enough supply used in the Control of the mining sector Industry thus through these factorial problem it has created the poor and bad yield in the mining Industry as the

06 problem affecting the mining sector so it has been influenced by the problems of Lack of enough power.

Lack of well and good technology; The mining Industry in Tanzania is affected by the Lack of well and developed technology thus through the Lack of well and good technology to be used it has largely much created the Low yield In mining Industry as an effect of the mining Industry problem in Tanzania

Poor support from the government; also there is another factorial problem which has caused the effect in mining sector where there is poor support from the government where the government provides little Support to the mining Industry as the factor it causes the low yield in mining example Lack of well government policies towards the mining sector Industry in Tanzania

Lack of well and reliable market; there is also another factor That has contributed to the process of effects in the mining sector where the mining Industry Lacks the well market developed facilties where they can sell their goods but due to Lack of these has created the Low yield in the whole process of marketing in the Industry thus leading to decline of the Industry.

Poor transport and Communication; also Poor transport and communication it has largely created the problem in the mining Industry where there is the occurance of poor transport and communication because the process of mining needs the good transport and the ~~comm-~~

Extract 13.2: A sample of a part of incorrect response for question 6

In extract 13.2, the candidate misconceived the question by explaining the factors which hinder the development of the mining industry, which are *poorly developed infrastructures, capital intensity, lack of enough power supply, lack of good and well technology, poor support from the government, lack of a good and reliable market and poor transport* and *communication*, instead of problems caused by mining sector.

2.2.7 Question 7*:* Sustainable Use of Forestry

The question had a statement that, Canada is the best model for the development of the timber industry. The candidates were required to describe eight lessons that can be learnt from Canada for the future prosperity of the timber industry in Tanzania.

This question was attempted by 36,496 (49.30%) candidates. The general performance was good because 35,709 (97.84%) candidates scored 7 marks and above. The detailed analysis showed that 32,645 (89.45%) candidates scored 12 to 20 marks, 3,064 (8.39%) scored 7 to 11.5 marks and 787 (2.16%) scored 0 to 6.5 marks, as illustrated in Figure 13.

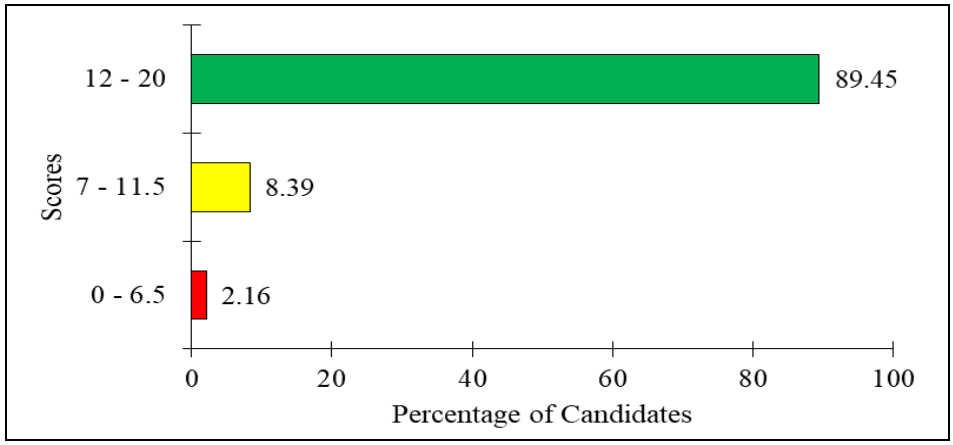


Figure 13: *Candidates' performance for question 7*

More data analysis showed that 32,645 (89.45%) candidates who scored 12 to 20 marks revealed sufficient knowledge on the topic of *Sustainable Use of Forestry*. Majority of those candidates in this category provided a relevant introduction that the *timber industry is the activity which involves the production of timber and other processes associated with timber production.* They described eight lessons that can be learnt from Canada for the future prosperity of the timber industry in Tanzania, which are improvement *of infrastructure, sufficient capital to be invested in the sector, a peaceful political atmosphere due to government stability, the presence of different species of great value which are well adapted to the climate, strong population control which reduces forest disturbances, a reliable supply of power from the hydroelectric power plants, efficient timber marketing and export strategies, and improved forest education*

training and capacity building. The candidates finalised with an appropriate conclusion, as it has been illustrated in extract 14.1, which is a sample of a correct response for question 7.

7. Timber Industry is the industry that deals with timber and wood production. Extraction of wood and timber is done in both manmade and natural forest resources. Timber Industry in Canada is known to be the most developed among other Nations and this is because of various factors. Countries that have not developed in the timber Industry can learn various mechanisms and strategies for the future Prosperity of Timber Industry. The following are the lessons that can be learnt by Tanzania from Canada to ensure the future prosperity of timber Industry;

The use of advanced technology; Canada as a developed country applies high and equiped technology in production in the Timber Industries. Well developed and equiped machines are used in production thus leading to prosperity. Therefore Tanzania should apply the adoption of advanced technology that will eventually lay foundation for the prosperity of Timber Industries.

Development of transport infrastructure; Well developed and improved transport infrastructure present in Canada facilitates easy movement of raw materials to the Industry and goods to the market. Tanzania should strive to improve the transport infrast

7 ucture including roads and railways to ensure develop iment of the Timber industry in Tanzania

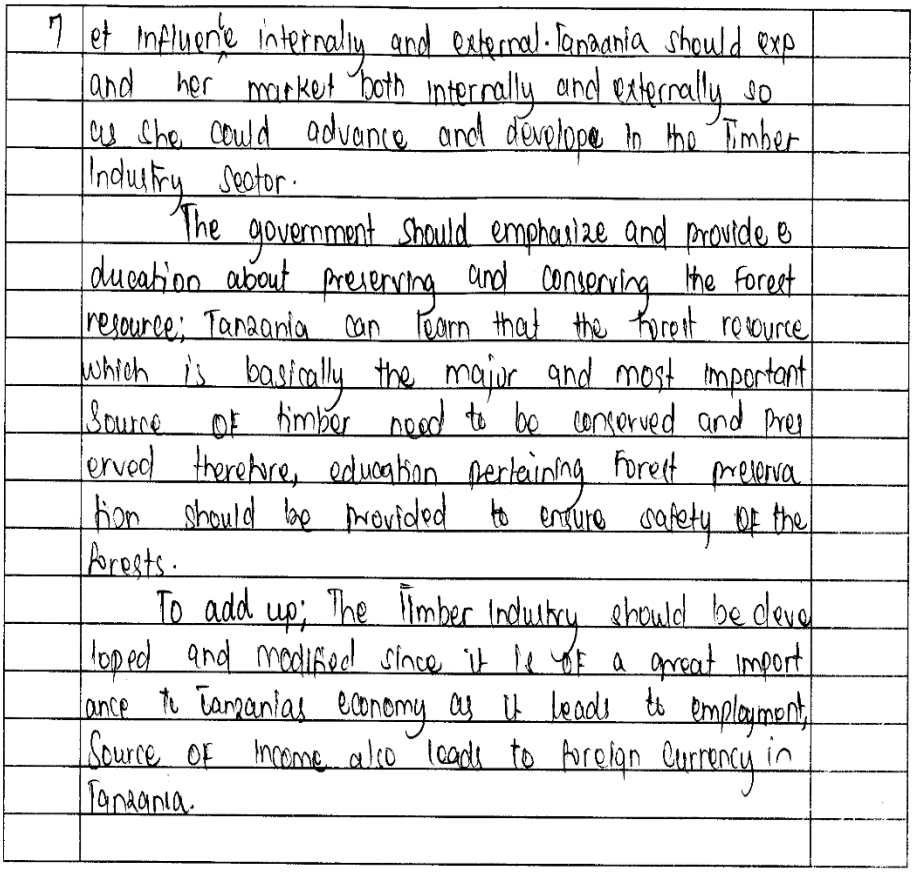
Extensive investment of capital; One of the contri butory factors for the development of Timber industry is availability of capital, in Canada capital is provided by priva te and governmental institutions to ensure smooth operatio ns. Tanzania should also invest capital massively in the timber industries so as to ensure development of the Timber industries in Tanzania.

Training and Equipping Labourers; Canada succed in the Timber industries due to the use of well trained personelles and labourers who can ensure massive production and quality produce. Tanzania should learn that education an d training of the labourers is important and essential for the development of the Timber industries, therefore labourers should be trained and equiped in Tanzania.

Formulation of strict government policies; Canada has great support from the government through various poli cies that govern and protect the Forests from defore station. Tanzanian government should therefore formulate strong policies that would ensure proper protection of the timber industry development also the policies should uphold Timber industry due to great forest potential in Tanzania

Proper utilization of the raw materials; Canada as the model for timber industry utilizes the present raw materials that are found in Canada including the trees and forests effectively for the prosperity of Indu stries. Therefore Tanzania should learn on how to effect pr oper utilization of the raw materials without affecting the environment and ecosystem

Expansion of domestic and International markets; Canada is a model in Timber industry due to her mark


7 et influence internally and external. Tanzania should exp
and her market both internally and externally so
as she could advance and developed in the Timber
Industry Sector.
The government should emphasize and provide e
ducation about preserving and conserving the forest
resource; Tanzania can learn that the forest resource
which is basically the major and most important
source of timber need to be conserved and pres
erved therefore, education pertaining forest preserva
tion should be provided to ensure safety of the
forests.
To add up; The Timber Industry should be deve
loped and modified since it is of a great import
ance to Tanzanias economy as it leads to employment,
Source of income also leads to foreign currency in
Tanzania.

Extract 14.1: A sample of correct response for question 7

On the other hand, the 787 (2.16%) candidates who scored from 0 to 6.5 marks revealed inadequate knowledge of the concept of the timber industry. Some provided insufficient explanations for the concepts tested. Some mixed correct and incorrect explanations about the lessons that Tanzania has to learn from Canada. Others misconceived the question. For example one candidate provided the importance of the timber industry, which is that *it is a source of raw materials, a source of timber, gives an international reputation, brings a source of foreign exchange* and *creates employment,* instead of the lesson that Tanzania learns from Canada for future prospects of the timber industry. This indicated that those candidates failed to interpret the question's demand. Extract 1.2 is a sample of an incorrect response for question 7.

07 Timber industry comes largely from the forestry kind of sector as it involves subsequently the use of forest kind of resources sustainably towards the purpose of the future generation benefiting from this kind of industry. Furthermore, a developed country like canada tend to be the best Role model for the crucial development of Timber Industry and having a significantly role towards the act of making this as the best way of having this to bringing about different kinds of lessons that is to be learnt from Canada towards the future property of this timber industry. The following below are provided with eight points towards the lessons that can be learnt from canada towards the ideal development of Timber Industry;

Sources of Raw materials to different kinds of Industries in Canada: The lesson that can be learnt from this kind of Industry is that different kind of individuals can use timber primarily as a major source of Raw materials towards the manufacturing of different kinds of products and commodities to a developed and Role modelled Country of canada as it mainly spearheads in this kind of Timber production which will desirably uplift the economic status of a particular country out there like Canada

Timber industry acts as a source of Building and construction activities to the country of

07. canada;- This is also due to the fact of having the to be spreading an awareness on the act of making Timber to be seen as a source of raw materials in the act of having to produce the very own kind of output that acts as a result of construction and building materials to the county of canada present for Example; The outputs that can be produced through these activities are houses, Buildings, and other equipments

Creation of Employment opportunities; This is due to the fact that many kind of individuals out their will be able to have the existing job opportunities created as this will offer a wide range of both skilled and semi-skilled and even unskilled labour to simply add a tool on being able to amplify the economy of canada through the timber kind of industry out there Therefore; the act of canada engaging in this kind of industry can be granted with a role model of being able to have other countries to access employment options

Diversification of other economic sector in a country;- The fact that the Timber industry has been able to showcase a certain kind of ability to obtain raw materials from timber; This will in one way or another have the ability of being able to help this kind of industry to diverse and have economic reforms towards its improvement out there for Example. The timber industry can facilitate the diverse of tourism, mining, and other kinds of sectors out there at large.

Bring about an improvement in trade activities and relations (International trade); The fact that canada is being considered as a role mode for this kind of industry this will bring about an existence of

07 being able to have an improvement in the level of international trade from both imports and exports point FOR EXAMPLE; Canada is mostly prefered to have all sorts of trade relationships with Tanzania and Kenya on Timber manufacturers

Improvement in Transport and communication sectors the fact that timber land of Industry is being improved at there, canada can be learnt from as they have managed to expand the avenues of transport and communication networks in the very - own country and this in one way or another has managed to bringing about a level of having the act of facilitating movement of goods and other kinds of facilities from one place to another

Brings about sources of Foreign exchange and market adoption to other countries; The fact of having timber market it able to allow a source of Foreign exchange to canada as this will largely bring about an increase in national income as well as this will be able to facilitate market adoption as canada will be acquired to market timber internally and external rally which will add a lesson and message to other nation regarding the aspects of Timber Industry

Gives International Reputation, Fame and - Recognition to any other country out there; This is due to the fact that when canada is being heard off of having being one of the toplisting countries in the production of Timber Industry this significantly creates a sort of fame and recognition to canada as one of the lesson learnt is that they can also encourage other nations relying on timber Industries to adopt all kinds of mechanisms to improve their recognitions to a large extent

that ~~the~~ industry referring to the ~~the~~ industry

07 In a nutshell, The act of making canada as a role made and Influencer in the Timber industry in one way or another has managed to bring about a relevance message to other developing countries - especially as has the engagment of timber industry bring about a success and achievements as a whole

Extract 14.2: A sample of incorrect response for question 7

In extract 14.2, the candidate described the importance of the timber industry, which is *a source of raw materials, a source of building materials, a creator of employment opportunities, a diversifier of other economic sectors, an improver of trade activities, an improver of transport and communication* and *a source of foreign exchange,* instead of lessons that can be learnt from Canada for the future prosperity of the timber industry in Tanzania.

3.0 PERFORMANCE OF CANDIDATES IN EACH TOPIC

The analysis of the candidates' performance for each topic revealed that, they performed well in all 13 examined topics. The candidates performance in each topic was as follows: *Manufacturing industries* (98.72%), *Sustainable Use of Fuel and Power* (98.70%), *Population and Development* (98.24%), *Livestock Keeping and Management* (98.03%), *Sustainable Use of Forestry* (97.84%), *Position Behavior and Structure of the Earth* (95.46%), *Sustainable Mining* (92.60%), *Field Research Strategies* (92.09%), *Study of Soils* (89.70%), *The dynamic Earth and Consequences* (87.50%), *Topographical Map Interpretation* (86.27%), *Water Masses* (78.23%) and *Simple Survey and Map Making* (72.68%).

Good performance of candidates was due to good understanding of the questions demands, good mastery of subject matter, ability to follow required examination instructions, good proficiency in the English language, and good essay writing skills. Those qualities enabled the candidates to give correct answers, clear explanations and meaningful sentences.

The reasons that made the candidates have average performance were providing fewer points than those required by the question, mentioning correct points without satisfactory explanations and mixing correct and incorrect answers. Also, the inability of the candidates to calculate different mathematical tasks and draw different diagrams.

The comparison of the candidates' performance between the Advanced Certificate of Secondary Education Examination (ACSEE) 2024 and 2025 in Geography subject showed that, the candidates had good performance in all 13 topics tested in both years. However, in 2025 the performance of candidates increased by 0.02% compared to that of 2024.

4.0 CONCLUSION AND RECOMMENDATIONS

4.1 Conclusion

Generally, the performance in Geography subject for the Advanced Certificate of Secondary Education Examination (ACSEE) 2025 was good across all 13 topics. According to the analysis, the candidates' good performance was due to their ability to understand the demand of the questions, sufficient knowledge in the subject matter tested, good essay writing skills and English language proficiency, which helped them to write correct responses.

4.2 Recommendations

Referring to the observations made from the Candidates Item Response Analysis (CIRA) report 2025, the performance of the candidates was good in all examined topics, and most of the candidates had good performance, respectively.

For more improvement in performance of the upcoming candidates in the Geography subject it is recommended that:

(a) Teachers should put more emphasis on teaching practical-orientated topics such as *Topographical Map Interpretation* and *Simple Survey and Map Making* where students are supposed to undergo practical activities so as to gain skills of calculating, measuring and drawing different geographical phenomena.

(b) Teachers should emphasise students using the English language when responding to different geographical occasions; this will help them to become more competent in using correct grammar and hence improve their performance.

Appendix:

Comparison of Candidates' Performance by Topic in 2024 and 2025 Years

S/N	Topic	2024			2025		
		Number of questions per topic	Percentage of candidates who scored an average of 35	Remarks	Number of questions per topic	Percentage of candidates who scored an average of 35 Percent or more	Remarks
1.	*Manufacturing industries*				1	98.72	Good
2.	*Sustainable Use of Fuel and Power*	1	82.92	Good	1	98.70	Good
3.	*Population and Development*	2	74.56	Good	2	98.24	Good
4.	*Livestock Keeping and Management*	1	84.28	Good	1	98.03	Good
5.	*Sustainable Use of Forestry*	1	99.51	Good	1	97.84	Good
6.	*Position Behavior and Structure of the Earth*	1	99.50	Good	1	95.46	Good
7.	*Sustainable Mining*				1	92.60	Good
8.	*Field Research Strategies*	1	71.77	Good	1	92.09	Good
9.	*Study of Soils*	1	95.53	Good	1	89.70	Good
10.	*The dynamic Earth and Consequences*	1	87.17	Good	1	87.50	Good
11.	*Topographical Map Interpretation*	1	89.39	Good	1	86.27	Good
12.	*Water Masses*				1	78.23	Good
13.	*Simple Survey and Map Making*				1	72.68	Good
14.	*Space Dynamics*	1	93.64	Good			
15.	*Sustainable Fishing*	1	92.77	Good			
16.	*Application of Statistics in Geography*	1	89.39	Good			
17.	*Transport and Communication*	1	82.90	Good			