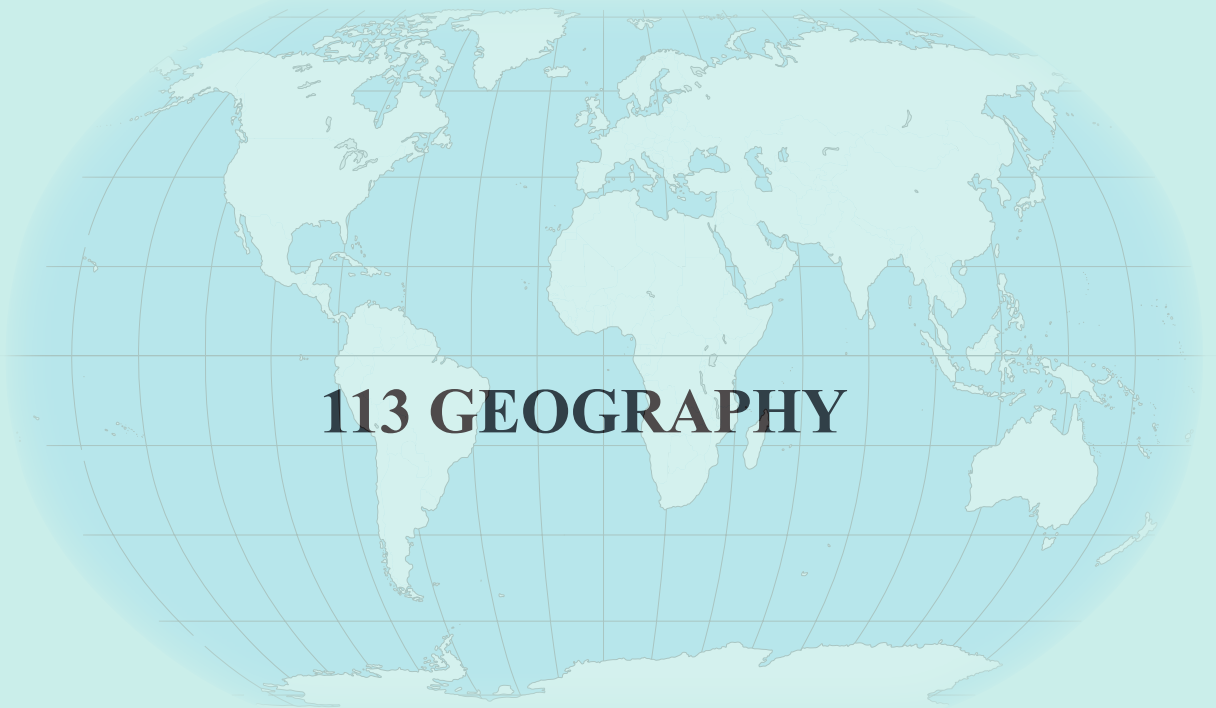
THE NATIONAL EXAMINATIONS COUNCIL OF TANZANIA

CANDIDATES' ITEM RESPONSE ANALYSIS REPORT FOR THE ADVANCED CERTIFICATE OF SECONDARY EDUCATION EXAMINATION (ACSEE) 2018



113 GEOGRAPHY

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FOREWORD

The report on the Candidates Item Response Analysis (CIRA) for the 2018 Advanced Certificate of Secondary Education Examination (ACSEE) in 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 public in general on the performance of candidates and the extent to which the instructional goals and objectives were met.

The Advanced Certificate of Secondary Education Examination marks the end of the two years of advanced level of secondary education. It is a summative evaluation which shows the effectiveness of the education system in general and education delivery system in particular. Basically, the candidates' responses to the examination questions indicate what the education system was able/unable to offer 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 information of this analysis has been shown by using figures and graphs. The analysis of candidates' responses shows that the following factors have contributed to the candidates ability to answer examination question correctly and score higher marks: ability to understand the demand of the questions; having basic knowledge on the subject matter; possessing skills in computing and drawing; and good mastery of English Language proficiency and essay writing skills. However, the candidates with lower scores depicted contrary attributes.

The National Examinations Council of Tanzania believes that, this report shall be the base for enabling all education stakeholders including the 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 others who provided valuable assistance in the preparation of this report. The Council will highly appreciate comments and suggestions from teachers, students and the public in general that can be used for improving future item response analysis reports.

Dr. Charles E. Msonde
EXECUTIVE SECRETARY

1.0 INTRODUCTION

The 2018 Advanced Certificate of Secondary Education Examination (ACSEE) in Geography subject covered the 2010 syllabus and adhered to the 2015 Examination Format (Revised version). The examination consisted of two papers: one and two.

Paper one consisted of two sections: A and B. The candidates were required to attempt any five questions from this paper whereby, Section A had four questions from the following topics: Topographic Map Interpretation, Application of Statistics in Geography, Field Research Strategies and Photograph Interpretation. Question number 1 was compulsory and candidates were required to choose any one question from the three remaining questions in this section. Section B had five questions set from the following topics: Water Masses, Space Dynamics, Position, Behaviour and Structure of the Earth and the Dynamic Earth and Consequence. The candidates were required to attempt any three questions out of five provided.

Paper Two had two sections: A and B which consisted of eight questions. The candidates were required to attempt a total of five questions. Section A had three questions which were set from the topic of Population and Development and the candidates were required to attempt any two questions. Section B had five questions set from Regional Focal Studies topics, whereby the candidates were required to attempt any three questions.

This report analyses the 2018 performance of the school candidates who sat for the ACSEE in Geography subject. In this report, the title of each question is a topic from which the particular question was derived. The performance in each topic is ranked as: unsatisfactory, average and good if the percentage of candidates scores lay in the range of 0 to 34, 35 to 59 and 60 to 100 respectively. The report is intended to give feedback to the educational stakeholders on the performance of the candidates on each question by showing what the candidates were required to do as well as the strengths and weaknesses in their response.

A total of 44,668 candidates sat for the ACSEE 2018 in Geography paper out of which 44,037 candidates (99.18%) passed while 631 candidates (0.82%) failed. Generally, the performance of the candidates in 2018 decreased by 0.01% compared to that of 2017 in which 99.19% of candidates passed while, 0.81% failed. Samples of the candidates' answers are attached to illustrate their responses. It is expected that the report will be useful to educational

stakeholders and will enable teachers and students to improve the teaching and learning process in Geography subject.

2.0 ANALYSIS OF THE CANDIDATES' PERFORMANCE IN EACH QUESTION

The Advanced Certificate of Secondary Education Examination (ACSEE) in Geography subject is designed to test candidates' ability to grasp and apply knowledge in various situations. It also tests the ability to demonstrate, analyse, reason and interpret various Geographical phenomena such as: physical features, photographs and maps. The candidates are required to draw conclusion from the observations and interpretations.

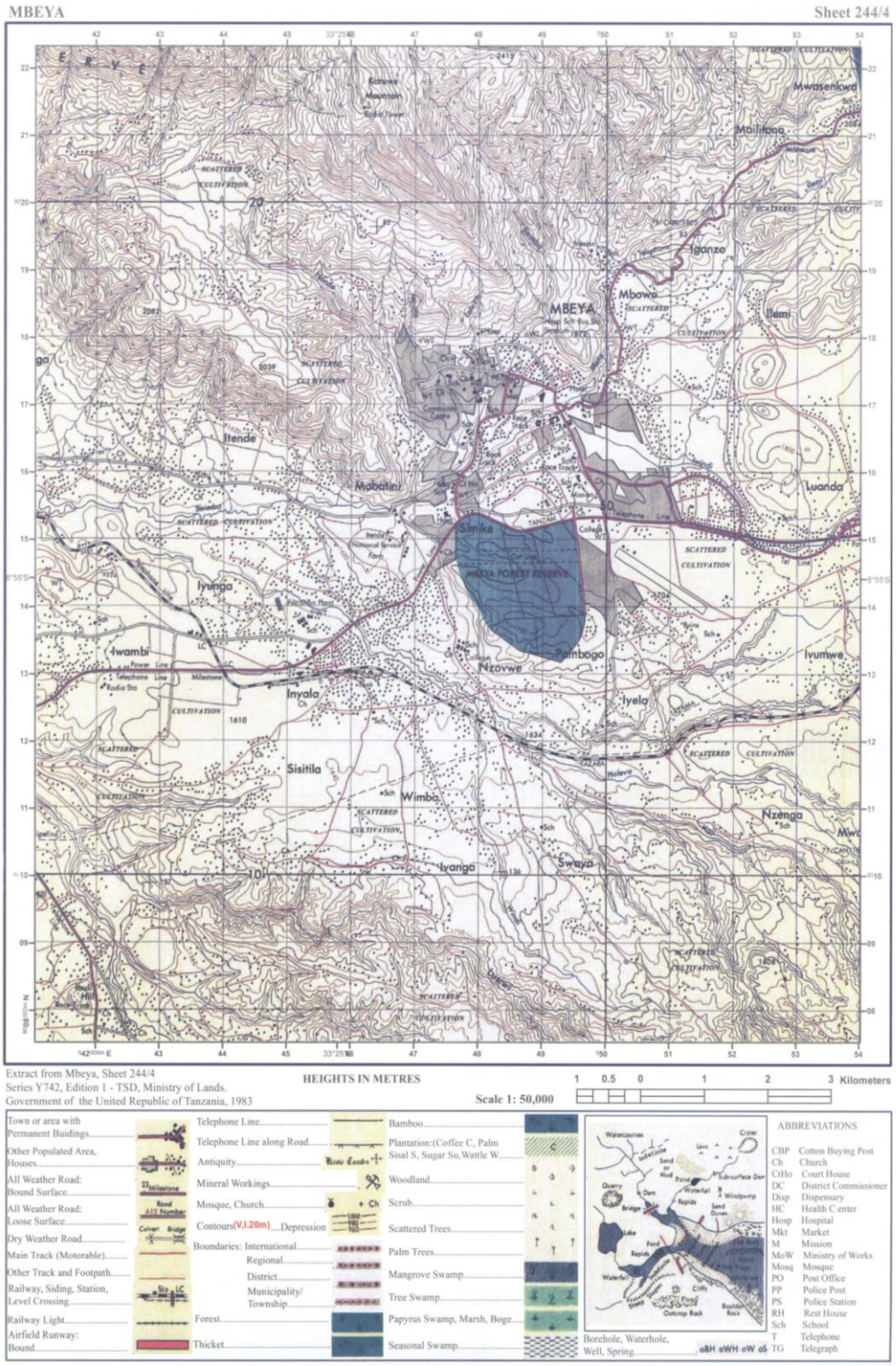
2.1 113/1 GEOGRAPHY PAPER ONE

Section A: Topographical Map Interpretation, Application of Statistics in Geography, Field Research Strategies and Photograph Interpretation.

2.1.1 Question 1: Topographical Map Interpretation

The candidates were instructed to study carefully the map extract of Mbeya sheet (244/4) provided and then answer the followed questions. The questions consisted of five parts: (a), (b), (c), (d) and (e). The candidates were required in part (a) to calculate the area covered by Mbeya Forest Reserve; (b), to identify factors which were likely to have influenced the location of Mbeya town; (c), to identify the types and distribution of vegetation cover; (d), in not less than two points for each, comment on: (i) land use, (ii) settlement pattern, (iii) relief, (iv) rock types, and in part (e), to identify three ways that have been used to show relief. The total marks allocated for this question was 25.

MAP EXTRACT OF MBEYA SHEET 244/4



The question was compulsory, therefore, it was attempted by all candidates (100%) whereby, 27.2 % scored from 15 to 25 marks, 57.5 % scored from

9 to 14.5 marks and 15.3% scored from 0 to 8.5 marks. The general performance in this question was good since 84.7% of the candidates scored 9 marks and above. Figure 1 illustrates performance in this question.

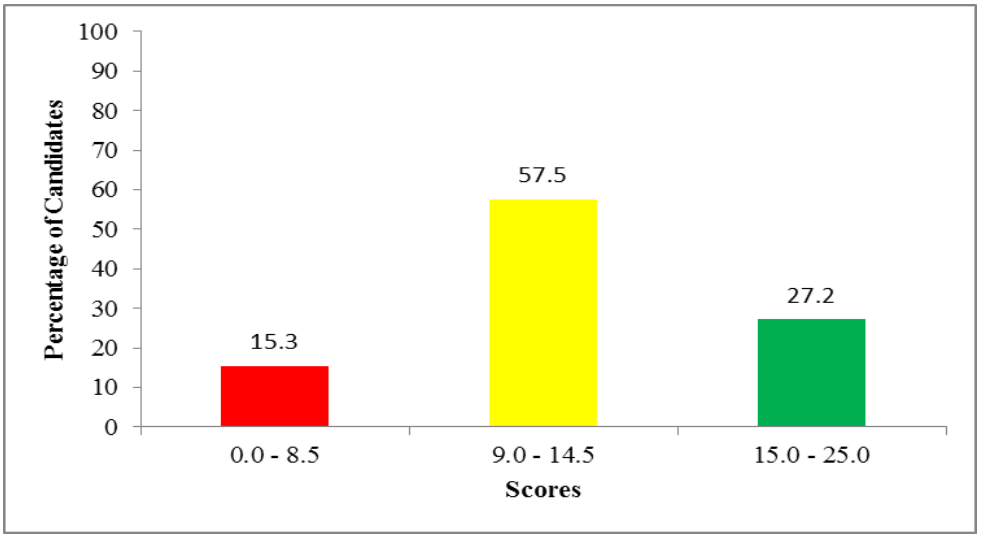


Figure 1: *The Trend of the Performance of the Candidates' in Question 1.*

The candidates who scored from 15 to 25 marks had good knowledge and skills of calculating areas, determining factors which influence location of the area, identification of types of vegetation cover and their distribution. Furthermore, most of them gave correct comments on the land use, settlement pattern, relief and rock types. They also identified correctly ways that were used to show relief on the map.

In part (a), majority of the candidates managed to calculate the area covered by Mbeya Forest Reserve which was *5km*^{2}; they were able to apply correct procedures and formula in determining the area. In the first step, they correctly counted the number of squares in which complete square was *01* and incomplete squares were *08/2,* therefore, the total number of squares was *05.* In the second step, they calculated the area of one square, whereby the length of each side was *02 cm,* the map scale was *1:50000,* therefore the area of one square is equal to *side x side = side*^{2}. This implies that the area of one square is equal to *1km x 1km= 1km*^{2}. Finally, they calculated the area of Mbeya Forest Reserve as *05 squares x 1km*^{2} *= 05km*^{2}.

Furthermore, some of the candidates in this category failed to identify the total number of squares. They obtained the number of full squares as *0* and half squares as *7/2* and they obtained the number of squares as *4.5* which

made them to calculate the area of Mbeya forest reserve as *4.5 km^2*. Some of the candidates identified the number of full squares as *1* square (which was correct) and the number of half squares as *7/2* (which was wrong). Therefore, they calculated the area of the Mbeya forest reserve as *4.5km^2*. The other candidates identified the number of full squares as *1* and the number of half squares as *9/2,* this made them to calculate the area of Mbeya forest reserve as *5.5km^2*. This made them to vary in their scores.

In part (b), most of them were able to identify the factors which have influenced the location of Mbeya town such as:

> *Availability of social services e.g. presence of churches and hospital, presence of transport and communication networks e.g. railway and radio stations at grid reference 421128; relief or topography e.g. the presence of gentle slope at the centre of the map which encourages the establishment of settlements; economic activities such as trading due to the presence of market, railway and all weather roads; government policy e.g. the decision of the government on the land use such as declaration of Mbeya Forest Reserve and edaphic factor (soil).*

Some of the candidates were able to mention few factors which were correct and others incorrect. For example, one candidate identified the factors which have influenced the location of Mbeya town as: *presence of social services like school, church and college; availability of roads and communication evidenced by TAZARA railway and telephone line; availability of security due to the presence of prison; presence of hills like Ibuli hill which influence tourism and support mining*. The first two factors were correct while the last two were incorrect. Variation in their responses made them to score different marks in this part.

In part (c), some of the candidates identified the types and distribution of vegetation cover found on the map such as: *scrubs on the Northern part of the map, scattered trees in the North West and Mbeya Forest Reserve at the central part of the map*. These various types of vegetation cover are unevenly distributed due to the factors such as: *variation in soil fertility, water sources, climatic variation, relief and human influence.* Some of the candidates identified the types of vegetation as *natural and artificial vegetation*, or as *Tropical* and *woodland vegetation* while others wrote *scattered, natural, artificial, grassland, savanna grassland vegetation* and

woodland vegetation. Their marks varied because some of the candidates provided correct responses while others mixed up correct and incorrect responses. Furthermore, in this part, some of the candidates were able to identify one type of vegetation and its distribution while others identified only types of vegetation without showing its distribution.

In part (d) (i), some of the candidates identified correctly the uses of land such as: *used for trading, agricultural activities, for transport and communication and for settlement*. Other candidates commented on wrong land uses such as: *land is used for lumbering, for industrial activities and for tourism attraction due to the presence of mountains and hills* while, others mixed up relevant and irrelevant responses. For instance, one candidate commented on the land use as: *land is used for cultivation, for lumbering and for tourism attraction.* In part (d) (ii), majority of the candidates were able to comment on the nature of the settlement pattern such as: *linear, scattered and nucleated settlement patterns*. Some of the candidates identified wrong settlement pattern. For example, one candidate identified the type of settlement pattern as: *densely settlement pattern* which was incorrect.

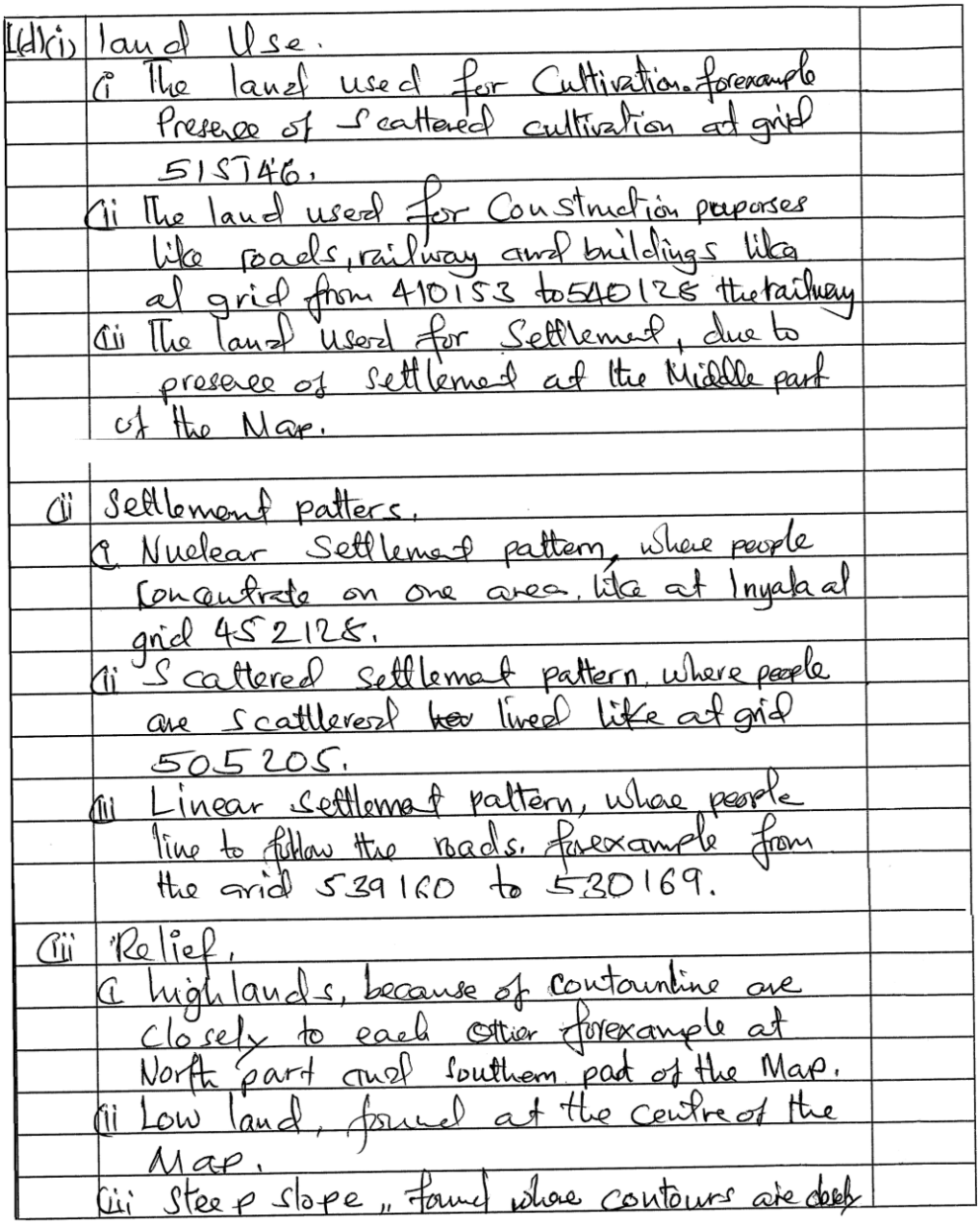
In part (d) (iii), majority of the candidates commented on the relief of the area as: *highlands in the Northern and Southern part of the map and lowland in the central part of the map.* Some of the candidates commented on the relief of the area as*: there are mountains in the Northern part of the map, steep slope in the Northern part of the map and valleys in the Northern part of the map*. Variation of their marks was a result of disparities of their responses.

In part (d) (iv), most of the candidates commented on the rock types as: *igneous rocks in the Northern part due to the presence of hills and sedimentary rocks due to the presence of rivers and drainage pattern*. Others commented on the nature of the rock instead of the types of rocks. For example, one candidate misinterpreted the question and wrote the nature of the rock as; *hard rock due to fertile soil and water bodies* which was incorrect.

In part (e), majority of the candidates managed to identify ways used to show relief of the area such as: *contour method, spot height at grid reference 428183, naming method due to the presence of Karuwe Mountain and hachures found along the railway line around grid reference 423148*.

Some of them identified only two ways used to show relief features such as: *contour and spot height methods*. Other candidates identified wrong methods used to show relief features of the area such as: *bench mark, trigonometric station, form line, colouring, hill shading* and *grid reference* while others mixed-up correct and incorrect methods used to show relief of the area. Extract 1.1.1represents the correct responses of the candidate who managed to perform well in this question.

Extract 1.1.1



(iii) to each other. For example at grid 440170 there is steep slope.

(iv) Gentle slope, is formed at the centre of the maped area.

(iv) Rock type.

(i) Igneous rocks, due to presence of forest called Mbeya Forest Reserve, Many hills like at grid Ibuti hill at 541081.

(ii) Sedimentary rocks, due to presence of scattered cultivation, scattered trees

(iii) Metamophic rocks, due to absence of vegetation at the middle part of the Map

(e) (i) Contourline way, Used to show gradiat if steep or gentle for example at grid 538182.

(ii) Spot height, Used to show height on Meters like at grid 525088 does not have interval.

(iii) Naming the place for example Ibuti hill.

Extract 1.1.1 represents part of the responses from a candidate who managed to answer this question correctly in all parts.

Most of the candidates who scored from 9 to 14.5 marks were able in part (a), to identify the correct number of complete and incomplete squares but failed to convert map scale into actual ground scale. Some of them managed to identify the correct number of complete squares and incomplete squares and were able to correctly convert the map scale into actual ground scale and to calculate the area of Mbeya Forest Reserve.

In part (b), some of the candidates in this category explained partially the factors that have influenced the location of Mbeya town while, others mixed-up correct and incorrect answers. Most of them were not able to explain the factors that have influenced the location of Mbeya town relatively well with vivid examples. In part (c), majority of the candidates

managed to identify the types of vegetation cover but failed to locate their distribution. Others explained partially the types of vegetation cover and their respective distribution. Only very few candidates were able to identify the types of vegetation cover found on the map and their distribution correctly. Furthermore, most of them were able to write correct answers to part (d) and (e).

Most of the candidates who scored from 0 to 8.5 marks did not understand the demand of the question in most of the parts as they provided incorrect responses. For example, in part (a), only few candidates were able to identify the number of complete squares and incomplete squares but they failed to calculate the area of the Mbeya Forest Reserve. Some of the candidates managed to identify the number of complete squares but failed to identify incomplete squares while, others were able to identify the number of complete squares and incomplete squares which were to be divided by two but failed. Most of the candidates in this category were completely not able to answer correctly part (b), (c) and (d), whereas, some of the candidates were able to write correct answer on part (e) as they identified few ways used to represent relief of the area such as: *contour method, spot height and naming method.* Unsatisfactory responses led the candidates to score lower marks. The variation in the quality of explanations caused varied scores.

2.1.2 Question 2: Application of Statistics in Geography

This question required the candidates to study the data in the given table which showed population distribution of Tanzania's 2012 Population Census in five years age groups and answer the questions that followed.

The question had two parts (a) and (b). In part (a), the candidates were required to prepare a bar graph to show the age and sex structure of the population by percentages. In part (b), the candidates were required to comment on the nature of the shape of the age and sex structure drawn in (a). The total marks allocated for this question was 15.

This question was highly escaped as it was opted by only 6.6% of the candidates. The general performance in this question was good since 69% of the candidates who attempted it scored 5.5 marks and above. The analysis in this question shows that 20.5% of the candidates scored from 9 to 15 marks, 48.5% scored from 5.5 to 8.5 marks and 31.0% scored from 0 to 5 marks. Figure 2 illustrates performance in this question.

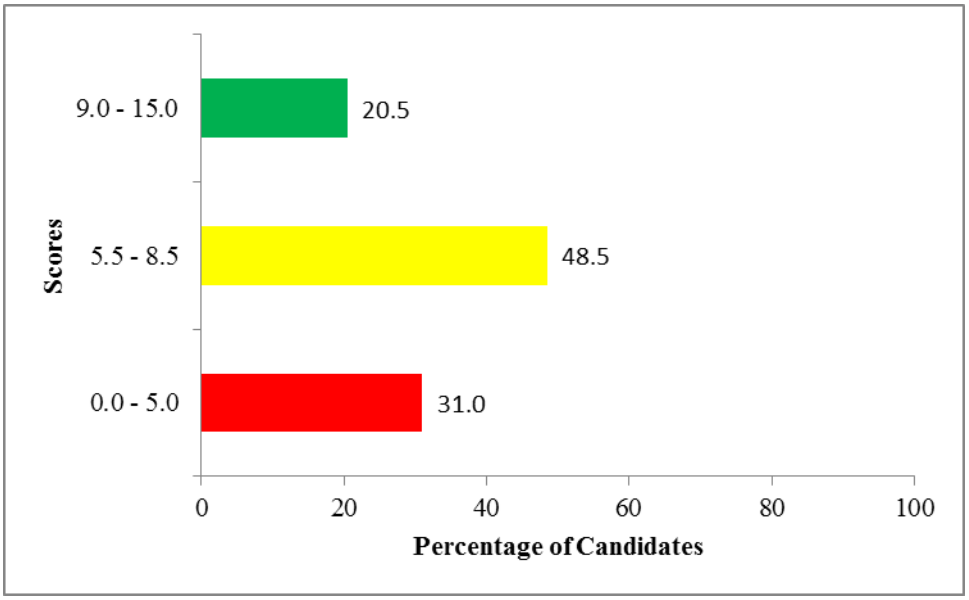


Figure 2: *Trend of the Candidates' Performance in Question 2.*

The candidates who scored from 9 to 15 marks managed to answer the question according to its demand. The responses provided by these candidates showed that they had good knowledge and skills on the topic of Application of Statistics in Geography, especially on graphic and mathematical skills particularly on the concept of presenting data and interpreting the outcomes.

For example, most of the candidates were able in part (a), to obtain the total of all age groups in each sex which were 21,869,990 for males and 23,058,933 for females. They also converted the population data into percentage and finally drew the percentage population pyramid. In part (b), most of them were able to comment on the nature of the shape of the age sex structure drawn. For example, one candidate commented that: *the bar shows that there was high birth rate which led to more people with the age less than 20 years.* Also *the number of the working population was less than the non-working population which reveals high dependency ratio in the particular society.* However, few candidates in this group failed to find the correct total of both males and females, some failed to get the total number of females while others failed to get the total number of males. The variation of their marks resulted from the strengths and weaknesses of their responses. Extract 1.2.1 is a sample of such a correct response.

Extract 1.2.1

2. Solution.

Total male = 21,869,990

a Calculating the percentages for Males.

	Ages (Years)
• 3,637,982 / 21,869,990 x 100% = 16.6%	0 – 4 years
• 3,333,835 / 21,869,990 x 100% = 15.2%	5 – 9
• 2,892,583 / 21,869,990 x 100% = 13.2%	10 – 14
• 2,238,976 / 21,869,990 x 100% = 10.2%	15 – 19
• 1,793,053 / 21,869,990 x 100% = 8.2%	20 – 24
• 1,548,762 / 21,869,990 x 100% = 7.1%	25 – 29
• 1,380,068 / 21,869,990 x 100% = 6.3%	30 – 34
• 1,182,651 / 21,869,990 x 100% = 5.4%	35 – 39
• 944033 / 21,869,990 x 100% = 4.3%	40 – 44
• 718,372 / 21,869,990 x 100% = 3.3%	45 – 49
• 607,361 / 21,869,990 x 100% = 2.8%	50 – 54
• 392,104 / 21,869,990 x 100% = 1.8%	55 – 59
• 380,223 / 21,869,990 x 100% = 1.7%	60 – 64
• 283 238,972 / 21,869,990 x 100% = 1.1%	65 – 69

2.

226,484 x 100%
21,869,990 = 1.0% 70-74

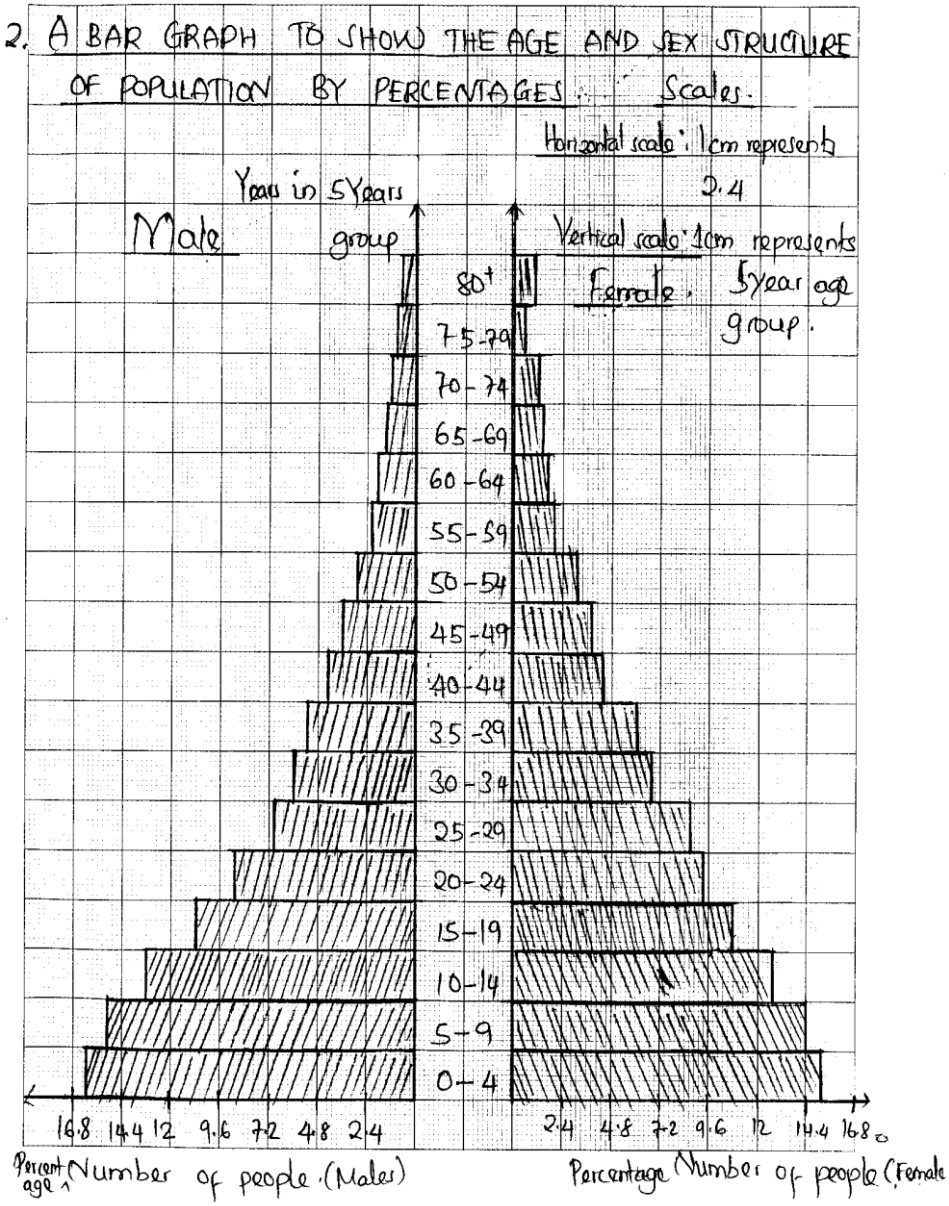
144,643 x 100%
21,869,990 0.67% 75-79

209,888 x 100%
21869,990 = 0.96% 80+

Total number of females = 23,058,933.

Calculating the percentages for females.

	Ages (Year)
• 3,635,850 x 100% / 23,058,933 = 15.8%	0-4
• 3325,202 x 100% / 23,058,933 = 14.4%	5-9
• 2900,004 x 100% / 23,058,933 = 12.6%	10-14
• 2369,860 x 100% / 23,058,933 = 10.3%	15-19
• 2,160,986 x 100% / 23,058,933 = 9.4%	20-24
• 1,843,732 x 100% / 23,058,933 = 8.0%	25-29
• 1,529,610 x 100% / 23,058,933 = 6.6%	30-34
• 1,258,301 x 100% / 23,058,933 = 5.5%	435-39
• 955,081 x 100% / 23,058,933 = 4.1%	40-44
• 787,547 x 100% / 23,058,933 = 3.4%	45-49
• 603,666 x 100% / 23,058,933 = 2.6%	50-54
• 381,736 x 100% / 23,058,933 = 1.7%	55-59
• 390,494 x 100% / 23,058,933 = 1.7%	Age (Years) 60-64
• 253,864 x 100% / 23,058,933 = 1.2%	65-69
• 251,346 x 100% / 23,058,933 = 1.1%	70-74
• 147,489 x 100% / 23,058,933 = 0.6%	75-79
• 264,165 x 100% / 23,058,933 = 1.1%	80+



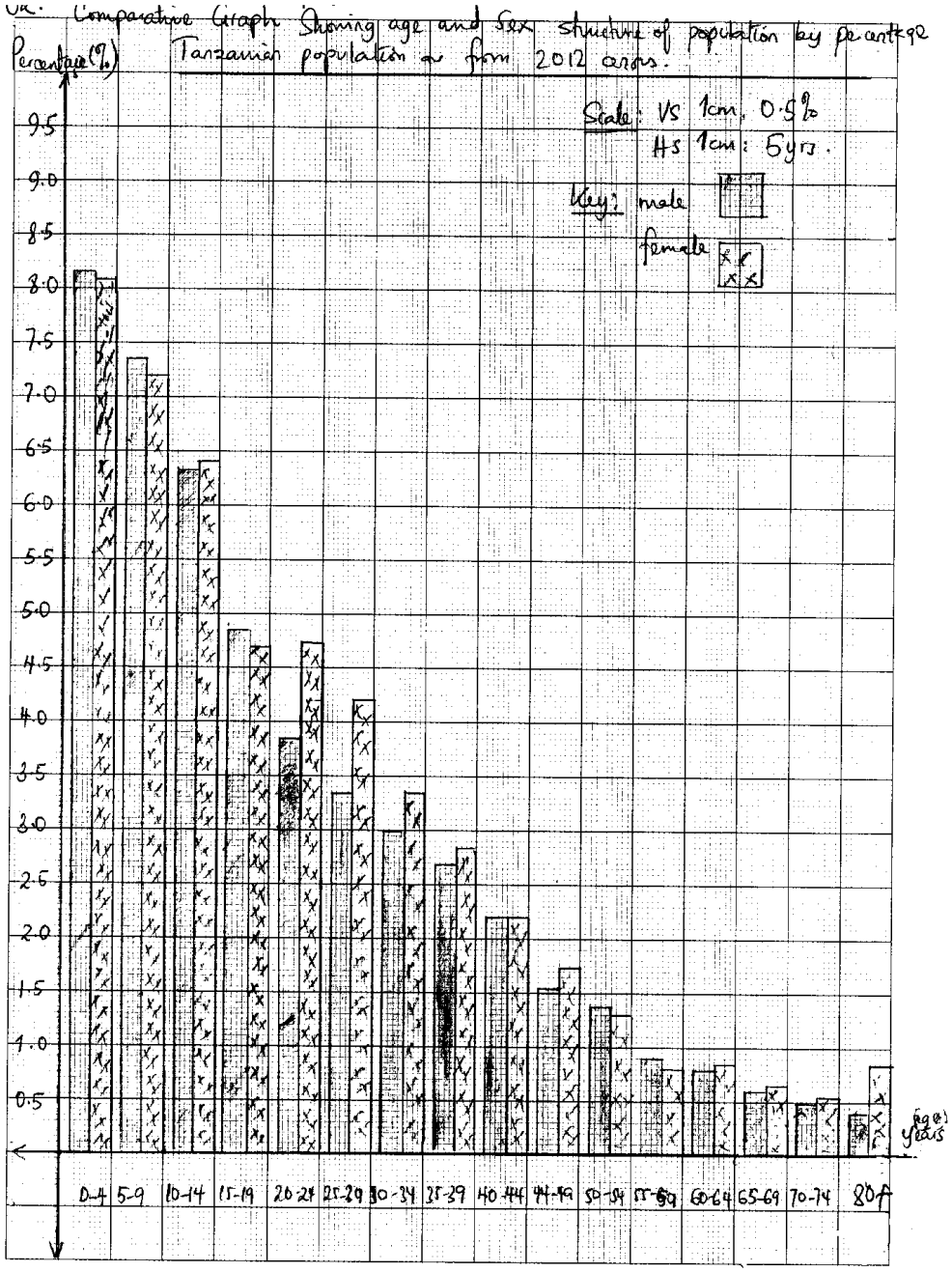
Extract 1.2.1 represents a sample of a candidate who was able to convert males and females population into percentage and draw a relevant age sex pyramid.

The candidates who scored from 5.5 to 8.5 marks had moderate strengths and weaknesses in their responses in each part of the question. For example, in part (a), some of the candidates managed to calculate the percentage of the population data provided but failed to plot the graph. Some plotted the graph by using the data provided without converting them into percentage. Some managed to convert the data into percentage but

failed to plot the graph correctly while few candidates converted the data into percentage and plotted the graph correctly. In part (b), some of the candidates managed to comment on nature of the shape of the age and sex structure, some commented with partial explanations while, others failed to comment on nature of the population pyramid. This failure indicates that candidates had moderate knowledge and skills on the topic of Application of Statistics in Geography specifically on the concept of presenting and interpreting statistical data. For example, one candidate commented on the graph that*; "it shows that there is an equivalent population between males and females"*.

The candidates who scored from 0 to 5 marks had more weaknesses on their answers which revealed that they had little knowledge and skills in presenting Geographical data by using graphs. The candidates in this category failed to put the knowledge into practice as they were not able to define variables as well as to plot and connect graph with variables. For example, some of the candidates managed to calculate the total values of each age structure but failed to convert them into percentage. Others managed to convert the data provided into percentage but failed to link the percentages calculated with the graph. Some were able to plot the graph but failed to comment on the trend of the graph while others did not manage to draw and comment on the trend of the graph partially. For instance, some of them drew other types of graphs such as: *group bar graph*, *rectangle graph* and *simple bar graph*, instead of the population pyramid, some ended up providing the merits and demerits of population pyramid instead of commenting on the nature of the graph. Extract 1.2.2 exemplifies part of the candidate's incorrect responses.

Extract 1.2.2



Extract 1.2.2 indicates a part of the candidate's incorrect responses on this question as the candidate drew a Grouped/Comparative bar graph instead of the Age and Sex Pyramid.

2.1.3 Question 3: Field Research Strategies

The question had five parts which are (a), (b), (c), (d) and (e). The candidates were required to differentiate five given pairs of technical terms of field research. In part (a), the given pairs were Field work and field research; (b), Research methods and research methodology; (c), Null hypothesis and alternative hypothesis; (d), Objectivity in field research and objectives of field research; (e) Quantitative research and qualitative research. The total marks allocated for this question were 15.

This question was highly omitted and opted by 1,821 (4.1%) candidates only of which, 45.2% scored from 9 to 15 marks, 42.8% scored from 5.5 to 8.5 marks and 12% scored from 0 to 5 marks. The general performance of candidates in this question was good as 88% of the candidates scored 5.5 marks and above. Figure 3 illustrates performance in this question.

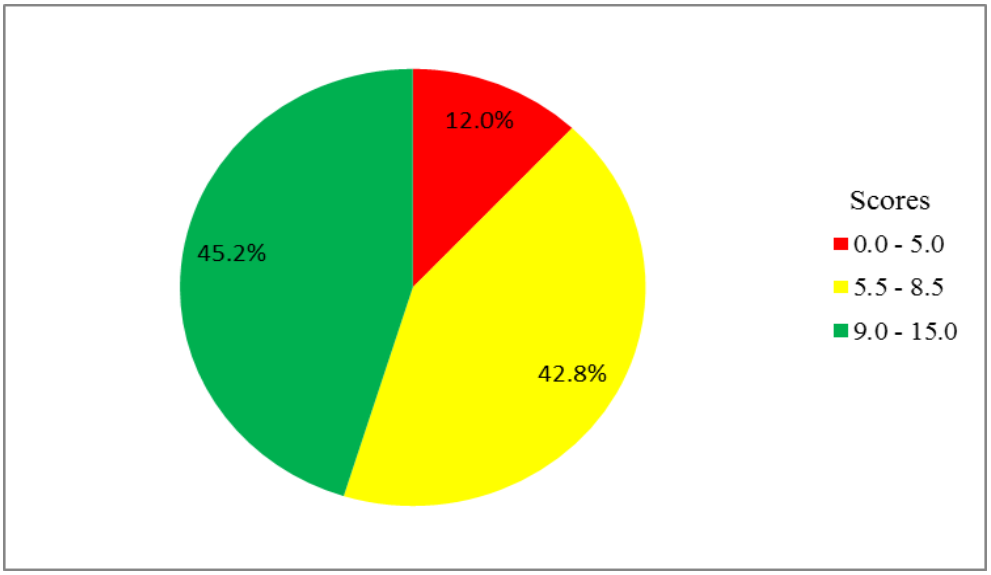


Figure 3: *Trend of the Candidates' Performance in Question 3.*

Majority of the candidates who scored from 9 to 15 marks managed to meet the demands of question by providing the correct answers in most of their responses. Their marks varied depending on strengths and weaknesses of their responses which revealed that candidates were knowledgeable and skillful on the topic of Field Research Strategies, mainly on the different technical related terms in research. In part (a), most of the candidates managed to differentiate the field work and field research correctly. For example, one candidate provided the following difference:

> *Field work refers to an art or science of using accessible local ground as a laboratory for teaching and learning through selecting, observing and recording information on a given phenomenon while, Field Research is a scientific and systematic search for a particular information or data on a specific problem, factor or idea in both social and natural sciences".*

In part (b), most of the candidates differentiated research methods and research methodology partially while other candidates explained the research tools such as: *questionnaires interview and focus group discussion* and also failed to explain research methodology. For example one candidate wrote:

> "*Research methods are the tools or instruments used to collect data in the field, for example interview, observation and questionnaire while, research methodology is the study of how research is to be conducted involving the development and analysis of the theories, principles, approaches and view as employed in a particular research.*

In part (c), most of the candidates managed to differentiate the null and alternative hypotheses correctly while, in part (d), they also managed to differentiate the objectivity in field research and objective of field research. However, few candidates failed to differentiate these two research terms. For example, one candidate who represents many on this category managed to differentiate the two research terms by pointing out that:

> *Objectivity in field research is a situation in which the entire process of conducting field research in free from personal influence, prejudice or bias while, objective of field research refers to the aims or purpose of conducting research, normally the objectives are to discover the solutions to the problems through scientific procedures.*

In part (e), most of the candidates were able to differentiate quantitative research from qualitative research.

Majority of the candidates who scored from 5.5 to 8.5 marks addressed the demand of the question partially. For instance in part (a), some of the candidates were able to define field research but failed to define field work, some managed to define field work but failed to define field research while

others mixed-up their explanations. In part (b), they were able to define research methods but failed to define research methodology.

In part (c), some of the candidates failed to clearly distinguish null from alternative hypothesis. They ended-up providing few correct responses and more incorrect ones. For example, some of them were able to define null hypothesis but failed to define alternative hypothesis and the vice-versa. In part (d), some of the candidates managed to provide the correct explanations of the objectives of field research but failed to explain clearly the objectivity in field research, while others differentiated these two terms partially. Others failed completely to differentiate the objectivity in field research and objective of field research. In part (e), most of the candidates failed to differentiate correctly the quantitative and qualitative research and as a result, quality of their explanations produced varied scores in this category.

The candidates who scored from 0 to 5 marks attempted most parts of the question incorrectly as they possessed little knowledge or none at all in this topic. Most of these candidates failed in part (a), to differentiate the field work and field research. In part (b), some of the candidates were able to define correctly research methods but were not able to define research methodology. In part (c), they did not provide clear explanations on null and alternative hypotheses. In part (d), they failed to differentiate objectivity in field research and objectives of field research. Also in part (e), some of the candidates provided wrong responses on quantitative and qualitative researches while others provided partial explanations accompanied with irrelevant justifications. For instance, one candidate who represents many on this category differentiated field work from field research as follows:

> *Filed work is the area of work which is a represented from different field concerning with a certain problem, for example, after making all processes of conducting, collecting and writing report while field research is the area of research which prepared in order to conduct a research. The research may cleared to choose the area where his/her research can conducted, for example can make school.*

This candidate lacked knowledge and skills on the research technical terms and failed to provide relevant responses.

2.1.4 Question 4: Photograph Interpretation

The candidates were instructed to study carefully the photograph given and then answer the questions which followed.

This question had six parts (a), (b), (c), (d), (e) and (f). The candidates were required in part (a), to determine the type of photograph; in part (b), to name three types of economic activities carried out in the area with evidences; in part (c), to give four factors which might have influenced the economic activities named in (b); in part (d), to identify two environmental problems which are likely to face the area with reasons, in part (e); to state the time in which the photograph was taken with reasons and in part (f), to identify the activity taking place in the photograph with reasons. This question had a total of 15 marks.

The question was highly opted as statistics show that it was answered by 89.2% of the candidates whereby, 24.7% scored from 9 to 15 marks, 59.5% scored from 5.5 to 8.5 marks and 15.8% scored from 0 to 5 marks. The general performance for this question was good since 84.2% of the candidates scored 5.5 marks and above. Figure 4 illustrates performance in this question.

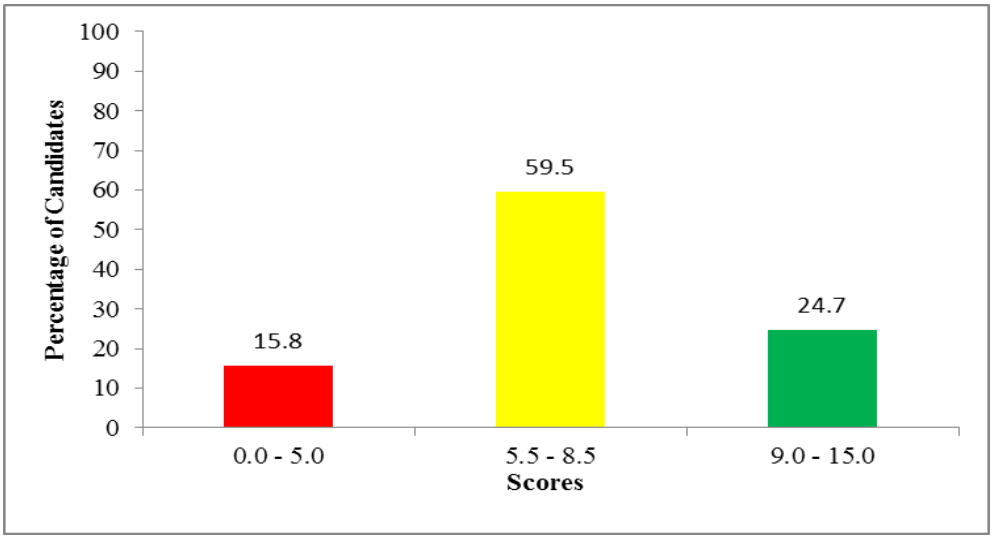


Figure 4: *Trend of the Candidates' Performance in Question 4*.

The candidates who scored from 9 to 15 marks commanded good knowledge or mastery on the topic of the Photograph Interpretation as they were able to understand the demand of the question hence responded correctly in most parts of this question. In part (a), the candidates were able to identify the type of photograph as *low oblique photograph*. In part (b), the candidates were able to identify the three economic activities carried out in the area such as: *agriculture due to the presence of plantation, fishing due to the presence of water body near the plantation and trade due to presence of feeder roads.*

In part (c), most of the candidates in this category managed to point out correct factors which might have influenced the economic activities mentioned in (b). However, few candidates identified few factors; others repeated the same points or mixed relevant and irrelevant factors. For example, one candidate explained correctly factors which might have influenced the economic activities carried out in the area such as: *presence of dam for irrigation, presence of road for transportation of agricultural products, fertile soil which favour the growth of tea and the application of improved technology in irrigation activities evidenced by sprinklers and electricity poles.*

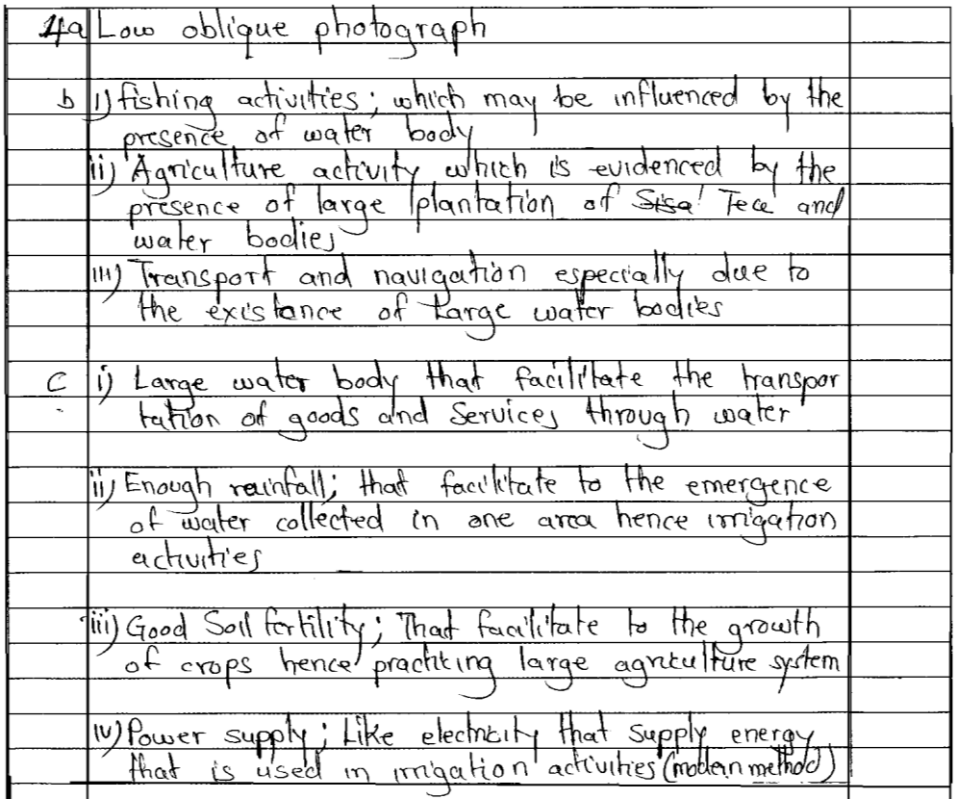
In part (d), most of the candidates in this category managed to identify the environmental problems which are likely to face the area such as: *soil erosion due to the presence of steep slope, deforestation due to the cutting*

of trees for cultivation and water pollution due application of chemicals or pesticides in the farm. In part (e), most of the candidates managed to identify the time when the photograph was taken as; *noon due to the fact that the direction of the shadow is around the tree plants and the equal intensity of the brightness in all over the photograph.*

In part (f), most of the candidates were able to identify the activity which was taking place in the photograph as: *irrigation farming due to presence of tea plantation and the sprinklers which indicate that they were exposed on the top surface of the tea irrigation.*

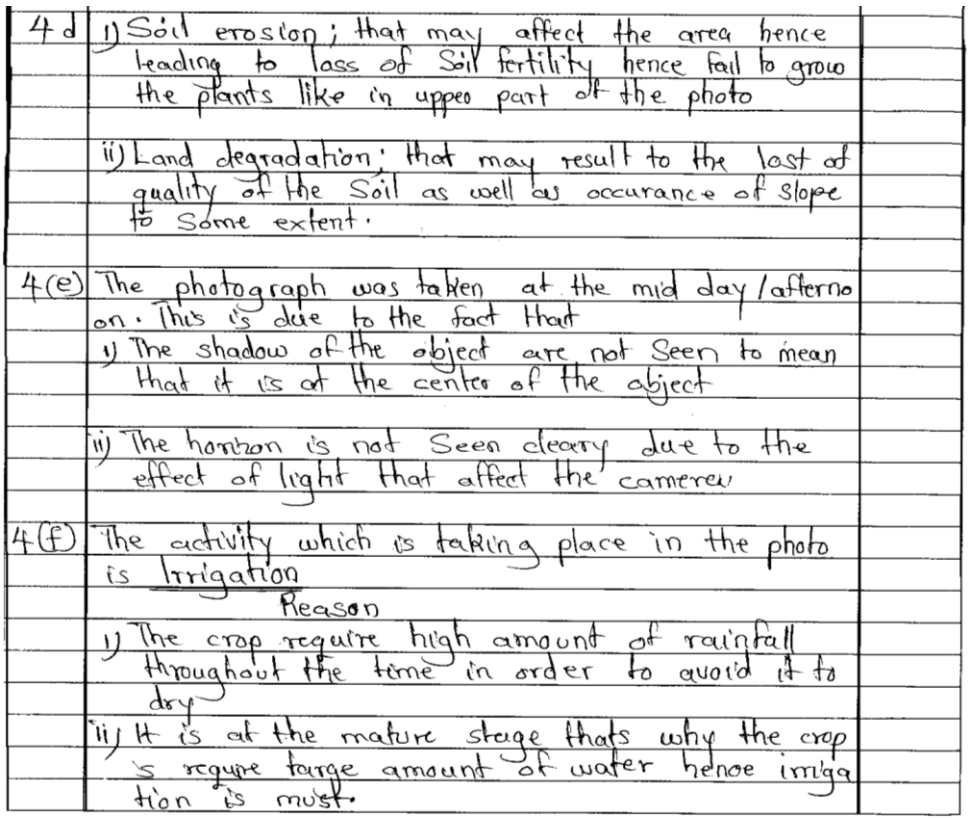
On the other hand, some of the candidates failed to identify the activity which was taking place in the photograph. They instead wrote: *fishing, lumbering, transportation, agricultural activities and others stated tourism.* For example, one candidate pointed out the activity which was taking place in the photograph as *fishing due to the presence of ocean.* Their marks varied because of the deviation in accurateness of their responses. Extract 1.4.1 is an example of such a correct response.

Extract 1.4.1


4a Low oblique photograph

b i) fishing activities; which may be influenced by the presence of water body
ii) Agriculture activity which is evidenced by the presence of large plantation of ~~Sisa~~ Tea and water bodies
iii) Transport and navigation especially due to the existance of large water bodies

c i) Large water body that facilitate the transportation of goods and Services through water
ii) Enough rainfall; that facilitate to the emergence of water collected in one area hence irrigation activities
iii) Good Soil fertility; That facilitate to the growth of crops hence practicing large agriculture system
iv) Power supply; Like electricity that supply energy that is used in irrigation activities (modern method)



Extract 1.4.1 represents a candidate who performed well in all parts of this question.

The candidates who scored from 5.5 to 8.5 marks addressed the demands of the question partially; as a result, they were able to answer some parts of the question. This indicates that, they had moderate knowledge and skills on the topic of Photograph Interpretation.

For example, in part (a), some of the candidates in this category managed to identify the types of the photograph as *low oblique photograph* while, others failed whereby they identified the type of photograph as *ground photograph and others as high oblique photograph.* In part (b), some of the candidates managed to identify with reasons the type of economic activities carried out in the area, some provided these economic activities without reasons while others supplied wrong answers. For example, one candidate wrote: *hunting* and *tourism* instead of *trade*, *fishing* and *agriculture*. In part (c), most of the candidates were able to give four factors which might have influenced the economic activities carried out in an area with evidence. Others identified four factors without evidence while others mixed correct and incorrect factors. For example, one candidate identified factors which

might have influenced economic activities of an area such as: *presence of dam, presence of roads* and *equatorial climate.* The first two factors identified were correct while the third was incorrect.

In part (d), most of the candidates were able to identify environmental problems which are likely to face the area such as: *soil erosion, deforestation* and *water pollution.* In part (e), most of the candidates managed to identify the time when the photograph was taken, as it was *at noon due to equal intensity of brightness in the photograph* and *shadow around the object.* However, some of them identified the time correctly without reasons while others failed to identify the time when photograph was taken.

In part (f), most of the candidates were not able to identify the activity which is taking place in the photograph with reason. The correct answer was *irrigation due to the presence of sprinklers*. Moreover, one example of incorrect responses which was pointed out is *fishing due to the presence of water body* and *trading due to the presence of road*. The strengths and weaknesses on their responses led to variation in the scores of the candidates.

Most of the candidates who scored from 0 to 5 marks indicated that they did not understand the demand of the question, thus they supplied incorrect answers in many parts of this question. For instance, in part (a), some of the candidates managed to identify the correct type of photograph as *low oblique photograph* while, others wrote *horizontal ground photograph* which was incorrect answer. In part (b), most of them were not able to identify economic activities with their respective reasons. For example, one candidate pointed out *tourism* and *transport activities.* In part (c), some of the candidates managed to identify one or two factors which might have influenced economic activities in an area, while others failed completely to identify the factors. For instance, one candidate wrote: *forest, mountain, tourism* and *transportation*, another candidate listed; *presence of ocean, cool climate, good government support* and *political instability* while another candidate pointed out: *climate, landscape, presence of land for industrialization and settlement* instead of presence of *dam, presence of roads* and *presence of soil fertility*

In part (d), some of the candidates managed to identify with respective reasons environmental problems which are likely to face the area, some

identified only one environmental problem with a reason whereas most of the candidates provided incorrect answers. For instance one candidate wrote: *illegal fishing* and *death*, another candidate stated *flooding* and *desertification.* In part (e), most of the candidates identified wrong time when the photograph was taken with wrong reasons. For example, one candidate stated that the photograph was taken at *night time*; another candidate said it was *evening time because some features are not seen well* and another candidate mentioned that it was *evening hours since there was absence of shadow.* In part (f), most of the candidates failed to identify correct activity taking place in the photograph. For example, one candidate wrote; *fishing activity*, another candidate pointed out; *fishing and agriculture.*

Section B: Physical Geography

2.1.5 Question 5: Water Masses

The question required the candidates to use relevant examples to (a), describe four major characteristics of karst scenery and (b), explain six factors influencing the existence of underground water. The total marks allocated for this question were 20.

This question was one among the mostly opted ones as the statistics reveal that it was attempted by 81.6% of the candidates. Its general performance was good since 89.1% of the candidates who attempted it scored 7 marks and above. The analysis in this question shows that 42.7% scored from 12 to 20 marks, 46.4% scored from 7 to 11.5 marks and 10.9% scored from 0 to 6.5 marks. Figure 5 illustrates performance in this question.

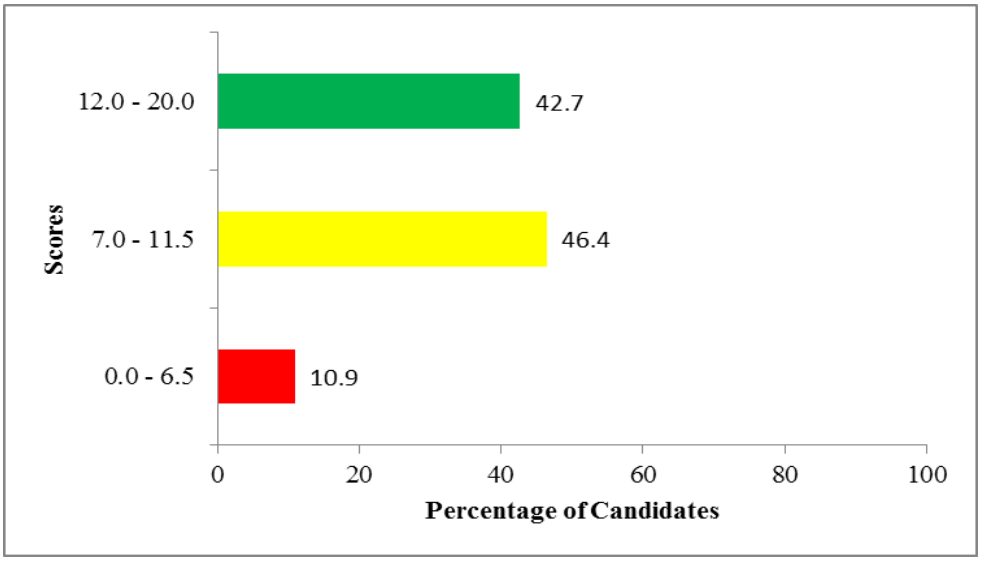


Figure 5: *Trend of the Candidates' Performance in Question 5.*

Most of the candidates who scored from 12 to 20 marks had good knowledge about the topic of Water Masses particularly on the concept of ground water and limestone region. Some of these candidates managed to provide correct introduction on karst scenery and underground water. They explained karst scenery as follows: *a chalk like limestone region which is made of calcium carbonate but it is much softer than limestone* and underground water as *water that exists below the surface of the earth.* Others were able to provide relevant characteristics of karst scenery such as: *surface drainage is intermittent or absent, outcrops of bare, rugged rock and steep sided dry valleys, numerous depressions and residual hills of various sizes as well as a subterranean network of caverns* and *water courses. However*, some of them provided few characteristics of karst scenery while others provided few characteristics with partial explanations.

In addition to that, most of the candidates in this category were able to explain correctly six factors influencing the existence of underground water such as: *precipitation, slope, nature of the rock, vegetation cover, level of saturation on the ground* and *evapotranspiration* while some of the candidates explained partially few factors. The other candidates managed to provide relevant conclusion while others provided irrelevant one. However, their marks varied due to the correctness of their responses. Extract 1.5.1 gives an example of a candidate's correct response.

Extract 1.5.1

5(a) Karst Scenery refers to the geographical area which is covered with limestone rocks. The area is covered with limestone rocks and chalk rocks. Mainly the Karst region is found in Yugoslavia and in Tanzania limestone or Karst region is found in Tanga.

The following are the characteristics of limestone or Karst scenery as follows:-

Absence of drainage system. In the Karst Scenery there is no drainage system due to the fact that water or surface run-off water tend to sink into the ground due to the presence of permiable rocks like limestone and chalk rocks.

The presence of scanty vegetation. In the Karst scenery there is poor vegetation due to the fact that the poor soil in the region which does not support the growth of thick vegetation as rocks are infertile. For example limestone areas in Tanga.

The existence of residual remaining features. In the Karst scenery is characterised with the residual remaining features such as hills clints due to the fact that the area is valuyrable to erosion as it is characterized with soft rocks such as limestone and chalk rocks.

The existence of poor soil formation. In the Karst scenery there

5(a) is poor soil formation due to the fact that the top nutrients are washed downward to the ground through leaching process which is at larger extent in the Karst region.

Generally, Karst scenery is very important and beneficial as it is the source of tourists attraction hence the country earns foreign currency as the results leads to diversification of national economy.

5(b) Underground water refers to the hydrosphere atmospheric water which flow below the Earth's surface. Underground water flow below the ground. Underground water can be obtained through rain fall, waterbodies like ocean and during rocks formation.

The following are the factors influencing the existence of underground water as follows:-

The nature of the rocks: This influences the existence of underground water due to the fact that in the permeable rocks such as limestone the surface runoff water tend to percolate and infiltrate into the ground early than the areas with impermeable rocks, hence influences underground water formation

Vegetation Cover: Vegetation cover determines the amount of underground water due to the fact that in a bare surface high amount of surface run-off water tend to sink into compared to the areas with dense vegetation in which the existence of underground water it is at minimal rate.

5(b) Nature of gradient: Topography of a particular areas determines the amount of existence of ground water due to the fact that at the steep slope there is low existence of underground water due to high speed of the surface run-off water compared to the gentle slope area. For example there is low existence of underground water in the mountain areas.

Climate of an area. An areas with high rainfall such as in the tropics there is high existence of underground water compared to the desert areas where rainfall if is for short time hence the area dry up leading to poor existence of underground water.

The presence or absence of water bodies such as oceans and seas, in the areas where water bodies like oceans and sea are near the ground the water tend to percolate inland to the surface leading to the formation of underaround water in a particular geographical area

Nature of the Earth's surface structures; This is determined by features like the presence of faults and joints and sinkholes in which the surface run-off water tend to sink into the ground forming underground water.

Generally. Underground water is very important for human uses as it influences the establishment of settlemen especially in the desert areas and for tourists attractions.

Extract 1.5.1 indicates the candidate's correct responses to all parts of the question. The candidate described correctly four major characteristics of karst scenery and six factors influencing the existence of underground water.

Most of the candidates who scored 7 to 11.5 marks commanded moderate knowledge on this topic thus they provided partial introduction on karst scenery and underground water. Some provided the characteristics of karst

scenery and factors for underground water without examples. Some of them provided partial explanations on the major characteristics of karst scenery and factors influencing the existence of underground water while others provided only correct factors without major characteristics of karst scenery. For example one candidate provided characteristics of karst scenery as: *presence of hard rocks and many hills, presence of cold in different areas and presence of fertile soil* which were not correct. Another candidate explained the features which are formed in karst region such as: *stalagmite, stalactite, Underground River and overlapping pillars* instead of characteristics of karst scenery.

Others provided few characteristics of karst scenery and few factors influencing underground water with examples while, others provided few characteristics of karst scenery and few factors influencing the existence of underground water contrary to the demand of the question. For example, one candidate pointed out types of underground water such as: *connate water, juvenile water, ocean water and meteoric water* instead of factors influencing the existence of underground water.

Moreover, most of the candidates who scored from 0 to 6.5 marks had little or totally lacked the knowledge on the topic of Water Masses especially on the concept of ground water and limestone region. Majority of the candidates in this group failed to provide the characteristics of karst scenery with relevant examples. Some provided few characteristics of karst scenery while, others managed to provide introduction of karst scenery but failed to provide the characteristics of karst scenery. For example, one candidate mentioned characteristics of karst scenery as: *erosion and climate*. Another candidate provided wrong factors influencing the existence of underground water such as: *experiences heavy forest with heavy vegetation, the soil is out from soil erosion, the microbial activities are influenced with moisture and the soil is mostly acidic.*

2.1.6 Question 6: Space Dynamics

This question required candidates to examine five causes of temperature inversion and give its three effects. The total marks allocated for this question were 20.

The question was attempted by 63.7% of the candidates of which, 18.8% scored from 12 to 20 marks, 28.1% scored from 7 to 11.5 marks and majority of the candidate (53.1%) scored from 0 to 6.5 marks. The general

performance of the candidates in this question was average since 46.9% of them scored 7 marks and above. Figure 6 illustrates performance in this question.

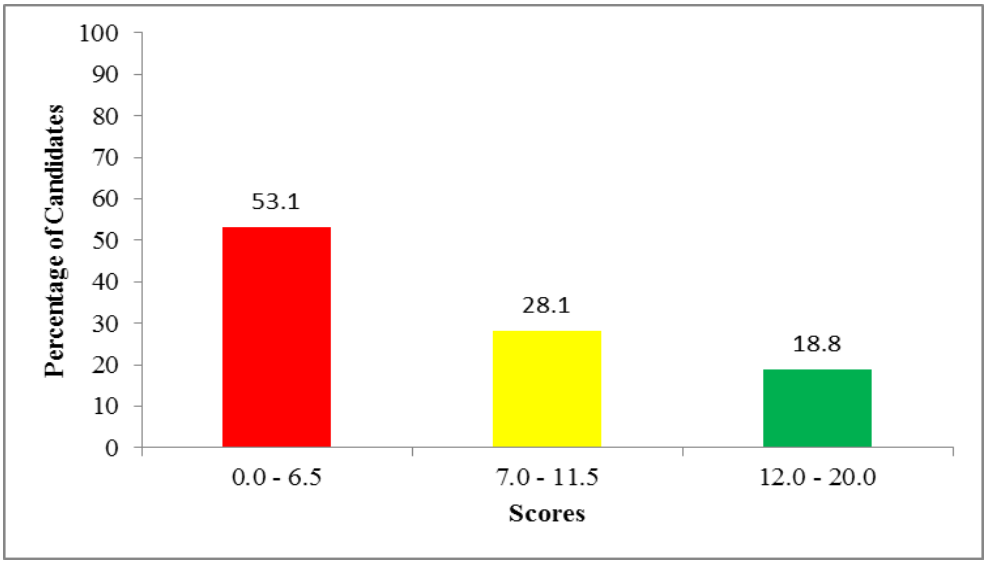


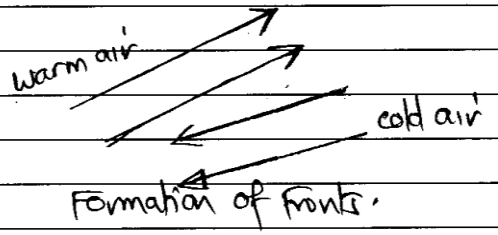
Figure 6: *Trend of the Candidates' Performance in Question 6.*

The candidates who scored from 12 to 20 marks revealed good knowledge and understanding on the topic of Space Dynamics specifically on the concept of temperature inversion. Most of the candidates in this category were able to provide relevant introduction about temperature inversion and examined the correct causes of temperature inversion such as: *radiation of infrared energy from the earth surface which tends to make the ground cool quickly, formation of front, air subsidence, the presence of ozone layer, advection* and *water vapour.* Some of the candidates provided few correct causes of temperature inversion while, others provided partially five causes of temperature inversion. Furthermore, most of them were able to provide the effects of temperature inversion correctly as: *air pollution, formation of fog or smog* and *atmospheric instability.* Some of the candidates provided few effects of temperature inversion while others provided the effects of temperature inversion with partial explanations. Most of the candidates in this category mixed-up correct and incorrect answers in each part. The variation in their marks was a result of strengths and correctness of their responses. Extract 1.6.1 shows the candidate's correct responses.

Extract 1.6.1

6. Temperature inversion refer to the situation whereby the temperature increase with height increase. It means that the more you go above the temperature increases, It is a reverse of the environmental lapse rate. This situation is caused by the following.

Formation of fronts, During the formation of fronts two air masses meet at each other. It means that warmer air meet with cold air where by the warm air rise above and cold air sink down hence temperature inversion

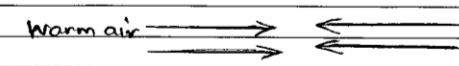


Formation of fronts.

Presence of ozone layer in the atmosphere this due to that ozone layer protect the earth's surface from ultraviolent rays from the sun when the rays protected by the ozone layer areas near the ozone will be warm and area on the surface will remain cold hence temperature inversion

Radiation, the radiation of infrared energy from the sun come down are reflected where by the cold air sink down because it is denser than warm air. Therefore when this situation happen lead to the temperature inversion, as more you go above the more temperature increase.

6. Advection. This is the situation whereby the two air masses of different temperature meets together, for example when warm air come into contact with cold air will lead to temperature inversion because the warmer air will rise above and cold air will sink down in which the air area on the surface will be cold but above there will be warm air.



Air subsidence. This due to that when the air of different pressure meets. When this situation occur the warm air will rise above and the cold air will sink down hence lead to the occurence on temperature inversion.

Also temperature ~~on~~ inversion have the following effects on the environments include the:-

Environmental pollution. This is because dusts in atmosphere are denser in warm air when the cold air sink down to the earths surface will lead to pollution in atmosphere, water because they harmful to the people and living organism found on the earth

Formation of fog and smog. temperature inversion lead to formation of smog and fog because of increase of cold air that facilite res water vapour and dust in the atmosphere this situation is found especially in the morning and rainfall periods as well as the mountain areas.

Temperature inversion show atmospheric stability. This due to fact that when temperature inversion occur show that the climate is stable and non stable because of changing of temperature of a place.

Finally temperature inversion when occur lead to formation of smog and fog, also lead to pollution of the environment of the people as well as people will fail to make more research to the at high and greated distance of atmosphere due to increase of temperature caused by inversion.

Extract 1.6.1 represents a sample of the candidate's correct responses. The candidate examined five causes of temperature inversion and its three effects such as environmental pollution, formation of fogs and smog.

The candidates who scored from 7 to 11.5 marks showed a moderate understanding of the demand of the question. Some of these candidates

provided relevant introduction but gave partial explanations on the causes of temperature inversion and its effects, some provided relevant introduction of temperature inversion but explained fewer causes of temperature inversion and its three effects. Some provided irrelevant introductions and explanations on the causes of temperature inversion and managed to state correctly three effects of temperature inversion. Some of the candidates mixed-up correct and incorrect causes of temperature inversion and its effects while, others provided fewer causes of temperature inversion and failed to provide its effects.

For example, one candidate who represents many in this category managed to provide relevant introduction about temperature inversion but failed to point out its effects and provided wrong effects such as: *melting of ice in high mountains due to high temperature, cooling of the earth's surface and it creates an area of low pressure were wind come and converge.* Another candidate managed to provide relevant introduction of temperature inversion as: *the increase of temperature with height,* again this candidate mixed-up correct and incorrect points on the causes and effects of temperature inversion, this candidate wrote causes of temperature inversion as: *radiation from the sun, water vapour and formation of rivers* and the effects of temperature inversion as: *formation of fogs, prevents clouds and affects heat budget*. Strengths and weaknesses of their responses led to the variation of their marks.

The candidates who scored from 0 to 6.5 marks failed to understand the demand of the question and hence they provided incorrect arguments in most of their responses. Some of them provided irrelevant introduction of temperature inversion and did not manage to provide correct causes of temperature inversion and its effects. Some of the candidates provided irrelevant introduction, few correct causes of temperature inversion but with partial explanations. Others provided only one correct effect of temperature inversion with partial explanations. Some of them pointed out incorrect causes of temperature inversion and its effects. Other candidates managed to provide introduction of temperature inversion but mixed up correct and incorrect answers on the causes and effects.

For example, one candidate defined temperature inversion as; the *increase in temperature with altitude* and provided wrong causes of temperature inversion as: *solar radiation, distance from the sun, emission of greenhouse gases* and *climatic changes* and gave correct and incorrect effects of

temperature inversion as: *air pollution, variation in season of the year* and *increase of temperature.* Another candidate managed only to provide correct introduction but provided irrelevant causes of temperature inversion such as: *precipitation, evaporation, global warming and air pollution,* also this candidate provided wrong effects of temperature inversion as: *occurrence of diseases, decline in agriculture and destruction of ozone layer*. The variation of their marks was a result of weaknesses in their responses.

On the other hand, the statistics reveal that 5,073 (17.8%) candidates who scored a 0 mark failed to meet the demands of the question. These candidates lacked knowledge and skills on the topic of Space Dynamics specifically on the concept of temperature inversion which led them to write irrelevant responses. For example, one candidate explained the factors for climatic change such as: *deforestation, industrial activities, bush fire, global warming and agricultural activities* instead of explaining the causes of temperature inversion. Also this candidate explained the effects of climatic change such as: *floods, drought and decline in agricultural activities* instead of effects of temperature inversion. Extract 1.6.2 illustrates such incorrect responses.

Extract 1.6.2

6 Temperature - Is the average increase of Coldness and hotness of the atmosphere. Temperature inversion- Is the process where by the Coldness and the hotness of the atmosphere are working in the same direction The temperature inversion is been practised in different rocks. Therfore their Causes of temperature inversion and the effects of Temperature inversion. The following are the Causes of temperature inversion.

Cloud Cover - The Cloud Cover is the Cause of the temperature inversion in the earth's surface. The temperature inversion which has been Caused by the Cloud Cover this is due to the forming of Cloud which Comes as the Cause of temperature inversion.

Prevelling wind - This is the type of wind which moves in one direction this prevelling wind differs from the wind - Is the type of wind which blows in different direction. Hence the temperature inversion can be Caused by the wind moving in one direction ⟨Prevelling wind⟩.

Altitude : Also the altitude are the Causes of the temperature inversion. This shows when the wind increases the temperature of the atmosphere increase but when the temperature inversion decrease the atmosphere temperature decrease. Hence the altitude is the Cause of temperature inversion.

Latitude : Also the latitude have been seen as the Cause of the temperature inversion in the atmosphere. Hence the latitude has been the Cause of Temperature inversion.

Extract 1.6.2 indicates the candidate who poorly attempted this question by providing irrelevant introduction and explained the factors affecting temperature instead of the causes of temperature inversion.

2.1.7 Question 7: Water Masses

The question required the candidates to account for three theories explaining the occurrence of coral reef and a toll. The total marks allocated for this question were 20.

This question was attempted by 43.3% of the candidates. Its general performance was average because 53.1% scored 7 marks and above. Further analysis in this question shows that, only 7.7% of the candidates who attempted it scored from 12 to 20 marks, 45.4% scored from 7 to 11.5 marks and 46.9% scored from 0 to 6.5 marks. Figure 7 illustrates performance in this question.

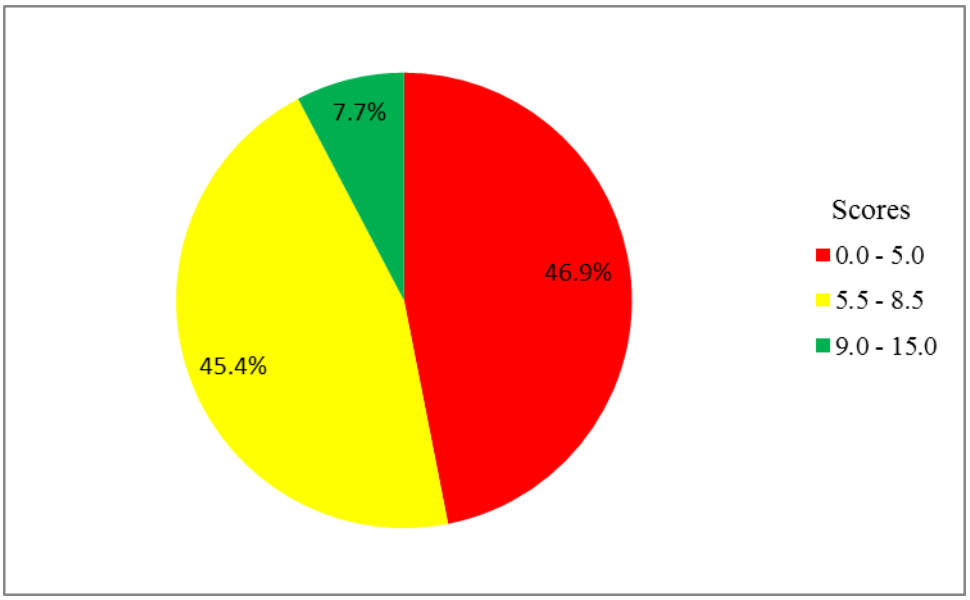


Figure 7: *Trend of the Candidates' Performance in Question 7.*

Most of the candidates who scored from 12 to 20 marks were able to provide correct responses because they had good understanding of the topic. They provided relevant introduction about coral reefs and atoll, elaborated correctly the three theories for the occurrence of coral reef and a toll. Most of them answered as follows:

> *Darwin theory suggests that, both barrier reef and a toll are formed from fringing reef which develop around an island, later on the island begins to subside but coral reef continues growing upwards to keep pace with rising sea level, due to the presence of more food and water tend to grow seawards more vigorous and the lagoon*

between the coasts become deeper and widen due to the subsidence of island.

Murray's theory argues that, the formation of barrier reef does not involve the subsidies of the ocean floor, however barrier reef stands as a fringing reefs, later on the waves pound on the reef and break the debris from the disintegrated reef accumulating on the seawards sides within the optimal depth, later on the polyps began to build on it upwards and seawards due to the more exposure on food while the polyps in the inner side deprive of food causing them to die.

Again, Daly's theory argues that, the rise of sea level which could have caused the coral reef to grow upwards was not due to subsidence of the sea floor but due to change in sea level due to the melting of ice.

Significantly, these candidates provided illustrative diagrams to support their explanations for each theory.

Some of the candidates in this category explained partially theories for the occurrence of coral reef and a toll while others provided only two theories without supporting them with illustrative diagrams. Some of them ended up by providing relevant conclusion while others provided irrelevant conclusion. In this regard, variation of their marks was a result of the strengths and accurateness of their responses.

The candidates who scored from 7 to 11.5 marks, failed to meet some requirements in their responses. Some of them were able to point out the three theories but failed to give relevant introduction about coral reefs. Some of the candidates provided partial explanations on the three theories without illustrative diagrams. Other candidates provided partial introduction about coral reef but mixed-up relevant and irrelevant explanations on the theories. For example, one candidate provided relevant introduction about coral reefs but mixed-up correct explanations about Darwin’s and Daly’s theories. Therefore, strengths and weaknesses of their explanations led to variation in their scores.

The candidates who scored from 0 to 6.5 marks had many weaknesses in their responses. Some of the candidates in this category failed to give the relevant introduction about coral reefs but provided one theory correctly

and was not able to provide illustrative diagram with a relevant conclusion. Some were able to give relevant introduction about coral reefs but failed to provide clear explanations of the theories. Some concentrated on explaining the types of coral reefs instead of the theories without illustrative diagrams and provided irrelevant conclusions.

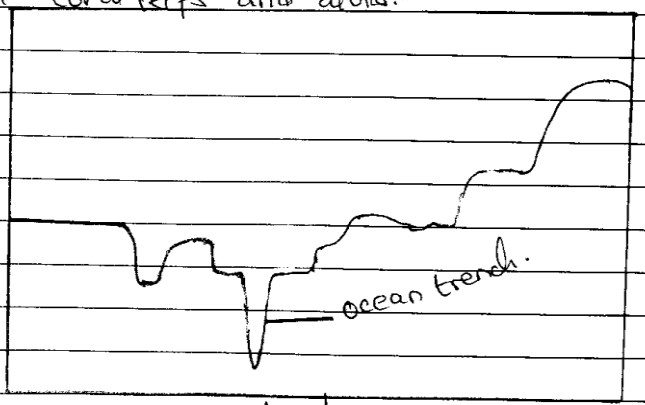
Other candidates provided partial introduction about coral reefs, mixed correct and incorrect explanations of the theories, and ended up by providing irrelevant conclusions. For example, one candidate who represents many in this category, provided relevant introduction, mixed up the types of coral reef and theories as*: fringing theory, barrier theory and a toll theory* without illustrative diagrams and relevant conclusions. Other candidates provided incorrect responses. For instance, one candidate provided the introduction of coral reef as: *materials deposited on the sea* and explained the theories of *continental drift, plate tectonic* and *isostacy* instead of the theories which explain the occurrence of coral reef and a toll. Extract 1.7.1 represents a sample of such a poor response.

Extract 1.7.1

07.

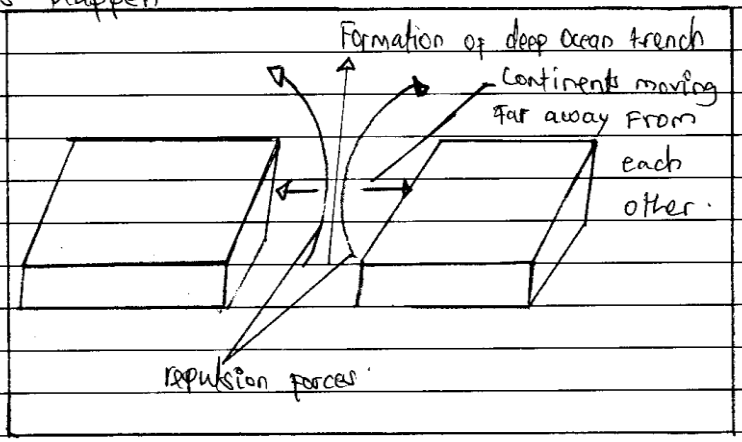
Coral reefs and atolls: Coral reefs and atolls are the features formed in the ocean areas. They are formed with the presence of salt water, Moderate temperature with the sunshine rays that penetrates from 5 to 10m. The main theories that explains the occurance of the coral reefs and atolls are;

Plate tectonic theory; this theory explains about the movements of the plates. Plate tectonics explains the formation of Coral reefs and atolls with the concept of oceanic spreading as the major cause that enables the ocean to form its parts including Island, trenches and ridges. The Presence of this parts facilitates the occurance of various species such as Plankatons that contributes to the formation of the coral reefs and atolls.



continental drifting theory; This theory explains about the movement of continents apart from each other. As the

07 continents tends to move apart from each other, this leads to the formation of deep ocean trenches that forms the ocean. When other factors are also considered such as temperature, salt water and organisms are also considered the formation of coral reefs and atolls is likely to happen.



Isostacy theory; The theory explains about the sialic layers that flot on a less denser rock. the theory explains about the formation of atolls and coral reefs simply because as the sial layer floats the denser rock tends to be dragged inside leading to the formation of various oceanic features, which contribute to the occurance of the coral reefs and atolls.

Therefore; Coral reefs and atolls can be explained by three theories. But then these two features are very important as they do help in tourist attraction that acts as the source of income to the country.

Extract 1.7.1 portrays incorrect responses from a candidate who discussed the theories which explain the balancing of the earth instead of the theories for the occurrence of coral reef and a toll.

2.1.8 Question 8: Position, Behavior and Structure of the Earth

This question demanded the candidates to examine four layers of the atmosphere and give three characteristics for each. This question had a total of 20 marks.

The question was opted by 82.4% of the candidates whereby 15.1% scored from 12 to 20 marks, 52.8% scored from 7 to 11.5 marks and 32.1% scored from 0 to 6.5 marks. The general performance in this question was good since 67.9% scored 7 marks and above. Figure 8 illustrates performance in this question.

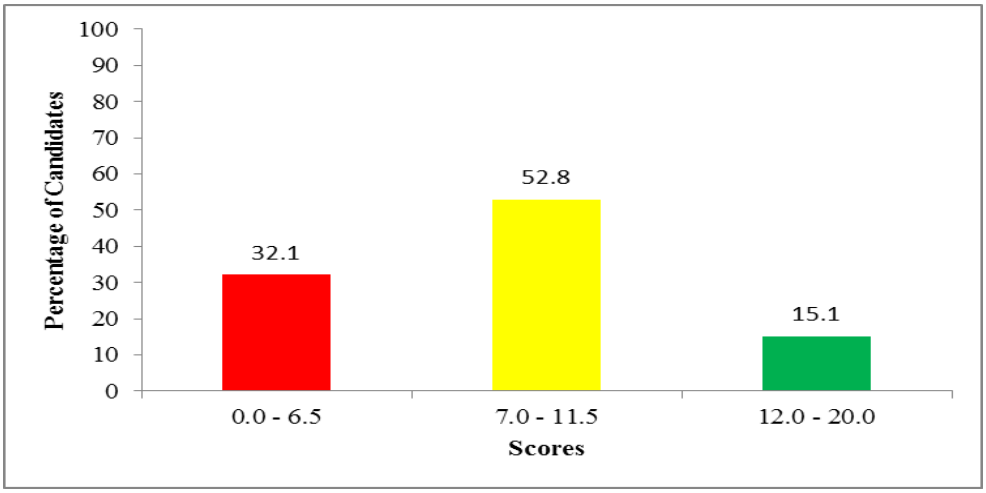


Figure 8: *Trend of the Candidates' Performance in Question 8.*

Majority of the candidates who scored from 12 to 20 marks revealed good understanding of the demands of the question concerning the structure of the atmosphere. Some of the candidates managed to provide relevant introduction about the atmosphere, clearly described four layers of the atmosphere and at least three characteristics for each. They were also able to sketch a well labeled graph showing the vertical section of the atmosphere.

For instance, one candidate who represents this category provided best answers defined the atmosphere as: *an envelope of transparent odorless gases held to the earth by gravitational attraction*, and managed to provide four layers of the atmosphere such as: *Troposphere, Stratosphere, Mesosphere and Thermosphere.* In each layer the candidate managed to establish variables which were used to examine the characteristics in each

layer such as: *temperature, height, pressure and wind.* In troposphere the characteristics mentioned were:

> *The temperature decreases with the increase of altitude at 0.6^0c in every 100 meters, pressure falls as effect of gravity decreases and wind speed increases with height and normally this layer is unstable. In Stratosphere; temperature increases with the increase in height, wind speed is light in the lower parts but increases with height and pressure continue to fall with height; In Mesosphere; temperature falls rapidly up to - 90^0c with increasing height, wind speed is very strong about 3000 km/hr and pressure continue to fall with increasing height; In Thermosphere; temperature rise rapidly to above 1500^0c with height, pressure fall with altitude and speed of wind is very high.*

Moreover, this candidate managed to sketch a precise graph indicating the vertical section of the atmosphere.

Other candidates provided relevant introduction and examined the four layers with partial explanations and without the sketch diagram of vertical section of the atmosphere. Others provided few layers of the atmosphere with relevant explanations and failed to draw a diagram indicating the vertical section of the atmosphere. Also some of the candidates managed to point out the four layers but mixed-up their characteristics and sketched a diagram which was also incorrect. The strengths and accurateness of their responses led to variation of their marks. Extract 1.8.1 exemplifies the candidate's good responses in this question.

Extract 1.8.1

Of Atmosphere this is the space of the earth surface which covered by the air. Atmosphere is covered by different gases like Nitrogen, oxygen, carbondioxide and noble gases which together with dust, bacteria and smoke they constitutes the atmosphere. Atmosphere is made up by four layers according to temperature ranges which are troposphere, stratosphere, mesosphere and Thermosphere. Now the following below are the layers of atmosphere with their characteristics which are :-

Troposphere, this is the first layer of the atmosphere which extend from the surface up to 10-17km upward. Troposphere is the layer where most of weather elements like Rainfall, wind, temperature and humidity accumulated at large. Hence due to that it influence the climate of the certain Areas. The temperature in the troposphere decreases with the increase in altitude (height) and this process is known as Lapse rate. Temperature decreases at the rate of 0.6°c to every 100m, hence as you go upward the temperature decreases and vice versa

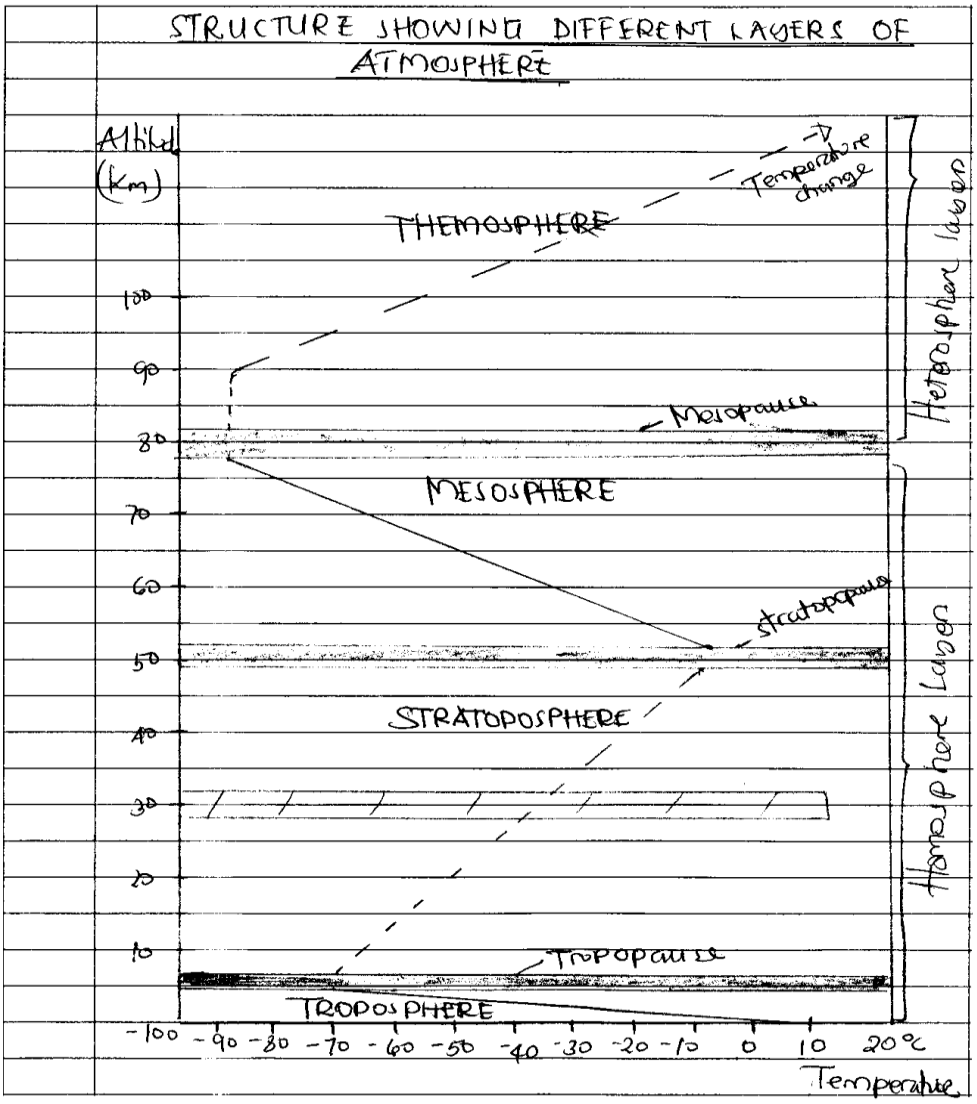
Also troposphere is the layer which support the living organism to love due to the existance of different gases which support life like oxygen for animal and carbondioxide for plant. The upper part of troposphere is tropopause

Stratosphere, this is the second layer of the atmosphere which extend from 17-50km. In the stratosphere there is low temperature at the lower part which reaches to -4°c and between 25-30 km there is a layer called ozone layer (O_3) which prevent the direct penetration of ultra violent rays from the sun hence regulate temperature of the atmosphere especially lower layer of troposphere. In the stratosphere there is temperature inversion caused by the presence of

08. Ozone layer, hence due to that once you go up ward there is increase of temperature. In this layer there is no dust, clou d cover and other particles also living organism cannot live in this layer. Ozone layer are very important to the life of human being and other living organism as it protect violent rays which can cause skin cancer. The upper part of the Stratosphere is Stratopause.

Mesosphere, this is the third layer of the atmosphere which extend from the 50 - 80km. In this layer there are violent wind which moves at high speed of 600km/hr. Also the mesosphere is the coldest layer in the atmosphere where by temperature fall up to -90°c hence du e to that can not support life of living organism. Mesosphe re have no dust and gases which can trap sun rays hence has resulted to the coldest in this layer. The upper part of the mesosphere is mesopause.

Thermosphere, this is the fourth layer of the atmosphere which extend from 80km up to the air space. This is the hottest layer of the atmosphere as temperature increases up to 1500°c. This is caused by the presence of dust particles and Radioactive materials which tends to trap the sun rays hence temperature increases. In this layer there is another part known as Ionesphere which are are being responsible for wireless communication. Ionesphere are being used for satellite communicatio n like that of Television and Radio waves, hence has simplified the communication of wireless. The uppe r part of the thermosphere is thermopause.



Extract 1.8.1 shows correct responses on question number 8.

The candidates who scored from 7 to 11.5 marks had moderate strengths and weaknesses in answering this question. Most of them had partial knowledge and inadequate skills on the structure of the atmosphere mainly on the characteristics of the atmospheric layers. For instance, some of the candidates managed to provide correct introduction about the atmosphere and identified layers of the atmosphere with a well labeled diagram of the vertical section of the atmosphere but gave out few correct characteristics of some of the layers.

Furthermore, some of the candidates managed to give partial introduction and explained partially the characteristics of the atmosphere in layer wise

and did not provide a diagram, while others were able to provide relevant introduction but mixed-up relevant and irrelevant explanations of some layers.

For example, one candidate who represents many in this category provided a relevant introduction but mixed-up the characteristics of the layers as follow:

> *Troposphere, is the last layer in the atmosphere and temperature decrease as you go up, Stratosphere: is the lower sphere of the atmosphere and wind speed is not high, Mesosphere: is the third layer of the atmosphere temperature decrease as you go up and thermosphere: is the fourth layer of atmosphere and pressure falls as you go up.*

Moreover, this candidate failed to provide a diagram indicating the vertical section of the atmosphere. The strengths and weaknesses led to varied marks.

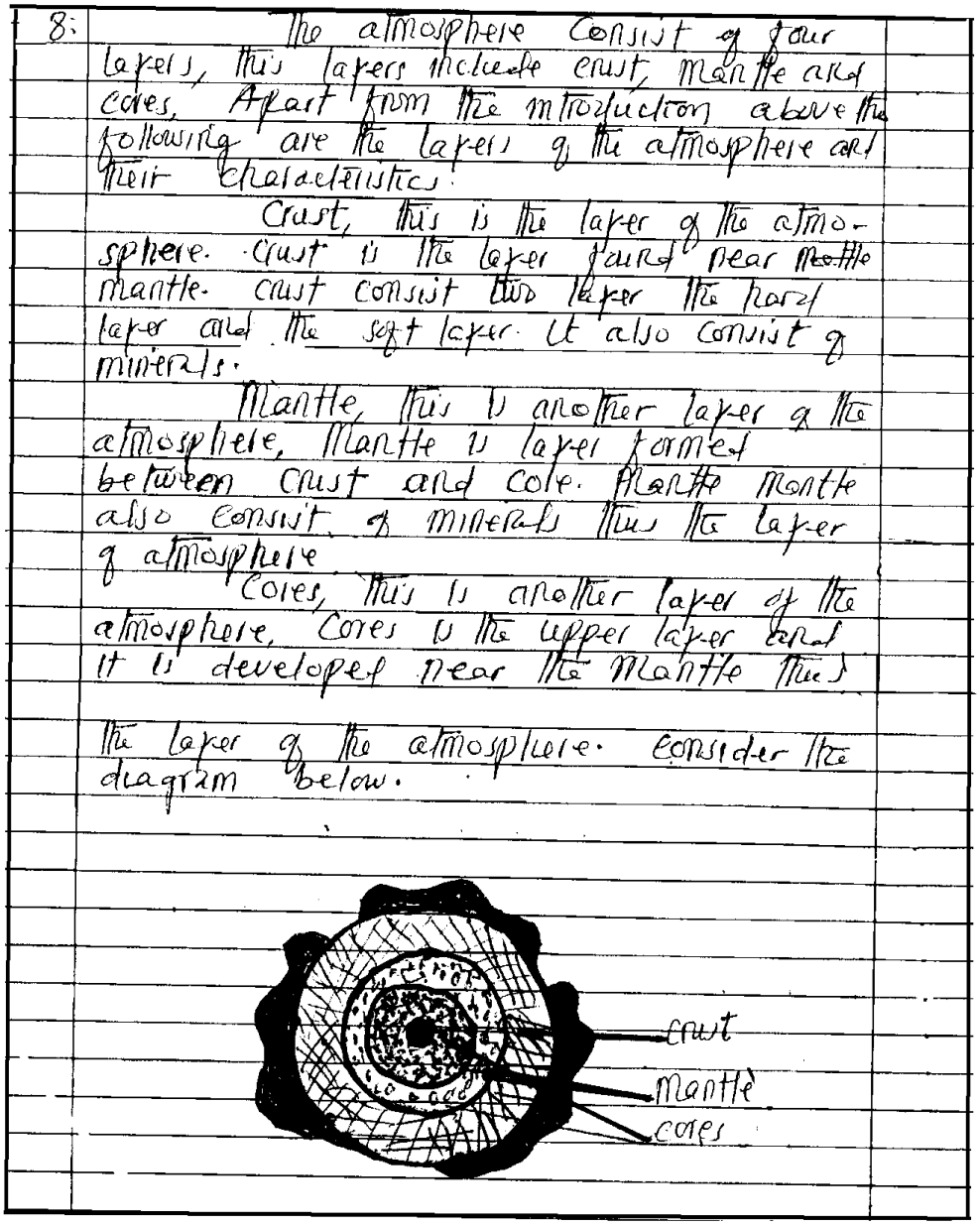
The candidates who scored from 0 to 6.5 marks revealed a weak understanding of the question. They had shallow or little knowledge and skills on the structure of the atmosphere. Some of these candidates provided partial introduction and few layers of atmosphere without their characteristics. Some of them provided correct introduction of atmosphere but pointed out few layers with their characteristics while, others managed to give introduction of atmosphere with its layers but they mixed-up their explanations by providing correct and incorrect arguments.

For example, one candidate who relates to many in this category, provided relevant introduction mixed up relevant and irrelevant layers of atmosphere as: *hydrosphere: consists of water bodies, troposphere: temperature decreases when altitude increases, Lithosphere: it has rocks, it has different minerals and earth crust* and *Mesosphere: is the third layer of the atmosphere.*

Another candidate failed to give the correct introduction of atmosphere and ended-up with correct and incorrect responses such as: *Stratosphere has the following characteristics: pressure is low, small gravitation and free movement of air, Exosphere is characterized by transportation, Thermosphere has waves used in radio and television and Troposphere is used for different activities.*

Likewise, another candidate explained the internal structure of the earth as*: crust, mantle and core* instead of the structure of the atmosphere. The variation of their marks was the results of the strengths and weaknesses of their responses. Extract 1.8.2 provides a case of the candidate's incorrect responses.

Extract 1.8.2



Extract 1.8.2 indicates the candidate's incorrect responses which relied on the internal structure of the earth which is composed of the crust, the mantle and the core instead of the structure of the atmosphere.

2.1.9 Question 9: The Dynamic Earth and Consequence

The question demanded the candidate to describe the nature, spatial distribution and significance of Fold Mountains. The total marks allocated for this question were 20.

This was among the highly omitted questions as the statistics reveal that it was opted by only 25.8% of the candidates of which, majority of them 74.7% scored from 0 to 6.5 marks, 23.7% scored from 7 to 11.5 marks, and only few candidate (1.6%) scored from 12 to 20 marks. The general performance of the candidates who opted for this question was poor since only 25.3% scored 7 marks and above. Figure 9 illustrates performance in this question.

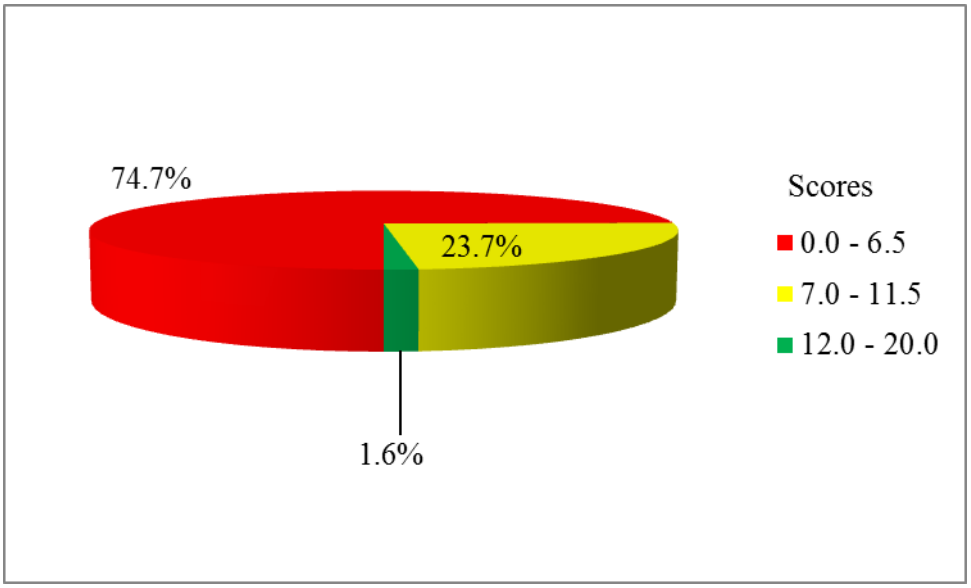


Figure 9: *Trend of the performance of the candidates in Question 9.*

Most of the candidates who scored from 0 to 6.5 marks had little or no knowledge at all on the topic of the Dynamic Earth and Consequence, particularly on the concept of Plate tectonic and drifting mainly on the nature, spatial distribution and significance of the Fold Mountains. For example, one of the candidates explained only on the nature of Fold Mountains as: *different types of folding depend on the nature of the forces* again this candidate failed to explain their spatial distribution and significance of Fold Mountains. Another candidate managed to provide correct introduction of Fold Mountains as follows: *they are the mountains which were formed as a result of continental drifting* and explained the

nature of Fold Mountains by describing theories accounting for the Dynamic Earth and Consequence such as *Plate tectonic* and *Continental drifting again this candidate* provided *volcanic eruption* as the nature of fold mountains thus failed to explain about the spatial distribution and significance of fold mountains. Equally another candidate managed to provide relevant introduction about Fold Mountains and was able to give one significant of Fold Mountains as: *they act as the tourists' attraction.* The disparities and strengths of their responses accounted for their varied scores.

The candidates who scored a 0 mark revealed lack of knowledge and skills on the topic of the Dynamic Earth and Consequence, particularly on the concept of Plate tectonic and drifting (Fold Mountains concept). That is why they were not able to describe the nature, spatial distribution and significance of Fold Mountains which led them to provide incorrect responses about the Fold Mountains. For example, one candidate was not able to provide the introduction of Fold Mountains and provided the types of mountains such as: *Fold Mountains, Block Mountains* and *Volcanic Mountains* instead of explaining the nature, spatial distribution and significance of Fold Mountains. Another candidate did not provide the introduction of Fold Mountain and finished-up by explaining the block mountains formation with the aid of diagram instead of fold mountain formation. Extract 1.9.1 represents a sample of the candidate's incorrect responses.

Extract 1.9.1

09 Fold mountains. These are the mountains which is formed due to the riftvalley and others. The following are the nature, spatial distribution of and significance of fold mountains as follows below.

The nature and the spatial distribution of fold mountain is riftvalley this kind of the problem is found mostly in the fold mountains passing throw the joints of the ground.

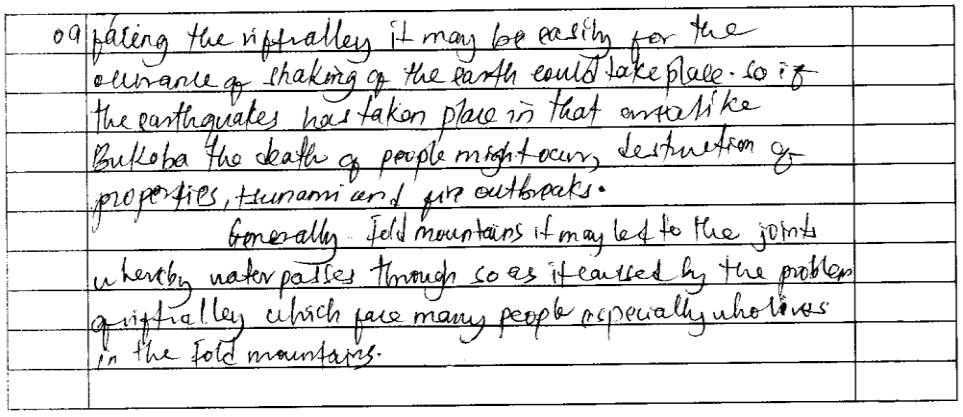
Apart from the nature, spatial distribution nethere the significance of fold mountains as follows below.

Folding it leads to the formation of fold mountains. most of the folding place it may led to happen the mountains which is formed by folding due to the presence of riftvalley. so this kind of the problem is found mostly in the fold mountain.

It leads to the formation of riftvalley. This is a situation whereby the formation of riftvalley happen or occurs to the places were the fragmentation and denudation of soil has taken place. so most of the places were there is broken of lands the problem of riftvalley could be able to take place.

Death and disapperance of animals and plants species. most of the places which has occured by the formation of riftvalley in the sources of land. the plant and animals species could be able to take place. so most of the species dies and they cannot be able to grow again because the land it losses its fertility so they cannot be able to grow or cultivate any kind of crops.

Occurance of earthquakes. Earthquakes is refers to the shaking or vibration of the earth crust due to the sudden and rapid displacement of rocks along the line of weakness. so most of the place which have been



Extract 1.9.1 gives a sample of incorrect responses from the candidate who described the effects of plate tectonic movement instead of the nature, spatial distribution and significance of Fold Mountains.

The candidates who scored from 7 to 11.5 marks, at least showed a moderate understanding on the topic of the Dynamic Earth and Consequence, particularly on the concept of plate tectonic movement and drifting of continents on its resultant features which are Fold Mountains. They scored such marks simply because, some of the candidates were able to provide relevant introduction about Fold Mountains, described the nature and significance of Fold Mountain but failed to provide the spatial distribution of Fold Mountain. Also some of the candidates managed to provide relevant introduction of Fold Mountains and explained the nature of Fold Mountains but provided spatial distribution and significance of Fold Mountains partially. And some of them provided only the spatial distribution and significance of Fold Mountains without clear introduction and its nature.

Others explained the nature and spatial distribution of Fold Mountain only while others were able to state the meaning of Fold Mountains correctly, they pointed out the nature of Fold Mountains partially; they correctly provided spatial distribution and significance of Fold Mountains with relevant conclusion. For example, one candidate managed to define fold mountains as: *the type of mountains formed due to lateral earth movements* and managed to describe the nature of fold mountains as: *they are interrupted by volcanic intrusion like Batholiths*, provided the spatial distribution of Fold Mountains as follows: *Atlas mountain is found in Africa, Andes in South America, Himalayas in Asia and Alps in Europe.* Again this candidate managed to point out two significances such as:

source of rivers and minerals. The disparities of their responses led to the variation of their scores.

Most of the candidates who scored from 12 to 20 marks showed a recommendable understanding and managed to meet the demands of the question by describing the nature, spatial distribution and significance of Fold Mountains. Some of the candidates in this group were able to provide relevant introduction and significance but failed to provide the nature and spatial distribution of Fold Mountains. Some explained the spatial distribution of Fold Mountains with unsatisfactory explanations while, others explained partially the nature and spatial distribution of Fold Mountains and little significance.

For example, one candidate managed to provide the introduction of Fold Mountains as: *the mountains formed due to wrinkling of the earth's crust caused by lateral forces of compression*. Also this candidate was able to describe the nature of the fold mountain as follows: *they are the chains of mountains which are very extensive covering a thousands of continents, various degrees of Fold Mountains depend on the intensity of compressional forces, they normally occurs on the boundaries of the tectonic plates, they show great thickness of sedimentary rocks* and *they are interrupted by volcanic intrusions.*

The same candidate explained the spatial distribution of the Fold Mountains with the aid of the global sketch map as follows: *the Appalachians mountain in USA, Rocky Mountain in North America, Andes in South America, Himalayas in Asia, Alps in Europe, the Atlas in North Africa, the Cape ranges in South Africa and The Great Divide ranges in Australia.* Lastly, this candidate was able to state the significance of the Fold Mountains as: *being climatic modifiers, source of major rivers, source of timbers, having attractive landscape for tourism* and *mineral deposits.*

Furthermore, some of the candidates managed to give relevant introduction on Fold Mountains and significance of Fold Mountains but failed to provide their nature and spatial distribution. Other candidates were able to provide the nature, spatial distribution and little significance of Fold Mountains. Variation in their marks depended on the strengths and accurateness of their responses. Extract 1.9.2 shows the candidate who answered this question relatively well.

Extract 1.9.2

9 Fold mountain, is the mountain which is formed due to compressional force that operated in the earth crust. The formation of fold mountain is described by various theories like Continental drift theory, plate tectonic, Convectional Current, Contractional, Denudation and geosyncline theory. The following are the nature of fold mountains

They are formed by various degrees. Fold mountain its nature are formed in different degree as largest and small example Andes, Himalayas

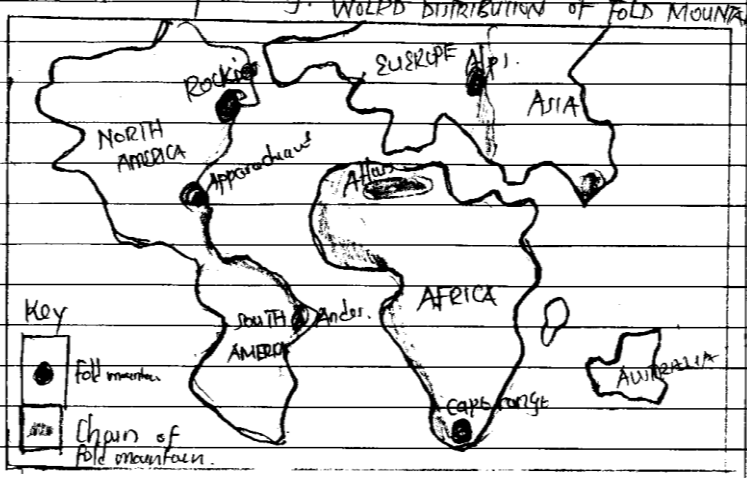
They form chain of mountain, Also fold mountain its nature is formed its chain which is very extensive passing in the boundary of Continent example. Rockies and Andes, Appalachians from north and South africa.

They occur along the boundaries of Continents this also shows as the nature of fold mountain is derived from the area which Continent were drifted. Not only that nature but also there are Spatial distribution of fold mountain which are.

Along the pacific belt, This occured the mountain of Andes Rockies.

Along the mediterranean ocean, Also the is presence of Atlas mountain which formed when african continent divergent.

9. but also by using diagram fold mountain can be shown as following.



Also the following are the significance of fold mountain.

Source of tourist attraction, Fold mountain influence the countries to earn income through tourist attraction.

Source of rainfall, also fold mountain responsible in the formation of rainfall which enable people to set up economic activities like agriculture.

Influence the formation of River and lakes, The is the result of fold mountain as most of them led to the occurance of rainfall hence favorable river formation.

Generally, Fold mountains is the one of the indicator that indicate as the Continent was drifted from one place to another

Extract 1.9.2 indicates the candidate's correct responses on question 9.

2.2 113/2 GEOGRAPHY PAPER TWO

Section A: Population and Development

This section consisted of three questions: 1, 2 and 3 which were set from the Population and Development topic. The candidates were required to answer any two questions whereby each question had a total of 20 marks.

2.2.1 Question 1: Population and Development

This question instructed the candidates to examine eight factors influencing population density.

The question was mostly opted as it was attempted by 44,043 (98.6%) candidates of which, 58.1% scored from 12 to 20 marks, 34.6 % scored from 7 to 11.5 marks and 7.3% scored from 0 to 6.5 marks. The analysis shows that the general performance of the candidates who opted this question was good since 92.7% of them scored 7 marks and above. Figure 10 illustrates performance in this question.

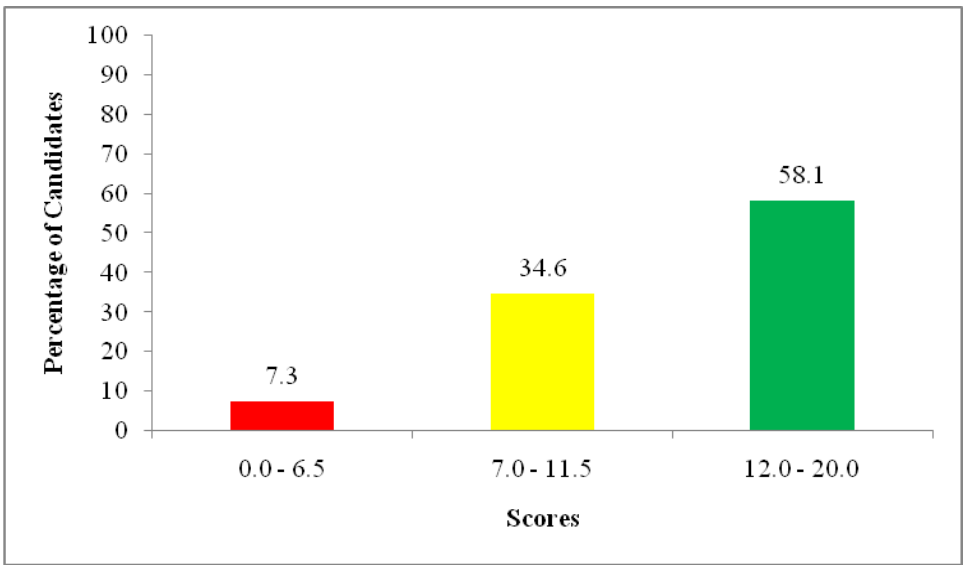


Figure 10: *Trend of the Candidates' Performance in Question 1.*

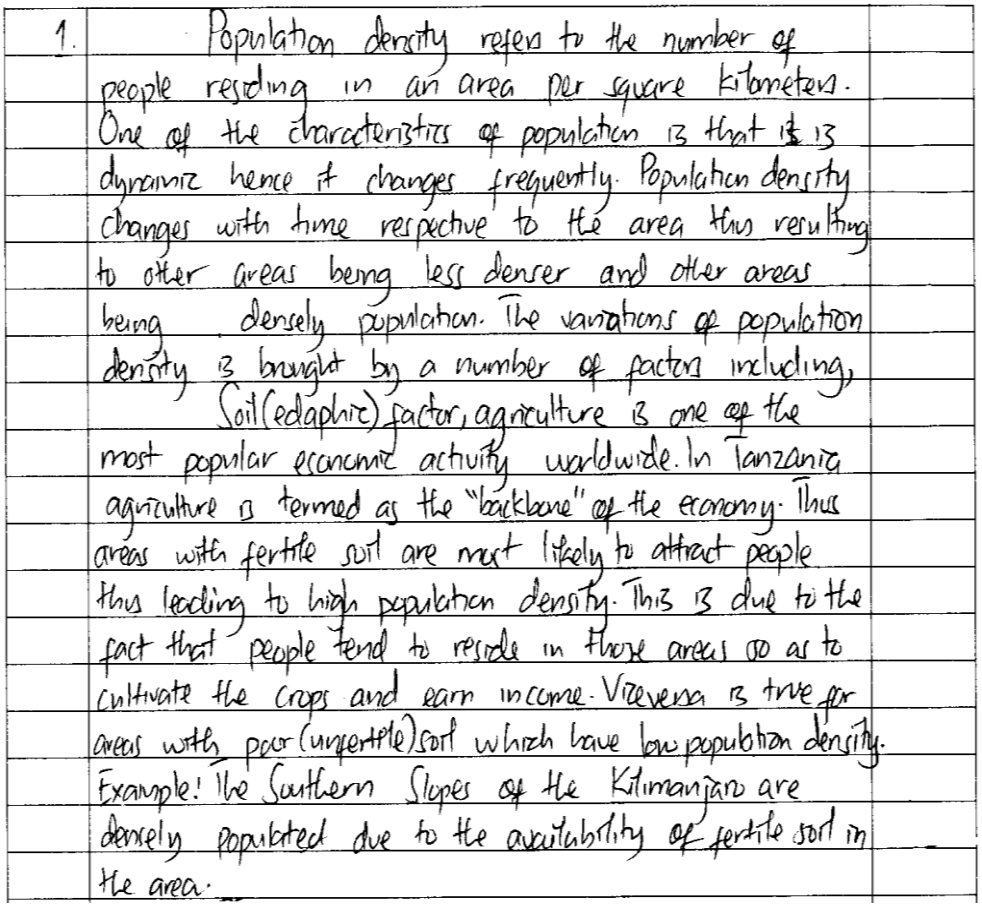
The candidates who scored from 12 to 20 marks revealed good knowledge and skills on the topic of Population and Development especially on the sub topic of population structure particularly on the concept of population density.

Most of the candidates in this category provided correct introduction of population density, examined the factors influencing population density

such as: *relief/topography, climate, vegetation, soil, water supply, pests and diseases, mineral resources, communication infrastructure, political stability and economic development potentials* with relevant examples and provided relevant conclusions.

However, some of them provided relevant introductions and examined few factors influencing population density with examples. Others looked up the factors influencing population density without examples and mixed-up the correct and incorrect factors influencing population density despite the fact that they provided relevant conclusions. The variation of their scores was a result of their strengths and accurateness of their responses. Extract 2.1.1 is a sample of the candidate with such correct responses.

Extract 2.1.1

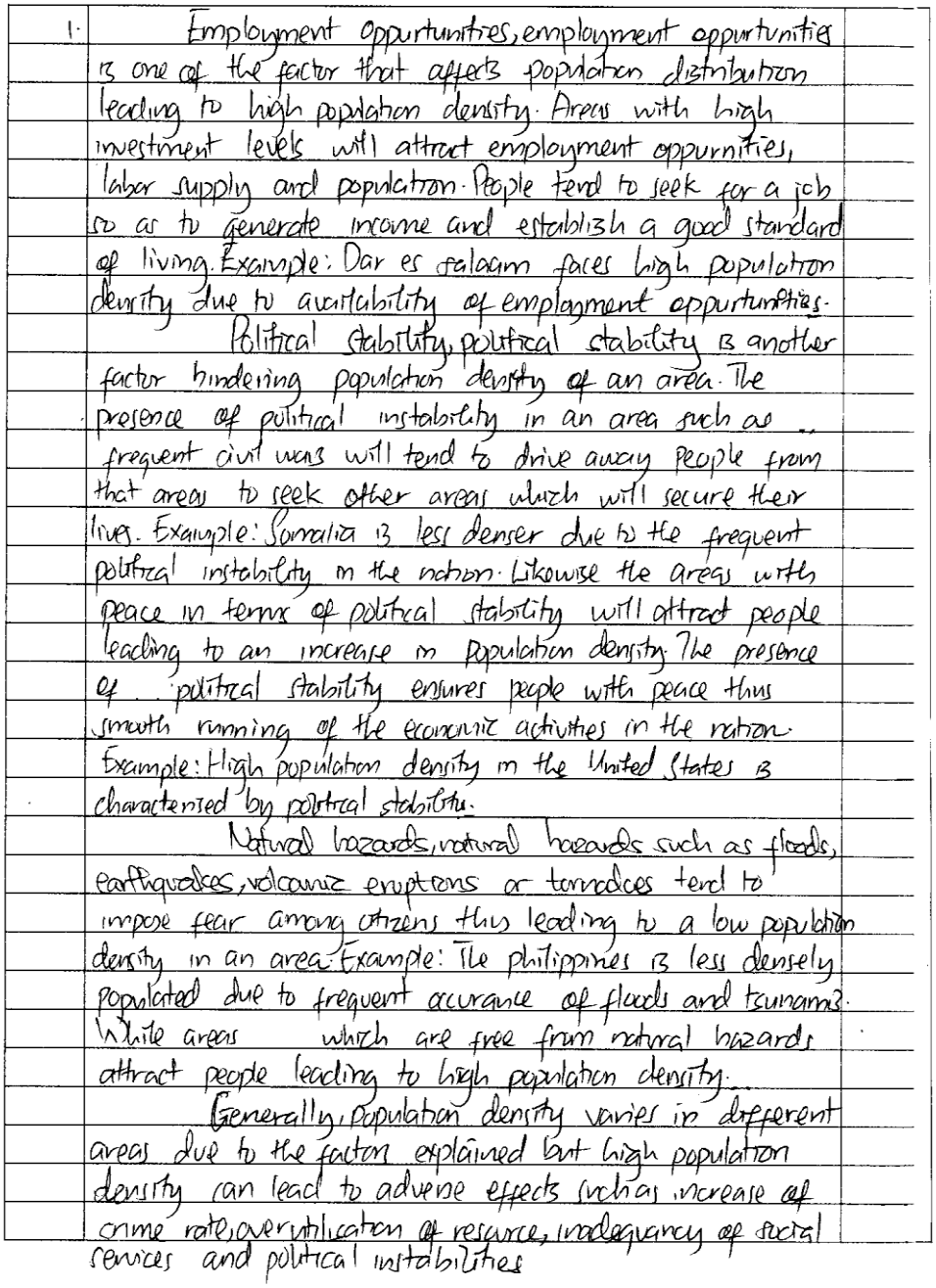

1. Population density refers to the number of people residing in an area per square kilometers. One of the characteristics of population is that it is dynamic hence it changes frequently. Population density changes with time respective to the area this resulting to other areas being less denser and other areas being densely population. The variations of population density is brought by a number of factors including, Soil(edaphic) factor, agriculture is one of the most popular economic activity worldwide. In Tanzania agriculture is termed as the "backbone" of the economy. Thus areas with fertile soil are most likely to attract people thus leading to high population density. This is due to the fact that people tend to reside in those areas so as to cultivate the crops and earn income. Vice versa is true for areas with poor (unfertile) soil which have low population density. Example! The Southern Slopes of the Kilimanjaro are densely populated due to the availability of fertile soil in the area.

favorable climatic conditions, climate is essential to conduct any economic activity. The presence of poor climatic conditions will discourage settlement and conduction of economic activities. Thus areas with favorable climatic conditions will attract people leading to high population density likewise its true to the areas with poor climatic conditions. The favorate climatic conditions include moderate temperature or enough precipitation. Example: The western and central countries of Europe such as Sweden and the United Kingdom are highly populated due to favorable climate while areas such as the Sahara and Antartic are less denser due to the unfavorable climate.

1- Relief, relief refers to the general appearance of the land. When explaining the relief factor of population we base on the gradient or slope of an area. Areas with steep slopes are lowly populated as they are unfavorable and more prone to disasters such as landslides and soil erosion. Example: Areas near the Uluguru Mountains in Morogoro. While the areas that are gently sloped are likely to be highly populated as they are less drastic to changes such as landslides. Example; Dar es Salaam or Arusha.

Social---factors, this is another factor that influences the population of density of an areas. Social factors include adequate provision of social services such as health, education, water supply services. Areas which are low in the number of population may be associated with the migration of people to the areas which have adequate supply of social services. Example: Dar es Salaam face high population density as people believe in the availability of social services in the city. Other social factors include historical reason, this is when people continue residing in an area due to historical (cultural) factors this lead to high population density in the area.

Outbreak of a disease, this factor can also be termed as biofactor. Population density of some areas in the world is influenced by the outbreak of a certain disease or presence of a certain disease. In areas prone to the occurance of disease or infection people tend to migrate away from those areas to other areas. While areas with the less occurance of disease attract settlement thus leading to high population density. Example: The decrease of population in western Africa in countries such as Liberia due to eruption of the Ebola virus in 2016.


1. Employment opportunities, employment opportunities is one of the factor that affects population distribution leading to high population density. Areas with high investment levels will attract employment opportunities, labor supply and population. People tend to seek for a job so as to generate income and establish a good standard of living. Example: Dar es salaam faces high population density due to availability of employment opportunities.

Political stability, political stability is another factor hindering population density of an area. The presence of political instability in an area such as frequent civil wars will tend to drive away people from that areas to seek other areas which will secure their lives. Example: Somalia is less denser due to the frequent political instability in the nation. Likewise the areas with peace in terms of political stability will attract people leading to an increase in population density. The presence of political stability ensures people with peace thus smooth running of the economic activities in the nation. Example: High population density in the United States is characterised by political stability.

Natural hazards, natural hazards such as floods, earthquakes, volcanic eruptions or tornadoes tend to impose fear among citizens thus leading to a low population density in an area. Example: The philippines is less densely populated due to frequent occurance of floods and tsunams. While areas which are free from natural hazards attract people leading to high population density.

Generally, population density varies in different areas due to the factor explained but high population density can lead to adverse effects such as increase of crime rate, overutilization of resource, inadequancy of social services and political instabilities

Extract 2.1.1 indicates a sample of correct responses.

The candidates who scored from 7 to 11.5 marks had moderate knowledge and skills on the tested topic. Some of the candidates in this group managed to give relevant introduction about population density, examined factors influencing population density partially and provided irrelevant conclusions. Other candidates explained partially the introduction about

population density with few factors influencing population density and finalized their observation with a relevant conclusion.

Moreover, some of the candidates managed to provide relevant introductions and conclusions but they mixed-up correct and incorrect factors influencing population density. For example, one candidate provided correct introduction of population density but mixed-up correct and incorrect factors influencing population density such as: *climatic condition, edaphic factor, political stability, presence of natural calamities* and *historical background of the area*. The variation in the quality of explanations caused varied scores.

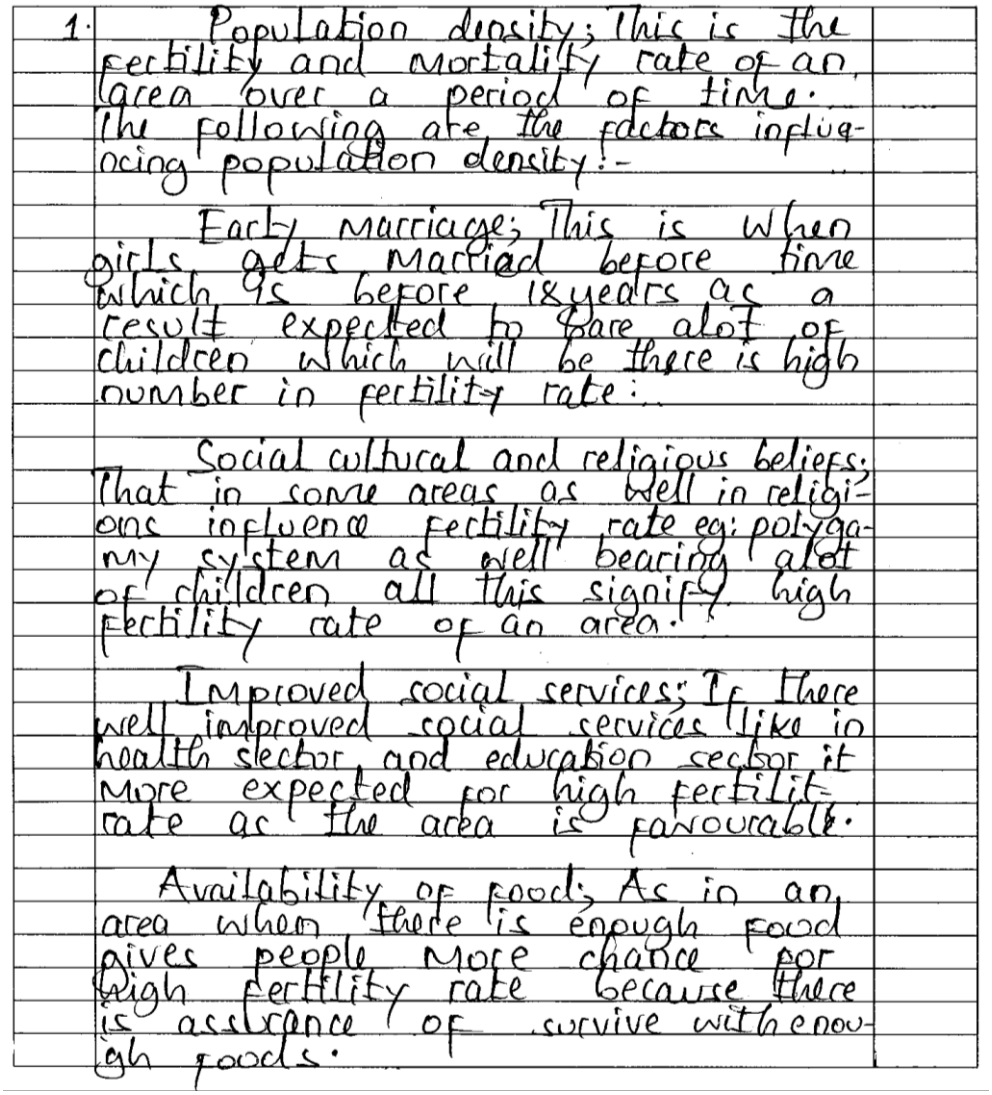
The candidates who scored 0 to 6.5 marks proved to have limited knowledge and skills on the concept of population density that is why to some extent failed to meet the demand of the question and hence they scored low marks. For example, some of these candidates gave out the relevant introduction about population density but explained the factors influencing population density incompletely by citing irrelevant examples. Moreover, some of the candidates failed to give relevant introduction about population density but provided only one or two correct factors influencing population density.

For example, one candidate provided irrelevant introduction about population density as: *the presence of a large number of people in a particular geographical area which varies from time to time*. In addition the same candidate mixed-up correct and incorrect factors such as: *migration, employment opportunities, high birth rate, land availability, adequate power supply and relief.*

Furthermore, another candidate provided relevant introduction of population density and explained about the causes of high fertility rate such as: *early marriage, prestige, polygamy, lack of family planning, sex preference, poverty and religious beliefs* instead of factors influencing population density.

On top of that, the statistics reveal that, 87 (0.2%) candidates who scored a 0 mark supplied the responses which were totally not related to the question. The variation of their marks resulted from the strengths and weaknesses of their responses. Extract 2.1.2 is a sample of the candidate's incorrect responses.

Extract 2.1.2


1. Population density; This is the fertility and mortality rate of an area over a period of time. The following are the factors influencing population density:-

Early marriage; This is when girls gets married before time which is before 18 years as a result expected to bare alot of children which will be there is high number in fertility rate.

Social cultural and religious beliefs; That in some areas as well in religions influence fertility rate eg: polygamy system as well bearing alot of children all this signify high fertility rate of an area.

Improved social services; If there well improved social services like in health slector and education secbor it more expected for high fertility rate as the area is favourable.

Availability of food; As in an area when there is enough food gives people more chance for high fertility rate because there is assurance of survive with enough goods.

Extract 2.1.2 *is a part of a candidate's incorrect responses who explained causes of rapid population growth instead of factors influencing population density.*

2.2.2 Question 2: Population and Development

The question required the candidates to compare and contrast the population structure of Tanzania and that of Norway by providing four points in each with the aid of pyramids. This question had a total of 20 marks.

This question was highly avoided since only 3,484 (7.8%) candidates attempted it, in which, 20.1 % scored from 12 to 20 marks, 49.1% scored from 7 to 11.5 marks and 30.8 % scored from 0 to 6.5 marks. The general performance in this question was good as 69.2 % scored 7 marks and above. Figure 11 illustrates performance in this question.

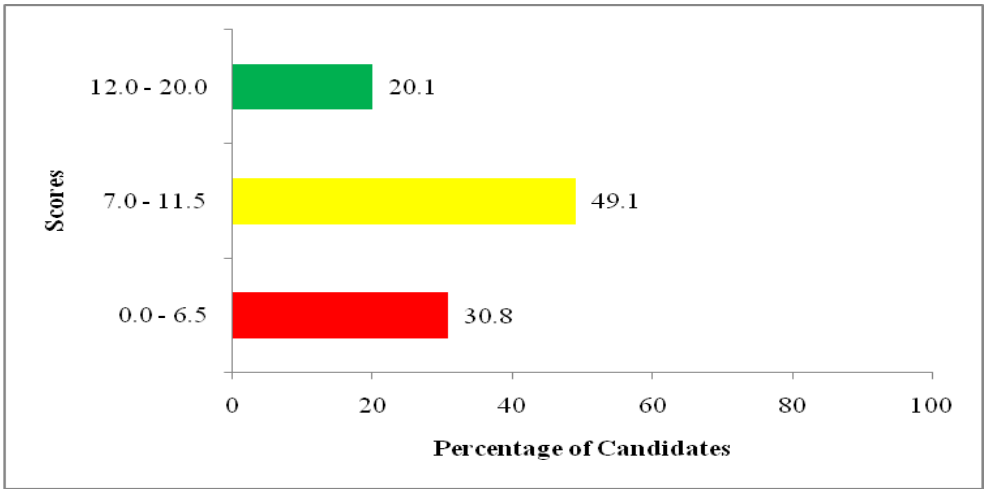


Figure 11: *Trend of the Candidates' Performance in Question 2.*

The candidates who scored from 12 to 20 marks managed to meet the demand of the question. Some of them were able to organize their responses in a logical manner; some provided the correct introduction of population structure and compared the population structure of Tanzania and Norway correctly with the aid of the diagrams.

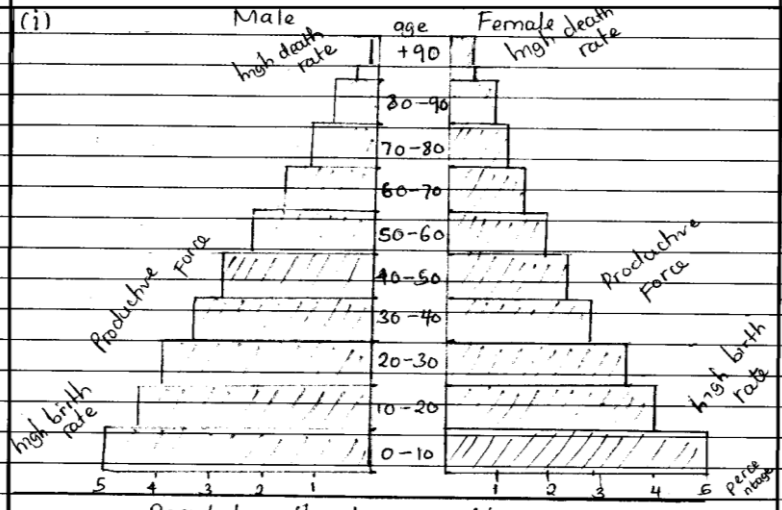
For instance, one candidate was able to establish the similarities between population structure of Tanzania and Norway as follows: *both has dependant population, both have large base structure than at the top, both show effects of migration and both have longer life expectancy of women than men*. On top of that, this candidate managed to differentiate the two population pyramids in this way: *Tanzania has high birth rate while Norway has low birth rate, Tanzania has high death rate due to poor health services while Norway has low death rate due to improved health services, there is poor health services in Tanzania compared to Norway and there is low life expectancy in Tanzania compared to Norway which has high life expectancy*. Moreover, the candidate managed to provide sketches of population pyramids of both Tanzania and Norway to illustrate the provided answers. Lastly, the same candidate managed to provide a relevant conclusion.

However, some of the candidates in this category provided partial comparisons which led them not to score full 20 marks. Extract 2.2.1 represents a sample of the candidate who answered the question well.

Extract 2.2.1

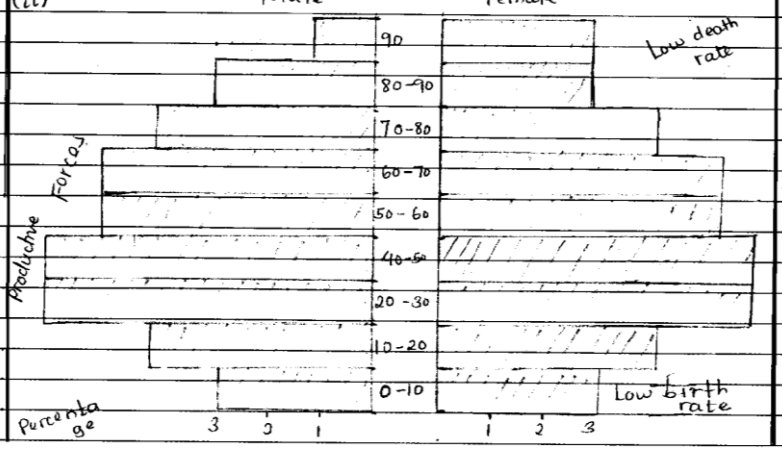
2. Population Pyramid refers to the diagram that show age and sex respectively, that population pyramids tend to differ from one country to another country where by population structure of Tanzania and that of Norway differ especially in the appearance, this is because the population structure of Tanzania is wider at the base but tend to decrease at the top compared to that of Norway, the following diagram is the pyramid of population structure of Tanzania labelled by (i) and that of Norway second labelled by (ii):-

2. (i)



Population structure of Norway

(ii)



2. The following are the comparison of population structure of Tanzania and Norway

Both population structure show birth rate, in Tanzania population structure indicate birth rate at the base of the pyramid as well as the population structure of Norway indicate the birth rate as the base of the pyramid

Both population structures show death rate, as the end of pyramid, all two pyramids indicate the rate of death at the top of each pyramid so that is another comparison of population structure of Norway as well as of Tanzania

Both show productive forces, in any country there must be a productive forces such labourers, so in the pyramds of both two countries Norway and Tanzania indicate the productive forces at the middle of each of pyramid so that is another comparison

Both show age and sex, that is another point so that to compare the population structure of Norway and that of Tanzania, both population pyramids show that there is female and male so that is a sex and also the central indicate their ages respectively so that is another comparison in population structure of the two countries Norway and Tanzania.

Not only that comparison but also the followings are the points of contrast population structure of Tanzania and that of Norway:

Population structure of Tanzania have high birth rate at the base due to poor population policy

While

Population structure of Norway have low birth rate due to high population control.

2. Population structure of Tanzania have high death rate this is because of poor social services example health services

While

In Norway have Low death rate due to good provision of social services such as health services compared to Tanzania

Population structure of Tanzania Low productive force, this is due to high death rate and lack of proper planning

While

In Norway have high productive forces, this is because of good government support good provision of social services and low death rate

Population structure of Tanzania have low life expectacy, this is due to absence of strictly population policy as well as poor social services

While

In Norway have Long life expectacy where by the avarage year of a person up to die tend to be high due to good and adequate of social services as the developed country

Generally, the above explanation is all about the population structure of Tanzania and that of Norway in comparison and their differences, Norway is the developed country so the pyramid of Norway tend to differ from that of Tanzania because Tanzania is a developing country.

Extract 2.2.1 indicates correct responses from a candidate who provided the similarities and differences between population structures of Tanzania and Norway and supported with their respective population pyramids.

The candidates who scored from 7 to 11.5 marks revealed moderate knowledge and skills on similarities and differences of the population structures of Tanzania and Norway. Some of the candidates were able to give relevant introduction about population structure, managed to show the similarities but failed to differentiate the two population structures correctly with the aid of population pyramids. Some of them provided irrelevant conclusions.

Moreover some of these candidates managed to give relevant introduction of population structure but mixed-up correct and incorrect comparisons as well as unrelated conclusions. For example, one candidate wrote: *population structure is the composition or proportion of population which shows different characteristics in term of age and sex.* Furthermore, the candidate presented relevant and irrelevant similarities as: *both have dependency ratio, both have narrow base structure at the top, both can predict the change in population* and *both determine the level of development of a country's economy.* Moreover, the candidate provided *relevant* differences as follows: *birth rate in Tanzania is higher compared to Norway, health service in Tanzania is poor compared Norway and level of development is lower in Tanzania compared to Norway*.

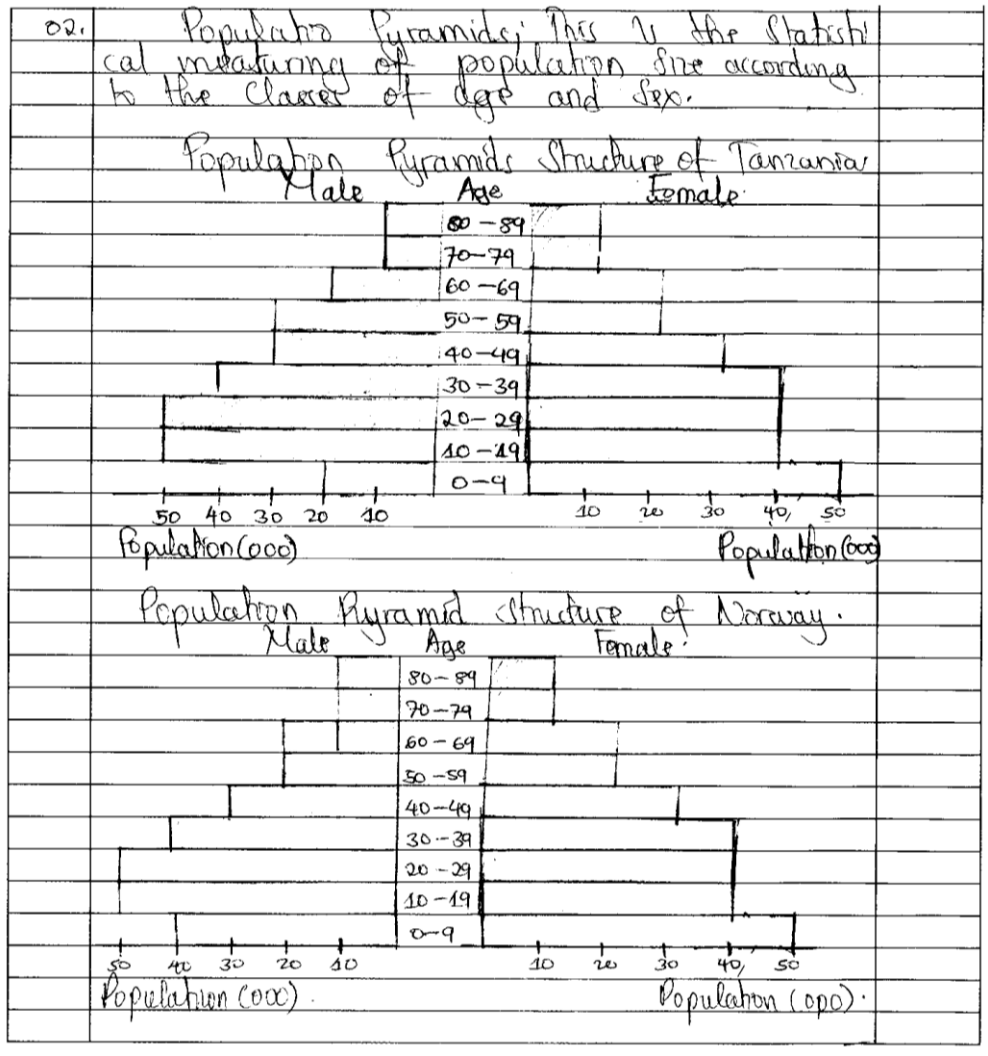
In addition to that, some of the candidates managed to give relevant introduction on population structure, provided correct differences of the given population structures but they ended up providing irrelevant similarities as per question demand. For instance, one candidate wrote on similarities that: *both are affected by population problems, both have unevenly population distribution and both have population dynamic.* The variation in their responses made them to score different marks.

The candidates who scored from 0 to 6.5 marks were not competent on the sub-topic of population structure hence they failed to meet the demand of the question. For instance, some of the candidates in this category were not able to give correct introduction, they provided few and partial similarities and differences of the given population structures with irrelevant conclusions.

Other candidates failed to give relevant introduction about population structure but provided few correct and incorrect comparisons. For example, one candidate was not able to define the term population structure and provided few correct and incorrect similarities and differences of population structures of Tanzania and Norway as: *both are presented by pyramid, both were facing population problems like unemployment* and *the population structure of Tanzania has bell shaped which indicates the falling of population in Tanzania*. Likewise, this candidate identified the differences between population structures as: *Tanzania has high birth rate compared to Norway and Tanzania has poor resource compared to Norway*.

Additionally, another candidate managed to give correct introduction of population structure but pointed out one correct similarity of population structures and no any difference was provided. Another candidate provided irrelevant introduction of population structure and provided unrelated similarities of the given population structures as; *both have fertility*, *both have mortality* and both *have life expectancy*. Extract 2.2.2 provides a sample of the candidate's correct responses.

Extract 2.2.2



Extract 2.2.2 represents a part of the sample of the incorrect responses whereby a candidate was not able to sketch relevant pyramids of the two countries, since there is no significance difference on the two presented pyramids.

2.2.3 Question 3: Population and Development

In this question candidates were required to explain how Tanzania has attempted to manage the rapid population growth by giving six points. This question had a total of 20 marks.

The question was among the most opted ones as it was attempted by 41,669 (93.3%) candidates whereby, 3.5% scored from 12 to 20 marks, 41.8% scored from 7 to 11.5 marks and 54.7% scored from 0 to 6.5 marks. The analysis shows that the general performance in this question was average simply because 45.3% of them scored 7 marks and above. Figure 12 illustrates performance in this question.

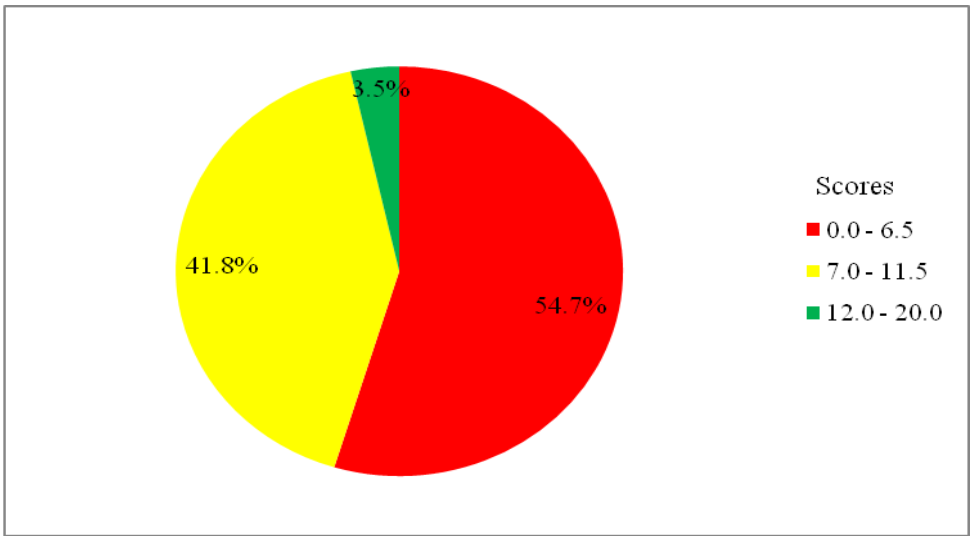


Figure 12: *Trend of the Candidates' Performance in Question 3.*

The candidates who scored from 12 to 20 marks managed to meet the demands of the question. These candidates had clear understanding on the topic of Population and Development especially on the sub-topic of population growth and its social and economic planning. They possessed good knowledge because they organized and presented well their ideas. Their essays were well constructed with coherent paragraphs and good flow of ideas. Interestingly, they ended up by constructing relevant conclusions.

Some of the candidates in this category were able to provide introduction about population growth and explained the attempts taken by Tanzania to manage rapid population growth with relevant conclusions. For example one of the candidates representing this category defined population growth correctly, explained six points on how Tanzania has attempted to manage

the rapid population growth as: *provision of education, improvement of health services, establishing government policies, establishment of family planning programs, and provision of contraceptives*. Lastly this candidate managed to draw relevant conclusion.

However, some of the candidates provided irrelevant introduction; discussed fewer correct points on the attempts made and provided relevant conclusions. That is why their marks varied depending on the strengths and accurateness of their responses. Extract 2.3.1 represents a sample of the candidate with correct responses.

Extract 2.3.1

3. Rapid population growth, refers to the massive increase of the number of people which can be influenced by the number of factors including presence of political stability, employment opportunities, Improvement of social services, availability of food, absence of diseases and also presence of many natural resource. The population growth has double effect on which can be positive or negative. In case of positive effect it assured availability of labour, development of science and Technology as well as Improvement of Agriculture. But in other hand it contributed to the increase of crimes, death of people, un employment and Increase of poverty.

The following are the ways on how Tanzania has attempt to manage the rapid population growth:

Provision of Education, Tanzania government has managed to establish different programes in schools on how they can reduce rapid population through establishment of family planning education in school on which the student have been tought how to reduce population by using family planning method such as the use of condoms, and contraceptives. This will enable Tanzania to control population growth.

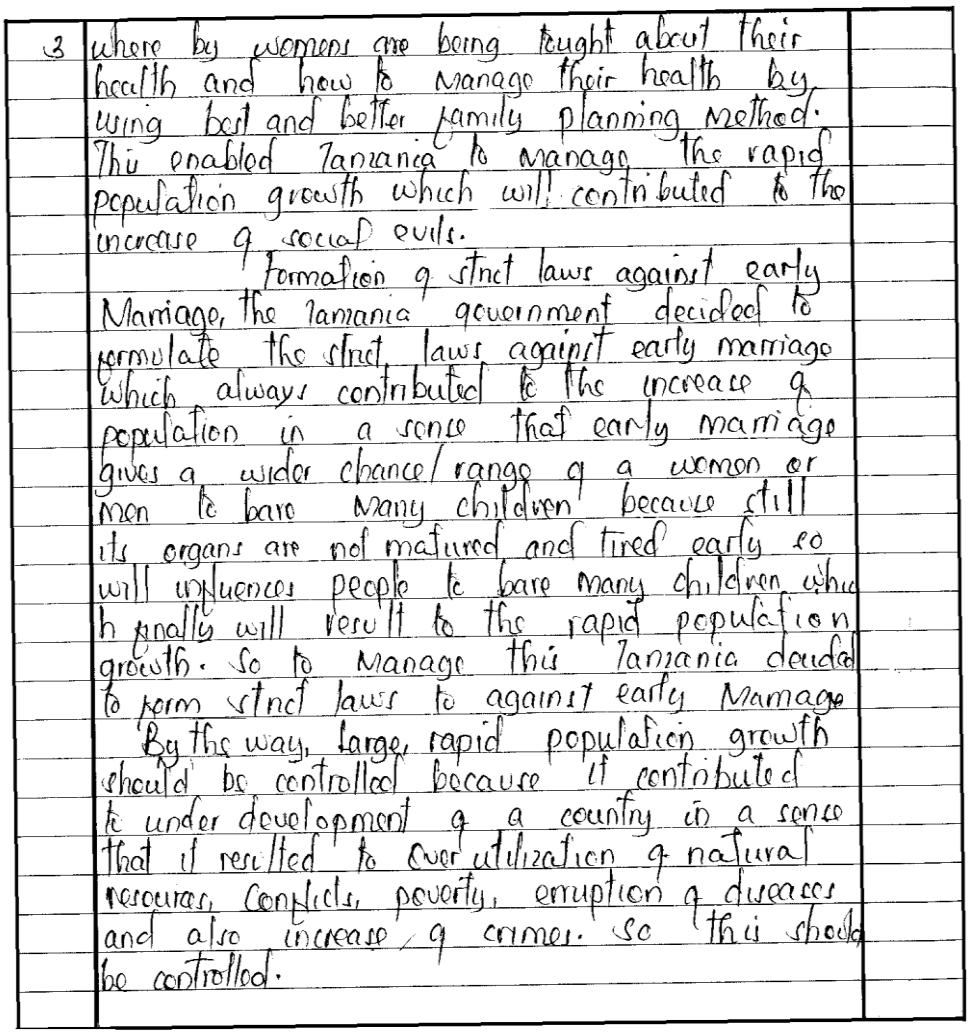
Encouragment of the use of family planning method, Tanzanian government in order to manage rapid population growth much emphasis have been puted to encourage both women and Men to use family planing method by choosing/selecting the range of the years which

3 they children could range. The government advised people at least their children could range in between five years. And this will be achieved only by using family planning methods such as condoms, use of calender and also contraceptives. Hence she managed to control rapid population growth

Establishment of population policies, also Tanzanian government decided to establish different population policies which could limit the rapid population growth such as "Nyota ya Kijani" on which this policies enabling women to get proper education on how to control rapid birthing rates in the society. So due to the establishment of these policies which makes people to be busy at work instead of bearing many children.

Discouragement of bad social cultural practices, also Tanzania has attempted this way so as to manage the rapid population growth where by it discouraged bad social cultural practices such as Inheritance of Widows and polygamy Incase of polygamy still its a problem but for some aspects the Tanzania discouraged it because it's the best factor which contributed to the rapid population growth. So due to this Tanzania will attempted to control the rapid population growth.

Encouragement of NGOs (Non-governmental Organizations) to provide health Education, Example Marie stoppas which have been used to provide health education particularly women


3 where by women are being taught about their health and how to manage their health by using best and better family planning method. This enabled Tanzania to manage the rapid population growth which will contributed to the increase of social evils.

Formation of strict laws against early Marriage, the Tanzania government decided to formulate the strict laws against early marriage which always contributed to the increase of population in a sense that early marriage gives a wider chance/range of a women or men to bare many children because still its organs are not matured and tired early so will influences people to bare many children which finally will result to the rapid population growth. So to Manage this Tanzania decided to form strict laws to against early Marriage

By the way, large, rapid population growth should be controlled because it contributed to under development of a country in a sense that it resulted to over utilization of natural resources, Conflicts, poverty, emuption of diseases and also increase of crimes. so this should be controlled.

Extract 2.3.1 represents a sample of a candidate who performed well in this question.

Furthermore, the candidates who scored from 7 to 11.5 marks revealed to have moderate knowledge and skills on the topic. Most of them appeared to understand the demands of the question but failed to expand their explanations. For instance, some of the candidates were able to give relevant introduction about population growth and explained partially how Tanzania has attempted to manage the rapid population growth. Moreover, they ended up with irrelevant conclusion while others managed to provide relevant introduction with few correct points and partial conclusions.

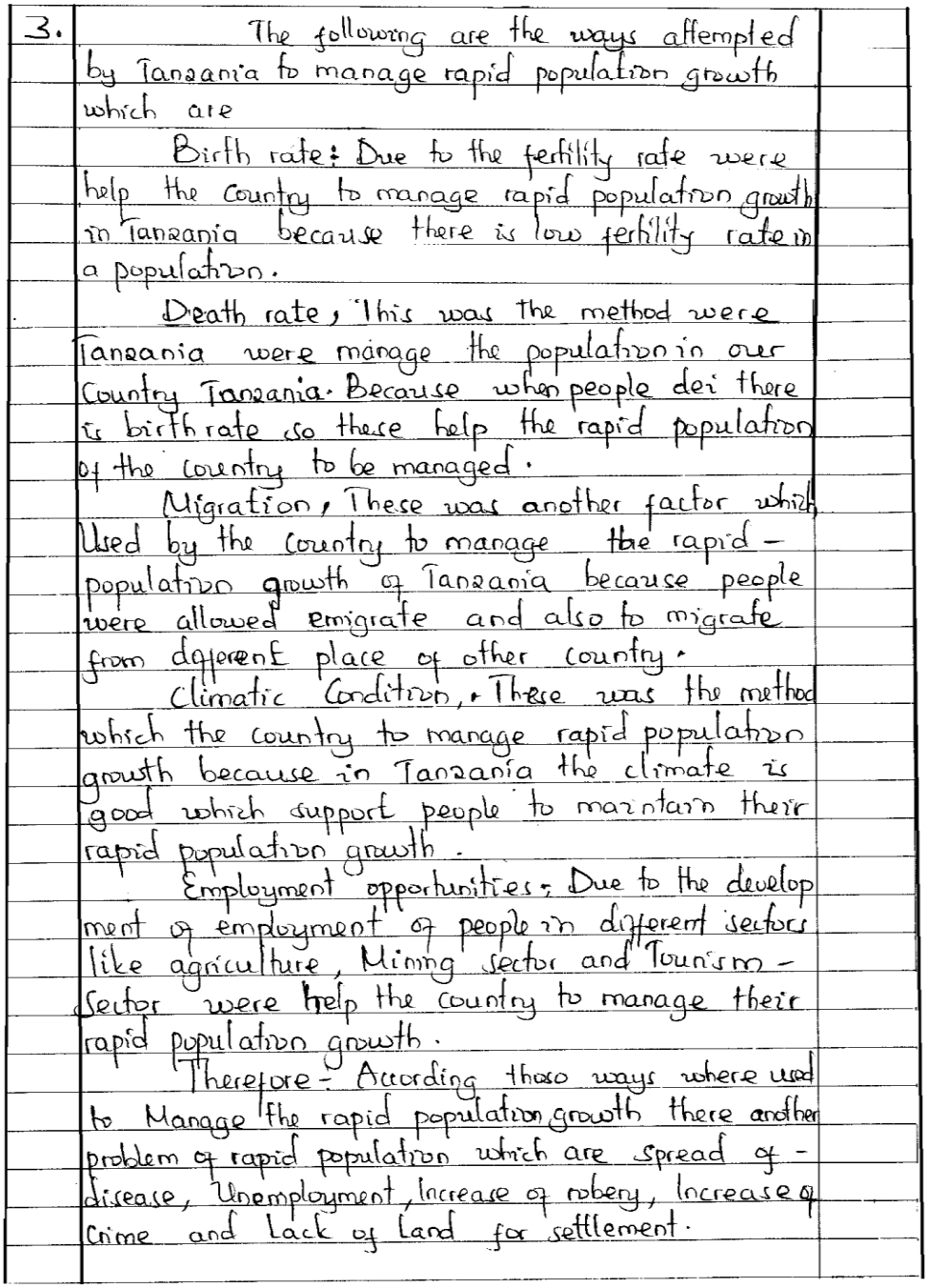
Additionally, another candidate mixed-up correct and incorrect ways used by Tanzania to manage rapid population growth as: *promoting family*

planning, control immigration, abolition of outdated cultural tradition, establishing population policy, restricting marriages at young ages and *provision of education.* The variation of their marks in this category was a result of strengths and weaknesses of their responses.

The candidates who scored from 0 to 6.5 marks had several weaknesses in their responses. Most of them failed to provide relevant introduction, mixed-up correct and incorrect points ending up with irrelevant conclusions. Some of these candidates did not provide relevant introduction but explained few points on how Tanzania has attempted to manage the rapid population growth. And sometimes few of them provided relevant conclusions.

For example, one candidate explained factors which should be taken by Tanzania to improve life of her citizens such as: *environmental conservation, need to improve the living standard of people, need to avoid population pressure, proper utilization of national resources* and *employment provision* instead of explaining how Tanzania has attempted to manage the rapid population growth, this candidate summarized the question with relevant conclusion. The variation in their marks was a result of strengths and weaknesses of their responses. Extract 2.3.2 illustrates the candidate's incorrect responses on this question.

Extract 2.3.2



3. The following are the ways attempted by Tanzania to manage rapid population growth which are

Birth rate: Due to the fertility rate were help the country to manage rapid population growth in Tanzania because there is low fertility rate in a population.

Death rate, This was the method were Tanzania were manage the population in our country Tanzania. Because when people dei there is birth rate so these help the rapid population of the country to be managed.

Migration, These was another factor which Used by the country to manage the rapid - population growth of Tanzania because people were allowed emigrate and also to migrate from different place of other country.

Climatic Condition, These was the method which the country to manage rapid population growth because in Tanzania the climate is good which support people to maintain their rapid population growth.

Employment opportunities: Due to the develop ment of employment of people in different sectors like agriculture, Mining sector and Tourism - Sector were help the country to manage their rapid population growth.

Therefore: According those ways where used to Manage the rapid population growth there another problem of rapid population which are spread of - disease, Unemployment, Increase of robery, Increase of Crime and Lack of land for settlement.

Extract 2.3.2 indicates a sample of incorrect responses as the candidate provided reasons for population change instead of ways to manage the rapid population growth in Tanzania.

Section B: Regional Focal Studies

This section consists of five questions: 4, 5, 6, 7 and 8 which were set from the topic of Regional Focal Studies. The candidates were required to attempt any three (3) questions whereby each question had a total of 20 marks.

2.2.4 Question 4: Agricultural Development

This question required the candidates to describe four geographical requirements and four human factors influencing maize production in the USA Corn Belt.

The question was among the highly omitted ones as the statistics show that, only 6,106 (13.7%) candidates attempted it, in which, 34.8% scored from 12 to 20 marks, 56.3% scored from 7 to 11.5 marks and only 8.9% scored from 0 to 6.5 marks. The general performance of the candidates in this question was good since 91.1% of the candidates scored 7 marks and above. Figure 13 illustrates performance in this question.

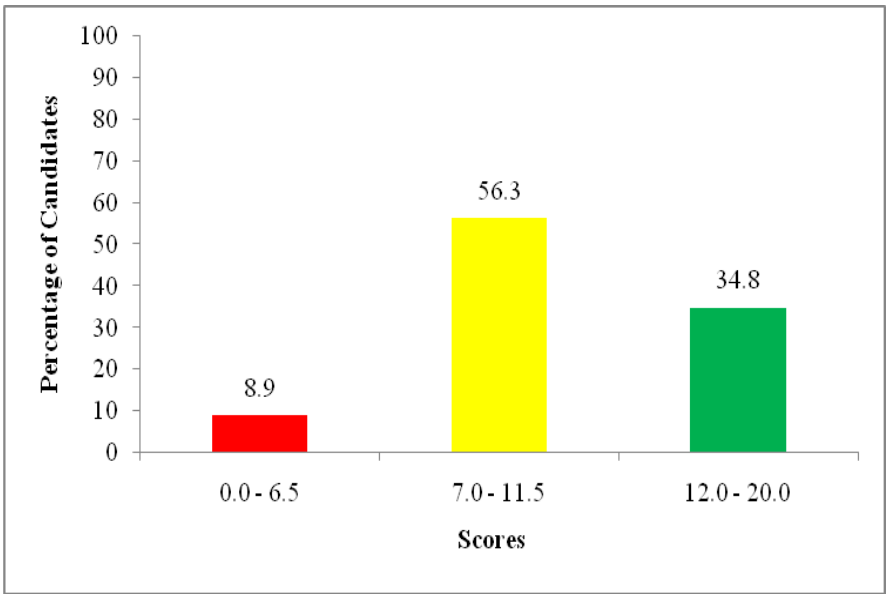


Figure 13: *Trend of the Candidate's Performance in Question 4.*

The candidates who scored from 12 to 20 marks focused on the demands of the question. Their scores indicated that they had good knowledge and skills on the topic of Regional Focal Studies specifically on the case study of maize production in the USA Corn Belt. These candidates were able to give correct introduction about Corn Belt in the USA, clearly described the

four geographical requirements and four human factors influencing maize production with correct conclusions.

For example, one of the candidates who responded well in this question introduced the USA Corn Belt as: *agricultural region where the dominant crop raised is corn or maize.* The candidates described the geographical requirements for maize production such as: *temperature, rainfall, soil, and relief or topography* and human factors as: *capital availability, transport system, application of high technology* and *market.* Lastly, this candidate was able to summarize the descriptions with a relevant conclusion.

However, some of the candidates in this category provided relevant introduction about the Corn Belt, explained four geographical requirements and four human factors influencing the maize production and provided irrelevant conclusions. The variation of their marks depended on the quality of the essays provided and the elaborations made in each point. Extract 2.4.1 represents a sample of the candidate's correct responses.

Extract 2.4.1

4 Maize production means that the cultivation, harvesting and processing of maize. Maize production needs large scale which are for sale. Maize can be used as food for human and also for animals like cows. Maize is a monocotyledon which undergo hypogeal germination. There are many countries in the world which plant maize like Tanzania but the most leading in the world is (USA) United States of America in the Corn Belt. Inorder for the maize production, to grow the below ... factors should be applied or involved.

Climate; This means that the weather of a geographical area that last for many years like 30 years. Good climate in USA Corn Belt have emphasized growth and production of maize. Because the climate has moderate rainfall and Moderate temperature ... as tropical climate.

Soil; The soil along USA corn Belt is fertile. So due to its fertility because of fertilizers help easy growth of maize and in high quantity, and this is among to the geographical factors.

Relief; USA Corn Belt is not to the lowlands or to the slopes. It was established in the highlands. So no erosion of soil and fertilizers. So even when there is floods this Corn Belt is not affected so this also help in the production of maize in USA Corn Belt in high quantity which stimulate the development of USA economy country/states.

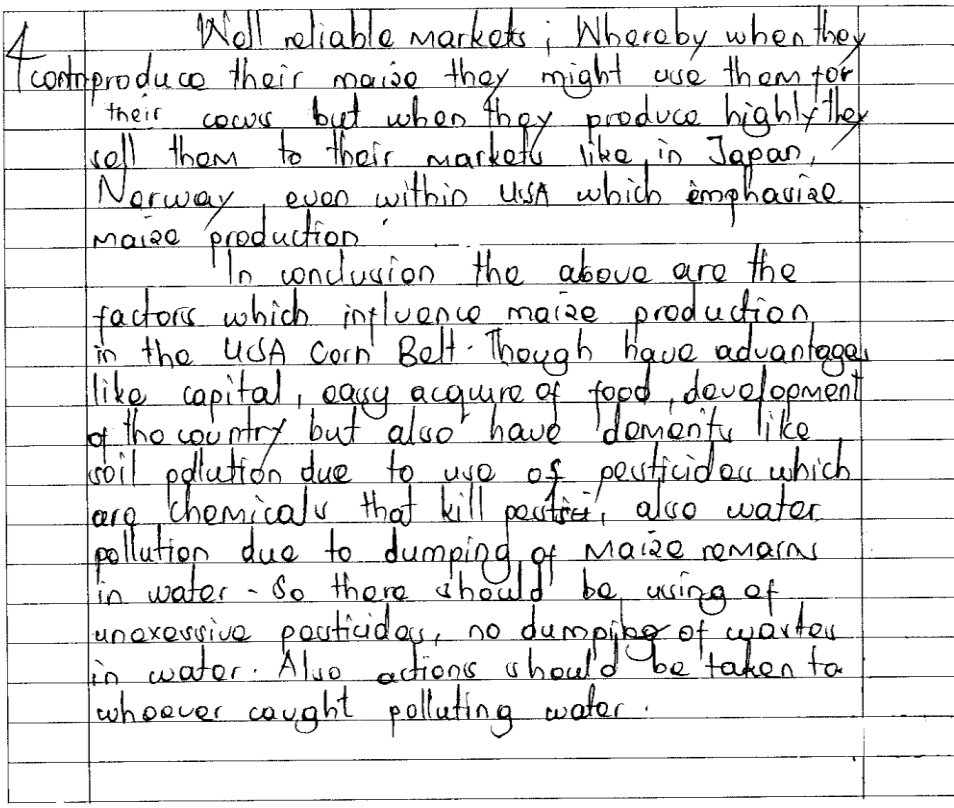
4 cont: Water availability; Due to presence of large oceans like Pacific and Arctic oceans, the USA Corn Belt, are rich in water, So because one among the conditions for plant to grow is water. So due to this stimulate the growth of maize in the USA corn Belt.

Above where geographical factors that influence maize production in USA Corn Belt. And the following are the human factors as narrated below.

Availability of capital; This is because due to capital availability, different methods have been introduced by researchers where by they tend to pay them and due to that when used the increase the production. But also due to money availability all activities have been run well due to high working capacity, pesticids are brought and this help to increase the production of maize.

Well equiped transport tools used; This is because the tools used are highly advanced like tractors, pesticides even tapes for irrigations which eassy the works done and influence the production.

Developed transport and communication systems; These transport and communications systems like roads, railways, airways even networks help for eassy transport of goods (maize) for sale and also even for researchers and tourists to come and discover what means are used which influence maize production.


Well reliable markets; Whereby when they
4 contproduce their maize they might use them for
their cows but when they produce highly they
sell them to their markets like in Japan,
Norway, even within USA which emphasize
maize production.
In conclusion the above are the
factors which influence maize production
in the USA Corn Belt. Though have advantages
like capital, easy acquire of food, development
of the country but also have demerits like
soil pollution due to use of pesticides which
are chemicals that kill pests, also water
pollution due to dumping of maize remains
in water. So there should be using of
unexessive pesticides, no dumping of wastes
in water. Also actions should be taken to
whoever caught polluting water.

Extract 2.4.1 indicates a candidate who correctly described four geographical requirements and four human factors influencing maize production in the USA Corn Belt.

The candidates who scored from 7 to 11.5 marks had moderate understanding and were able to meet the demands of the question although they failed to describe enough points as the question demanded. For example, some of them were able to provide relevant introduction about the Corn Belt in the USA, mixed-up correct and incorrect points as a result their scores did not exceed 11.5 marks.

Other candidates in this category explained few correct geographical requirements and human factors which influenced the production of maize in the USA Corn Belt with relevant conclusions. Some of them explained partially both geographical requirements and human factors while others gave correct geographical requirements but explained partially few human factors influencing the production. For example, one candidate managed to provide the introduction and gave three correct geographical requirements. This candidate did not provide any human factors and ended up with

irrelevant conclusion. Variation in their marks was a result of the differences in the quality of their responses.

The candidates who scored from 0 to 6.5 marks indicated that they had low knowledge and skills on the tested sub topic. For example, some of these candidates failed to provide relevant introduction, outlined geographical requirements and human factors without explaining them clearly. Whereas, some of them pointed out few geographical requirements and human factors by mixing-up correct and incorrect explanations. Variation in their marks was a result of the strengths and weaknesses in their responses provided.

2.2.5 Question 5: Manufacturing Industries

The question required the candidates to analyse eight factors that have influenced the development of ship-building industry in Japan. This question had a total of 20 marks.

The question was opted by 28,213 (63.2%) candidates of which, 54.7% scored from 12 to 20 marks, 42.8% scored from 7 to 11.5 marks and only 2.5% scored from 0 to 6.5 marks. The general performance in this question was good as 97.5% scored 7 marks and above.

Majority of the candidates who scored from 12 to 20 marks revealed good knowledge and skills on the sub topic of manufacturing industries particularly on the case study of ship-building industry in Japan thus they were able to meet the demands of the question.

Some of the candidates in this category were able to provide the introduction about ship building industry in Japan and factors that have influenced the development with relevant conclusions. For example, one candidate provided a relevant introduction on the ship building industry in Japan as: *ship building industry in Japan expanded in the past after the Second World War. Most of Japan's shipyards are located near the ports along the coastal areas; these include Kobe, Chiba, Yokohama, Kawasaki, Tokyo, Nagasaki and Hiroshima*. Furthermore, this candidate managed to analyse eight factors that might have influenced the development of ship building in Japan such as*: increase in external trade, availability of ready market worldwide, large skilled labour force, government policy, reliable supply of power, development of fishing industry* and *availability of raw*

materials. In addition the candidate managed to provide a relevant conclusion.

However, some of them provided irrelevant introduction and partial explanations of factors influencing the development of the industry; while others provided relevant introduction but they mixed-up correct and incorrect factors that have influenced the development of ship building industry in Japan. The variation in the scores of the candidates in this category was a result of the strengths and accurateness in their responses.

The candidates who scored from 7 to 11.5 marks had moderate knowledge and skills on the topic tested. For instance, some of these candidates were able to present the introduction about ship - building industry in Japan partially and analysed only few factors that have influenced the development of ship building with relevant conclusions. Other candidates analysed factors for the development of ship building industry in Japan partially without relevant introduction. Some of them gave partial introduction and outlined factors for the development of the industry without clear explanations while others mixed-up correct and incorrect factors for the development of the industry. The variation in their scores was the result of the weaknesses and strengths of their explanations.

The candidates who scored from 0 to 6.5 marks had partial knowledge and skills on the sub-topic asked thus failed to meet the demands of the question. Some of these candidates failed to provide relevant introduction but managed to point out few factors for the development of the ship-building industry. Some of them mixed correct and incorrect factors for the development of the industry while, others outlined the factors partially and ended up with weak conclusions.

For example, one candidate explained only one correct factor for the development of the industry as: *availability of raw materials* and mixed-up the explanations of the factors for the location of manufacturing industries such as: *capital, transport, availability of land and industrial inertia.*

Furthermore, another candidate seemed to discuss the importance for the existence of the industry as: *employment provision, earning of foreign currency, improvement of the transport and communication infrastructure and recognition of the country worldwide* instead of analysing the factors influencing the ship development industry in Japan. The strengths and the weaknesses of their answers provided made candidates to score low marks.

2.2.6 Question 6: Sustainable Fishing

The question demanded the candidates to examine eight factors that have led to the successful fishing industry in Russia. The total marks allocated for this question were 20.

The question was opted by 69.1% of all candidates of which, 49.8% scored from 12 to 20 marks, 46.9% scored from 7 to 11.5 marks and 3.3% scored from 0 to 6.5 marks. The general performance in this question was good since 96.7% of all the candidates scored 7 marks and above.

Most of the candidates who scored from 12 to 20 marks manifested clear understanding on the topic of Regional Focal Studies specifically on the case study of sustainable fishing in Russia. This is because they succeeded to examine the factors that have led to the successful fishing in Russia.

Some of the candidates in this category were able to provide relevant introduction and some factors for the development of fishing industry. For example, one of the candidates examined the factors that have led to the successful fishing industry in Russia as follows:

> *Presence of long continental shelf, long indented coastlines, reliable internal and external markets, availability of capital, modern industrial and technological development, presence of good transport and communication infrastructures, availability of various species, assurance of power supply and more investment on marine researches.*

On top of that this candidate managed to draw a relevant conclusion.

However, others provided partial introduction, examined some factors ending up with relevant conclusion while others provided relevant introduction but mixed-up correct and incorrect factors that have led to successful fishing industry in Russia. The variation of their marks was due to the strengths and accurateness of their responses. Extract 2.6.1 is a sample of the candidate with good responses.

Extract 2.6.1

6. Fishing Industries refers to the industry which inthich involves all processes of establishment, developme nt and exploitation of fish resources. Fishing activit ies can be done through Drifting method, Trawling, Whaling as well as seining method. Fishing activities takes place in various parts of the World like Norway, china as well as Russia. The following are the factors which has led to the successful fishing industries in Russia

The continental shelf has shallow water and thus facilitates plankton to grows, The continental shelf of the Russia is shallow thus leading to low water which facilitates the growth of planktons, which are used as food for fishes example Whales and dogfish

Improvement of science and technology, the level of science and technology in Russia is high. example they use refrigerators for keeping fishes. Therefore through advanced science and technology ensures fishes to be exp loited and then keeping them in safe equipments therefore the fishing industries tends to be success

Availability of Market, Availability of both internal and external market influences fishing industries to be success because, the fishes are transported and bought to the market for the appropriate time and therefore the process of fishing tends to be progress every day and also the Industry tends to be success.

Availability of good fish breeds, In Russia, there are good species example Whales, dogfish and demersal fishes which are produced at high rate thus ensuring availability of fishes which also having good quality therefore, the fishing industry tend to be developed and successfully.

6. Good climatic condition, The climatic condition of Russia favours fishes to reproduce more and yield high quality products. Example, the Northsea enables fishes to reproduce more due to have no saline water. Also the climate condition of Russia influences fishermens to conducts fishing activities effectively since there are no harsh conditions which are unfavourable to fishermens. Example there are cool temperature and Rainfall. hence fishing industries is successfull.

Improvement of transport and communication system, the level of transport and communication in Russia is improved example there are improved airways, which facilitates transportation of fishes from the fishing ground sites to the industries thus enables the industries to success.

Improvement in the power system supply, The power supply in Russia is improved example the use of coal which are used in generating heat and energy required for fishing industry like to dry fishes as well as in producing other products like cooking oils. Therefor this also contribute to the success of fishing industries in Russia.

The government support, In Russia the government provides support to the fishing industries example through providing capital and equipments for fishermen needed for fishing activities. Through provision of support to the fishermen, they will enable them to buy different equipments which are advanced thus facilitating fishing industry to grow.

Availability of capital, The availability of capital enables fishermen to use advanced methods in catching fishes example, the use of Trawling and seining methods. This is due to they will be able to get such advanced equipment which facilitates in exploitation of many fishes which are of high quality hence supplying to the industries whereby the industries are Improved.

Therefore, fishing industries in Russia have facilitated to development since it provides employment, Improves earning of foreign currency as well as increases government revenue that encourages economic development.

Extract 2.6.1 shows a candidate who managed to examine correct factors that led to successful fishing industry in Russia.

The candidates who scored from 7 to 11.5 marks had moderate knowledge and skills on the case study of sustainable fishing in Russia. For example, some of these candidates were able to give relevant introduction about fishing but explained partially the factors as well as irrelevant conclusion. Some failed to give relevant introduction but explained few correct factors ending up with a relevant conclusion while others managed to give relevant introduction but they mixed-up correct and incorrect factors and ended up with irrelevant conclusions.

For example, one candidate was able to provide a relevant introduction about fishing as*: the process of exploiting fish and other aquatic organisms from water bodies*. The same candidate provided correct factors with partial explanations as: *availability of raw materials (fish), availability of markets, availability of both skilled and unskilled labour, the use of science and technology and availability of energy and power.* Lastly the conclusion provided was irrelevant. The variation of marks was affected by the strengths and weaknesses of their responses.

The candidates who scored from 0 to 6.5 marks lacked focus on the case study of sustainable fishing in Russia. For example, some of the candidates managed to give relevant introduction about fishing industry but provided explanations on the importance of fishing industry such as: *employment creation, capital provision, improvement of transport and communication sectors, improvement of science and technology and economic stability* instead of explain the factors for the development of fishing industry in Russia.

Some were able to give partial introduction but managed to explain few factors with irrelevant conclusions. On the other hand, some of these candidates were able to give correct introduction about fishing and failed to explain the factors for the successful fishing industry instead they explained the four major methods of fishing such as: *trawling, seining, lining and drifting* and provided irrelevant conclusion. The variation of the candidates' scores in this category was a result of the candidates' diverse strengths and weaknesses in responding to the question.

2.2.7 Question 7: Sustainable Mining

The candidates were asked to evaluate 8 (eight) contributions of mining to the economic development of Tanzania. The total marks allocated for this question were 20.

The question was among the mostly opted ones as it was attempted by 38,059 (85.2%) candidates whereby, 55% scored from 12 to 20 marks, 42.5% scored from 7 to 11.5 marks and 2.5 % scored from 0 to 6.5 marks. The general performance in this question was good because 97.5% of the candidates who attempted it, scored 7 marks and above as illustrated in Figure 14.

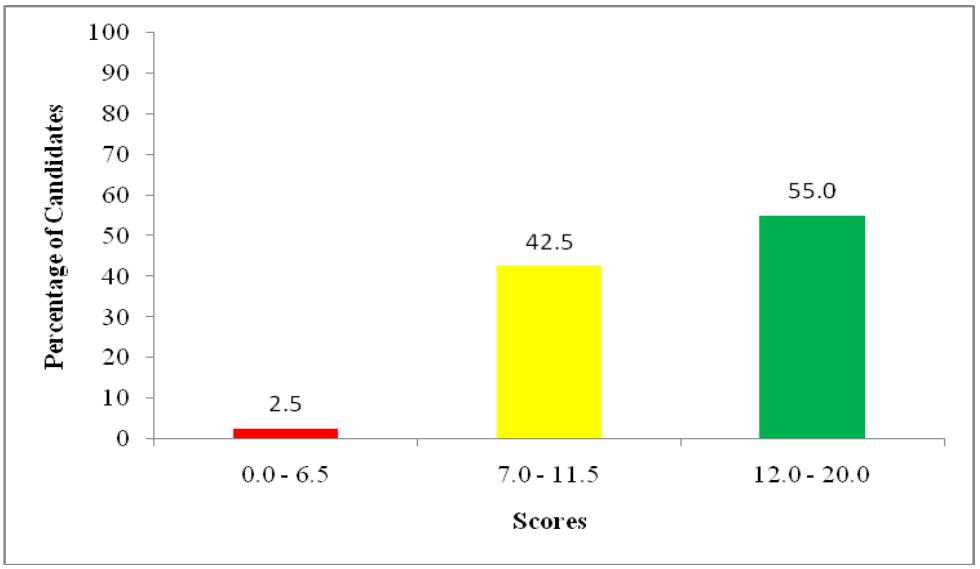


Figure 14: *Trend of the Candidates' Performance in Question 7.*

The candidates who scored from 12 to 20 marks interpreted well the meaning of the question. Their ideas were well presented and related to the question as their essays were well constructed with cohesive and well flow of ideas.

Most of the candidates in this category were able to give relevant introduction about mining by explaining the spatial distribution of minerals in Tanzania, evaluating clearly the contributions of mining to the economic development of Tanzania and drawing relevant conclusion.

For example, one candidate provided a relevant introduction about mining in Tanzania as follows:

An activity which involves the extraction of minerals from the ground and Tanzania is wealth of various minerals such as Coal being mined in Ruhuhu basin, Mchuchuma and Kiwira in Mbeya region, Gold in Geita, Tarime, and Kahama, Diamond at Mwadui, Tanzanite in Mererani, salt along the coastal areas like Uvinza in Kigoma and other minerals include iron, ruby, gypsum, limestone, soda ash, phosphate, uranium and sand gravel.

Furthermore, this candidate evaluated the contributions of mining to the economic development of Tanzania as;

Stimulates industrial development, enables the country to gain foreign currency, employment provision, stimulates the development of transport and communication sectors, development of towns and cities, facilitates the diversification of the economy, facilitates the supply of energies and leads to the improvement of international relations.

Moreover, this candidate managed to provide vivid examples and relevant conclusion.

However, some of the candidates in this category provided partial introduction, correct contributions of mining sector to the economic development of Tanzania without strong supportive examples and their conclusions were partially drawn. Other candidates provided partial introduction on mining, mixed-up correct and fewer incorrect contributions of mining to the economic development of Tanzania and finalized their responses with relevant conclusions. The variation of their scores was a result of strengths and weaknesses of their responses. Extract 2.7.1 is a sample of the candidate who performed well in this question.

Extract 2.7.1

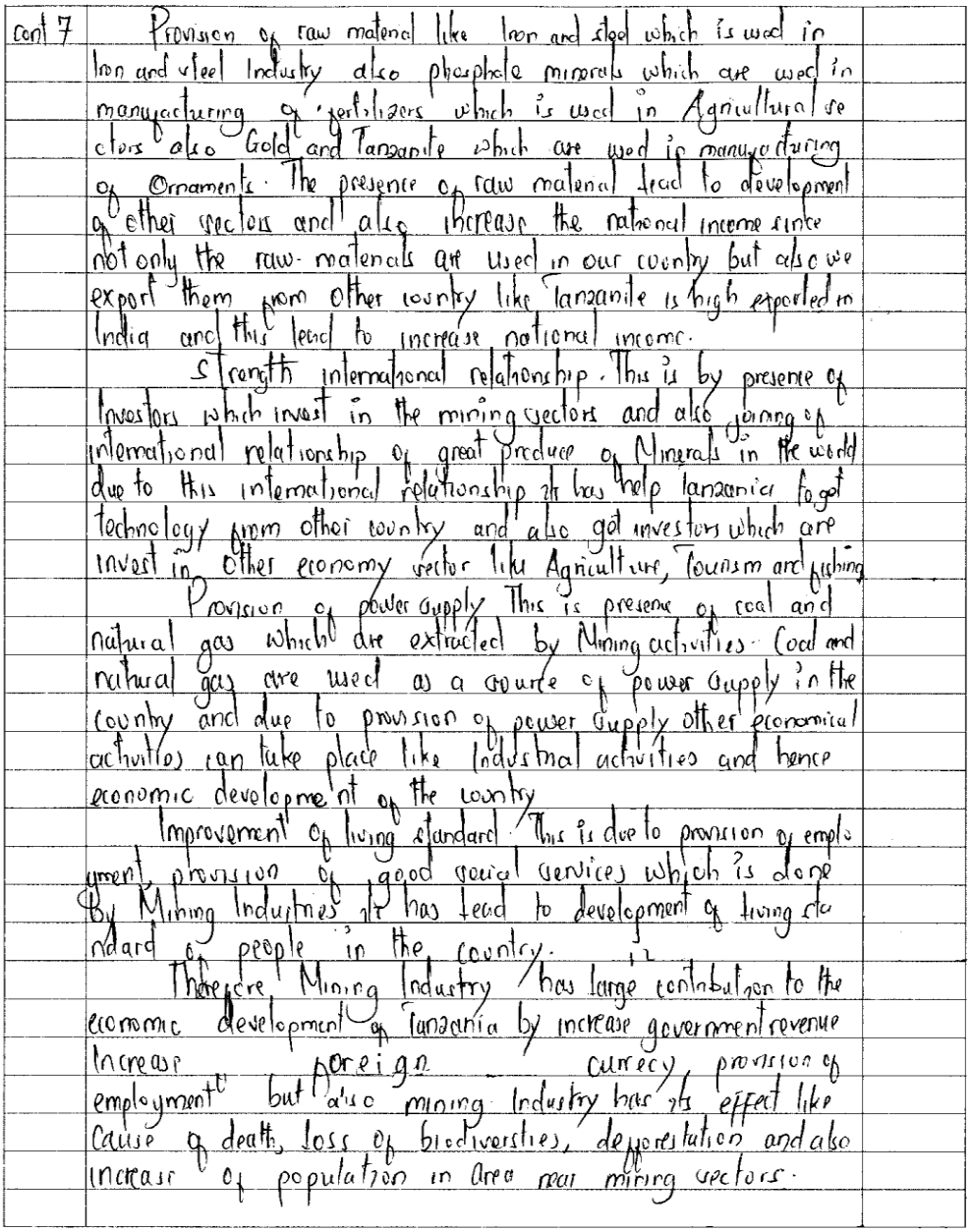
7. Mining is the process of extracting Mineral from ground. The mineral extracted from the ground includes, Diamond, Gold, coal and Tanzanite. Tanzania is the among the contry which involves much in Mining activities. Mining has lead to contribution of the economic development in Tanzania by the following sectors

Provision of employment Many people have been employed in Mining sectors both skilled and unskilled labours and this has lead to reduce number of unemployed people in the country and also it has lead to improvement of living standard of people since they earn money for Mining Industries

Improvement of Transport and communication system for example construction of roads, railways which are used for transport minerals from Mining sectors to the Market centers and other raw-materials like Machines from Market to Mining sectors example of roads is Geita road which run from Mwanza to Geita Gold Mining Improvement of transport system lead to good mining activities since there is free movement of mining products and people.

Increase of government revenue This is by payment of taxes which is done by the mining industry and also by employee also pay taxes to the government therefore the government revenue increase and this lead to development of the country since the government revenue can be used to other sectors like provision of education, social Services and also improving Mining sectors

Diversification of Economy. The raw-materials like phosphate obtain in the mining Industries is used in manufacturing of fertilizer which is used in Agricultural Sectors also the revenue obtain from Mining Industries is used in other economic sectors and therefore it lead to improvement of other economic sectors and this lead to diversification of contry economy and due to that it provide development of all economically sector in the country


cont 7

Provision of raw material like Iron and steel which is used in Iron and steel Industry also phosphate minerals which are used in manufacturing of fertilizers which is used in Agricultural sectors also Gold and Tanzanite which are used in manufacturing of Ornaments. The presence of raw material lead to development of other sectors and also increase the national income since not only the raw materials are used in our country but also we export them from other country like Tanzanite is high exported in India and this lead to increase national income.

Strength international relationship. This is by presence of Investors which invest in the mining sectors and also joining of international relationship of great producer of Minerals in the world due to this international relationship it has help Tanzania to get technology from other country and also get investors which are invest in other economy sector like Agriculture, Tourism and fishing

Provision of power supply This is presence of coal and natural gas which are extracted by Mining activities. Coal and natural gas are used as a source of power supply in the country and due to provision of power supply other economical activities can take place like Industrial activities and hence economic development of the country

Improvement of living standard. This is due to provision of employment, provision of good social services which is done By Mining Industries it has lead to development of living standard of people in the country.

Therefore Mining Industry has large contribution to the economic development of Tanzania by increase government revenue Increase foreign currecy, provision of employment but also mining Industry has its effect like Cause of death, loss of biodiversities, deforestation and also increase of population in area near mining sectors.

Extract 2.7.1 shows correct responses from a candidate who with vivid examples evaluated the contributions of mining to the economic development of Tanzania.

The candidates who scored from 7 to 11.5 marks had moderate understanding about mining in Tanzanian context. Some of the candidates in this group were able to provide introduction about mining but evaluated partially the contributions of mining to the economic development of Tanzania since concrete examples were missing. Some of them managed to

state the introduction but provided few correct contributions of mining to the economic development of Tanzania with relevant conclusions. Other candidates gave partial introduction and mixed-up correct and incorrect contributions of mining to the economic development of Tanzania.

However, most of the candidates were able to provide relevant introduction about mining and explained partially correct and incorrect contributions of mining to the economic development of Tanzania as: *decrease independency ratio, reduction of death rate, encourage growth of tourism, encourage industrial development, improvement of other economic sectors, and improvement of transport system* and *town growth.* The scores of the candidates in this group varied due to strengths and weaknesses in their responses.

The candidates who scored from 0 to 6.5 marks failed to transfer knowledge from what they learnt in the classroom to the new situation in life. Their responses were not directly focusing to the demand of the questions. For example, some of these candidates provided partial introduction of mining, evaluated partially few contributions of mining to the economic development of Tanzania and provided weak conclusions. Others managed to provide relevant introduction and evaluated only few contributions of mining to the economic development of Tanzania without relevant conclusion.

Moreover, some of the candidates provided irrelevant introduction and outlined contributions of mining without clear explanations and supportive examples. Others mixed correct and incorrect contributions of mining to the economic development of Tanzania and ended up with irrelevant conclusion. Their marks varied because of the disparities and weaknesses of their responses. Extract 2.7.2 shows a sample of the candidate's poor performance.

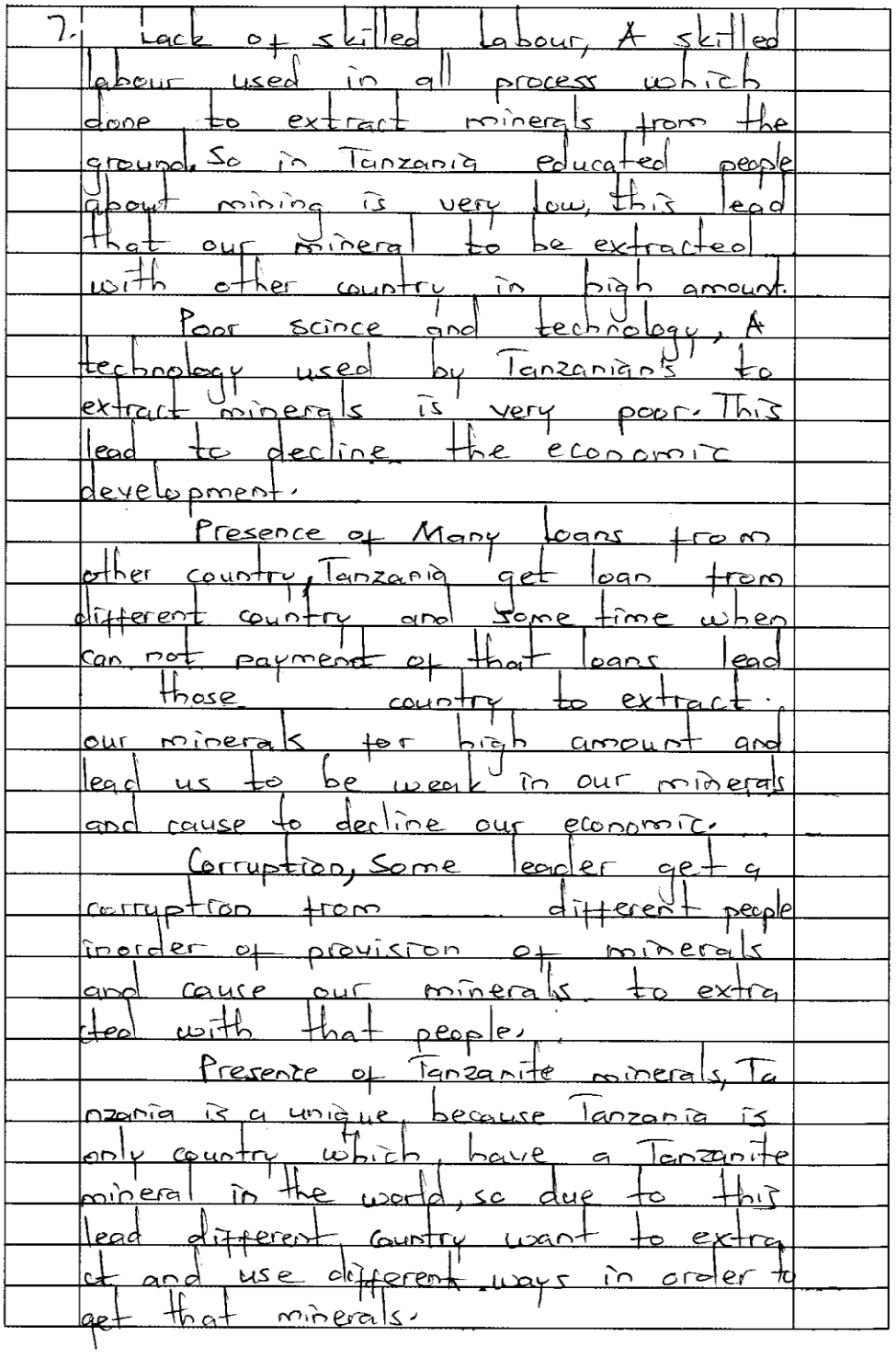
Extract 2.7.2

7. Mining refers to the all process of extracting minerals from the ground. There are different methods of extracting minerals from the ground like shaft method, punning method open cast method and Underground method. In Tanzania mining activities done in places like Musabui - Shinyanga, Chunya - Mbeya, Arusha. The following are the contribution of mining to the economic development of Tanzania:

Poor methods of mining activities, In Tanzania methods used to extract minerals from the ground is very poor because it lead to extract low amount of minerals from the ground and cause to get low amount of money for economic development.

Weedy of wealth of some leaders, This is because some leaders extract minerals from the ground for their benefit and not benefit of whole country. This lead to decline of economic development of the country.

High depending from other country, Tanzania get aid from out of the country, this lead that different country come Tanzania to extract our minerals for the aim of providing us aid like medicine, clothes, money Due to this lead to decline the economic development


7. Lack of skilled labour, A skilled labour used in all process which done to extract minerals from the ground. So in Tanzania educated people about mining is very low, this lead that our mineral to be extracted with other country in high amount.

Poor scince and technology, A technology used by Tanzanians to extract minerals is very poor. This lead to decline the economic development.

Presence of Many loans from other country, Tanzania get loan from different country and some time when can not payment of that loans lead those country to extract our minerals for high amount and lead us to be weak in our minerals and cause to decline our economic.

Corruption, Some leader get a corruption from different people inorder of provision of minerals and cause our minerals to extra cted with that people.

Presence of Tanzanite minerals, Tanzania is a unique because Tanzania is only country which have a Tanzanite mineral in the world, so due to this lead different country want to extract and use different ways in order to get that minerals.

Extract 2.7.2 represents a sample of the candidate who explained the factors hindering the development of mining sector instead of evaluating the contributions of mining to the economic development of Tanzania.

2.2.8 Question 8: Environmental Friendly Tourisms

The question required the candidates to examine eight conditions for the development of tourism in a country. This question had a total of 20 marks.

The question was opted by 68.7% of candidates of which, 80.5% scored from 12 to 20 marks, 18.6% scored from 7 to 11.5 marks and only 0.9% scored from 0 to 6.5 marks. The general performance in this question was good as 99.1% of all the candidates who attempted it scored 7 marks and above. It was the overall best performed question in the 2018 examination.

The candidates who scored from 12 to 20 marks had good knowledge and skills on the necessary conditions for the development of tourism in a country. Some of the candidates in this category managed to provide relevant introduction about tourism, examined correctly eight conditions for the development of tourism with a relevant conclusion. For example one candidate provided relevant introduction by defining tourism as: *the movement of people away from home to other places of interest for leisure, pleasure or studies*. Likewise, the same candidate examined the conditions for the development of tourism in a country such as follows: *the presence of attractive landscapes like mountains and craters, the presence of national parks, good social services like medication, availability of transport and communication networks, the presence of peace in a country, the presence of favorable climatic condition, good government policies* and *the presence of well trained personnel*. Also, the candidate managed to provide a relevant conclusion.

On the other hand, some of the candidates in this category provided partial introduction about tourism, examined few correct conditions for the development of tourism in a country and provided partial conclusion. Likewise, other candidates mixed-up correct and incorrect conditions for the development of tourism in a country and finalized their responses with relevant conclusion. The strengths and accurateness of the candidates' responses led to variation of their marks. Extract 2.8.1 testifies one of the candidates' correct responses.

Extract 2.8.1

8.	Tourism is the temporary movement / migration of people from	
	home to other places for leisure, plessure and field or	
	study researches. Tourism mostly occurs on areas where	
	some features, historical events or natural occuring features	
	are found, example of tourist attractions include, museams,	
	game parks, mountain ranges, lakes, rivers and even	
	craters. Development of Tourism involves many attributes	
	and for a country to develop itself in Tourism, Here are	
	some conditions it should adhere to	
	Improvement and conservation of honeyspots / Tourism areas.	
	A country should identify ih areas in Tourism where	
	people can get attracted to and improve those areas	
	by Environmental conservation, building proper accomodation	
	and creating a Friendly non-pollutive environment. For	
	example in Tanzania most of the tourist areas are clean,	
	non-polluted and conserved such as Lake Manyara, Serengeti	
	and Ngorongoro crater.	
	Improvement of security in the country. One of the	
	challenges facing tourism industry is security as many	
	tourist fear for their well being. Security problems are such	
	as Terrorism, theft, sexual harrasment and blackmail.	
	with improvement of security the county is opt to earn more	
	tourist. Examples of security measures include, Boarder	
	Control, Introduction of game park security service and	
	tourism permits.	
	Improvement of infastructure in the country. Infastructure	
	is the basis of all sector in the economy. with reliable	
	infastructure in the region, Tourist have an ease in getting	
	into the country and easy mobility. Examples of infastructure	
	include, Roads, Transport and communication, airports,	
	Seaports and Railways. Most countries that are developing	
	face a problem of proper infastructure. For example the poor	

8	labour found in Zanzibar.	
	Training of more skilled labour to serve in the industry.	
	The tourism industry lacks proper skilled labour that	
	can properly serve in the industry. This involves training	
	of Historians, pilots, Tourguides and drivers that	
	will properly make Tourism an advantage to the country	
	for example, in Tanzania Skilled personal work in Museams,	
	like The Museam of daressalaam and historical sites such as	
	kaole in bagamoyo.	
	Improvements of accomodation sites, Residents or hotels.	
	These are places in which the county will host its tourist.	
	with poor living conditions, tourist will not be attracted	
	but with favourable living areas, tourist are encouraged	
	to stay. These include Hotels, Camping sites, hostels	
	and appartments. For example in Tanzania there are	
	many hotels which favour tourism like Serena Hotels or	
	Hyatt regency park hotel.	
	Impovement of Technology. Technology is the basis	
	of development and innovations, with improved technology	
	a country can properly develop its tourism industry by	
	bringing in more innovations such as building of	
	recreation sites, improve ways to show native culture and	
	properly utilize its resources. For example in Dubai, UAE,	
	most tourism attractions are due to technology for example	
	dancing water at dubai mall.	
	A country should retain political stability. with	
	political stability a country can well engange in other	
	social matters and economical matters which help the	
	Country in better development. For example Tanzania	
	has political stability, with no civil wars which maintains	
	level of Tourism with the help of its honey spots, but a Country	
	like Somalia can not due to civil wars and political instabilities	

8. Proper advertisement of tourism. Advertisement is the key factor to development of Tourism Industry. A country should advertise the things it has for example Craters, mountains, gameparks, or national parks. For Example Gambia has adervertising agencies through out Africa and the world, present in South Africa, china, Zambia, mauritius and the United states. This helps its tourism Industry.

The above are some conditions for the development of Tourism Industry in a country. Tourism is a source of employment, government revenue and foreign earnings which helps to boost the Economy growth of a country

Extract 2.8.1 indicates correct responses from a candidate.

Moreover, the candidates who scored from 7 to 11.5 marks had moderate knowledge and skills of the conditions for the development of tourism. They moderately met the demands of the question as it was instructed thus they scored such marks.

For example, some of the candidates in this category were able to provide relevant introduction of tourism, few conditions for the development of tourism in a country with partial conclusion. Some of them managed to give relevant introduction about tourism but partially explained the conditions for the development of tourism without vivid examples.

Furthermore, other candidates provided relevant introduction on tourism but they mixed-up correct and incorrect conditions for the development of tourism. The strengths and weaknesses of their responses accounted for their variation in scores.

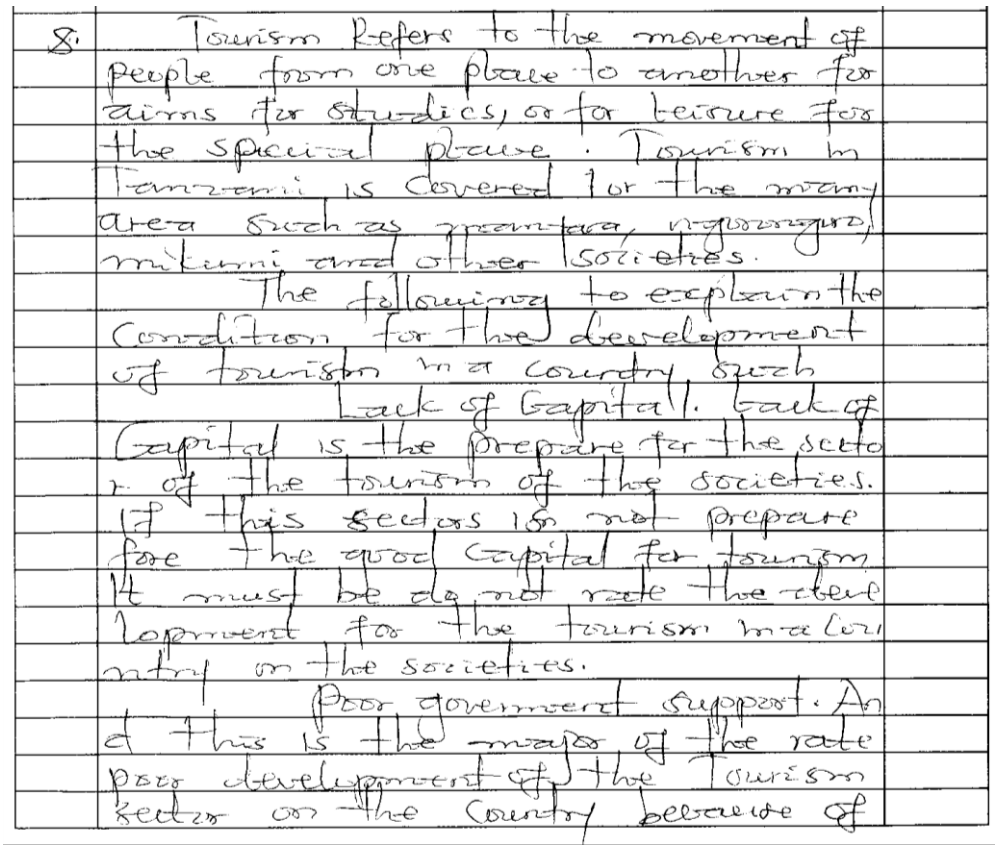
The candidates who scored from 0 to 6.5 marks were not competent on the topic tested as they lacked the focus on the subject matter as a result they ended up with such low marks.

For example, some of the candidates were able to provide relevant introduction of tourism but examined the importance of tourism industry

such as follows: *creation of employment opportunities, bringing foreign currency in the country, improvement of transport and communication networks and provision of market* instead of the conditions for the development of tourism in the country. Other candidates managed to provide relevant introduction on tourism but presented correct and incorrect conditions for the development of tourism in country**.**

For instance, one candidate was able to introduce tourism but identified only one correct condition for the development of tourism in country as*: presence of good health services* and ended up with irrelevant answers such as: *presence of forests where animals can live, presence of water bodies for animals to drink and presence of good pastures.* The variation of their marks was attributed by their strengths and weaknesses of their responses. Extract 2.8.2 represents a sample of the candidate who performed poorly in this question.

Extract 2.8.2


8. Tourism Refers to the movement of people from one place to another for aims for studies, or for leisure for the special place. Tourism in Tanzania is covered for the many area such as ngorongoro, mikumi and other societies.

The following to explain the condition for the development of tourism in a country, such

Lack of Capital. Lack of Capital is the prepare for the secto r of the tourism of the societies. If this sectors is not prepare fore the good Capital for tourism it must be do not rate the devel lopment for the tourism in the country or the societies.

Poor government support. An d this is the major of the rate poor development of the tourism sectors on the country because of

8 of goverment is not prepare for the
each and every thing to suppose to
rate the development of tourism in
a Country.
Poor transport system. And this
is the major of the condition of the
tourism in a Country is poor transpo
rt system, because if the transport
is not good it must be do not rate the
development of tourism in a Country.
Poor Infrastructure: this is the
major of the condition of the touri
sm in a Country because of if the
Infrastructure is not good for the pre
pare for the each and even to the
tourism is must be do not the de
velopment on a Country.
Low level of technology. And
this is the major of the condition
of the tourism of a Country becau
se of low level of technology.
Poor Communication System thi
s the major of the condition of
the tourism sector in a Country bec
ause of the poor communication syst
em from other nation to another.
Lack of goverment policy. thi
s is the major of the condition of
the tourism in a Country because
of lack of goverment policy.
There for it must be to prepare
for the each and every thing to rate the

Extract 2.8.2 shows a sample of incorrect responses from one candidate who misconceived the question by giving out factors which hinder the development of tourism instead of the conditions for the development of tourism in a country.

3.0 PERFORMANCE OF CANDIDATES IN EACH TOPIC

The analysis of candidates' performance in each topic shows that candidates had good performance in 12 topics out of 14 topics because they scored 35 marks and above. These topics are; *Topographic Map Interpretation (93.7%), Application of Statistics in Geography (69%), Field Research Strategies (88%), Photograph Interpretation (93.7%), Water Masses (71.1%)* and *Position Behaviour and Structure of the Earth (67.9%)* in Geography Paper One. Other topics were; *Population and Development (69.1%), Agricultural Development (91.1%), Manufacturing Industries (97.5%), Sustainable Fishing (96.7%), Sustainable Mining (97.5)* and *Environmental Friendly Tourisms (99.1)* in Geography Paper Two. However, the performance of the candidates was average in the topic of *Space Dynamics* (46.9%) and unsatisfactory in the *Dynamic Earth* and *Consequence* (25.3%) topic as illustrated in Figure 15.

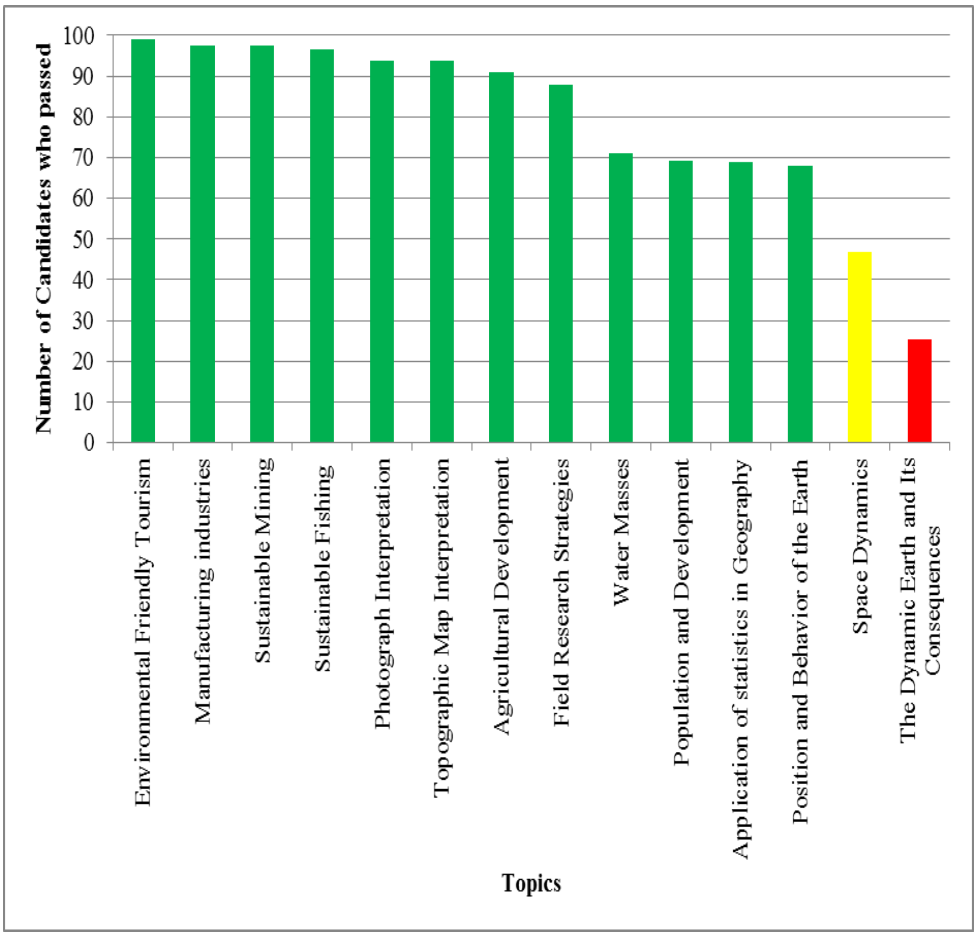


Figure 15: *Performance of Candidates in each Topic*

4.0 CONCLUSION

The performance of the candidates in Geography subject for Advanced Certificate of Secondary Education Examination (ACSEE) 2018 was good as it has been observed in the analysis in question wise. The analysis shows that the candidates' performance was caused by the ability of the candidates to identify the demands of the question; candidates' knowledge and skills on the subject matter; candidates' competence in English Language and the candidates' skills in drawing and calculating. Thus, the candidates with weak performance revealed lack of these skills.

5.0 RECOMMENDATIONS

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

(a) Teachers should intelligently impart required and proper knowledge and skills to students on all topics so that they can develop competencies in answering their examination, especially on: drawing physical features, sketching maps as well as arranging their work in a proper way. For example, question number 9 in paper one, most of the candidates who attempted it had an unsatisfactory performance due to their inability to interpret it correctly, as the question required critical analysis of spatial distribution of Fold Mountains and drawing skills.

(b) Teachers should develop confidence to students to use English Language so as to advance their writing skills. This can be done through various ways including the practice of speaking English inside and outside the classroom, during their group discussion. But also through introducing debate competition, speeches, reading reference books and essay writing competitions. This can help students to improve their English proficiency and therefore enable them to correctly answer their examinations. As it has been evidenced in Geography paper two, most of the students have shown that they had good ideas but were not able to express them clearly.

(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 them the experience and firsthand knowledge.

Appendix

Comparison of Candidates' Performance in Topics between 2017 and 2018 Years

S/N	Topic	2017			2018		
		Number of question per topic	Percentage of Candidate who scored an average of 35 percent or more	Remarks	Number of question per topic	Percentage of Candidate who scored an average of	Remarks
1.	*Environmental Friendly Tourism*				1	99.1	Good
2.	*Manufacturing industries*	1	99.2	Good	1	97.5	Good
3.	*Sustainable Mining*				1	97.5	Good
4.	*Sustainable Fishing*				1	96.7	Good
5.	*Photograph Interpretation*	1	22.2	Weak	1	93.7	Good
6.	*Topographic Map Interpretation*	1	*59.3*	*Average*	1	93.7	Good
7.	*Agricultural Development*	1	92.4	Good	1	91.1	Good
8.	*Field Research Strategies*				1	88.0	Good
9.	*Water Masses*	3	78.7	Good	2	71.1	Good
10.	*Population and Development*	3	66.5	Good	3	69.1	Good
11.	*Application of statistics in Geography*	1	82.5	Good	1	69.0	Good
12.	*Position and Behavior of the Earth*				1	67.9	Good

S/N	Topic	2017			2018		
		Number of question per topic	Percentage of Candidate who scored an average of 35 percent or more	Remarks	Number of question per topic	Percentage of Candidate who scored an average of	Remarks
13.	*Space Dynamics*	2	45.4	Average	1	46.9	Average
14.	*The Dynamic Earth and Its Consequences*	1	81.6	Good	1	25.3	Weak
15.	*Livestock keeping and management*	1	98.8	Good			
16.	*Sustainable use of fuel and power*	1	97.7	Good			
17.	*Simple survey and map making*	1	75.2	Good			
18.	*Transport and communication*	1	19. 68	Good			