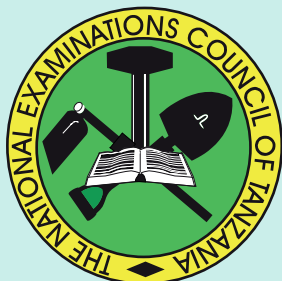


THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA



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

113 GEOGRAPHY

THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA



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

113 GEOGRAPHY

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FOREWORD

The report on the Candidates Item Response Analysis (CIRA) for the 2019 Advanced Certificate of Secondary Education Examination (ACSEE) in the Geography subject has been prepared by the National Examinations Council of Tanzania (NECTA). The report is aimed at providing feedback to different education stakeholders including: students, teachers, parents, policy makers, and the general public on the performance of candidates and the extent to which the instructional goals and objectives were met.

The ACSEE marks the end of the two years of the advanced level of secondary education. It is a summative evaluation which shows the effectiveness of the education system in general and the delivery of the education system in particular. Basically, candidates' responses to the examination questions indicate what the education system was able/ unable to offer to the students in their two years of the Advanced Certificate of Secondary Education.

In this report, the analysis of each question has been done, and different categories of information have been shown with figures and graphs. The analysis shows that the factors that have contributed to the candidates' ability to answer the examination questions correctly and score high marks include the candidates' ability to understand the demands of the questions, having the basic knowledge of the subject matter, possess skills in computing and drawing, and good mastery of the English language and essay writing skills. However, candidates with low scores depicted contrary attributes.

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

Finally, the National Examinations Council of Tanzania is grateful to all examination officers and other stakeholders who provided valuable assistance in the preparation of this report.



Dr Charles E. Msonde
EXECUTIVE SECRETARY

1.0 INTRODUCTION

The 2019 Advanced Certificate of Secondary Education Examination (ACSEE) in the Geography subject was set according to the 2011 Examination Format which is based on the 2010 Geography syllabus. The examination consisted of two papers, Paper One and Paper Two.

Paper One consisted of two sections, A and B. Section A had four (04) questions from the following topics: Topographical Map Interpretation, Simple Survey and Map Making, Field Research Strategies, and Photograph Interpretation. The candidates were instructed to answer Question 1 and any other question from the remaining questions making a total of two (2) questions in this section. Section B had five (5) questions which were set from the following topics: the Study of Soils, Water Masses, Dynamic Earth and Consequences, Space Dynamic and Position, Behaviour and Structure of the Earth. Out of the five (5) questions, the candidates were required to answer any three (3). As such, the candidates were required to answer a total of five (5) questions in this paper.

Paper Two consisted of two sections; A and B. Section A had three (3) questions which were set from the topics on Population and Development and the candidates were required to attempt two questions. Section B had five (5) questions set from the following topics: Agriculture, Livestock Keeping and Management, Sustainable Use of Forestry, Environmental Friendly Tourism, and Sustainable Fishing. The candidates were required to attempt three questions in this section. Therefore, in this paper, the candidates were required to attempt a total of five (5) questions.

This report analyses the 2019 performance of the school candidates who sat for the ACSEE in the Geography subject. In the analysis, the performance in each topic is ranked as weak, average, and good if the percentage of candidates' scores lies in the range of 0 to 34, 35 to 59, and 60 to 100 respectively.

A total of 46,489 candidates sat for the ACSEE 2019 in the Geography subject, out of which, 46,036 candidates (99.52%) passed while, 224 (0.48%) failed. Generally, the performance in 2019 improved by 0.34% compared to that of 2018, in which, 99.18% of the candidates passed, and 0.82% failed.

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

2.0 ANALYSIS OF THE CANDIDATES' PERFORMANCE IN EACH QUESTION

The Advanced Certificate of Secondary Education Examination (ACSEE) in the Geography subject is designed to test the candidates' ability to comprehend and apply knowledge in new situations, demonstrate analytical and reasoning skills, interpret geographical phenomena such as physical features, photographs and maps, and to draw conclusions from the observations and interpretations. The questions required the candidates to handle more of higher order tasks.

2.1 113/1 GEOGRAPHY PAPER ONE

SECTION A: Topographical Map Interpretation, Simple Survey and Map Making, Field Research Strategies and Photograph Interpretation

2.1.1. Question 1: Topographical Map Interpretation

This question consisted of seven parts in which, the candidates were instructed to study carefully the map extract of Tabora (sheet 118/2) provided, and answer the given questions. In part (a), they were supposed to find the distance of railway line from Itulu (grid reference 837345) to Tabora (grid reference 800456) kilometers. In part (b), they were to calculate the area covered by seasonal swamps in square kilometer. In part (c), they were to outline two methods which have been used to represent the relief of the area, while in part (d), they were to identify six human activities taking place in the area by providing concrete evidence from the map; in part (e), they were to suggest the type of climate and provide evidence from the map, and in part (f), to explain three factors which led to the presence of seasonal swamps in the mapped area. The total marks allocated for this question were 25.

Since the question was compulsory, therefore it was attempted by all the candidates (100%). It followed that 38% scored from 15 - 25 marks, 50.4% scored 9 - 14.5 marks, and 11.5% scored from 0 to 8.5 marks. The general performance in this question was good since 88.4% of all the candidates who attempted this question scored 9 marks and above. Figure 1 summarises the candidates' performance in this question.

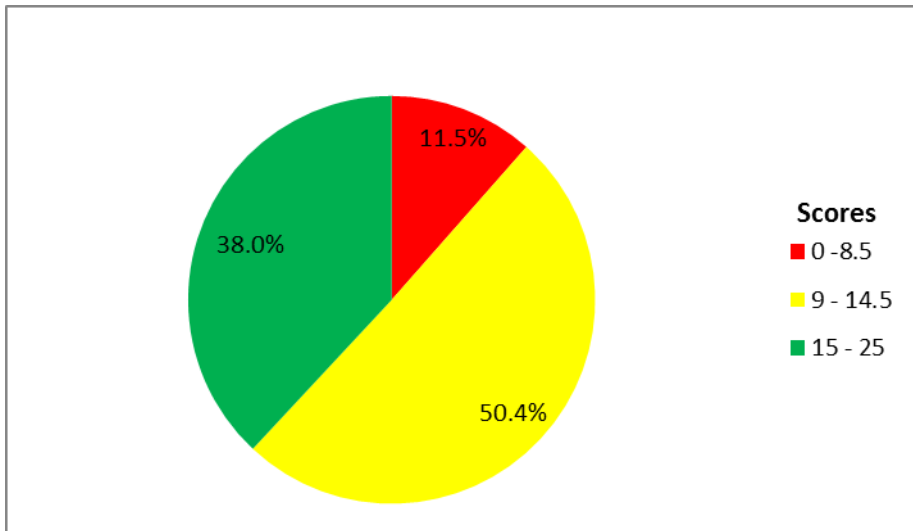


Figure 1: Trend of the Candidates' Performance in Question 1

The candidates who scored from 15 to 25 marks showed good knowledge of the topic of Topographical Map Interpretation, especially on the concept of measurement of distances and areas. Furthermore, most of them used correct methods used of showing the relief of the mapped area. They interpreted economic activities taking place in the area, the types of climate and conditions for the occurrence of seasonal swamps. In part (a), a big majority of the candidates calculated the distance of the railway line from Itulu grid reference 837345 to Tabora grid reference 800456 in kilometers which was *12.0 – 13.0 km*.

In part (b), the candidates were able to calculate the area covered by seasonal swamps in square kilometers which was 34 km^2 . These candidates were able to apply correct formulae and procedures, whereby in the first step, they counted the total number of squares as follow;

Complete squares = 0,

Incomplete squares = $68/2$,

Therefore, the total number of squares = 34.

In the second step they calculated the area of one square as follows:

The length of one side of square = 2cm and

Map scale = 1:50000

Therefore the area of one square = (side x side) or $\text{side}^2 = 1\text{km} \times 1\text{km} = 1\text{km}^2$.

Finally they calculated the area which was $34 \times 1 \text{ square} = 34\text{km}^2$.

In part (c), they outlined two methods which have been used to represent the relief of the area such as *contours which are covering all over the map* and *spot height as used at grid reference 816346 and 792387*.

In part (d), they managed to identify six human activities taking place in the area with concrete evidence from the map as:

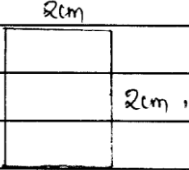
crop cultivation due to the presence of scattered cultivation; pastoralism due to the presence of veterinary center at grid reference 805425; lumbering due to the presence of forest at Noalikwa area; trade due to the presence of marketing places, all weather roads and railway line; transport and communication due to the presence of railway line, roads, airport, radio tower, telegraph and telephone; fishing due to the presence dam, rivers and seasonal swamps and tourism due to the presence of antiquity, milestone and hills.

In part (e), they suggested the type of climate as *tropical climate because the area is located at 5° 5' from the equator, presence of seasonal swamps almost all over the area and few rivers and streams, vegetation covers like scrubs, scattered trees and woodland also presence of economic activities like pastoralism.*

In part (f), they were able to explain three factors which led to the presence of seasonal swamps in the mapped area which are; *relief, climatic condition, nature of the rocks, nature of vegetation and type of the soil.*

However, their marks varied from 15 to 25 depending on the strengths and accuracy of their responses as some of the candidates did not get all the items correct. Extract 1.1.1 is a sample of a candidate who performed well on this question.

1(a)	The map distance of railway from Itolu to Tabora	
	is 24.5 cm.	
	from the scale of the map.	
	1:50,000	
	1 km = 100000 cm	
	1 : 50000 cm	
	$\frac{1 \text{ km} \times 50000 \text{ cm}}{100000 \text{ cm}} = \frac{5}{10} \text{ km}$	
	$= \frac{1}{2} \text{ km}$.	
	Then,	
	1 cm to $\frac{1}{2}$ km	
	24.5 cm to ?	
	$\frac{24.5 \text{ cm} \times \frac{1}{2} \text{ km}}{1 \text{ cm}} = \frac{24.5}{2} \text{ km}$.	
	$= 12.25 \approx 12.3 \text{ km}$	
	\therefore The distance of the railway from Itolu to Tabora is 12.25 km or 12.3 km	
	<u>soln.</u>	
	Data given	
	Full square = 0 square	
	Half square = 68 square.	
	Area = full square + $\frac{\text{Half square}}{2}$.	
	$= 0 + \frac{68}{2} = 34$.	

10	Area = 34 square.	
	consider the one square area.	
		
	$\begin{aligned} \text{Area} &= L \times L \\ &= 2\text{cm} \times 2\text{cm} \\ &= 4\text{cm}^2 \end{aligned}$	
	Area = 4cm^2	
	from the scale of the map:	
	1 : 50000	
	1km to 100000cm	
	2 to 50000cm	
	$\frac{1\text{km} \times 50000\text{cm}}{100000\text{cm}} = \frac{5}{10}\text{km} = \frac{1}{2}\text{km}$	
	then	
	1cm to $\frac{1}{2}\text{km}$.	
	square the scale.	
	$(1\text{cm})^2$ to $(\frac{1}{2}\text{km})^2$	
	1cm^2 to $\frac{1}{4}\text{km}^2$	
	4cm^2 to ?	
	$\frac{4\text{cm}^2 \times \frac{1}{4}\text{km}^2}{1\text{cm}^2} = 1\text{km}^2$	
	Area of one square is 1km^2	
	but there is 34 square.	

1(b)	Area = $1 \text{ km}^2 \times 34$,	
	Area = 34 km^2 .	
	∴ the area of the seasonal swampy area 34 km^2	
1(c)	The following are the methods which have been used to represent relief of the area.	
	(i) Contour line method; This is the method used to show the area with uniform height. Example in the map as used to show hills like Malolo Hills and Shesmatoko hills at the north west of the mapped area.	
	(ii) Layer colouring and naming; This is the system of using colour or shading to represent the feature on the map. Example green colour have been used in the map to show Nyalikwa forest at the southern corner of the mapped area.	
1(d)	The following are the human activities taking place in the area.	
	(i) Trading activities; This is due to the availability of market and densely population at TABORA. Example Mkt - named in the map represent market at Tabora Town at the northern part of the map.	
	(ii) Cultivation of crops as shown in the mapped area due to the availability of the word 'CULTIVATION' written in the map especially at the west and southern part of the map where there is sparsely population.	

1(d)	(iii) Lumbering activities might be taking place at the area in such a way that the presence of forest at the southern corner of the mapped area and availability of woodland implying the presence of Lumbering.	
	(iv) Grazing or Livestock Keeping; This is due to the presence of scrub around southern and eastern part of the mapped area which provide pasture for cattle. Also the presence of seasonal swampy and rivers provide water for the animals.	
	(v) Transportation activities; due to the presence of variety means of transport in the mapped area include Road, and railway. Example railway from Itole to Tabora facilitate transportation.	
	(vi) Administration activities proved by the presence of postal office, mission and police station at Tabora Town.	
1(e)	The climate of the area may be Tropical climate due to the following evidence.	
	(i) Latitude measurement indicating 5°S which range to equatorial and Tropical climate.	
	(ii) Most of the vegetation cover shown on the mapped area like scrub and woodland are found and grown in Tropical area.	
	(iii) Also the presence of seasonal swampy which are likely to be experience in Tropical area where there is variation in climatic condition.	

1.(f)	The following are the factors which lead to the presence of seasonal swamps in the mapped area.	
	(i) Relief or Topography is the one of the factors that has influenced swamps to exist in such a way that the area are lowland hence allowing water to accumulate. Example swamps found in the northern corner have no slope are plain.	
	(ii) Nature of the rock! The area are not well drained due to the presence of resistant rock which sometime prevent water to percolate inside the ground and hence create swamps.	
	(iii) Climatic condition which is Tropical climate has lead to seasonal variation of rainfall and hence lead to formation of seasonal swamps during winter.	

Extract 1.1.1 represents a sample of a correct answer

The candidates who scored from 9 to 14.5 marks had several strengths and weaknesses in answering this question. Some were able to provide correct responses to some parts, while other parts were partially explained, and some of the responses were incorrect. For example, in part (a), some of the candidates in this group managed to identify the correct position of the starting and ending points of the railway line according to the given grid references, as such, they were able to measure the distance of the railway line. Others could not read the grid references, and hence they failed to identify the correct starting points as per the given grid references.

In part (b), some of the candidates did not manage to identify the correct number of the incomplete squares covered by seasonal swamps, which led them to get the wrong answer.

In part (c), a big majority of the candidates were able to outline two methods which have been used to represent the relief of the area. Some of them mixed up correct and incorrect methods, while others wrote the incorrect methods.

In part (d), some of the candidates managed to identify six human activities taking place in the area without giving any evidence from the map, while others identified human activities with incorrect evidences from the map.

In part (e), some of the candidates managed to suggest the type of climate but failed to provide evidence from the map.

In part (f), some of the candidates could explain at least two factors which led to the presence of seasonal swamps in the mapped area, some of them outlined the factors without any explanation, some failed completely to respond to the question, while others provided irrelevant factors. The variation of their marks was influenced by the strengths and weaknesses of their answers.

The candidates who scored from 0 to 8.5 marks misunderstood some parts of this question as they provided incorrect responses. For example, in part (a), some of the candidates in this group failed to identify the correct position of the starting and ending points of the railway line according to the given grid references. As such they were not able to measure correctly the distance of a railway line.

In part (b), many candidates in this group could not identify the correct number of incomplete squares covered by seasonal swamps. This failure led them to get incorrect answers, while others managed to get the correct number of squares, but failed to convert them into the actual ground scale.

In part (c), some of the candidates were able to outline two methods which have been used to represent the relief of the area, while some of them failed to outline the methods. Additionally, others provided irrelevant methods which were not used on the map.

In part (d), most of the candidates managed to identify the human activities taking place in the area but could not give evidence to support their answers. Others provided incorrect answers all together.

In part (e), some of the candidates were not able to suggest the type of climate but provided some evidence of the responses. Others failed completely to give correct answers.

In part (f), some candidates mentioned two factors which led to the presence of seasonal swamps in the mapped area, some managed to mention only one correct factor while, others provided irrelevant responses

which led them to score low marks in this part. In general, inadequate responses led them to score low marks, and others not to score any mark. Extract 1.1.2 is part of a response from a candidate who performed poorly in this question.

1.	(a) 20 cm	
	change cm into km	
	1 km = 100000 cm	
	} = 26 cm	
	$\frac{1 \text{ km} \times 26 \text{ cm}}{100000 \text{ cm}} = 0.00026 \text{ km}$	
	∴ The distance of rail way from Hlu g'ee reference 837345 to Tabora g'ee reference 800456 is kilometer is 0.00026 km.	
	(b) Seasonal swamps	
	Half square 102	
	Full square = 111.	
	$\text{Area} = \frac{\text{Full square} + \text{Half square}}{2}$	
	$\text{Area} = \frac{(102 + 111) \text{ km}^2}{2} = 157.5 \text{ km}^2$	
	Scale: 1 km per 1/2 cm.	
	1 square = 1 km ²	
	157 square = ?	
	1 square x x = 157.5 square = 157.5 km ²	
	∴ The area covered by seasonal swamps is 157.5.	

Extract 1.1.2 is a sample of incorrect answers to both parts (a) and (b)

2.1.2 Question 2: Simple Survey and Map Making

The question had two parts; required the candidates in part (a) to analyze the major procedures involved in drawing a sketch map by using survey information. Part (b), required the candidate to describe four survey marking equipment, and for each to explain its uses.

This question was highly avoided since it was attempted by only 0.5% of all the candidates who registered for this subject. The general performance in this question was poor as it was only 27.3% of the candidates who attempted it scored 5.5 marks and above. The analysis of the data shows that 8.4% scored from 9 to 15 marks, 18.9% scored from 5.5 to 8.5 marks, and a big majority, that is 72.7% scored from 0 to 5 marks. Figure 2 illustrates the performance.

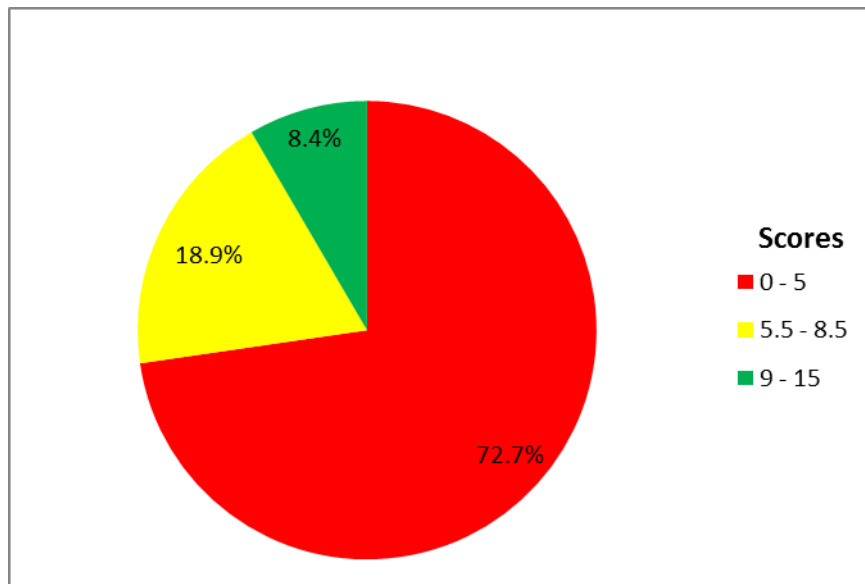


Figure 2: Trend of Candidates' Performance in Question 2

The 8.4% candidates who scored from 9 to 15 marks managed to give good introductions eg *survey is the science of measuring and recording distances, angles and height on the earth's surface*. In part (a), they analyzed some of the major procedures for drawing a sketch map by using survey information as:

Orientation to the area to be mapped and its content, choose an ideal large scale in relation to the size of the area to be mapped, rough out/put the framework on tracing paper and lay it on the mapped paper, draw the backbone line

according to scale and fix other controlled lines along either line of traverse or compass traverse, draw the in check lines chosen between major points and check with measured data, enter or draw details in position using the symbols, take the pencil plan to the actual site and check for errors and if satisfied, ink in details, erase framework lines and subject the sketch map to the basic features of the map i.e. scale, title, north direction and margin.

In part (b), they were able to describe four survey marking equipment and their uses as:

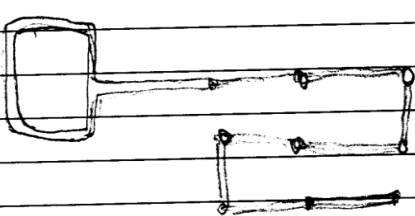
Arrows are steel wires of 4mm in diameter and with 40cm long, pointed at one end and the other end is bent into a loop or circle for a coloured rag to be tied to increase visibility. They are used for temporary marking points on the ground or area; pegs are usually wooden pegs 40mmsquare and 50cm long. They are used to mark positions permanently during survey. Ranging rods are either wooden or tabular steel poles of circular sections painted with red, white and black bands usually, 2m, 2.5m or 3m long and tipped with pointed a still shoe to enable them to be driven into the ground. They are used to mark temporary points which require to be seen and beacons are usually cement prisms with side about 15 or more and 30cm long or more. The final marking of survey work is done by using beacons. They are used to mark the boundary of the surveyed area on the earth.

Moreover, the candidates who scored 5.5 to 8.5 marks had variations in responses in each part of the question. For example, in part (a), some of the candidates were able to provide a correct introduction; they analyzed few major procedures for drawing a sketch map by using survey information. In part (b), they described three correct survey marking equipments with their uses, while others described the chain survey equipments such as tape measure, chain, and cross-staff without taking into consideration if they are used for survey marking activities or not.

The candidates who scored from 0 to 5 marks provided weak responses. For example, in part (a), some of the candidates in this group failed to provide an introduction, and analysis of the major procedures for drawing a

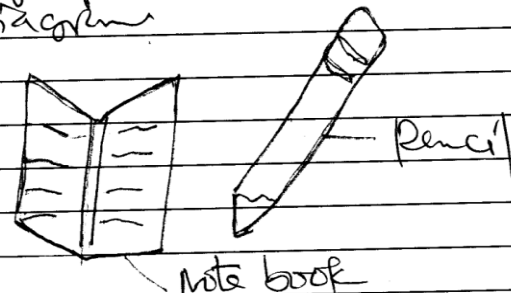
sketch map by using survey information. In part (b), they described all the equipment used in chain survey, among which three were correct. Some of them provided partial introductions, incorrect procedures, and mixed-up equipment used to measure distance and those which are used for marking positions. As an example, one candidate wrote in part (a), *scale of the map to be used, and introduction of North direction and frame of the map*, and in part (b), he/she wrote *chain and tape measure*. Other candidates provided incorrect answers to both parts (a) and (b). Extract 1.2.1 is a sample of such a poor response in part (b).

2. (b) (iii) Chain ~~is~~ Used to measure a horizontal and straight distance.



iv Note book and pencil
 ⇒ Used for recording in necessary information during survey process.

Diagram

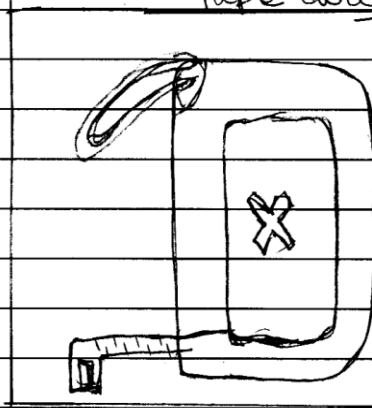


note book

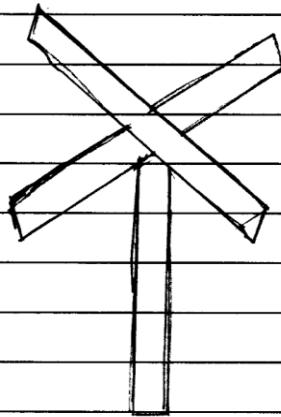
pencil

Tape: this is the instruments w
which made by a strip for the purpose of meas
uring the short distance of the ground

Tape diagram



Cross staff: this is the tools
made by iron steel with an angle of
nighly degree (90°) which are used
to measure the angle



Extract 1.2.1 is a sample of incorrect responses

In extract 1.2.1 the candidate explained instruments used in chain survey instead of survey marking equipment in part b.

2.1.3 Question 3: Field Research Strategies

This question required the candidates to explain seven qualities of a good research.

The question was opted by only 16.4% of all the candidates, out of whom 34.1% scored 9 to 15 marks, 43.1% scored 5.5 to 8.5 marks, and 22.8% scored 0 to 5 marks. The general performance in this question was good since 77.2% of the candidates who attempted it, scored from 5.5 marks and above. Figure 3 illustrates the performance in this question.

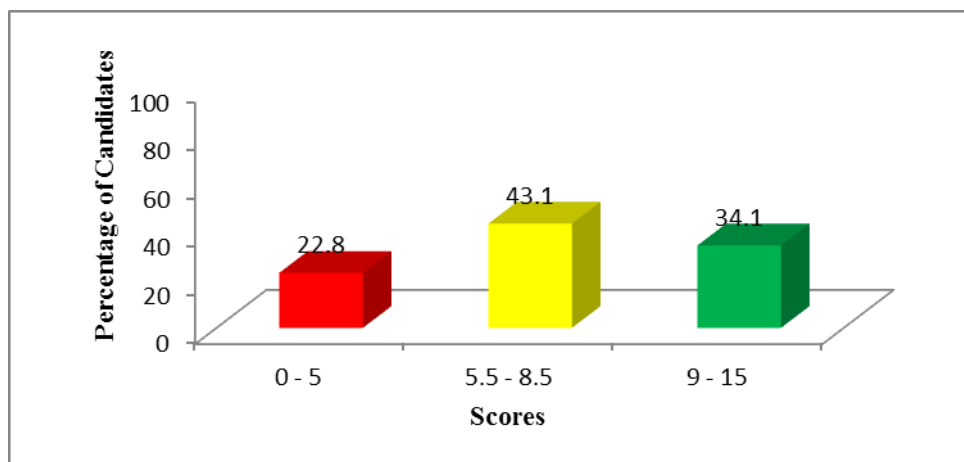


Figure 3 Trend of the Candidates Performance in Question 3

Most of the candidates who scored from 9 to 15 marks managed to provide good responses. This revealed that the candidates had knowledge in the qualities of good research. Some of the candidates provided good introductions such as *research is scientific and systematic search for pertinent information on a specific topic*. They explained the qualities of good research as *goal oriented, systematic, logical reasoning and logical processes, empirical, inquisitive, selective, objective, cumulative, replicable and ethical* while; others were able to provide relevant introduction and few qualities of a good research and their explanations. The variation of the marks depended on the strengths and accuracy of their responses. Extract 1.3.1 is a sample of good responses.

3.	<p>Research refers to the scientific and systematic collection of data and information concerning a specific topic or subject. For example, a research may be conducted on 'The causes of increasing school drop-outs for female students'. A research is conducted by a researcher who conducts the collection of information on the topic by different methods such as interview, group discussions, observations or the use of questionnaires. The following are the qualities of a good research;</p>	
	<p>A good research is empirical; This means a good research is capable to be proven by scientific methods, thus the results of the research become factual rather than idealistic. If the research involves the determination of increasing mortality rates for instance, this research has got to be capable of being verified by the statistical records of mortality rate from previous years, say 2000 upto 2010, and show the increase rate. Thus a good research is empirical.</p>	
	<p>A good research is Objective; This means that any good research should be free from bias, thus every member of the unit under study must have equal chances to be involved in the study. Regardless of the sex, religion, race, physical situation or political party the researcher must not conduct the research by desired selectivity, he should not be biased so as to yield good results</p>	

A good research is Inquisitive in nature; For a research to be qualified as a good research, it has to be inquisitive in nature. This means that the research should seek to find the answers to various questions, for example; To what extent has the development of transport systems such as roads helped in reducing unemployment? Has rural-urban migration been reduced as well? At what rates? What should be done to make sure the quality of the newly established roads is maintained? Therefore a research to be good, it has to be inquisitive in nature.

A good research is logical; A good research should also follow the rules of logical reasoning. Thereby the researcher must observe logic as he conducts the research. That is the questions asked should be logical or should make sense and the information collected should also be logical so as to enable yield of results which are based on logical reasoning and the questioning of illogical matters that may be out of the subject matter should be avoided.

A good research should also be goal oriented; Lastly, a good research is the one that is goal oriented. This means it should be targeted to a particular aim which has to be reached by the end of the study or research. For instance

	of the research. Thus, a good research should	
2	be objective or non-biased.	
3	A good research is Systematic; This means that a good research is conducted by following systematic order or specific steps and procedures and not being conducted randomly. There are specific steps and procedures such as; Identification of the problem first, then literature review, then formulation of hypothesis, then preparation of the research design, then data collection, data interpretation, data analysis hypothesis testing, drawing conclusion and finally preparation of the research report. Thus, a systematic research qualifies for a good research	
	A good research is Replicable; Another quality of a good research is that it should be able to be repeated all over again and yield the same result. For instance, if a research shows that the temperature of the atmosphere decreases with the increase in height at the rate of 0.6°C per every 100m, it means that this research can be repeated over again and should give the same results. Thus, a research which is replicable is a good research since it shows that the results of the study are true and can be repeated to verify if same results will be found.	

Extract 1.3.1 is a sample of a candidate's good response

In extract 1.3.1 the candidate managed to provide a correct introduction, explained seven qualities of a good research, and provided a relevant conclusion.

The candidates who scored from 5.5 to 8.5 marks were somehow able to meet the demands of the question. For instance, some managed to provide introduction and insufficient explanations on the qualities of a good research. Some of the candidates provided incomplete introductions and mentioned qualities of a good research without explanations, while others mixed up correct and incorrect answers. For example, one candidate wrote on the qualities of good research that; *should involve with primary and secondary data, theoretic and different data collection methods.*

The candidates who scored from 0 to 5.5 marks had insufficient knowledge of the qualities of good research as they provided weak responses. For example, some of the candidates gave incomplete introduction and failed to give qualities of good research. Some of them failed to provide an introduction, and mentioned points without explanations. Others provided a good introduction but failed to explain the qualities of good research and conclusion. For example, one candidate provided good introduction, but failed to write the qualities of good research; *evaluative, scientifically, universality, should reach the conclusion and solve the problem.*

Another candidate failed to give an introduction, but mixed up correct and incorrect points, and with no supportive examples. This is what he/she wrote on qualities of good research that: *must define the topic to be defined, inclusive, involve all methods of research data collection, managed in case of cost, timely, problem selected must be researchable.* Another candidate wrote; *must have simple language, short and clear, adequate appearance of the research and define important terms used in the research.* Another one wrote; *very inaccurate, cheap to conduct, less time consuming, less expensive and it proves solution.* Extract 1.3.2 represents a candidate who failed to meet the demand of the question.

3	<p>will be easy to acquire some data like in schools a researcher will be having a special permission which will enable him or her to do a research anywhere the data will be found.</p> <p>A good research consist of research design: It is designed on how it will be conducted, where to be conducted and at what time to conduct so as to get accurate data which needed.</p> <p>A good research consist with well prepared tools which will be used in the process of research the tools or equipment are like camera so as to take a video or picture of sample or anything which will be used to fulfill research data.</p> <p>A good research is repeated several time: After being conducted and finished a research is repeated by another researcher and if it possible also to be repeated again by another researcher so as to correct some mistakes which were appear in research.</p> <p>A good research is done by researcher who already passed on the other research which done by other researcher so as to get some skills, knowledge and ideas from his/her fellow researcher. (past researcher).</p> <p>A good research is done after researcher investigate to the area which researcher will be conducted on looking transport system, climate of an area if it is conducive.</p> <p>Generally there are the qualities of a good research which will enable well collection of data which needed.</p>
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Extract 1.3.2 represents a sample of a poor response

2.1.4 Question 4: Photograph Interpretation

In this question, the candidates were instructed to study carefully the photograph given and answer the questions which followed.



The question had nine parts; (a), (b), (c), (d), (e), (f), (g), (h), and (i). The candidates were required in part (a), to mention the type of photograph; in part (b), to identify the economic activities which are carried out in the area; in part (c), to give factors which might have influenced the economic activities in the area; in part (d), to identify the environmental problems which the area is likely to face; in part (e), to mention the time at which the photograph was taken and give reasons; in part (f), to comment on the scale of production; in part (g), to name the crop shown on the photograph; in part (h), to suggest the stage of production of the crop shown in the photograph, and in part (i), to describe the relief features seen in the photograph. The total marks allocated for this question were 15.

This question was among the highly opted for, since 83% of all the candidates attempted it. Its general performance was good as 94.5% of the candidates scored 5.5 marks and above. Further data analysis shows that

46.9% of the candidates scored from 9 to 15 marks, 47.6% scored from 5.5 to 8.5 marks, and only 5.5% scored from 0 to 5 marks. Figure 4 illustrates the performance in this question.

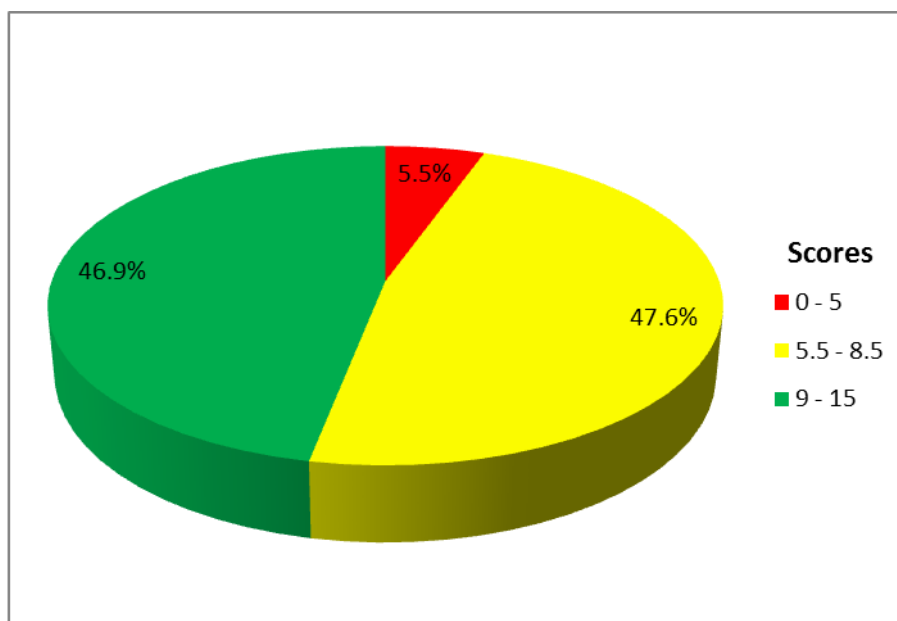


Figure 4: Trend of the Candidates' Performance in Question 4

The candidates who scored from 9 to 15 marks showed good knowledge and skills of the concept of photograph interpretation especially on the types, components, and features of photographs. For instance, in part (a), the candidates were able to mention the type of photograph as *ground photograph*.

In part (b), some of the candidates were able to identify two economic activities as; *agriculture due to the presence of a sisal plantation* and *trade due to the nature of the crop because sisal is a cash crop, and not a food crop*.

In part (c), they were able to provide the factors which might have influenced the economic activities in the area as; *presence of arable land, means of transport, good climatic condition, relief, scale of production* and *the crop itself is adaptive to wide range of soil type*.

In part (d), most of the candidates managed to identify environmental problems which the area is likely to face which are; *soil erosion due to*

establishment of large scale farming and the use of large machines, loss of soil fertility due to cultivation of single crop (monoculture), deforestation and loss of biodiversity as the scale requires vast land clearance.

In part (e), most of them mentioned the time at which the photograph was taken as *noon because the shadow of the objects is at the center*.

In part (f), they commented on the scale of the production as *large scale due to the presence of a sisal plantation covering the middle part to the back*. In part (g), they named the crop shown on the photograph as *sisal*.

In part (h), they suggested the stage of production of the crop in the photograph as *harvesting stage*.

Lastly, in part (i), they described the relief features seen in the photograph as *plain (flat) land on the foreground and middle of the photograph and hills/mountains on the left background*. Their scores differed due to variation in accuracy of their responses. Extract 1.4.1 is a sample of such good responses.

4	Carefully study the following photograph and answer the question that follows.
	<u>Questions</u>
	(a) What is the type of photograph - <u>GROUND LEVEL PHOTOGRAPH</u>
	(b) Economic activities that are carried on. These includes
	- Agriculture activities due to the presence of large plantation of sisal crop
	- Trade and commerce activities. Also this is due to the presence of large plantation which is usually for sale purpose. Also a band of sisal is seen on the fore ground ready for going to the market.
	- Communication and transportation activities due to the presence of roads
	(c) Four factors which have influenced the economic activities on the area. These includes;
	- Presence of infrastructures such as roads facilitate the trade activities
	- Presence of good climatic conditions

(g) The name of the crop is	
- SISAL	
(h) Suggest the stage of the production	
- The production of crop is at least	
stage of harvesting. It taking to	
the industry for the production of goods	
(i) Describe the relief features seen in photo	
graph.	
These includes;	
- Mountains which has steep slope	
- Highlands which are represented	
by hills	
- Lowland which have gently	
slope. It is the place where plantation	
are located.	
- Plateaus:	

	which favours the growth of the crop sisal.	
	- Edaphic factor, which is due to the presence of fertile soil which favours and support the growth of sisal.	
	= ^{Relief factor, the area is on gently slope} Presence of large plantation of sisal which facilitates trade activities.	
	(e) Environment problems which are likely to occur.	
	These includes;	
	- Soil erosion, this is due to since the form of agriculture practised is monoculture and land is overcultivated	
	- Low of soil fertility, this is due to monoculture form of agriculture performed in the area.	
	(e) Time to which photograph was taken.	
	- The photograph was taken at noon and this is due to the shadow of object are casted down the object.	
	(f) Comment on the scale of production.	
	- The production is a large scale production since it involves the plantation of sisal crops and the production is for the sale. Also it is a large scale since it practised on large area requires high amount of capital outlay and advanced skills and machines	

Extract 1. 4.1 is a sample of a good response

The candidates who scored from 5.5 to 8.5 marks scored well in some parts of the question. For example, in part (a), some of the candidates were able

to mention the type of photographs while others failed to do so. In part (b), some were able to identify two economic activities and others mentioned only one. In part (c), they managed to provide the factors which might have influenced the economic activities and others failed to give correct answers.

In part (f), most of the candidates misconceived the question by giving incorrect responses as they only explained the scale of the photograph instead of scale of production. For example, one candidate explained the scale of production as *variable scale because in the fore zone there is large scale but when can gone to middle and back zone are small scale so the object are differ from fore to back*. Few of them managed to answer it correctly. In part (g), most of the candidates were able to give the correct answer as sisal. In part (h), some of the candidates provided correct answers and others incorrect answers. In part (i), some managed to write only one relief features while others did not. Such inadequate responses affected the candidates' performance therefore they were unable to score high marks.

The candidates who scored from 0 to 5 marks managed to answer correctly on some parts of the question, but failed to answer other parts. For instance, in part (a), some candidates mentioned the correct type of photograph, while very few candidates mentioned the wrong type of photograph.

In part (b), they identified at least one economic activities while, others provided irrelevant responses. In part (c), they managed to give one factor which might have influenced the economic activities, while others failed completely to attempt the question.

In part (d), they identified partially the environmental problems which might face, while others provided the responses which were incorrect. For example, one candidate wrote *rapid population growth and environmental pollution*, while another one wrote: *overgrazing and occurrence of drought*, another wrote *it may lead into occurrence of volcanic eruption* while, others associated it with global warming while another candidate provided environmental problems as *poor transport system like roads and presence of highlands like mountains and hills which hinder the process of plantation agriculture*.

In part (e), they mentioned the time at which the photograph was taken but failed to give the reason for their answers, while others failed to identify the right time. This led them to give the wrong reason. For example, one

candidate mentioned that the photograph was taken in the *morning due to the presence of horizon and clouds*, another mentioned *morning due to the presence of fog in the photograph*, another candidate mentioned *morning because there is no any shadow and the sun was not yet risen*, another one mentioned *mid night/evening this is because the shadow of the object is under the object or the shadow seen is below the sisal*, while another candidate wrote *dry season because there is an existence of sisal crop harvested from the farm*. This shows that they lacked knowledge and skills on photograph interpretation.

In part (f), they were not able to comment on the scale of the crop production. For example, one candidate commented the scale of production *as small scale because it covers a small area* while another one provided irrelevant answers such as; *temperature, precipitation and types of rock*.

In part (g), most of them managed to name the crop shown in the photograph correctly, but there were those who provided wrong answers such as *cloves and cotton*.

In part (h), most of them were not able to attempt the question correctly due to misinterpretation of the stage of production as shown in the photograph, whereby they provided stages of farm preparation instead of harvesting. For example, one candidate wrote: *prepare the farm as soon as possible, prepare the small hole with appropriate 150cm to 200cm and take the cotton spices from the tube and grow in the hole*, another wrote *the cultivation of the farm, digging holes at interval distance from right, left and forward and back and planting of sisal*. Another candidate commented on the stage of production *as the mature stage because they produce flower which produces the seed which is used to cultivate in another area*, yet another candidate commented on the stage of production *as low stage of production because there is poor production and management of sisal production*. Another candidate wrote that it is *the processing stage whereby it is not yet finished*, another one wrote the *stage of production as primary stage of production*, while another one commented on the stage of production *as the first stage*.

Lastly, in part (i), some candidates described partially the relief features seen in the photograph; while others could not understand the concept of the relief features thus they provided wrong responses. For instance, one candidate wrote *plateau and basin*, while another candidate wrote *forest*,

plateau, spur and sky instead of plain and hills or mountains. Hence, candidates' marks varied due to their responses.

SECTION B: PHYSICAL GEOGRAPHY

2.1.5 Question 5: Study of Soils

This question had two parts (a) and (b). In part (a), the candidates were required to examine six factors which cause the soil to lose its fertility. In part (b), candidates were required to explain how soil texture and soil p^H influence farming. The total marks allocated for this question were 20.

The question was attempted for by 54% of all the candidates, of whom 31.5% scored from 12 to 20 marks, 51.9% scored from 7 to 11.5 marks and 16.6% scored from 0 to 6.5 marks. The general performance in this question was good since 83.4% of the candidates scored 7 marks and above. Figure 5 illustrates the performance in this question.

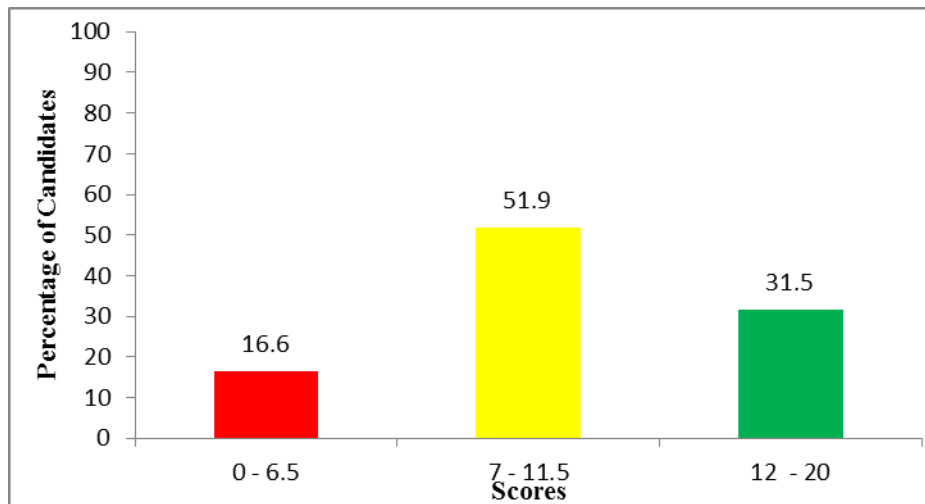


Figure 5: Trend of candidates' Performance in Question 5

The candidates who scored from 12 to 20 marks showed a clear understanding of the concept of soil, especially soil formation, classification and fertility. In part (a), these candidates provided the correct definition of soil fertility and loss of soil fertility. For example, they said that *soil fertility is the capacity or ability of soil to sustain plant growth* and *loss of soil fertility is an act of the soil to lose nutrients which support plant growth*. They provided the factors which make soil to lose its fertility,

including *soil erosion, leaching, mono cropping, use of artificial fertilizers, irrigation in arid and semi-arid area and destruction of soil structure.*

In part (b), the candidates were able to explain how soil texture and soil p^H influence farming. This is what they said: *soil p^H influences the decomposition of the organic matters, soil p^H leads to more soluble minerals, thus leads to high leaching, sand soil being large textured, well drained and aerated allows easy cultivation, sand soil being large textured permit crop root to penetrate, fine textured soils tend to contain moisture thus support the plant growth, fine textured soils tend to have high content of nutrients which lead to less leaching and soil p^H determines the selection of type of crops to be grown.* Variations in marks were influenced by the accuracy of their responses. Extract 1.5.1 is a sample of a candidate's responses which met the demands of the question.

	Soil fertility is the ability of soil to support	
] a)	plant growth through the presence of various supportive minerals like Nitrogen, Phosphorus and Potassium.	
	The loss of soil fertility is the decline in the ability of the soil to support plant growth. Fertility is determined by factors such as presence of soil colloids, soil pH, soil moisture and nutritional minerals. There are various factors that can make soil lose the fertility and they include:	
	<p>Leaching. This is the movement of the soluble minerals from the top soil to the subsoil. During leaching the bases are all washed down and the acids are left at the top leading to acidification in the soil pH. Very high acidity hinders plant growth as it results into failure into the decomposition of the organic matter to form humus within the soil.</p>	
	<p>Monoculture. This is the farming practice of growing only one type of crop in a very long duration of time. Monoculture results into the exhaustion of the minerals used by that particular crop within the soil making the soil fail to promote plant growth after a given period of time. Many places practice Monoculture of maize cultivation in Tanzania.</p>	
	<p>Over cultivation. This is the improper farming practice of extensively cultivating crops in a given area continuously giving no time for the soil minerals to rejuvenate and accumulate. Over cultivation involves continuous growing of crops without giving the soil any rest time from season to season. This hence leads to decline in the soil quality</p>	

5.	due to exhaustion of the soil minerals.	
	Excessive use of synthetic fertilizers. Too much use of industrially produced fertilizers such as DPT and NPK largely affect the quality of the soil and promote soil infertility since these fertilizers contain chemicals which become poisonous when used uncontrollably hence resulting into death of soil microorganisms and biota therefore hindering the decomposition of organic matter.	
	Bush burning. The burning of bushes in order to clear land for agriculture can also promote the loss of soil fertility. This is because during the burning of bushes, the fires may kill the important microorganisms such as worms and lead to loss of important nutrients within the soil hence making the soil infertile. Better methods of land clearing should be adopted.	
	Soil pollution. The introduction of new and harmful substances within the soil can also make the soil lose its fertility. These pollutants can be waste from industries such as radioactive wastes and chemicals or domestic waste such as glass, and paper plastic bags, such wastes hinders proper development of soil and other important processes such as organic rotting leading to the loss of soil fertility.	
	In Conclusion, the loss of soil fertility can be controlled by measures such as the use of proper farming methods, avoiding soil pollution and proper disposal of wastes, the use of organic fertilizers such as cow dung and dry methods of farming such as mulching	

b).	<p>Soil texture is the coarseness or fineness of the soil particles which can be noted through feeling the soil with the fingers. Soil pH is the degree of alkalinity of the soil. Soil pH and Soil texture influence farming in the following ways:</p> <p>Affect the water retention capacity. This is the ability of the soil to hold water. Water is easily retained in soils with fine texture such as loam soils whose particles are not too small furthermore water is available in soils of neutral pH hence influencing farming.</p> <p>Determine the types of crops grown. The types of crops grown on a farm greatly depend on the soil pH and soil texture many plants prefer neutral pH without too much acidity nor basicity also clay soils favour Cereals crops while sand soils do not due to their texture. Therefore influencing farming.</p> <p>Determine decomposition of organic matter. The decomposition of organic matter is greatly influenced by Soil pH and soil texture since very acidic soils hinder the decomposition of organic matter since the microorganisms become inactive in very coarse soils microbial activities are hindered. Therefore influencing farming since farming only takes place on areas with adequate decomposition of organic matter.</p> <p>Influence the soil temperature. The degree of hotness or coldness of the soil is affected by both Soil pH and soil texture, fine soils tend to attract heat easily and soil pH may affect the temperature. Temperature influences the plant growth by promoting decomposition and weathering of the rocks.</p> <p>In conclusion apart from soil pH and texture, soil has other characteristics such as Soil Colour, Soil Profile, Soil Cation, Soil Porosity and soil structure</p>
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Extract 1.5.1 illustrates a sample of correct responses

The candidates who scored from 7 to 11.5 marks were able to provide an introduction and few points on the factors which cause the soil to lose its fertility. For example, some of the candidates managed to provide the

correct introduction of soil fertility and loss of soil fertility, but explained incompletely the factors which cause the soil to lose its fertility. They also gave few explanations on how soil texture and soil p^H influence farming. Some of the candidates provided few factors, but failed to explain how soil texture and soil p^H influence farming. Others provided an introduction but mentioned points without explanation. Such responses led their marks to differ. For example, one candidate provided correct answers in part (a), but in part (b), he/she explained types of soils such as *clay, loam and sand soils*. Likewise, another candidate wrote that the *absence of soil permeability, soil depth, soil p^H and soil water* in part (b).

Furthermore, the candidates who scored from 0 to 6.5 marks were incompetent in attempting this question. Some of the candidates in this category provided an incomplete introduction, and they mixed up correct and incorrect answers. For example, one candidate wrote; *bare of the land, spray of strong chemicals and volcanism* in part (a), while, in part (b), he/she wrote *rotation of crops and overgrazing*. Some of them outlined the factors and did not describe how soil texture and p^H influence farming.

Some of the candidates in this group lacked knowledge of the concept of soil fertility, soil texture, and soil p^H as they supplied incorrect answers in both parts (a) and (b). For example, one candidate in part (a) misconceived the question by explaining the causes of soil erosion to be *fire, drought and deforestation*, instead of the actual factors which cause soil to lose its fertility. Another candidate wrote incorrect answers such as; *unfavorable climatic condition, deforestation, human activities, global warming and vulcanicity* as factors which cause soil to lose its fertility. This situation made them not to score any mark. Extract 1.5.2 shows a sample of poor responses.

5.	Loss of soil fertility refers to the
@	unability of soil to supply plant nutrients for its growth, though loss of soil fertility cause the plant to wilt and die due to lack of nutrient which will help it to survive well. So the following are factor which make the soil to lose its fertility.
5@	Monoculture; monoculture means cultivation of <u>only</u> one crop each years so this cause the soil to loose its fertility therefore people should applying mixed crops such as leguminous plants which tend to increase fertility rather than monoculture which cause the loss of soil fertility.
	Soil Structure; This means the arrangement of primary soil particle into secondary soil particle or ped. so the structure of soil like plate structure tend to loose the fertility of the soil hence this structure cause the soil to loose its fertility because all nutrients are washed away.
	Soil texture; This means the degree of coarseness or finess so the texture such as sand soil do not hold the plant nutrient nutrient which normally tend to loose its fertility so the plant can't grow well in the sand soil because it loose fertility easy compared to loam soil

S.	Soil porosity; This means	
	the pores present in the soil so the	
	soil which have large pores does not	
	hold soil fertility hence loose very easy	
5(a)	so this kind of porosity cause the	
	soil to loose its fertility compared	
	to small porosity which help to maintain	
	soil fertility of the soil.	
	Soil colour; Also the colour	
	of the soil may influence the loose	
	of soil because example white colour	
	cause reflection of light hence all nutri	
	nutrients are evaporated in terms of	
	vapour hence cause the soil to loose	
	its fertility while the black colour	
	absorb the light and help in decomposing	
	of organic matter.	
5(b)	Soil pH; soil pH means the	
	degree of acidity or alkalinity of the	
	soil. so this may cause loose of soil	
	fertility because if the soil is too acidic	
	need to remove all nutrients and also	
	will not support the plant until neutral	
	ized by adding basic material so frequent	
	neutralization cause of soil to loose of	
	loss of soil fertility.	
	Generally in order to prevent loss	
	of soil fertility should apply the crop	
	rotation, mulching, Terracing, contour	
	ploughing and use of organic manure,	

Extract 1.5.2 shows a sample of poor responses

In extract 1.5.2, the candidate explained in part (a) of the question properties of soil as soil structure, soil texture, soil porosity, soil colour and soil p^H instead of the factors which cause the soil to lose its fertility.

2.1.6 Question 6: Water Masses

The question required the candidates to describe the hydrological cycle, and show its link to underground water. The question had a total of 20 marks.

This question was highly omitted as it was opted for by only 16.9% of all the candidates who were registered for this subject. Never the less, the general performance in this question was good as 85% of the candidates who attempted it scored 7 marks and above. Further analysis shows that, 49.4% scored from 12 to 20 marks, 35.6% scored from 7 to 11.5 marks and 15% scored from 0 to 6.5 marks. Figure 6 illustrates the performance in this question.

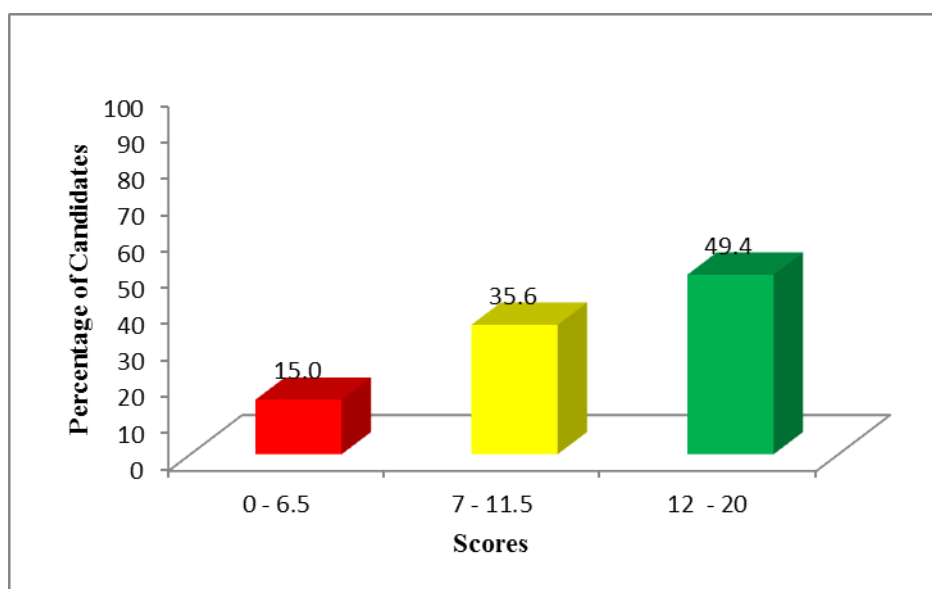


Figure 6: Trend of the Candidates' Performance in Question 6

The candidates who scored from 12 to 20 marks had good knowledge of the hydrological cycle and its link to the underground water. Some of the candidates were able to give relevant introduction of the hydrological cycle, and described its link to the underground water as follows; *hydrological cycle is a conceptual model that describes the storage and movement of water between the biosphere, atmosphere, lithosphere and the hydrosphere.* They explained the processes of the hydrological cycle that are *evaporation, evapotranspiration, condensation, precipitation, surface run off, infiltration and percolation* and ended up with relevant conclusions. Some of them managed to provide partial introductions, described correctly the processes of the hydrological cycle with incomplete conclusion while,

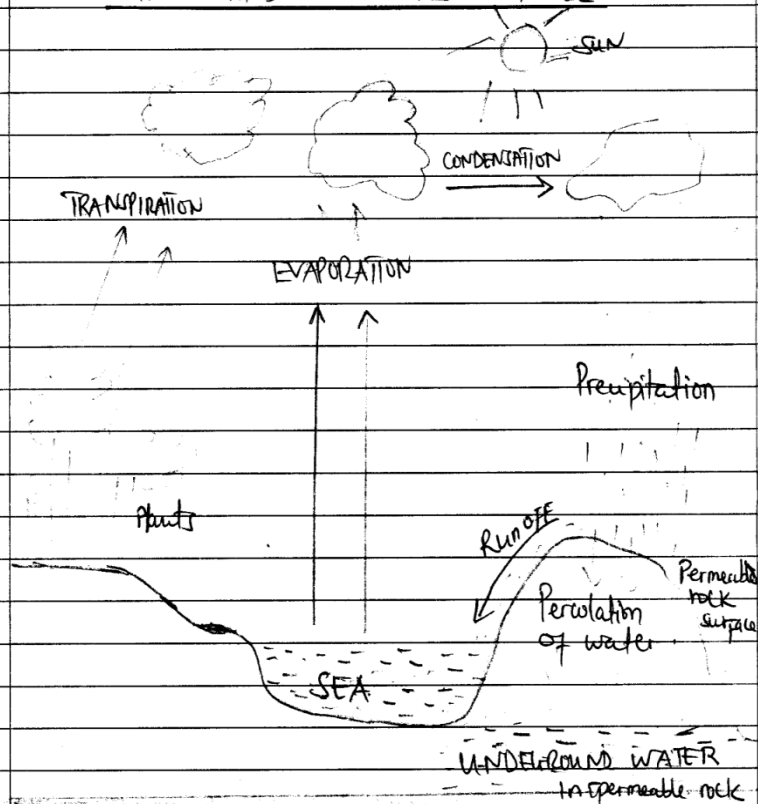
others managed to give correct introduction and few processes of the hydrological cycle with unsatisfactory explanations. The variations in their scores were determined by the strengths and correctness of their explanations. Extract 1.6.1 illustrates a sample of such a good response.

6.	Hydrological cycle is the cycle model that show storage and movement of water from biosphere, lithosphere, atmosphere and to the hydrosphere.
	The cycle of water in hydrological cycle have several stages which involved or taking place so as to complete the cycle such processes are:
	<u>Evaporation</u> ; means that water from the water bodies such as oceans and seas change to vapour and escape from the water bodies to the atmosphere in form of water vapour.
	<u>Condensation</u> ; is the process in hydrological cycle where by water vapour in atmosphere change to liquid state due to rise of temperature occurring into the atmosphere that may be affected by amount of insolation face the atmosphere.
	<u>Precipitation</u> ; due to condensation has already occurred the liquid form of water fall to the surface in form of precipitate due to increase in density cause such liquid water to fall as rainfall or precipitate.
	<u>Run off</u> ; means that the water from the precipitation reach the surface cause moving from highland areas to the low land areas due to gradient.
	<u>Accumulation (percolation)</u> ; due to accumulation of water to the land surface water tend to percolate when the under lying rock

6. permeable meaning that allowing water to penetrate this may be due to presence of joints to the rock.

Transpiration is the process that take place during day time where by water found in the plants especially leaves lost in form of water vapour.

THE HYDROLOGICAL CYCLE



When water accumulate at the rock surface such rock is permeable meaning that there is joints which can allow passage of water may result into underground water after reach impermeable rock.

Extract 1.6.1 is a sample of good responses

However, the candidates who scored from 7 to 11.5 marks showed a moderate understanding of the concept of the hydrological cycle and its process. Some of the candidates were able to provide an introduction of hydrological cycle but provided incomplete descriptions of the processes of

the hydrological cycle. Some were able to provide incomplete introduction, few correct processes of the hydrological cycle and conclusions while others did not manage to give an introduction but were able to describe the processes and conclusion. Their marks varied because of variation in the quality of their responses.

Furthermore, some of the candidates who scored from 0 to 6.5 marks were able to provide an introduction but did not manage to describe any process of hydrological cycle. As an example, one managed to provide a good introduction on the hydrological cycle, but in the main body instead of describing the processes of the hydrological cycle, he/she explained the features resulting from surface run off such as; *rills, gullies, earth pillars* and *badlands*. Some of them were not able to give an introduction but described correctly few processes. Others managed to give incomplete introduction and few processes of the hydrological cycle, but instead of linking it with underground water, associated run-off water with underground features in Karst regions. Variation in marks depended on the strengths and weaknesses of their responses. Extract 1.6.2 illustrates such poor responses.

6	<p>Hydrological cycle is the continuous circulation of water from the atmosphere to the ground. This it takes place where water from the water bodies collect water from rainfall. The water from water bodies low water through the process called evaporation and transported to the atmosphere in form of vapour. Another water were from plants which transported also as a vapour when removed from trees by the process called Transpiration.</p> <p>When water vapour from trees and water bodies they transported and condensed in the atmosphere where they reach the region which has heat and melt and drops down and seem like rainfall which also water go to the rivers, lakes, and also underground which continuous cycling. When water enter into the ground are</p>
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6.	<p>called underground water which percolate into the ground by using pore space or faults which created in the rock. There are types of underground water which are:-</p>
	<p>'Connate water,' this is the type of underground-water which enter into the rock through the pore space and faulting which may be trapped out through springs or wells which drilled.</p>
	<p>'Oceanic water,' this are the type of underground water which percolated from the ocean into the ground this type of water occurred where the permeable rock layer is entered to the ocean which made it percolation to the underground.</p>
	<p>'Meteoric water,' this is the type of underground water which derived from precipitation where the-water percolate from the rainfall into the ground. Thus this is the type of underground water</p>
	<p>'Magmatic water,' this is the type of underground water which originated during the volcano erupt on this water did not come out since they percolate or entrap over that rock. Thus this is the one of the type of underground water.</p>
	<p>There are use of underground water or value of underground water to human being:-</p>
	<p>Provide water for domestic and industrial use, where water from underground were used in the industries to coal machines and also in homes activities such as bathing and so on.</p>
	<p>Provide source of water bodies, such as River which the water came out by the springs which form the base source of water which is permanent. Thus this also is the one of the value of underground water to man.</p>

Extract 1.6.2 shows a sample of incorrect answer in question 6

A candidate in extract 1.6.2 explained the types and importance of underground water instead of the processes of hydrological cycle and its link to the underground water.

2.1.7 Question 7: Position, Behaviour and Structure of the Earth

The question demanded the candidates to describe three zones of the interior of the earth with the aid of a diagram. The total marks allocated for this question were 20.

This question was attempted for by 56.2% of all the candidates, of whom, 54.6% scored from 12 to 20 marks, 40.3% scored from 7 to 11.5 marks, and only 5.1% scored from 0 to 6.5. The general performance in this question was good since 94.9% of the candidates who attempted it scored 7 marks and above. Figure 7 illustrates the performance in this question.

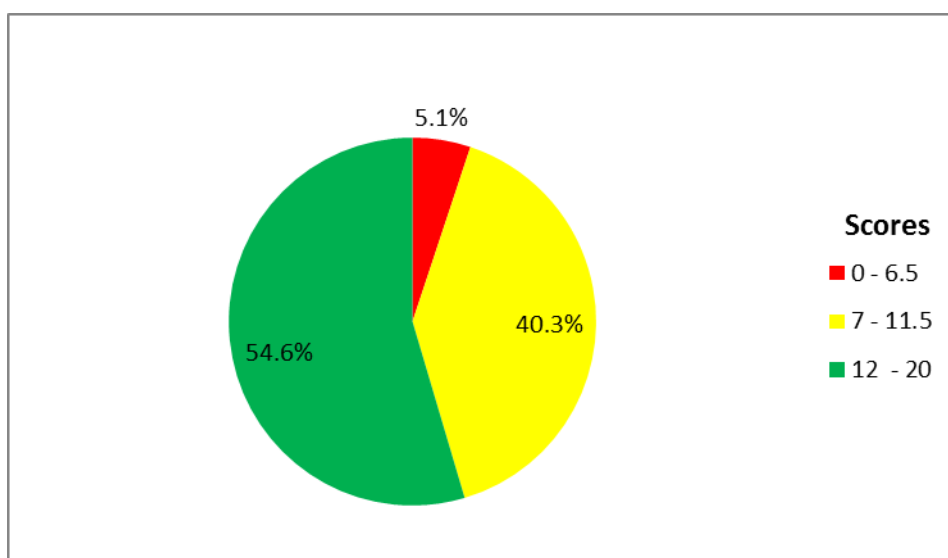


Figure 7: Trend of Candidates' Performance in Question 7.

The candidates who scored from 12 to 20 marks had good knowledge of the concept of internal structure of the earth. Most of the candidates in this category were able to provide a relevant introduction of the structure of the earth and described three zones of the interior of the earth. examples of such answers are such as *the interior of the Earth is consisted by three concentric zones which are the crust, mantle and core. The crust (lithosphere) is the upper most layer which is solid, thin and brittle, outer shell is made of rocks. The mantle (mesosphere) is the central part of the earth lying between the core and the crust and the core (barysphere) is the inner most zone of the interior of the earth composed of iron and nickel.* They also drew a relevant diagram of the interior of the earth and ended up with a relevant conclusion. Some candidates managed to provide an introduction of the interior of the earth, explained partially the zones of the

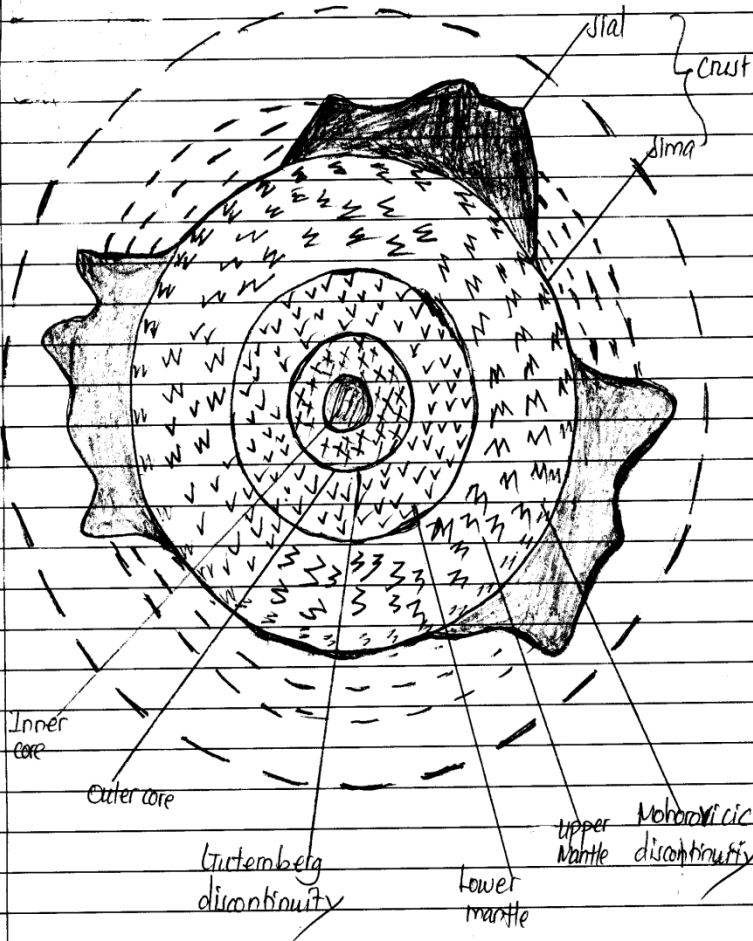
interior of the earth, drew correctly the diagram of the structure of the interior of the earth, and gave relevant conclusions.

However, some of them provided incomplete introductions, but correct descriptions of the interior of the earth, and drew the diagram of the structure of the interior of the earth with correct and incorrect labels. Additionally, others were not able to provide a correct introduction but managed to describe the zones of the interior of the earth and a conclusion. Despite scoring high marks, their marks varied due to the strengths and weakness of their responses. Extract 1.7.1 demonstrate a sample of a candidate's good response.

7.	<p>The interior of the earth consist of three zones which differ in content and nature of the material present in each zone. The interior of the earth contain three main layers as follows:</p> <p>Crust is the upper most and the thinnest layer of the earth. It is found about 8 km to 50 km below the surface. Crust consist of two layers which are sial and sima.</p> <p>Sial is the upper most part of the crust which mainly consist of silica and aluminium but it does not contain iron. even It is less denser with the density of 2.7 and it form the continents. It is solid in nature.</p> <p>Sima is the lower part of the crust which contain silica and Magnesium and some contents of iron. It is semi-liquid in nature and more denser than sial with the density of about 3.0. Sima forms the oceanic floor.</p> <p>Mantle is the second zone of the interior of the earth which is found about 2900 km deeper into the earth and it is the thickest layer. It have high temperature which cause the formation of movement of the earth's crust. Mantle consist of two layers, upper mantle which is liquid in nature and lower mantle which is solid in nature. Also there is a layer in mantle which is called the asthenosphere which produce charged as due to its molten state which is the gear toward plate movements. The layer which separates Mantle from Crust is called Mohorovicic discontinuity.</p> <p>Core is the inner most layer of the interior of the earth which is found about 4900 km deeper in the earth. It has very high temperature of about 6200°C</p>	
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7. which is believed to hot than the temperature of the sun
 It is the source of heat to all layers within the earth crust
 It consist of two layers inner core which is liquid in
 nature and Outer core which is solid in nature. The layer
 which separates core from Mantle is called Gutenberg
 discontinuity.

INTERIOR STRUCTURE OF THE EARTH



Extract 1.7.1 is a sample of good responses.

Furthermore, the candidates who scored from 7 to 11.5 marks had moderate knowledge on the structure of the interior of the earth. For example, some of the candidates managed to give correct introduction of the interior of the earth; described incompletely the zones of the interior of the earth, drew correctly the diagram of the interior of the earth, and wrote a relevant conclusion. Some managed to give an introduction, described insufficiently

the interior part of the earth, but were not able to draw a diagram of the interior of the earth.

Moreover, the candidates who scored from 0 to 6.5 marks had little understanding of the structure of the earth, especially the interior of the earth. For example, some of the candidates could provide a correct introduction of the interior of the earth, but were not able to describe the interior part of the earth and they provided irrelevant conclusion. Some managed to give an introduction only but failed to describe the interior part of the earth and to draw a diagram of the interior of the earth. Others were not able to provide an introduction of the interior part of the earth but managed to describe partially the interior parts of the earth, without conclusion. The variation in the marks depended on the strengths of their responses.

Likewise, some of the candidates in this category failed to understand the demand of the question; their responses suggested that the subject matter was not clear to them. They provided an irrelevant introduction of the interior of the earth, and failed to describe the interior parts of the earth. Additionally they did not draw the diagram of the interior of the earth and provided irrelevant conclusion. For example, one candidate explained about interior of the earth as *the earth is divided into horizontal and vertical*. He/she explained that *in horizontal there is tensional and compressional forces where by tensional forces is where layers meet and compressional forces is where layers do not meet*. Also he/she explained that *vertical is another zone of the interior of the earth where by in vertical there is sinking where by materials from the surface use to sink downward in the earth's surface*.

Moreover, he/she explained that *in vertical there is cooling of materials which have sink to the inner part of the surface*. Another candidate explained that *the earth is geoid in shape proven by aerial photograph, sunrise, sunset, lunar eclipse and circumnavigation of the earth. So this shows that the earth is not actually spherical in shape*. Furthermore, he/she explained that the earth interior's has the following zones; *Troposphere which is the zone found near to the earth, temperature increase as the altitude increase and known as Lapse rate, Stratosphere is the zone found near to the troposphere. The layer separating two zones is the Tropopause. This layer temperature is low and the altitude is high, Mesosphere is the zone which is near to the Stratosphere. The zone is colder, separated from*

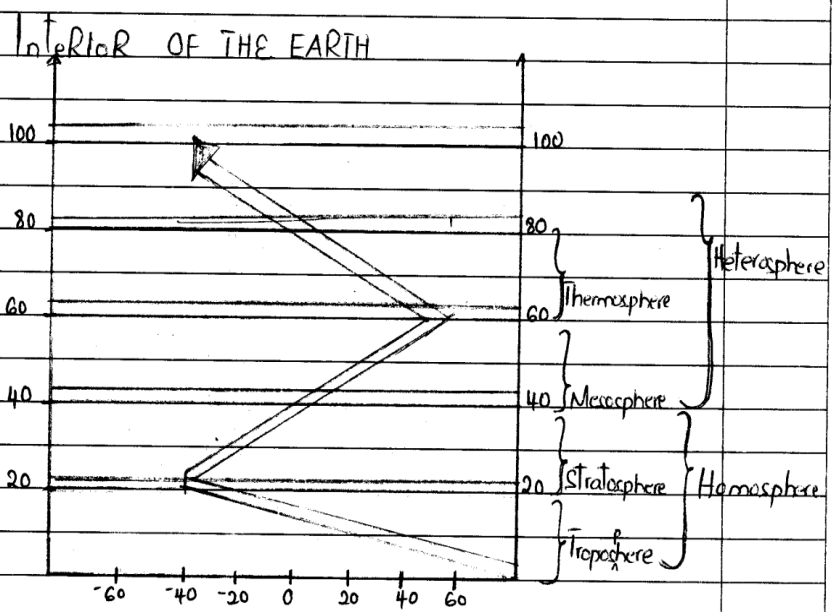
Stratosphere by layer called Stratopause. Thermosphere is the zone where the temperature is low because of increasing of altitude. Extract 1.7.2 illustrates such poor responses.

7	<p>The Earth is geoid in shape this is proven by aerial photograph, sunrise and sunset, lunar eclipse and circumnavigation of the earth so this shows that the earth is not actually sheer et spherical in shape. Also the earth interior has zones. The following are the zones of the interior of the earth</p> <p>Troposphere. This is the zone which is nearest to the Earth. Here the temperature increases with the increasing altitude it also known as the lapse rate so this is a troposphere</p> <p>Stratosphere This zone is near to the troposphere. The layer which separates this two zone is the tropopause. so this layer the temperature is low and the altitude is high</p>
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7

Mesosphere This is the zone which is near to the stratosphere. Here in this zone it is the coldest zone. This zone is separated from the stratosphere by a layer called stratopause.

Thermosphere This is the zone where the temperature rises because of the increasing of altitude. Also is the last zone of the interior of the earth.



Generally the above in the interior zones of the earth sphere with the altitude and height

Extract 1.7.2 is a sample of a poor response

In extract 1.7.2 a candidate explained zones of the vertical structure of the atmosphere and drew its diagram instead of explaining zones of the interior of the earth and supporting the explanations with its diagram.

2.1.8 Question 8: Space Dynamics

This question instructed the candidates to examine six consequences caused by the depletion of the ozone layer in the atmosphere. The total marks allocated for this question were 20.

The question was attempted for by 76.3% of the candidates, of whom, 44.7% scored from 12 to 20 marks, 50% scored from 7 to 11.5 marks, and 5.3% scored from 0 to 6.5 marks. The general performance in this question was good as 94.7% of the candidates who attempted it scored 7 marks and above. Figure 8 illustrates the performance in this question.

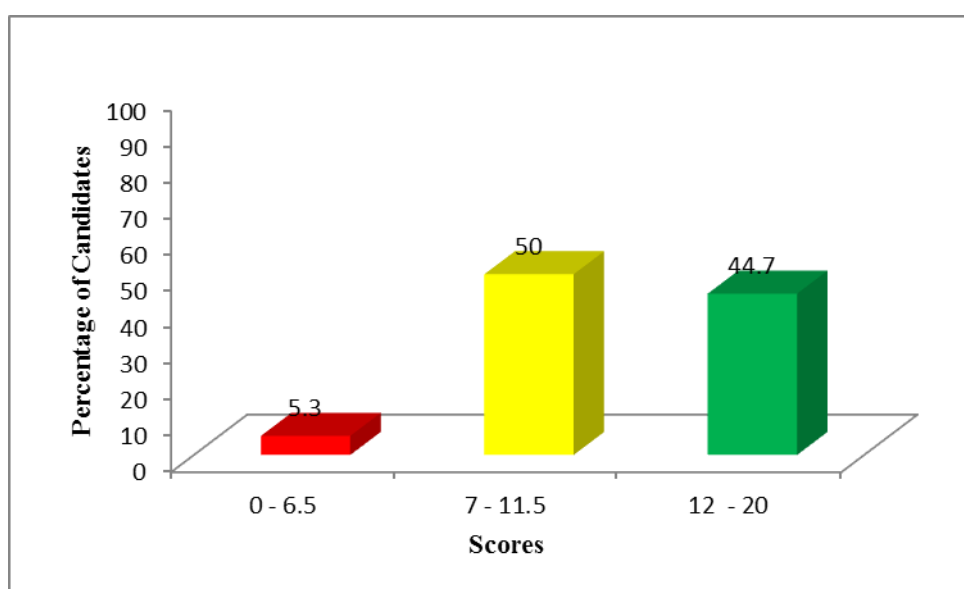


Figure 8: Trend of Candidates' Performance in Question 8

The candidates who scored from 12 to 20 marks showed a clear understanding of the topic of space dynamic, especially in regard to the concept of climate change. They were able to provide a correct introduction of the ozone layer as *the upper layer of the atmosphere above the earth surface that contains a concentration of ozone sufficient to block, collect and absorb harmful ultra violet radiation from the sun*. They examined six consequences of the depletion of the ozone layer in the atmosphere such as; *increased amount of ultraviolet radiation, diseases(skin cancer), global warming, loss of biodiversity, climate change and destruction of valuable materials(synthetic, polymers)* and provided relevant conclusions.

Other candidates in this category defined the ozone layer, explained six consequences without providing a conclusion while, others failed to define

the ozone layer in the introduction but managed to explain six consequences of the depletion of the ozone layer and a conclusion. Others gave incomplete introduction but managed to explain six consequences caused by the depletion of the ozone layer and provided a relevant conclusion. Their marks varied because of differences in the quality of their responses. Extract 1.8.1 exemplifies such good responses.

8.	<p>Ozone layer is the O_3 isotope layer which absorbs harmful radiat rays from sun. Ozone layer depletion is the destruction of ozone layer causing it to have holes in it. The destruction are caused by g greenhouse gases. The ozone layer is found in the stratosphere in (15-25)km above sea level. The effects of depletion of ozone layer include;</p> <p>Melting of ice caps, and ice in Arctic regions. The depletion of ozone layer results to increase of temperature which results to melt of ice caps in mountain example Mt. Kilimanjaro which recently has been reported to loose its snow at the peak. But also melting of ice in the polar region due to increase in temperature</p> <p>Increase in sea level. The melting of ice in polar regions due to ozone layer depletion result to increase of water at the sea caused by the sea water from melted ice.</p> <p>Climatic change. The increase in temperature results to global climatic change. In areas where there was coldness it is now hot, area which received rainfall now they don't. There is distortion of normal climate in most parts of the world</p> <p>Harmful radiation will cause cancer disease. The depletion of ozone layer means that the harmful infra red radiation will be able to reach the earth surface which will later cause cancer disease to mostly people who lack melanin.</p> <p>Loss of biodiversity. Due to climatic change some species won't be able to survive the condition that will lead to their extinction. But</p>	

	also some of the species will have to migrate	
	the area	
	Increase in global temperature. The depletion	
	of ozone layer will result to increase in the	
	temperature because the earth's blanket has been	
	destroyed thus all radiation from the sun	
	will direct reach us	
	Ozone layer depletion can't be stopped	
	directly but we can just minimize the rate of deple-	
	ting it through use of alternate source of energy	
	instead of firewood, coal. Using of non-smoke	
	emitting machines, industries should have to recycle	
	the gases which they emit.	

Extract 1.8.1 represents a sample of a good response

The candidates who scored from 7 to 11.5 marks had moderate knowledge and skills of space dynamic, specifically on climate change. Some candidates in this category were able to provide the relevant introduction, explained incomplete six consequences brought about by the depletion of the ozone layer, and provided a conclusion. Some candidates were able to provide a correct introduction, but then mixed up correct and incorrect arguments on the consequences of the depletion of the ozone layer without conclusion. For example, one candidate gave a correct introduction of the ozone layer but provided irrelevant points such as *pollution* and *movement of large number of animals*, while others gave incomplete introduction of ozone layer and explained few consequences of the depletion of the ozone layer and incomplete conclusion. Moreover, others failed to explain the meaning of the ozone layer but managed to explain few consequences brought about by depletion of the ozone layer and they provided a conclusion. Therefore, the variation in their marks was caused by the strengths and weaknesses of their responses.

Furthermore, the candidates who scored from 0 to 6.5 marks showed shallow knowledge of the consequences of depletion of the ozone layer in the atmosphere. Their responses showed that the subject matter was not clear to them, especially in addressing the impacts of climate change. For example, some of the candidates managed to give a definition of the ozone layer, and explained incomplete few consequences of the ozone layer depletion without providing a conclusion. Some candidates managed to

explain only few consequences of ozone layer without an introduction and conclusion, while others misinterpreted the question and their answers were too general, shallow and incorrect. For example, one candidate explained the contribution of the ozone layer depletion such as; *it provides enough oxygen, results into precipitation and provide good habitat for living organisms* instead of the effects of the ozone layer depletion. Extract 1.8.2 shows a sample of a poor response.

Q.	Ozone layer refers to the layer which are found between the 25km to 30km in the atmosphere. (into the vertical structure of the earth the ozone layer (O ₃) are found into the second layer which is stratosphere. Ozone layer act as a blanket on the atmosphere which are ultraviolet radiation to the human skin. The following are the consequences brought by depletion of the ozone layer in the atmosphere.	
	It support plants and animals (flora and fauna) the ozone layer is important to the plants and	

8.	animals for the support both to develop well into the atmosphere. The plants are interdependence by animals for exchange of manures for food into the animals.
	It is the place where there is an occurrence of rainfall formation, the ozone layer (O_3) are support to the rainfall formation in the atmosphere. The rainfall come from the atmosphere which have various impacts to the human life and animals as well as plants.
	IT support Communication system, refer to the exchange of information from one people to another people. So, due to the presence of ozone layer in the atmosphere cause the communication network to be faster from one people to another people.
	Brought into the promotion of gas, into the atmosphere there is an occurrence of various gases which are responsible into the human life. Example there is an occurrence of Oxygen gas, Methane gas and there is Nitrogen oxide gas. All this are found into the ozone layer of the atmosphere.
	Brought into the act as a blanket for the ultraviolet radiation; the ozone layer (O_3) into the atmosphere act as a blanket into the human skin which may cause the cancer. So this they supply the low amount of solar radiation to the human skin which not have effect. Example they supply 5% of solar radiation to the human.
	Promote to the particulate matter in the atmosphere, there are various particulate matters which are may influence the occurrence of dusts on the atmosphere and also there is an gravers which are used into the building materials like infrastructures and

Extract 1.8.2 shows a sample of a poor response

In extract 1.8.2 the candidate explained the significance of the ozone layer instead of the consequences of the depletion of ozone layer.

2.1.9 Question 9: The Dynamic Earth and Consequence

The question demanded the candidates to explain four factors for the occurrence of earthquakes and give its four effects. The total marks allocated for this question were 20.

The question was highly attempted as it was done by 96% of all the candidates out of these, 50.6% scored from 12 to 20 marks, 44.5% scored from 7 to 11.5 marks and only 4.9% scored from 0 to 6.5 marks. The general performance in this question was good since 95.1% of the candidates, scored 7 marks and above. Figure 9 illustrates the performance in this question.

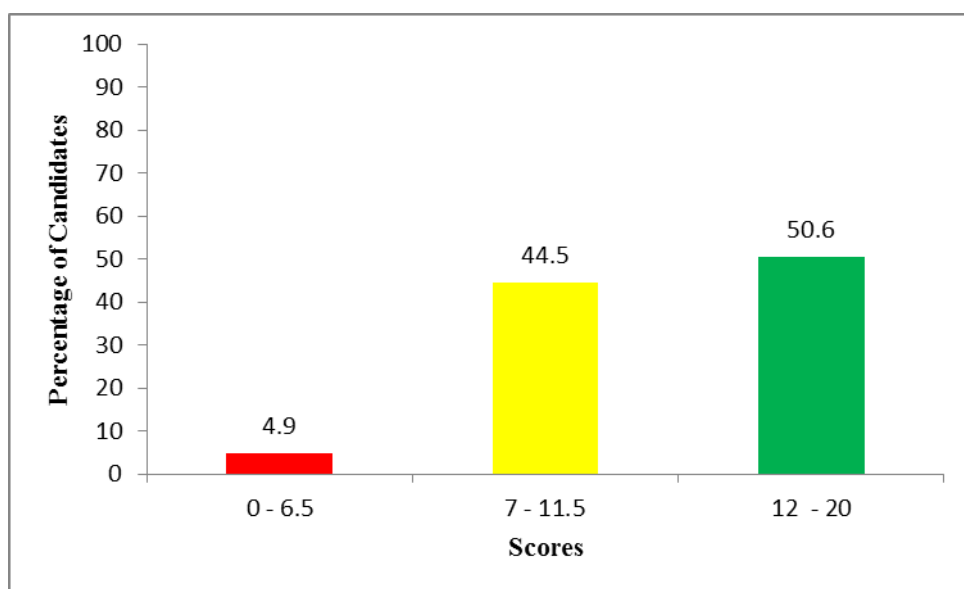


Figure 9: Trend of the Candidates' Performance in Question 9

The candidates who scored from 12 to 20 marks showed a clear understanding of the occurrence and effects of the earthquake. Some of the candidates were able to provide a correct introduction as *Earthquake is the shaking or vibration of the earth's crust due to the sudden and rapid displacement of rocks along the line of weakness*. They explained four factors for the occurrence of earthquake; *plate tectonic movement, volcanism, man's influence and mass movement* and its effects which are; *collapse of house and other structures, faulting and production of joints in the rocks, tsunamis, rise or lower part of the sea floor and landslide*. They also ended up with relevant conclusion. Some of the candidates in this category gave a correct introduction, described incomplete factors for the

occurrence of earthquake, its effects and provided a conclusion. Some of them provided incomplete introduction, explained correctly the factors for the occurrence of earthquakes but gave few effects of earthquakes, with a conclusion. Others gave a correct introduction, explained few factors for the occurrence of earthquakes and their effects and incomplete conclusion. Variation in their scores was influenced by the strengths of their explanation. Extract 1.9.1 is a sample of such good responses.

9.	<p>Earthquake refers to the vibration or shaking of the earth's crust due to sudden displacement of rocks along the line of weaknesses. Earthquake originates from a point called focus. Epicenter is a point where the earthquake hit first and cause maximum destruction. Waves which are generated by the earthquake are known as seismic waves. The following are the factors for the occurrence of earthquake;</p> <p>Movement of tectonic plate. When the plates moves either through convergence or divergence, causes the displacement of rocks found in the crust thus leading to the occurrence of earthquake. foreexample divergence movement of continental plates, oceanic plates or a continental and oceanic plates moving towards one another.</p> <p>Volcanicity. During volcanicity, the molten materials which are magma are pushed out by a very high pressure, while on coming out into the earth it pushes the rocks which are found within the line of weaknesses and displace them and hence causing the occurrence of earthquake.</p> <p>Mass movement. This includes the rock fall. When the rocks falls especially bigger rocks, causing the shaking of the earth crust, and within the earth crust there is rocks then shaking of the earth's crust causes also the rocks in the crust to vibrate then on vibrating cause the earthquake to occur along the lines of weaknesses.</p>	
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9 Falling of objects from the space. For example meteorite. Meteorites are large in size and they causes much vibration of the earth's crust when it falls on the earth surface. On vibrating of the crustal rocks leads to the occurrence of earthquake.

Earthquake when it occur, it causes the following effects:

faulting and production of fractures in the rocks. When the earthquake occur faulting occurs especially in the lines of weakness and fractures or joints are produced due to their displacements.

Leads to loss of people's lives and destruction of properties. When the earthquake occur many properties are destroyed for example buildings, and road, also many people loose their life due to the collapse of building where they settle and sometimes due to the collapse of mines.

It causes land slide which result into land degradation. One of the causes of land slide is earthquake, then when the land slides causes the degradation of the land because after the land slide has occurred many materials moves down to the gentle slopes and make that area more prone to soil erosion.

It leads to the subsidence of the earth's crust. Earthquake causes the land to subside and thus leading to the formation of various features like rift valley and basin. When they

9	are occupied by water they result to the formation of rift valley lakes like lake Nyasa and downwapped or basin lakes.	
	In general, Earthquake is very dangerous to the life of people, so in order to avoid the rate of occurrence of earth and save peoples life, the geologists should detect the epicenter and tell people to migrate from those areas which are prone to earthquakes, avoiding building high rise buildings, avoiding construction of large dams which can hold more water and promote the occurrence of earthquakes and lastly reducing the use of explosives in mining activities.	

Extract 1.9.1 represents a sample of a good response

Moreover, the candidates who scored from 7 to 11.5 marks showed moderate knowledge in the occurrence and effects of earthquakes. Some of the candidates in this category were able to provide a definition of earthquake, explained incompletely the factors for the occurrence of earthquakes, their effects and provided a wrong conclusion. Some candidates in this group managed to provide a correct introduction, but failed to explain clearly four factors for the occurrence of earthquakes and their effects. All the same, they gave relevant conclusions. Some were able to define earthquake, describe factors for the occurrence of earthquake, but failed to provide the effects of earthquakes. Others provided a correct introduction, mixed up correct and incorrect points on the causes and effects of the earthquakes. For example, one candidate wrote on the causes of earthquakes as *isostatic readjustment, gravitational force* and on the effects of the earthquake he/she wrote *can lead to volcanism, atmosphere pollution, earth can result into loss of lives/death*. The other candidates provided a definition of earthquakes, described few factors for the occurrence of earthquakes and its effects and gave a relevant conclusion. The quality of their responses was reflected in the scores of each candidate.

Furthermore, the candidates who scored from 0 to 6.5 marks showed little knowledge of the occurrence and effects of earthquakes. Most of the candidates in this group were able to define earthquakes but failed to explain the factors for the occurrence of earthquakes although they managed to explain one effect of the earthquake. For example, on the factors for the occurrence of earthquakes one candidate wrote that:

construction of the tall buildings, overgrazing, and deforestation but managed to give one effect of earthquakes. Some candidates gave incomplete definition of the earthquakes and provided few explanations on the factors for the occurrence of earthquakes and their effects, while others were able to give a definition of earthquake but mixed up correct and incorrect answers. For example, one candidate provided incorrect effects of earthquake as: *occurrence of global warming and availability of building materials due to the breaking down of rocks*. Another candidate provided a correct introduction but wrote incorrect points on factors for the occurrence of earthquakes: *movement of large number of animals, transportation using heavy tracks, fire outbreak and outbreak of diseases*. Some other candidates wrote incorrect points on the effects of earthquakes including: *increase in temperature, construction of large dams, fire outbreak and formation of feature e.g rift valley*. This situation led them to score low marks.

Likewise, there are candidates in this category who lacked knowledge and skills in the factors for the occurrence of earthquakes and their effects. They provided answers which did not meet the demands of the question. Extract 1.9.2 represents a sample of a poor response in this question.

Q.	Earthquake this can be defined as the sudden shaking and trembling of the earth. this can be due to various lateral mechanisms that might have been occurred.	
	The following are the causes for the occurrence of the earthquake.	
	Construction of the tall buildings, this can also be one of the factor since when the building is poorly constructed when the heavy rain occurs, the soil becomes more moistened than it may fail to handle the building hence the building can be a causative of the earthquake.	
	Overgrazing, this is the keeping of a large number of cattle in a small land, can also lead to earth quake due to the congestion of the small land highly being used with the large activity.	
	Deforestation, this may also lead to the occurrence of the earthquake since the highly the number of trees is being cut off, the highly the more land become loose than the land fail to control any activity which might be taking place or occur in a sudden.	

Extract 1.9.2 is a part of a poor response

2.2 113/2 GEOGRAPHY PAPER TWO

SECTION A: POPULATION AND DEVELOPMENT

This section consisted of three (3) questions which were set from the topic of Population and Development. Candidates were required to answer two (2) questions. Each question carried 20 marks.

2.2.1 Question 1: Population and Development

Candidates were required to discuss the statement, “Population is never static, and rather it is dynamic.” This question had a total of 20 marks.

The question was attempted by 60.2% of all the candidates who were registered for this subject. The general performance in this question was good because 80.2% of the candidates scored 7 marks and above. Further analysis on this question shows that 11.7% of the candidates who attempted it scored from 12 to 20 marks, 68.5% scored from 7 to 11.5 marks and 19.8% scored from 0 to 6.5 marks. Figure 10 illustrates the performance in this question.

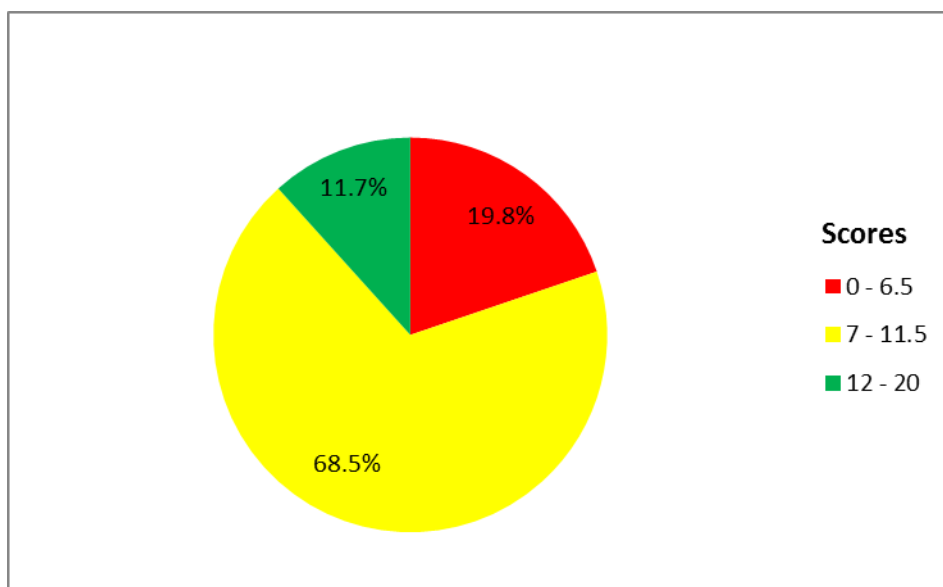


Figure 10: Trend of Candidates' Performance in Question 1

The candidates who scored from 12 to 20 marks showed good knowledge of population change and the quality of life and hence they understood the demands of the question. They were able to explain the factors for the population change. For example, some of the candidates managed to give a correct introduction of population as *the number of humans occupying a*

certain geographical area at a specific period of time. They were also able to give the determinants of population change such as: *fertility, mortality and migration*, and in each determinant they explained their factors.

For example, one candidate wrote: *fertility as a determinant of population change is determined by age and sex at marriage, level of income, level of education, use of contraceptives and religion and culture.* Furthermore, he/she explained that *mortality as a determinant for population change is determined by such factors as insufficient supply of nutrition, level of infectious diseases, and quality of health care services, violence and crime.*

He/she further explained that:

Migration as one of the determinants for population change is determined by physical conditions such as nature of the soil, hazards and relief; economic factors such as employment opportunities; and social cultural factors like social conflicts, forced marriage, entertainment, education and health service and political factors such as civil wars and political instability.

Some candidates defined population in the introduction, gave correct determinants of population change, and explained incompletely the factors for each determinant of population change. Others provided a good introduction, few correct determinants of population change, and gave the factors with incomplete conclusion. The variation in their scores was determined by the strengths and correctness of their explanations.

Furthermore, the candidates who scored from 7 to 11.5 marks showed an understanding of the demands of the question but were either not able to provide the required number of points as the question demanded or mixed up correct and incorrect answers. For example, some candidates gave a relevant introduction, and explained incompletely the determinants of population change such as; *fertility, mortality, migration* and their factors. Some of them defined population in the introduction, gave few factors on determinants of population change with incomplete explanations and a conclusion. For example, one candidate mixed the factors for population change with the contribution of overpopulation, he/she wrote; *it stimulates the development of science and technology, stimulates growth of towns and cities, provide labour and it encourage the development of markets.* Partial explanations of the points affected their performance by scoring not more than 11.5 marks.

Moreover, the candidates who scored from 0 to 6.5 marks did not seem to understand the demands of the question. Some candidates were able to define population, and gave the general characteristics of population: *unevenly distributed, face various problems, being characteristics by age and sex variation, being dynamic and dominated by variation in the level of development.* Some of them provided incomplete introduction, with irrelevant points, and conclusion. For example, one candidate wrote; *development of science and technology, development of towns and cities, modern production, improvement of transport and communication, increase in the demand of production and development of defensive mechanism* answers which were not related to the demands of the question.

Another candidate explained the pull and push factors for population growth, including: *availability of social services, good transport and communication, employment opportunity and climatic condition.*

Besides, some of the candidates in this category did not manage to answer the question according to its demand. Their responses showed that they lacked knowledge of skills in population and development especially regarding the concept of population change, hence they provided incorrect answers which caused them not to score any mark. Extract 2.1.1 is a sample of poor responses in this question.

1.	<p>population, is the total number of people occupying to a certain society or country. The human population is never static rather it is static dynamic, the statement is very true the population is never static but is dynamic due to the various factors, the human population was vary from place to place due to various factors such as political factors, historical factor, biological factor and others. population is never static rather it is dynamic. due to the following points.</p> <p>population stimulate development of science and technology; population can be very important to a certain country because it can contribute to the development of science and technology to a certain country such as skilled labour.</p> <p>population stimulates growth of towns and cities; Also human population can stimulate to the growth of towns and cities to a certain country for example in Dar-es-salaam, Mwanza, Nairobi Kenya and others.</p> <p>population provide labour to a certain country, Also the human population can lead to provide labour to a certain country in order to improve the development in the country, Example skilled and unskilled labour.</p> <p>population encourage the development of markets; the human population also can contribute to the</p>
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1.	to the development of Markets. For example people want Money from one place to another or from one country to another in order to conduct various activities like trade,	
	population stimulates the provision of social services; Also the human-population can contribute to the provision of social services to a certain societies or countries. Example hospitals, schools, electricity, water supply and other services which are very important.	
	population stimulates the development of infrastructure facilities; the human population also can contribute to the improvement of infrastructure facilities such as roads, Railways which could help in transportation of raw materials and people from one place to another.	
	population stimulates the living-standard of the people. the human population also can encourage to the improvement of the living standard of people to a certain country. For example people moved from one place to another in order to get good services like food.	
	population stimulates the development of industries; Also the human population can contribute to the development of industries to a certain country. For example the people involvement in various activities like Agriculture can lead to the provision of raw materials like cotton, coffee.	

Extract 2.1.1 illustrates a sample of incorrect answer

In extract 2.1.1 the candidate wrote advantages of high population growth instead of discussing the reasons on why the population is dynamic.

2.2.2 Question 2: Population and Development

The candidates were required to describe eight population characteristics in developing countries. The total marks allocated for this question were 20.

This question was opted for by 63.4% of all the candidates who sat for this examination. The general performance in this question was good, as 73.2% of the all the candidates who attempted it scored 7 marks and above. Further analysis of this question shows that 26.9% of the candidates scored from 12 to 20 marks, 46.3% scored from 7 to 11.5 marks and 26.8% scored from 0 to 6.5 marks. Figure 11 illustrates the performance in question 2.

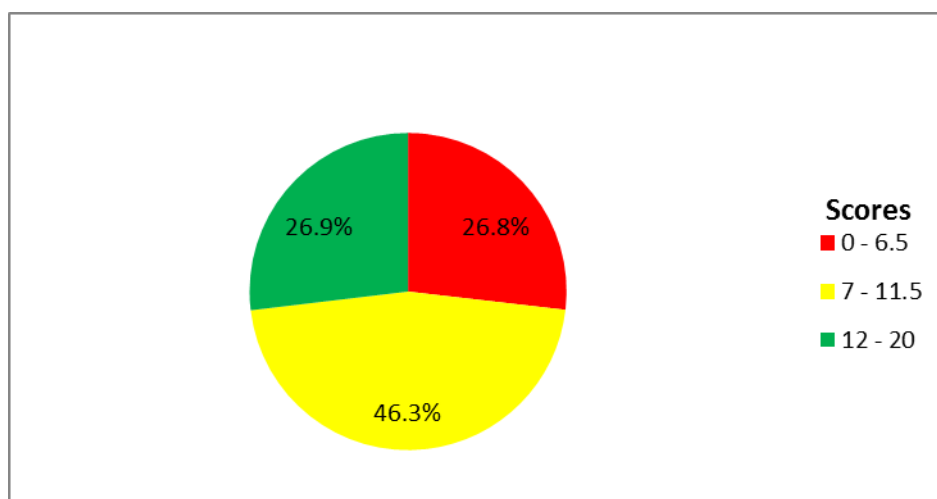


Figure 11: Trend of the Candidates' Performance in Question 2

The candidates who scored from 12 to 20 marks understood the demands of the question. They had good knowledge of the population structure, which enabled them to describe correctly population characteristics in developing countries. Some candidates in this category were able to give a correct introduction of population as *a number of humans occupying a certain geographical area at a specific period of time*. They provided a correct description of population characteristics as; *unevenly distributed the age and sex structure, rapid population growth, high dependency ratio, low life expectancy, under nutrition or malnutrition, lower per capital income, predominance of agriculture and low level of industrialization* and gave a relevant conclusion.

Other candidates provided a definition of population in the introduction, incomplete explanation of population characteristics in developing countries, and a conclusion, while others provided a relevant introduction

and few population characteristics of developing countries and a correct conclusion. The variation in their scores was determined by the strengths and accuracy of their explanations. Extract 2.2.1 demonstrates a sample of a good response.

2.	<p>Population refers to the total number of people occupying in a given or certain area. Population is greatly affected by number of factors such as climate, diseases of which all of these factors affect the distribution of population in a country, however population also is characterized by number of features which show how population is. Population structure are used in studying the population size as well as the age-sex proportion and growth of population in a given country. The population of the developing countries is characterized with the following features;</p>	
	<p>It is dynamic. The population in developing countries is dynamic, that is it changes with time. The population do not remain constant but changes with the existing environment that is the population dynamics are affected or influenced by factors such as migration, immigration. The death rates of which all of these cause variations in the population of a given country.</p>	
	<p>It is unevenly distributed. Population in many developing countries is unevenly distributed that people tend to dwell in areas with potentialities and while areas which are not potential they are not dwelled by people and hence the population is unevenly distributed in the developing countries like Tanzania, Kenya, Malawi where by some areas are densely populated while other areas are less populated.</p>	
	<p>It changes in terms of structure. The population in developing countries tend to change in terms of structure and thus giving a difference in the population structure of a place, where by</p>	

2) Since the population is never static, it changes in terms of structure, and thus affecting the population structure in developing countries like Tanzania, Malawi, Mozambique, as the population in such developing countries change in terms of structure and hence affecting the population structure.

It is associated with social unrest due to the increasing population. Also population in developing countries is associated with social unrest due to the increasing population of which affects the existing population and thus creating an unpleasant atmosphere whereby people are in state of violence due to the social unrest caused by the increasing population.

It is affected by diseases such as HIV/AIDS and natural calamities. Also the population of the developing countries is affected by diseases such as HIV/AIDS, cholera and also natural calamities of which include floods, earthquakes and many others, which affect the number of the people in a given population causing a decrease in the population number of the people.

It is associated with the underdevelopment of the level of science and technology as well as the economic development too. Population in developing countries is also affected or associated with the underdevelopment of the level of science and technology but also economic development since many of the developing countries are poor but also they have poor science and technology.

It is associated with high birth rates. The population of the developing countries is associated

2	<p>with high birth rates, where by the number of people keep on becoming high due to the increase in the fertility rate but also, the death rates which are prevailing are as the result of the inadequate health facilities and poverty too which prevails in many of the developing countries and hence the population is associated with high birth rates but also high death rates too in the country.</p> <p>The population has age-sex structure that is the population structure of which is used to determine the age-sex proportion in the country. Many of the developing countries have age-sex structure which determines the proportion of age-sex and thus, determining the population size of a given country due to the age-sex structure which is in the population of the developing countries.</p> <p>Conclusively, population density which is one of the aspect of population, is greatly influenced by several factors or affected such as climate, diseases of which affects the population of the developing countries and its distribution as some areas tend to be high densely populated while other areas tend to be low densely populated in many developing countries - due to number of factors</p>	
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Extract 2.2.1 is a sample of a good response

Moreover, the candidates who scored from 7 to 11.5 marks portrayed moderate knowledge of the population structure. For example, some candidates in this group were able to give the correct meaning of population, described incomplete population characteristics and provided a correct conclusion. Some of them gave incomplete introduction, few points without explanations, and an incorrect conclusion. Others defined population, mixed up correct and incorrect explanations on population characteristics, and gave incorrect conclusion. Therefore, the variation in their scores was caused by strengths and weaknesses of their answers.

The candidates who scored from 0 to 6.5 marks showed little knowledge of the subject matter of population and development, especially on population structure. Some of the candidates in this category were able to give a correct introduction, described incompletely few population characteristics of developing countries and provided a correct conclusion. Some of them defined population in the introduction but failed to describe population characteristics in developing countries and provided a good conclusion. For example, one candidate wrote; *presence of crimes, outbreak of diseases, unemployment, bad utilization of natural resources, climatic change, environmental pollution, high rate of dependency and bad traditional practice* as population characteristics of developing countries.

On another note, the candidates who scored a 0 mark were not able to answer the question according to its demands. For example one candidate mixed up the characteristics of population with the problems associated with population such as; *unemployment, social crime, characterized with diseases, lack of education, and increase in number of street children, poverty and increase in prostitution*. Another candidate wrote the impacts of high population growth such as; *improvement of social services, increase in labour forces, raise in revenue, economic diversification, dependence ratio, increase in social evils, loss of government revenue and lack of employment* instead of characteristics of population in developing countries. Extract 2.2.2 demonstrates a sample of a response from the candidate who failed to meet the demand of the question.

02.	Population, is a group of peopple,
	which living together in a specific area at a particular time and it has a characteriz of variation of level of production between rural areas and urban areas
	The followings are Characteristics of population of developing countries such as,
	Good transport and Communication - systems, this is among of characteriz of population which is in developing countries like China due to that there would be good in transports and communication - systems like roads, railways and even ports are good in those countries.
	Good provision of social services, also social services like health, education, watersupply and even electricity supply can be good in those areas in developing countries and there would be also good provision of medical health services to all.
	Development of economic activities, also the characteriz of population of developing country is that, there should be the presence of development of economic activities such as agriculture, trade, mining, industrialization, mining and even fishing activities show that the area of that population is from developing country.
	Finally, in order for a nation or country to become developing in its population there is many - problems such as availability of capital and even government expenditure can be used so as to attain this countries with developing one.

Extract 2.2.2 demonstrates a sample of a response from the candidate who failed to meet the demand of the question

2.2.3 Question 3: Population and Development

This question had two parts (a) and (b). In part (a), the candidates were required to describe the following terms as used in the study of population: (i) optimal population (ii) life expectancy, and (iii) crude birth rate. In part (b), they were required to describe five causes of high mortality rate in Tanzania. The total marks allocated for this question were 20.

This question was attempted by 76.3% of all the candidates who sat for this subject. The general performance in this question was good because 87.9% of the candidates who attempted it scored 7 marks and above. Further analysis in this question shows that 39.8% of the candidates scored from 12 to 20 marks, 48.1% scored from 7 to 11.5 marks and 12.1% scored from 0 to 6.5 marks. Figure 12 illustrates such performance.

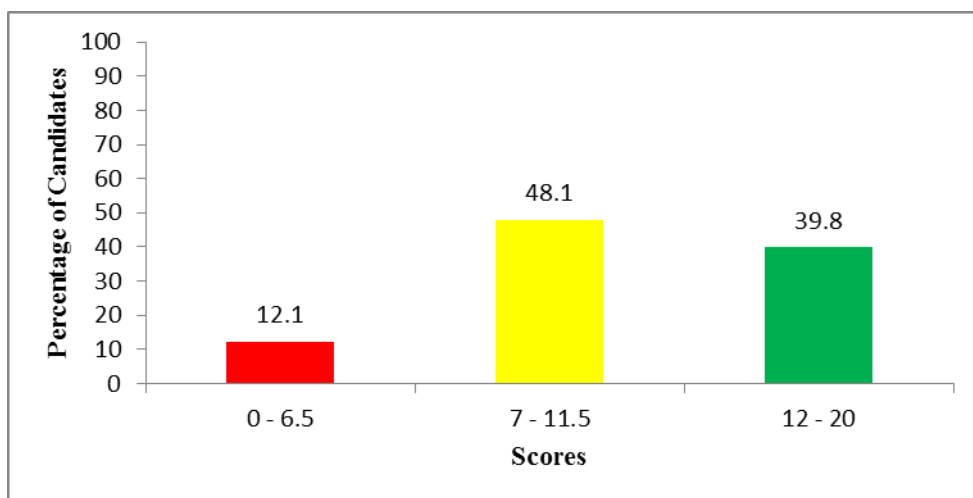


Figure 12: Trend of Candidates' Performance in Question 3

Most of the candidates who scored from 12 to 20 marks showed an understanding of the concept of population change, especially optimal population, life expectancy, and crude birth rate. Their explanations were well organized and focused. Some candidates gave correct explanations of the terms used in population study such as; optimal population, life expectancy and crude birth rate in part (a).

In part (b), they were able to define high mortality rate in the introduction as *the occurrence of death in a population* and described five causes of mortality rate in Tanzania such as; *poor medical services, existence of infectious and communicable diseases, presence of hunger and famine, ignorance and poverty, cultural aspect, maternal complication and*

frequent accidents. These candidates provided relevant conclusions. Some of them were able to describe incompletely the terms used in population study, described correctly five causes of high mortality rate in Tanzania, and provided a correct conclusion. However, their marks varied from 12 to 20 depending on the strength of their responses. Extract 2.3.1 is a sample of a good response.

3a.		
	<p>i/ Optimal population - Is the kind of population in which the available resources sustain the available number of people. It is a population which is stable and the resources are sufficient to all people. Optimal population is characterised by high level of development, They have high per capita income, high industrial growth, unemployment is much reduced and Technology is high enough to use and exploit the available resources.</p>	
	<p>ii/ Life Expectancy - Is the Average number of years a person is expected to live in a given country. Life expectancy differs from one country to another country due to different number of factors. African countries experience low life expectancy than developed countries like America and Europe. Causes of Low life expectancy include poor health services, poor food supply, accidents and other factors that cause death rate to increase.</p>	
	<p>iii/ Crude Birth Rate (CBR) - This is the number of live births occurring in a year per thousand of people. Crude birth rate is measured per thousand of people and per year. Crude Birth Rate should exceed Crude death rate in order the Life expectancy to be said high.</p>	
	$\text{Crude Birth Rate} = \frac{\text{Number of Live births}}{\text{Total population}} \times 1000$	

3b	<p>Mortality rate is the rate of death occurring in a year in a given country. Mortality rate is the total deaths, regardless being infant, child or old mortality rate. Most of the developing countries have high mortality rate than developed countries like America and China. Mortality rate is one of the factor that determine the life expectancy of a certain country. In Tanzania the mortality rate is fairly large compared to other countries since it is a poor country just like other African countries. The following are some causes of high mortality rate in Tanzania.</p> <p>Poor and Insufficient Health Services. Most of Tanzania Hospitals have poor provision of Health services compared to other countries hospitals. Few doctors are present but also there are a lot of insufficient services like machines and Medicines. Also Hospitals are not enough compared to the number of patients. Since Tanzanians don't receive good and quality Health services then the mortality rate become higher as people die due to lack of proper treatment.</p> <p>Accidents caused by poor roads and Railways, the use of outdated vehicles, lack of education to the Road safety. Lack of Regular check-up, over-confidence of some drivers, Bad weather condition, Lack of enough time to sleep, drowsiness and lack of good policies and strict laws. Regular Accidents in Tanzania have contributed to high mortality rate in the Country.</p> <p>Poor Nutrition and enough fuel. Most of the Tanzanians don't obey the Balance diet rule and some experience a very poor diet with no nutritive value. This makes most of the Tanzanians to become prone to different infections like obesity, Blood pressure diabetes and other infections that lower the life span.</p>	

Extract 2.3.1 Sample of a good response

Furthermore, the candidates who scored from 7 to 11.5 marks showed moderate knowledge and skills of the subject matter, and were able to meet

the demands of the question. In part (a), some of them gave incomplete descriptions of optimal population, life expectancy and crude birth rate. In part (b), they managed to give a correct introduction, explained incompletely few causes of high mortality rate in Tanzania and provided relevant conclusion. Some candidates were able to describe incompletely few terms used in population study in part (a). In part (b) they gave the meaning of mortality rate and described incompletely the causes of high mortality rate in Tanzania. Others failed to explain terms used in population study but gave few causes of high mortality rate in Tanzania but without explanations.

Moreover, most of the candidates who scored from 0 to 6.5 marks provided incomplete responses due to low level understanding of the subject matter. They also misunderstood the demands of the question by providing correct and incorrect responses. For example, some of the candidates failed to describe the terms used in the population study in part (a). In part (b), they managed to provide a relevant introduction, gave incomplete explanation of the causes of high mortality rate in Tanzania but without a conclusion.

Others provided irrelevant causes of high mortality rate in Tanzania, with a partial conclusion. One candidate wrote *optimal population is the equal number of death rate and birth rate in the society, crude birth rate refers to the number of birth in a population per number of women child bearing 15 to 49 multiplied by 1000 or 100 in the population* in part (a). Therefore, he/she confused crude birth rate for fertility rate. In part (b), he/she failed to define mortality rate as she/he wrote: *is the number of death in children under 5 years in a population which is obtained by taking her number of birth rate per number of population multiplied by 1000 or 100.*

Some candidates in this category scored 0 marks because they were not able to provide correct responses as per the demands of the question. For example, one candidate provided irrelevant definitions: *crude birth rate as death rate occurred for the child from 0 to 1 year of the population after birth and optimal population is a group of people occurred in a certain geographical area.* In part (b), he/she failed to explain the causes of high mortality rate, he/she wrote; *lack of birth control, dying of children at infancy stage, high demand of children to work in farms, religious beliefs and regarding children as sign of wealth,* ending up with irrelevant conclusion. Extract 2.3.2 is a sample of such poor response.

3b)	Describe Five causes of high mortality rate in	
	Tanzania:	
	High Mortality is the increase of birth	
	number of people and death number of people	
	in Tanzania. The following are the causes	
	of high mortality rate in Tanzania are	
	as follows:	
	Early marriage is the marriage of	
	people who are below 18 years. The high	
	mortality rate it can also be caused by	
	Early marriage where by a girl when delivering	
	a baby can die because of the problems	
	which happens when delivering a baby	
	which cause high mortality rate	
	Improvement of social services like	
	health, water, food which can led to	
	increase of birth number of people in a	
	given area. The improvement of social services	
	can led to high mortality rate in Tanzania	
	Family planning is the planning	
	which shows how many children should	
	get in the family. Family planning can	
	also lead to increase of birth rate	
	of people in a country. Family Planning	

3b)	Is the Factor For the high Mortality rate	
	in Tanzania which led to high population	
	of birth rates because of Family planning	
	Food taboos, is where by women	
	are being discriminated eating a certain	
	type of food like eggs which believes	
	that will bare a baby with no hairs	
	which is not a true and that food taboos	
	led to poor health which cause death of	
	girls which cause high Mortality rate	
	in Tanzania	
	Finally, the high Mortality rate in	
	Tanzania was caused by Early marriage	
	Improvement of social services, Bad cultural	
	practices	

Extract 2.3.2 is a sample of poor responses

In extract 2.3.2 the candidate mixed up causes of high fertility rate for other population phenomena.

SECTION B: Regional Focal Studies

This section consisted of five questions 4, 5, 6, 7, and 8 which were set from the Regional Focal Studies topics. The candidates were required to answer 3 questions. Each question had a total of 20 marks.

2.2.4 Question 4: Agricultural Development

With reference to oil palm farming in Nigeria, candidates were required to describe four physical and human requirements for tree crops farming. The total marks allocated for this question were 20.

This question was answered by 61% of the candidates who were registered for this subject. The general performance in this question was good as 95% of all the candidates who attempted this question scored 7 marks and above. Further analysis shows that, 66.2% of the candidates scored from 12 to 20 marks, 28.8% scored from 7 to 11.5 marks, and 5% scored from 0 to 6.5 marks. Figure 13 illustrates this performance.

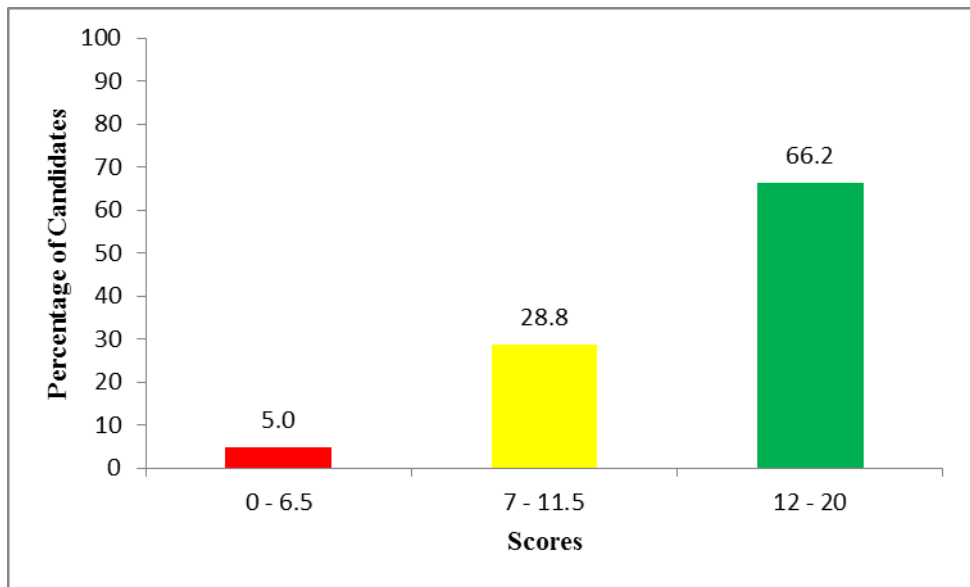


Figure 13: Trend of Candidates' Performance on Question 4

The candidates who scored from 12 to 20 marks accurately focused on the question given. They were able to give a correct introduction, clear and relevant explanations on physical and human requirements for tree crops farming with reference to oil palm farming in Nigeria. Some of the relevant responses given were; physical requirements:- *high temperature over 21%, well distributed rainfall over 2000mm annually, well drained soils with humus, relief well undulated land which is less exposed to strong winds, humidity.* Human requirements include *capital availability, transport facilities, labour supply, efficient management, processing factories improved science and technology, availability of market and government support/policy.*

Some of them provided a relevant introduction, partial description of physical and human requirements for tree crop farming with clear conclusion. Others provided a partial introduction, but were able to describe correctly the physical and human requirements for tree crops farming with relevant conclusion. The variation in their scores was caused by the quality of the explanations and the total number of points provided by the candidates. Extract 2.4.1 illustrates a sample of such good response.

4.	<p>Tree crop farming refers to the agricultural activity that involves cultivation of crops like rubber, cocoa and palm trees. Nigeria is a well developed nation in tree crop farming especially oil palm farming which is commonly undertaken in areas like Adamawa, Abia, Ondo and Odu and other parts of Nigeria. Apart from producing oil, palm trees produce fertilizers to the crops and raw materials needed in industries. With reference to oil palm farming the following are physical factors for tree crop farming in Nigeria as explained below:</p> <p>Abundant rainfall and Moisture. For palm trees to develop they need lot of water from rain for germination of crops to take place well. Rainfall of 1500 millimeters (mm) to 2030 (millimeters) is</p>
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4	<p>highly needed for oil palm farming to take. The presence of warm ocean currents from Atlantic ocean has made it possible for rainfall to be available throughout the year in Nigeria hence development of oil palm farming in Nigeria.</p> <p>Presence of conducive temperature. Temperature should at least be from 21° Centigrade (21°C) to 25°C centigrade for easy growth; and the temperature of Nigeria supports this. Nigeria is found in Equatorial climate near the equator and hence most of the times temperature is warm and hence leading to development of oil palm farming in Nigeria.</p> <p>Presence of fertile and well drained soil. Nigeria is blessed to have well drained and soil rich in fertility which support palm trees. Fertile soils is a result of good climate with heavy rainfall that add moisture in the soil and also some areas have experienced volcanic activities hence fertile soils. Example of areas with fertile soil found in southern parts of Nigeria such as Adamawa and in Igboland where land is fertile.</p> <p>High Humidity in the atmosphere. Areas like Odo and Abia have large forests which support evapotranspiration activities to take place and hence causing humidity in the atmosphere leading to development of palm tree farming. Palm trees usually require moisture and hence presence of humidity in the sky causes tree crop farming in Nigeria.</p> <p>Also some human or Artificial factors have led tree crop farming, oil palm in particular, such factors include:</p> <p>Presence of enough laborers. Nigeria is a highly populated nation with about 100 million people</p>	
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4	<p>who most of them have settled in the southern parts such as in Igbo land where palm trees farming takes place. Example during the process of picking and harvesting a lot of people such as Yoruba tribe and Igbos provide communal labor in production hence tree crop farming in Nigeria.</p> <p>Good transport and communication Networks in Nigeria: Nigeria has extensive network of roads, railways and ports through which palm oil transported from farm areas to industrial towns. Example a lot of oil palm is transported in Port Harcourt to industrial towns in Ibadan and Lagos where it is manufactured into finished oil hence development of tree crop farming in Nigeria.</p> <p>Presence of ensured market. A lot of industries in Nigeria depend on oil palm farming for raw materials. Some fertilizer companies, wine industries making palm wine and also cooking oil industries found in Lagos depend and buy palm oil products from farmers hence development. Also external markets from the Persian Gulf nations such as Syria, Iraq and Iran lead to development of such farming.</p> <p>Use of scientific technology. The use tractor, ploughs in preparing land for cultivation and growing of palm trees has facilitated development of palm trees produce to be in high quantity and high quality hence development of oil palm farming in Nigeria.</p> <p>Oil palm farming and tree crop farming in general have brought tremendous importance to Nigerian economy as it created employment opportunities to farmers, middlemen and marketing managers in oil palm farming and also it has led development of towns</p>
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Extract 2.4.1 Sample of a good response

Furthermore, the candidates who scored from 7 to 11.5 marks were able to understand the questions but failed to provide enough points according to the requirements of the question. For example, some candidates managed to provide an introduction, few points of physical and human requirements for

tree crops farming, with incomplete conclusion. Some of them gave incomplete introduction, managed to write the required number of points but mixed up correct and incorrect points and failed to provide a correct conclusion, while others provided an irrelevant introduction, gave points without explanations, and so ended up with unclear conclusions.

Moreover, the candidates who scored from 0 to 6.5 marks provided unclear responses due to seemingly limited knowledge of the subject matter. Some of them presented wrong points, not related to the demands of the question. Others mixed up correct and incorrect answers. Some of the candidates in this group failed completely to give correct answers as they did not understand the demand of the question. For example, one candidate explained the importance of forest as: *provides habitat for small animals prevents wind erosion, facilitates rainfall, source of energy in charcoal; create income, used for manufacture paper and human needs* instead of the physical and human requirements for tree crop farming.

2.2.5 Question 5: Livestock Keeping and Management

The candidates were required to explain six contributions of the marketing board and cooperative societies in Denmark towards the development of dairy farming. The total marks allocated for this question were 20.

This question attempted by 58.2% of all the candidates who were registered for this subject. The general performance in this question was good as 80% of the candidates scored 7 marks and above. Further analysis in this question shows that, 25.4% of the candidates scored from 12 to 20 marks, 49.7% scored from 7 to 11.5 marks, and 24.9% scored from 0 to 6.5 marks. Further illustration of performance in this question is summarized in figure 14.

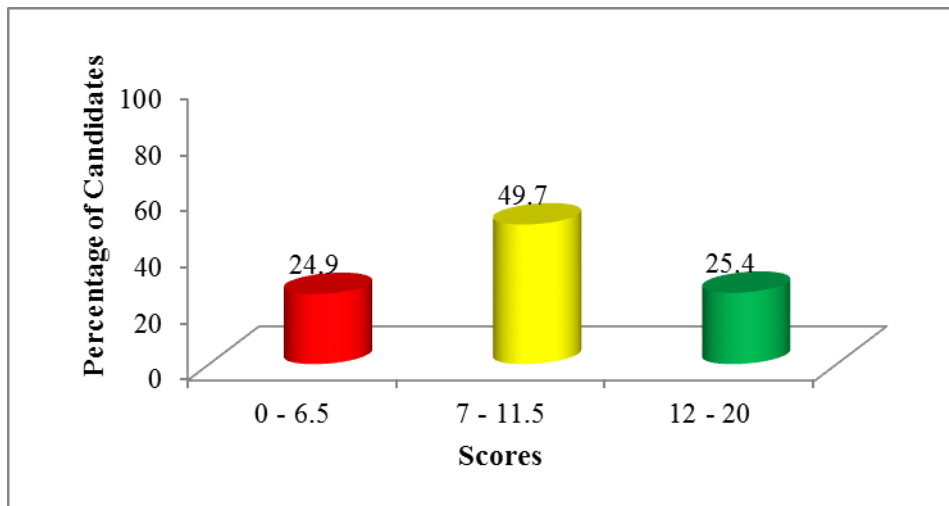


Figure 14: Trend of Candidates' Performance in Question 5

Most of the candidates who scored from 12 to 20 marks manifested an understanding of the subject matter. They presented well their points with good essay organization. They were able to give a correct introduction of dairy farming: *the raising of cattle for milk, which is consumed directly or processed into cheese, butter or dried milk*. They provided contributions of the marketing board and cooperative societies in Denmark towards the development of dairy farming as: *looking for markets, quality control of the products, provide credits to the farmers, storing products, research services and advice to the farmers, make advertisement of the activities, provision of education* and also provided a relevant conclusion.

Some of the candidates provided good introductions with incomplete explanations on some contributions of the marketing boards and cooperative societies in Denmark, and ended with relevant conclusions. Some of them were able to provide an introduction, few points on the contribution of the marketing board and cooperative societies in Denmark without relevant conclusions. Others were able to provide correct introductions, explained six contributions of the marketing board and cooperative societies with partial conclusion. Strengths and weaknesses of their points caused their marks to differ. Extract 2.5.1 represents a sample of such good responses.

5 Marketing boards are organisations kept by the government to maintain production of agricultural products and Ma. Cooperative societies are organised groups of people who work together so as to achieve a determined goal. Marketing boards and cooperative societies place different roles in development of dairy farming in Denmark. Such roles include fixing of prices of the products produced. Marketing boards and cooperative societies tend to prevent price fluctuations by fixing prices of the goods produced so as to facilitate more production of dairy products which are demanded world widely hence the development of dairy farming in Denmark.

Buying of dairy products, to create reliable and efficient market to the farmers so as to facilitate continuous production of dairy product due to continuous demand by dairy co, it encourages the farmers to keep on producing because they are sure that they are going to sell their products.

Mechanisation of the dairy farming process. The marketing board and cooperative society ensures the use of quality productive forces such as machines in the process of production. This will enable the farmers to produce bulky goods of good quality and in a minimal period of time hence preventing scarcity of goods (products) in the market.

Conducting different research activities on better tools and farming methods plus perfect breeds of animals to be used in the production process. This will help the farmers to use different breeds in the production process and hence producing quality products, hence development of dairy farming in Denmark.

Provision of education to the dairy farmers in Denmark on how to use different mechanical tools, use of

<p>5</p>	<p>better breeds of animals and how to influence proper products on a quality products. This has helped many dairy farmers in Denmark to use the knowledge in the production process and hence lead to production a quality goods. Thus the development of dairy farming in Denmark.</p> <p>Provision of farming inputs to the farmer at cheaper prices. The marketing boards and cooperative societies facilitate in the distribution of farm inputs such as medicines, pesticides, good breeds and other more to the dairy farmers in Denmark. This has facilitated the production of quality products due to easily accessibility to farm inputs to the farmers.</p> <p>Conclusively, the marketing boards and cooperative societies face different challenges and drawbacks in their process of improving agriculture such challenges are interference by the government. use of alot of expenditures in conducting researches and many other more.</p>	
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Extract 2.5.1 Sample of such good response

However, the candidates who scored from 7 to 11.5 marks revealed moderate knowledge of and skills in livestock keeping and management. For example, some were able to give correct introduction of dairy farming, explained partially a few contributions of the marketing boards and cooperative societies in Denmark without relevant conclusion. Some failed to give a correct introduction of dairy farming, pointed out the contributions, but failed to explain how the marketing boards and cooperative societies contributed to the development of dairy farming in Denmark, and provided relevant conclusion. Others managed to provide an introduction, mixed up correct and incorrect answers on contributions of the marketing boards and cooperative societies in Denmark towards the development of dairy farming. The variation in their marks was due to the strengths and weaknesses of their responses.

Similarly, the candidates who scored from 0 to 6.5 marks showed little knowledge of the subject matter. For example, some of the candidates in this category managed to give a correct introduction but failed to explain in detail the contribution of the marketing boards and cooperative societies in Denmark towards the development of dairy farming, and provided

incomplete conclusion. Some of them gave a partial introduction of dairy farming, managed to explain few points but failed to show how marketing boards and cooperative societies contributed to the development of dairy farming without relevant conclusions. Others were not able to give a relevant introduction, but mixed up points and without a conclusion. For example, one candidate mixed up the contributions of marketing boards with the importance of the dairy farming in Denmark; *employment opportunity, increase in government revenue, facilitates the development of transport and communication, development of other sectors, build strong international relations and development of towns.*

Another candidate had this to write: *maintain international relation, leads to growth of other sector like health, source of national income, improves pastoralism and external markets* while another one gave the general factors as: *increasing the national income, help to maintain the economy of the country, help to build good relationships with other countries, help to improve the living standard of the people and development of other sectors.*

Additionally, the candidates who scored a 0 mark failed to provide relevant definition of dairy farming, did not explain six contributions of the marketing boards and cooperative societies in Denmark towards the development of dairy farming, and provided wrong conclusions. For example, one candidate wrote: *improvement of transport and communication, development of international relationship, source of income, and development of other sectors like industries and provision of experts.*

Another candidate mixed up the contributions of marketing boards with the contribution of agriculture: *it stimulates the development of transport and communication, proves employment, leads to the development of industries, stimulates the development of science and technology, improves living standard of people and provides foreign currency.* Extract 2.5.2 shows a response that failed to meet the demand of the question.

5	<p>Agriculture is the science of keeping animal and crop cultivation, the agriculture has two types the large scale agriculture that covers the larger areas and small scale agriculture type of agriculture that cover small areas.</p> <p>The following are contribution of the marketing system boards and cooperatives societies in Denmark towards the developments of dairy farming.</p> <p>It stimulates the development of transport and transport system in Denmark, this production of milk in Denmark lead to the developments of the different part that could support and insure the source supply the raw material for selling and which can lead to the development of transport and communication which information could increase the infrastructure and the other supply of developments that could support to the support and lead to the increase in different part which could increase and lead to the support of transport and communication system that will increase the social service.</p> <p>It provides the employment to the people and generation of the incomes in the country like Denmark this will ensure the support of the provision of the social service that could lead to the employment opportunities that could support other peoples in different parts which increase and lead to the developments of-</p>
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5	to the generation of income which could support the development of governments revenues which could be engaged in other equal to support the development of other properties and which could increase and ensures the support from the abroad and which could increase the raw material and other support in the country like denmark through production of milk	
	It lead to the developments of industries and other economic sector like tourism, Mining activities and fishing activities, this will lead to the availability that could support the developments that could support the developments like the production, the formation and the production of beefs and milk for developments of the industries and developments other economic sector that could lead to the promotion and stimulate the development of of different areas that could support different developments of the different economic activities that develop with the country like denmark due to the stimulation of economic sector	
	It stimulate the development of science and technology through development of city and towns, this will lead to the different production of social services that could support could increase the availability of the social services that include water supply and power supply this could contribute to the development of science and technology the development of city and town that could lead to the support of poor utilization of natural that could support the other development of the country that involved to the developments of city and science and technology that could support the government revenue through provision of different parts.	

5	<p>It Improves the Living standard of the people, and generation of the government revenues, this lead to the development of peoples from low stages to another stage that could support the developments and increase the social services which could support and lead to the production and other economic and that could support and ensure the developments of the country and other parts in different parts which could increase and support and which support and involve the improvement of the living standard of the people and generation of the government's revenue this will increase developments of the country like denmark</p> <p>It provide the Foreign currency and the International relationship between the country that will ensure the provision of social services like health care and education system, the dairy farming has contributed to the developments of denmark and which will tend to increase the development of International relationship between the country and that will promote the management of water supply transport and communication systems that could support the other material in different parts which could support and ensure the different social services and that could support and Maintain political stability.</p> <p>Generally, Dairy Farming has contribute of in the developments of the country that could support the provision of education and improve the living standard of the people which could increase the social services like water supply and education and health which could support and make the society to support and developed in different parts that could support different social services like health care</p>
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Extract 2.5.2 shows a poor response

In extract 2.5.2 the candidate explained the importance of dairy farming instead of the contributions of marketing boards, and cooperative societies towards dairy farming in Denmark.

2.2.6 Question 6: Sustainable Use of Forestry

The candidates were required to explain why timber harnessing is easier in temperate countries than in humid regions by giving six points. The total marks allocated for this question were 20.

This question was among the highly skipped by the candidates. It was attempted by only 14.5% of the all candidates who were registered for this subject. The general performance in this question was poor since only 26.1% of all the candidates who attempted it, scored 7 marks and above. Data analysis in this question shows that a majority of the candidates (73.9%) who answered this question scored from 0 to 6.5 marks, 20.5% scored from 7 to 11.5 marks and only 5.6% scored from 12 to 20 marks. Figure 15 illustrates performance in this question.

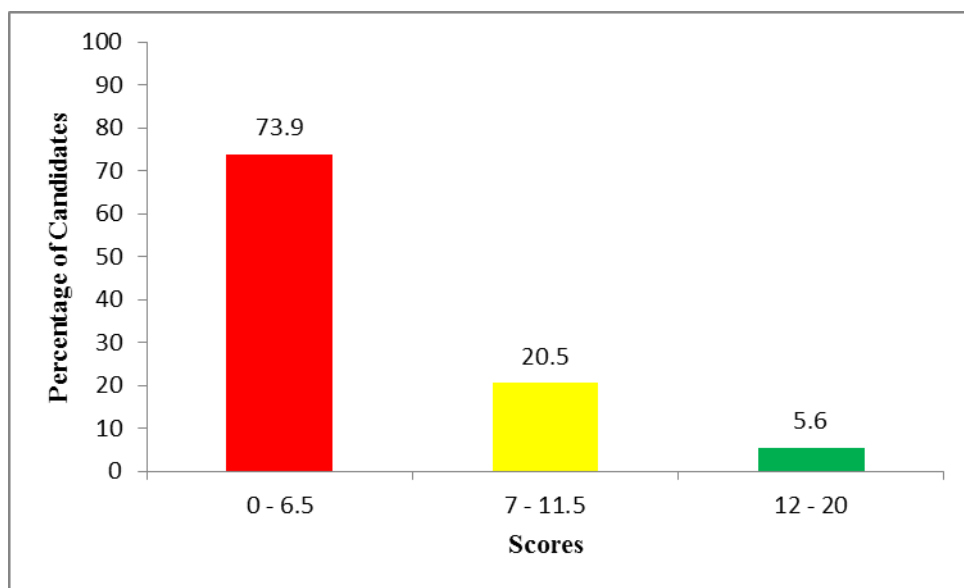


Figure 15: Trend of Candidates' Performance on Question 6

The few candidates who scored from 12 to 20 marks showed a clear understanding of the concept of sustainable use of forestry especially on the concept of timber production. For example, most of the candidates in this category were able to provide a relevant introduction on timber harnessing in temperate countries as follows: *Timber harvesting refers to the extraction of timber from the forest resources and temperate countries are those counties with temperate forests like coniferous.* They explained why timber harnessing is easier in temperate countries than in humid regions by giving six points such as: *good stands of timber of a single species across*

the area, steady demand for timber, the use of mechanical extraction of timber, easy transport, practices of sound forest programs access to market and managed to provide a relevant conclusion.

However, some of the candidates in this group provided a partial introduction, explained few points with good reasons on why timber harnessing is easier in temperate countries than in humid regions, and provided a relevant conclusion. Some were able to provide a correct introduction, few reasons of timber harnessing in temperate countries, and incomplete conclusion while, others were able to provide partial introduction, gave reasons for timber harnessing with a conclusion. Strengths and weaknesses of their points made their marks to vary. Extract 2.6.1 illustrates a sample of a candidate who performed well in this question.

e)	<p>Timber refers to the wood derived from forests or trees. Timber industries all over the world are used for construction purposes, making furniture and stimulates the growth of ship-building industries. Countries producing timber in the temperate zones are such as:- Canada, in British Columbia, The United States, and the United Kingdom while countries producing timber in the tropical or humid regions are such as:- Amazonia, Brazil, Sudan and Gabon. Tree species of both hardwood and softwoods are namely teak, ebony, mahogany, ironwood, fir, spruce and pines. Timber harnessing is easier in temperate countries than humid regions because of the following reasons:- (temperate areas are favourable for timber harnessing due to:-)</p> <p style="text-align: center;">level</p> <p>(Advanced) technology: In most temperate areas such as the coniferous belts ^{and} in British Columbia, the technology they use is advanced. Timber is mechanised through the use of modern machinery such as chain saws</p>	
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6)	<p>and large trucks that enable them to easily harness the timber in these regions. Unlike the humid regions where the most countries are still developing and hence their level of technology is not as advanced to allow easy harnessing of timber in their regions.</p>	
	<p>Presence of good Infrastructures such as roads and railways that permit easy transportation of goods timber from the areas of production to where it is required (manufacturing industries) swiftly in temperate regions. For instance the central National railway that runs in Canada from the forest regions to towns in the country and out of the states. The infrastructure in humid regions such as Sudan and Gabon is poor whereas most of timber harnessing areas are too remote and inaccessible.</p>	
	<p>Nature of forests, or distribution of forest species in the temperate regions, in the temperate regions, the tree species such as the pines and Douglas fir in Canada and other areas appear in stands and are not scattered everywhere like in humid regions. Since they all appear together in stands, it is easy to fell them using modern machinery. On the other hand, the tree species in humid regions are scattered and hence it is difficult to use machinery in harvesting them.</p>	
	<p>Most of the species grown in temperate regions are commercially valuable and are of higher quality due to suitable climatic conditions. The harnessing is easier since the species that temperate regions possess are highly demanded worldwide as well as internally in those regions. Hence the producers of timber are encouraged to produce more since they receive much from its extraction. These species are such as: Douglas fir largely produced</p>	

6.	<p>in the Canada as well as spruce and pines and oaks. humid areas possess hardwood species that are quite bulky and difficult to fell. They are also not commercially valuable as the temperate's.</p>
	<p>Capital outlay for timber industry:-(Capital availability). In temperate areas due to the increasing affluence and good economic stability, they are able to invest in the timber industry. The capital is used to finance the purchase of machinery, payment of labour and other processing facilities required in harnessing timber. The humid regions are still developing countries at most and hence don't have capital to invest. This is the case for Tanzania</p>
	<p>and heaviness Bulkiness of the tree species in humid regions makes it difficult to harness them. Most of these tree species are very heavy hardwoods like ironwood and teak which have to be treated first by ringbarking a year before, just so they may be felled or harnessed. It is also difficult to transport them using navigable rivers nearby since they are too heavy and thus cannot float. The temperate regions have softwoods mostly which are light and easily floated on rivers to where they are required hence it is easier for temperate regions to harness timber compared to humid areas.</p>
	<p>Conclusively; The timber industry in humid areas may be improved by improving infrastructure, establishing universities and colleges to train people as well as government support is very essential.</p>

Extract 2.6.1 Sample of a good response

Moreover, the candidates who scored from 7 to 11.5 marks show moderate understanding of the concept of timber production. Some of the candidates were able to give a correct introduction of both timber harnessing and temperate countries, explained incompletely the reasons for timber harnessing being easy in temperate countries, and provided a conclusion. Some managed to provide a definition of timber harnessing only, explained few reasons for timber harnessing in temperate countries, but without a relevant conclusion. Others managed to provide partial introduction, a few reasons with partial explanation of timber harnessing in temperate countries and gave relevant conclusion. Variation in marks was influenced by the strength of their responses.

On the contrary, most of the candidates who scored from 0 to 6.5 marks showed limited knowledge of timber production in the temperate countries, as a result they responded incompletely to the question. They provided few relevant points, and without a conclusion. Some of the candidates provided a partial introduction, failed to give reasons for timber harnessing in temperate countries, and with incomplete conclusion. For example one candidate wrote: *availability of water in the temperate forest region, good climatic condition in the temperate forest, good soil in the temperate region, inadequate pest and diseases in temperate region, topographical factors and biotic factors*. Some failed to give an introduction, provided few reasons without any detailed explanations while, others failed to give introduction, they mixed up correct and incorrect answers without relevant conclusion. The difference in their marks was caused by the strength of their responses.

However, the candidates who scored a 0 mark lacked knowledge of and skills in timber production. Many candidates in this category provided an incorrect introduction of timber harnessing in temperate countries, and also failed to give reasons for timber harnessing, and provided irrelevant conclusions. For example, one candidate explained the factors for the growth of plants or forests in temperate regions. He/she wrote: *presence of good soil, availability of good species, presence of moderate climate, good geographical relief, presence of river catchment area and plenty of labours* instead of reasons on why timber harnessing is easy in temperate countries than in humid regions. Extract 2.6.2 is a sample of such poor response.

6.	<p>Timber refers to the lumbering activities taking place. It is the action of cutting down tree species for trade or economic purposes. Temperate countries are those countries found in tropical areas, while humid regions are found in polar areas. Timber harnessing is much more easy in the temperate countries compared to humid regions;</p>
	<p>Presence of good tree species; Apparently in temperate countries, there is the presence of a good tree species both softwood and hardwood; and mostly it is the hardwood that is much needed in the market. For instance in Gabon there is the presence of tree species such as Mahogany or, okume and even in Sudan.</p>
	<p>Availability of labour; In the temperate countries such as Gabon, Tanzania there is the presence of much labour who are mostly skilled. Because in the temperate countries there is the</p>

6.	availability of enough food for workers.	
	Therefore harnessing in temperate countries is better than humid regions.	
	Good Climate; Apparently	
	timber harnessing is much concentrated	
	in the temperate countries due to	
	the presence of good climate that	
	good soil fertility, presence of enough	
	rainfall thus they stimulate occurrence	
	of timber activities. Example in Gabon,	
	and East African countries timber	
	harnessing has been well conducted	
	compared to the humid regions.	
	Reliable Market; Timber harnessing	
	is much exploited in temperate	
	countries due to the presence of reliable	
	market. In the temperate countries such	
	as Tanzania and Gabon the market	
	both domestic and international is very	
	reliable thus bringing great expansion	
	in the timber industry. Hence timber harnessing	
	in temperate countries.	
	Good transport and communication;	
	In the temperate countries good	
	transport facilities have contributed to the	
	practising of timber harnessing due to	
	presence of good road networks in	
	the timber areas. For instance in Gabon and	
	Sudan there is the presence of good	
	transport and communication thus it induces	
	such activities to take place.	

6.	<p>Lastly, there is the presence of conducive environment; in the temperate countries as there is the presence of good environment for human settlement who would be appropriate for the provision of labour for instance Gabon is covered almost the whole country with forest though it has conducive environment for its people.</p> <p>Therefore, timber harnessing in the temperate countries is well established because in the humid regions there is the presence of obstacles such as dangers as animals, also lack of conducive climate and inadequate tree species. Hence Timber industry should be encouraged in the temperate countries.</p>
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Extract 2.6.2 represents a sample of incorrect answers

2.2.7 Question 7: Environmental Friendly Tourism

The question required the candidates to examine six factors that hinder the development of the tourism industry in Tanzania. The total marks allocated for this question were 20.

This question was among the most attempted one as it was answered by 99.5% of all the candidates who registered for this subject. The general performance in this question was good since 92.7% of the candidates scored 7 marks and above. An analysis of performance on this question shows that 44.3% of the candidates scored from 12 to 20 marks, 48.4% scored from 7 to 11.5 marks, and 7.3% scored from 0 to 6.5 marks. Figure 16 illustrates this performance.

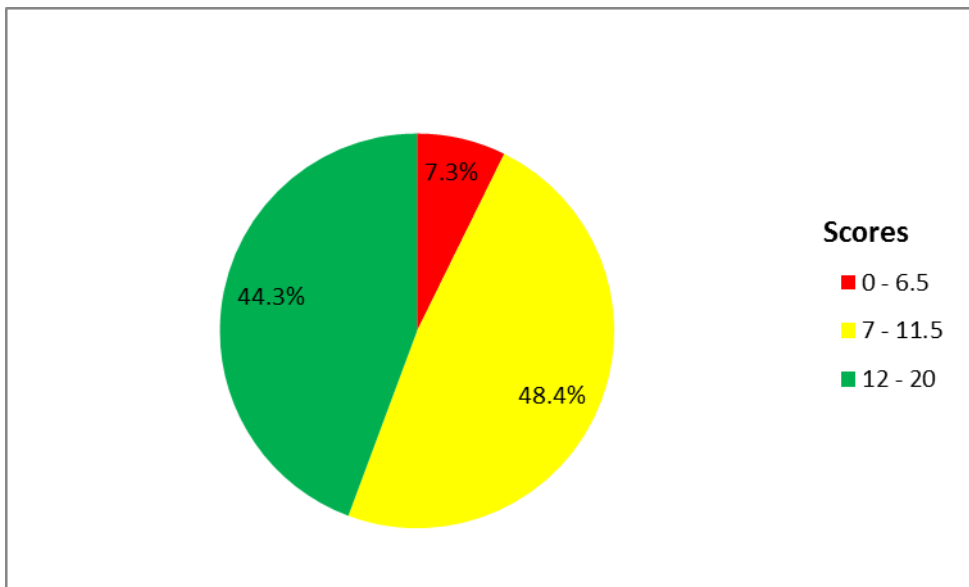


Figure 16: The Trend of the Candidates' Performance on Question 7

The candidates who scored from 12 to 20 marks were able to transfer the knowledge of the subject matter. The ideas were well aligned to the demands of the question. For example, some of the candidates were able to give a correct introduction of the tourism industry as *the process of facilitating the movement of people for leisure, education, business, involving hotels and accommodation management and travelling package.*

They were able to examine six factors that hinder the development of the tourism industry in Tanzania, with a high level of critical analysis, including different points of view which were relevant such:

Presence of high population growth, inadequate capital, lack of proper managerial skills, limited identification and advertisement, poor accommodation and transport, social unrest/deviant behavior, decrease of valuable animals, lack of awareness among the local people, weak implementation of government policies, limited focus to other tourist attractions and competition from other sectors.

Also, they ended up with a relevant conclusion. Some of them were able to provide a relevant introduction, explained six factors that hinder the development of the tourism industry in Tanzania, but failed to give a relevant conclusion. Some gave incomplete introduction, explained clearly the factors that hinder the development of the tourism industry in Tanzania but without giving a conclusion. Others managed to define the tourism

industry in the introduction, explained in detail few factors that hinder the development of the tourism industry in Tanzania, and provided a relevant conclusion. The strengths and weakness of the candidate's responses led to the variation in scores from 12 to 20 marks. Extract 2.7.1 is a sample of such a good responses.

7.	<p>Tourism is the movement of people from one place to another for studies or for leisure and other purposes. Tourism industry in Tanzania is hampered by factors like Availability of honeypots, like like Mt Kilimanjaro, Ngorongoro crater, Serengeti National park, Selous Game reserve and so forth. Despite all these, there are factors that hinder the development of tourism industry in Tanzania. These factors are;</p> <p>Poor policy on tourism; Tanzania has poor policy on tourism that hinders the development of the industry in the country since it doesn't conduct campaigns on tourism, it has not advertised Tanzania's tourism in other countries making it unpopular hence leading to underdevelopment of the sector.</p> <p>Lack of skilled personnel; tourism industry is underdeveloped due to insufficient skilled labourers who could work in hotels and the^{as} tour guides in the tourism agency. and thus making the visitors feel-welcomed but instead the tour guides are untrained and so they fail to communicate with the visitors hence hindering development of the sector.</p> <p>Poor infrastructure; tourism industry development is hindered by poor infrastructural systems which includes poor roads, airway systems also waterways which make the visitors lack or lose interest with the country since most of the tourists like travelling in comfortable vehicles and transport systems and thus due to poor infrastructure the sector is not developed.</p> <p>Shortage of funds; Tanzania is a poor country and so there's a problem of shortage of funds which may have been useful in improving the tourist sites and the accommodations in order to make them more importa-</p>
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7.	<p>ble for the tourist to dwell in. This problem leads to stagnation in development of tourism industry in Tanzania.</p> <p>Prevailing illegal activities; tourism industry in Tanzania is highly hindered from development by occurrence of illegal activities such as poaching which lead to the loss of animals (wild life animals) which are precious to the country especially The Big Five animals namely Lion, Elephant, Rhinoceros, Buffalo and Wildebeast. This is evident in the case of the Rhino that was killed due to its precious horns it was named "Faru John".</p> <p>Competition from neighbouring countries; tourism industry in Tanzania is underdeveloped due to high competition from countries like Kenya that are more developed than Tanzania and also due to the fact that they claim that Mt. Kilimanjaro is their mountain and so advertise it worldwide making Tanzania lose market in the tourism industry for being the country with the highest mountain in Africa.</p> <p>Conclusively, tourism industry in Tanzania can be developed by involving local people in maintaining the tourist attraction, provision of on-job training to the workers, seeking foreign assistance or aids and strengthening of the policies by enacting strict punishments to the ones caught doing illegal activities in the tourist areas/zones.</p>
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Extract 2.7.1 indicates a sample of such a good response

However, the candidates who scored from 7 to 11.5 marks showed moderate understanding of the concept of environmental friendly tourism especially on factors that hinder the development of the tourism industry in Tanzania. Some of the candidates in this category provided an introduction of the tourism industry, examined incompletely six factors that hinder the development of the tourism industry in Tanzania, without concrete examples but provided relevant conclusion. Some of them managed to give an introduction of tourism industry, examined few factors that hinder the

development of tourism industry in Tanzania and provided incomplete conclusion. Others provided a partial introduction, and examined incompletely the factors that hinder the development of the tourism industry in Tanzania with concrete examples without a relevant conclusion.

Moreover, the candidates who scored from 0 to 6.5 failed to transfer their knowledge of the subject matter. This led them to score low marks. For example, one candidate provided a relevant introduction, but with incorrect points and relevant conclusion. He/she wrote the factors for the development of the tourism industry instead of the factors which hinder the development of tourism: *availability of good transport and communication, good climatic, technology, good government support, availability of political stability, attractive landscape, availability of social services, social and political stability and good government policy.*

Additionally, some candidates in this category failed to meet the demands of the question. Their explanations were both not clear or lacked depth and scope of coverage. These candidates did not seem to understand the question which was specific on the development of the tourism industry. As such, they provided an incorrect introduction of the tourism industry, failed to explain the factors that hinder the development of the tourism industry in Tanzania, and provided an irrelevant conclusion. Extract 2.7.2 is an example of a poorly written response.

7.	<p>Tourism; refers to the movement of people from one place to another place for business, education and for tour. Tanzania is the most of the nation in Africa which develop much in tourist activities and this is due to the presence of more tourist areas such as Serengeti, Mikumi, Manyara and others - areas such as the mount Kilimanjaro which attract tourist to visit Tanzania. Now the following are the factors that hinder the development of tourism industry in Tanzania as follows.</p>
	<p>Political stability, this is the among of the factor which hinder the development of tourist industry in Tanzania. Presence of good and stable political system in Tanzania influence much to the growth of tourism in Tanzania and this is due to the presence of peace and security in the nation so through that influence much to the rise of tourism in Tanzania.</p>
	<p>Transport and Communication; also the transport and communication such as roads, railway line network system and air port influence much to the growth of tourism in Tanzania. This is due to the simplification of transportation from one area to another area to visit different recreation centres so through that led to the development of tourism in Tanzania.</p>
	<p>Presence of recreation centres; also the availability of good and with high quality of different recreation centres influenced much to the growth of the tourist in Tanzania. Some few example of recreation centres are like Ngongone, Manyara, Mikumi and Serengeti which attract the tourist.</p>

7.	<p>Availability of good social services; not only that also the presence of good social services such as hospitals food and shelter influenced much to the development of tourism industry in Tanzania. So through that development of tourism occurred in Tanzania.</p> <p>Climatic Condition; the presence of good climate in Tanzania also influenced much to the development of tourism in Tanzania. The presence of good and conducive climate in Tanzania attracted different people from different nation to visit in Tanzania.</p> <p>Availability of enough capital to invest; in addition to that also the availability of enough capital or money to invest much in tourism activities has contributed much to the growth of Tanzania tourism and this act also as the sources of income to the nation which help to improve the social services such as schools, hospitals and transport and communication.</p> <p>Generally; the tourism in Tanzania as - contributed much to the growth of economy of the nation and this is due to the foreign currency they got from the tourist used to invest much to other sector such as Agriculture industries and also transport and communication.</p>
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Extract 2.7.2 is an example of poor responses

In extract 2.7.2 the candidate provided relevant introduction but explained factors that favour the development of the tourism industry in Tanzania, instead of factors that hinder development of the tourism industry in Tanzania.

2.2.8 Question 8: Sustainable Fishing

This question required candidates to analyse six strategies of fish conservation practised in the world. The total marks allocated for this question were 20.

The question was attempted by 65.9% of all the candidates. The general performance in this question was good because 85.3% of the candidates who attempted this question scored 7 marks and above. Data analysis in this question shows that 45.6% of the candidates who answered it scored from 12 to 20 marks, 39.7% scored from 7 to 11.5 marks, and 14.7% scored from 0 to 6.5 marks. Figure 17 illustrates the performance on this question.

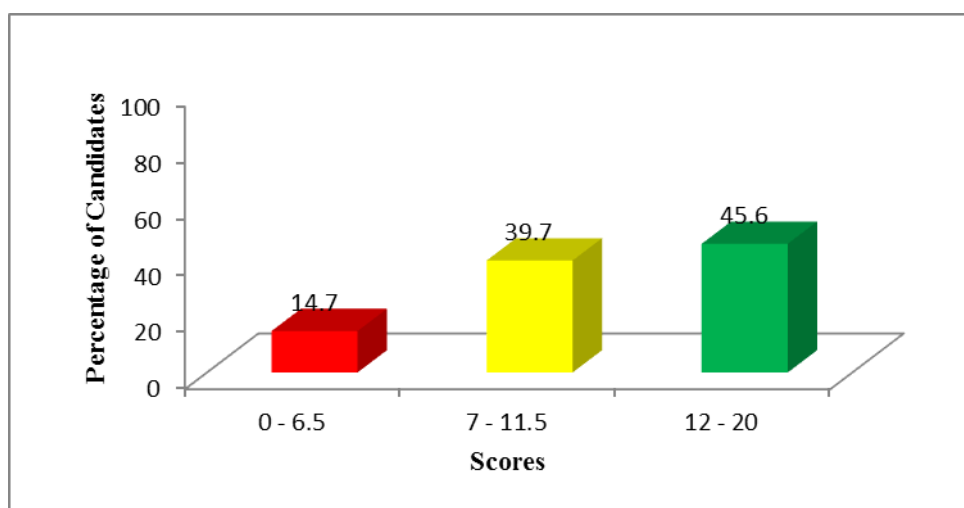


Figure 17: Trend of the Candidates' Performance in Question 8

The candidates who scored from 12 to 20 marks showed an understanding of the concept of sustainable fishing, especially on the strategies of fish conservation measures in the world. For example, some candidates were able to give correct introduction as *fisheries and fishing grounds have been declining in the world due to overfishing, water pollution by chemicals from plants and factories*. They provided six strategies of fish conservation measures practised in the world as follows: *restocking of overfished water, forbidding indiscriminate fishing, artificial fertilization of eggs, protection from pollution, international agreement on fisheries boundaries, researches in the world fisheries, licensing fishermen so as to control their number* and they provided relevant conclusion.

The other candidates in this group provided a partial introduction, analyzed six strategies for fish conservation measures incompletely and ended up

with a relevant conclusion. The strengths and weaknesses of the candidates' responses led to the variations in marks. Extract 2.8.1 is a sample of good responses.

g.	<p>been discarded. For Instance, proper fishing methods like trawling, Seining and Drifting are encouraged to be used by the fishermen for the main purpose of maintaining fish resources whereas bad and illegal fishing methods which are mostly used in Africa like using of poison and dynamites had been discouraged as they replenish fish resources.</p> <p>Setting of Fishing Boundaries; This is another measure for fish conservation measures in which different nations in the world engaged in fishing has set limits for fishing so as to conserve fish species. For Instance, In Russia and Japan, these nations has set for each other boundaries of fishing in which to a certain extent no one is allowed fish so as to maintain the amount of fish species available.</p> <p>Using of Artificial Egg Fertilization; In the world, different countries has been employing this strategy so as conservation of fish resources is taking place in which there has been using of artificial eggs of fish species due to advancement in technology. For Instance, the artificial eggs are hybridized and be made to multiply something which increases a number of fish species as they are later on returned to the waterbodies. This strategy has been mostly employed by the advanced nations like Russia and Japan and it has been highly successfully.</p> <p>Provision of Education to the Mass; In order to conserve fish resources in the world</p>	
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8	<p> id, different nations have been providing education to the people on various ways through which they can protect the waterbodies and ensure safety of the fish species. For instance, the people have been educated about the importance of keeping the waterbodies clean and avoiding pollution such as by avoiding spilling of oil which highly affects the growth of fishes. This strategy has been successful in different ways in promoting fish conservation. </p> <p> Enacting of Strict Laws on Fishing; Different nations have been enacting very strict laws about fishing which are accompanied by heavy punishments to the people violating the laws as one of the strategies for fish conservation. For instance, strict laws on the pollution of waterbodies have been put into action but also laws concerning illegal fishing methods are taking place in countries like Tanzania and Russia. All this has been done for the purpose of conserving fish resources. </p> <p> Conclusively, Fish Conservation is very important, as these fish resources are very useful for the economic development of the nations as they facilitate development of oil industries, accumulation of foreign currencies but also promotion of trade among different countries. </p>	
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Extract 2.8.1 sample of good response

Furthermore, the candidates who scored from 7 to 11.5 marks showed a moderate understanding of the concept of sustainable fishing, especially on fisheries and fishing ground. However, they were not able to score above 11.5 marks due to lack of good coverage of the sub-topic, and generalized responses.

Moreover, the candidates who scored from 0 to 6.5 marks did not show competence in the concept of sustainable fishing especially, on fisheries and fishing grounds. Many of the candidates lacked knowledge on how to

conserve fishing grounds, instead they focused on how to preserve fisheries as a result they failed to score high marks. For example, some of the candidates were able to provide a correct introduction but failed to analyze six strategies for fish conservation measures practiced in the world because they mixed up fishing preservation with fishing conservation by writing: *through smoking, use of refrigerators, burning, freezing, salting, drying, roasting and canning.*

On the other hand, some of the candidates in this category provided an irrelevant introduction of fisheries and fishing ground, irrelevant strategies for fish conservation measures practised in the world by writing: *ignorance of fish monger, low support of a government, water pollution and bad way of fishing* and he/she ended up with irrelevant conclusion. Another candidate explained the contribution of fish conservation, instead of strategies for fish conservation as he/she wrote: *employment opportunity, improvement of social services, encouragement of H.E.P station, establishment of trading activities, stimulates other sector and lead to enough source of food.* Extract 2.8.2 is a sample of such poor response.

8.	<p>Fish conservation refers to the process used in fish preservation from being perishable. Also as known fish is perishable product so it should be preserved well so as it can stay long. There are many industrial countries which they are engaged in fishing industries like Russia, Norway, Japan and other many countries.</p> <p>The following are the strategies for fish conservation measures practised in the world as follows:</p> <p>Smoking: This is whereby the processed smoke is used to preserve fish, in which fire and the smoke which is provided from the wood fuel is directly to the fish hence become dried and stay for a long time. For example of countries which use these methods is China and some parts in Tanzania like Moshi, they are practised these methods.</p>
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8:	<p>Salting and drying; Using of too much salt and drying the fish on the sun is among the method used to conserve fish like Japan the also use this method but in small quantity, so the fish is well dried and using salt on fish so that it can not perish.</p>
	<p>Refrigeration; This is most an advanced method which is used mostly in developed countries like China, Japan and Russia to preserve fish. So this is the long term measure which preserve fish for the long time without perishing, so due to advanced technology of fridge fish can stay even for a week without perishing. Also in fish businesses use fridge to preserve fishes.</p>
	<p>By using vinegar; Also this act as a lemon juice which have the ingredients which prevent fishes from perishing, so the applying of vinegar can also preserve fishes for a long time without perishing, and also this method is used in many countries in the world because the method is used and useful to many countries.</p>
	<p>Boil or Roasting and drying; Fishes can also be boiled or roasted and they dried on the sun or by using fire, so this also help the fishes to stay for a long time without perishing, because the method does not use much chemicals in preserving and conserving fishes, and it's also traditionally used by many people in many countries.</p>
	<p>Canning; Is another strategy used to conserve fish by using the chemicals which can preserve and make a fish to stay for a long period of time approximately one week and some days and also by considering the health of peoples, the so the chemical used they are not much affect the health of people, so the method is also most useful to developed countries like Norway, Japan and other</p>

Extract 2.8.2 sample of such poor response

3.0 PERFORMANCE OF CANDIDATES IN EACH TOPIC

The analysis of candidates' performance in each topic shows that, candidates performed well in 12 topics out of 14 as they scored 35 marks and above. These topics were *Topographical Map Interpretation* (88.5%), *Photographs Interpretation* (94.5%), *Water Masses* (85%), *Space Dynamics* (94.7%), *Position Behaviour and Structure of the Earth* (94.9%), *The Dynamic Earth and Consequences*(95.1%), *Study of Soil* (83.9%), *Field Research Strategies* (77.2%), *Sustainable Fishing* (85.3%), *Agricultural Development* (95%), *Population and Development* (80.4%) and *Environmental Friendly Tourism* (92.7%). Further data analysis shows that in this year's examination there was no topic which had an average performance. However, there were two (2) topics in which the candidate performance was poor. These topics were *Simple Survey and Map Making* (27.3%) and *Sustainable Use of Forestry* (26.1%) as illustrated in Figure 18.

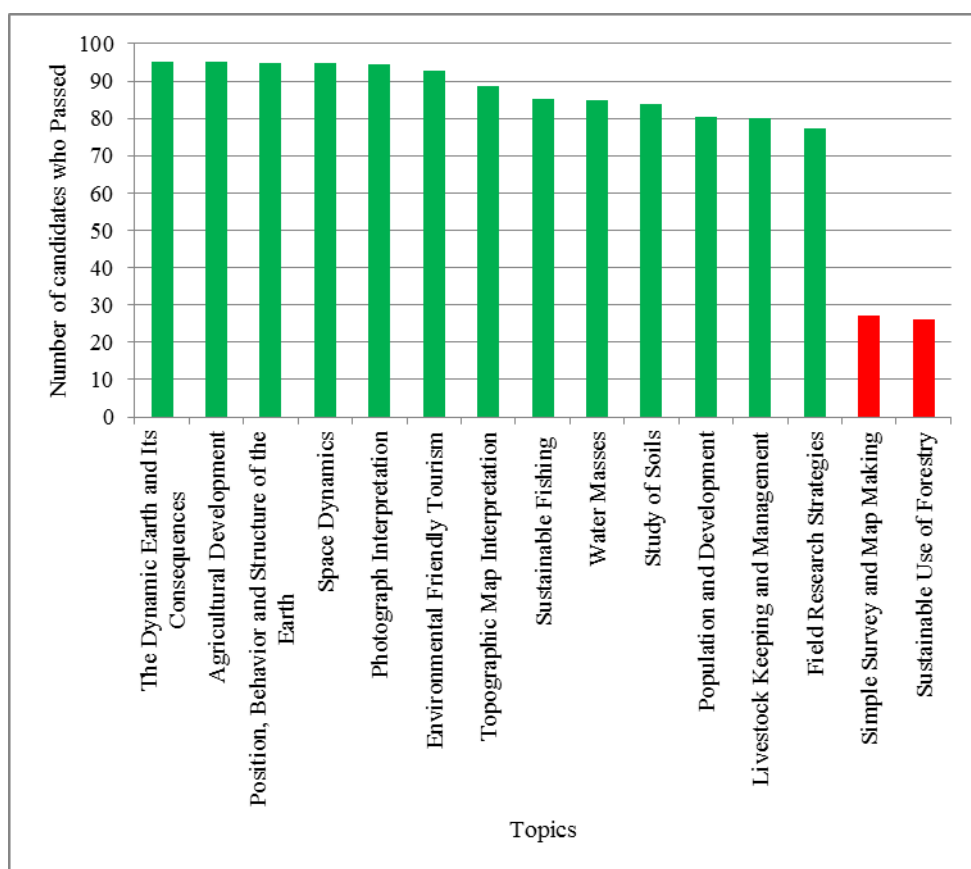


Figure 18: Performance of Candidates on each Topic

4.0 CONCLUSION AND RECOMMENDATIONS

4.1 CONCLUSION

As it has been observed in the analysis of questions, the performance in the Geography subject for Advanced Certificate of Secondary Education Examination (ACSEE) 2019 was good. The analysis shows that the candidates' good performance was caused by the ability of the candidates to identify the demands of the questions, the candidates' sufficient knowledge of the subject matter, and proficiency in the English language, as well as computation and drawing skills. On the contrary, candidates with weak performance revealed lack of these skills.

4.2 RECOMMENDATIONS

Basing on the observation made through the candidates' item response analysis (CIRA) report, in order to improve the performance of prospective candidates in this subject, the following recommendations are made:

- (a) Activities outside the classroom should be encouraged and promoted. In Geography, a student learns better if the teaching is supported by concrete materials that give the student first-hand knowledge and experience. For example, when teaching field work, a trip to a riverside, factory, forest, some specimen of seeds, fruits or vegetables, rocks and minerals would facilitate concrete illustrations in Geography lesson and will improve students' performance.
- (b) Teachers should help learners to acquire the required knowledge and skills in all topics so that they can develop competencies in answering their examination questions especially on: drawing physical features, sketching maps as well as arranging their work in a proper way. For example, question 2 in Paper One, most of the candidates skipped it, and those who attempted it performed unsatisfactorily due to their inability to interpret it correctly, as the question required the candidates to have knowledge in carrying out a survey.
- (c) Classroom teaching and learning process should be endowed with practical activities. It is always believed that students learn better if the whole process is supported by concrete materials that give learners the experience and hands-on knowledge.

- (d) Teachers should put more efforts in teaching the *Simple Survey and Map Making* topic whose performance is keeping on deteriorating. This topic is best taught in the field so that students will understand easily, and hence be aware of the correct uses of survey instruments.

Appendix

Comparison of Candidates' Performance in Topics between Year 2018 and 2019

S/N	Topic	2018			2019		
		Number of questions per topic	Percentage of Candidates who scored an average of 35 percent or more	Remarks	Number of questions per topic	Percentage of Candidates who scored an average of	Remarks
1.	<i>The Dynamic Earth and Its Consequences</i>	1	25.3	Weak	1	95.1	Good
2.	<i>Agricultural Development</i>	1	91.1	Good	1	95	Good
3.	<i>Position, Behavior and Structure of the Earth</i>	1	67.9	Good	1	94.9	Good
4.	<i>Space Dynamics</i>	1	46.9	Average	1	94.7	Good
5.	<i>Photograph Interpretation</i>	1	93.7	Good	1	94.5	Good
6.	<i>Environmental Friendly Tourism</i>	1	99.1	Good	1	92.7	Good
7.	<i>Topographic Map Interpretation</i>	1	93.7	Good	1	88.5	Good
8.	<i>Sustainable Fishing</i>	1	96.7	Good	1	85.3	Good
9.	<i>Water Masses</i>	2	71.1	Good	1	85	Good
10.	<i>Study of Soils</i>				1	83.9	Good
11.	<i>Population and Development</i>	3	69.1	Good	3	80.4	Good
12.	<i>Livestock Keeping and Management</i>				1	80	Good
13.	<i>Field Research Strategies</i>	1	88.0	Good	1	77.2	Good

S/N	Topic	2018			2019		
		Number of questions per topic	Percentage of Candidates who scored an average of 35 percent or more	Remarks	Number of questions per topic	Percentage of Candidates who scored an average of	Remarks
14.	<i>Simple Survey and Map Making</i>				1	27.3	Weak
15.	<i>Sustainable Use of Forestry</i>				1	26.1	Weak
16.	<i>Manufacturing industries</i>	1	97.5	Good			
17.	<i>Sustainable Mining</i>	1	97.5	Good			
18.	<i>Application of statistics in Geography</i>	1	69.0	Good			
19.	<i>Sustainable use of fuel and power</i>	1	97				

