3.2 GEOGRAPHY (312)

The year **2022 KCSE Geography** examination was presented in two papers: **paper 1 (312/1)** covers the **"Physical Geography and Map Reading"** while **paper 2 (312/2)** examines **"Human and Economic Geography, Photographic Interpretation skills and Statistics".** Each of the two papers had ten (10) questions.

This report analyses the performance of candidates in the year 2022 Geography examination papers, paying special attention to the poorly performed items. It looks at what the questions tested, the candidates' weaknesses and possible reasons for their poor performance. It also gives advice to Geography teachers with the aim of improving future performance in the subject.

3.2.1 General candidates' performance

The table below shows the overall performance in Geography over the period **2018** to **2022.**

Table 11: Candidates' overall performance in Geography for the last five year

Year	Paper	Candidature	Maximum Score	Mean Score	Standard Deviation
2018	1		100	37.85	18.16
	2		100	45.4	17.97
	Overall	**166,507**	**200**	**83.25**	**36.13**
2019	1		100	47	18.59
	2		100	46	17.088
	Overall	**179,843**	**200**	**93**	**35.637**
2020	1		100	47.39	19.57
	2		100	58.74	18.37
	Overall	**211,874**	**200**	**94.99**	**41.07**
2021	1		100	60.23	20.67
	2		100	50.71	16.91
	Overall	**246,191**	**200**	**108.05**	**36.84**
2022	1		100	**52.82**	**20.14**
	2		100	**49.66**	**19.17**
	Overall	**276,162**	**200**	**102.39**	**37.59**

The following observations can be made from the table above:

(i) The candidature increased from **246,191** in 2021 to **276,162** in 2022.

(ii) There was a drop in the overall performance of the subject from an overall mean of **108.05** in 2021 to **102.39** in 2022 The overall performance of the subject was avarage.

(iii) Paper one Geography **(312/1)** recorded a drop from a mean of **60.23** in 2021 to **52.82** in 2022.

(iv) The performance of Geography paper two **(312/2)** registered a slight drop in performance from **50.71** in 2021 to **49.66** in 2022.

(v) The Standard deviation in both papers, **20.14** in **312/1** and **19.17** in 312/2, shows a reasonable spread of candidates' scores from the mean.

Despite this good performance, some questions were poorly performed by some students, and they will be discussed in the section below.

3.2.2 Geography Paper 1 (312/1)

The performance of candidates in this paper dropped from a mean of 60.23 in 2021 to 52.82 in 2022. The paper adequately tested the syllabus, and the questions were well balanced. This report will look at questions that registered poor performance, identify areas of weakness, the expected responses and general advice to teachers in order to improve future performance.

The questions that were performed poorly are: Q 3(b), 4(b), 7b(i)(ii),c 8c and 10 (c).

Requirement Question (3b)

State two ways through which aspect influences the distribution of natural vegeta ion.

Weaknesses
Many candidates were not able to state the influence of aspect on the distribution of natural vegetation, hence ended up with giving the wrong responses.

Expected responses
- Windward slope of mountains/hills support growth of a wide variety/dense vegetation.
- The leeward side supports scanty vegetation.
- The South facing slopes of temperate latitude areas of the Northern Hemisphere tend to favour luxuriant growth of forest, while the North facing slopes encourage the growth of grass the North facing slopes of temperate latitude areas of the Southern hemisphere tend to favour luxuriant growth of forests;while south facing slopes encourage growth of grass.

Advice to teachers
Teachers need to clearly and exhaustively explain all the factors that influence distribution of vegetation. There is need for teachers to engage the candidates in indepth discussions on each of the factors that influence vegetation distribution for better understanding.

Requirement Question 4(b)

Classify each of the following rocks according to their formation.

Weaknesses
Some candidates gave examples of metamorphic rocks while others gave the original rocks from which the rocks are formed.

Expected responses
i. Marble - Metamorphic
ii. Granite - Igneous
iii. Mud stone - Sedimentary

Advice to teachers
There is need for teachers to use charts and realia when teaching this topic to enable students clearly differentiate the types of rocks. Teachers may also use video clips that show different rock types and their formation for easier distinction .

Requirement Question 7b (i)

Apart from the Rift Valley, name three other features that result from Faulting

Weaknesses
Some students confused features resulting from faulting with those of folding therefore gave incorrect responses.

Expected responses
- Fault blocks/horst mountains/block mountains
- Tilt blocks
- Fault steps
- Fault scarps/Escarpments
- Depressions/Rift valley lakes

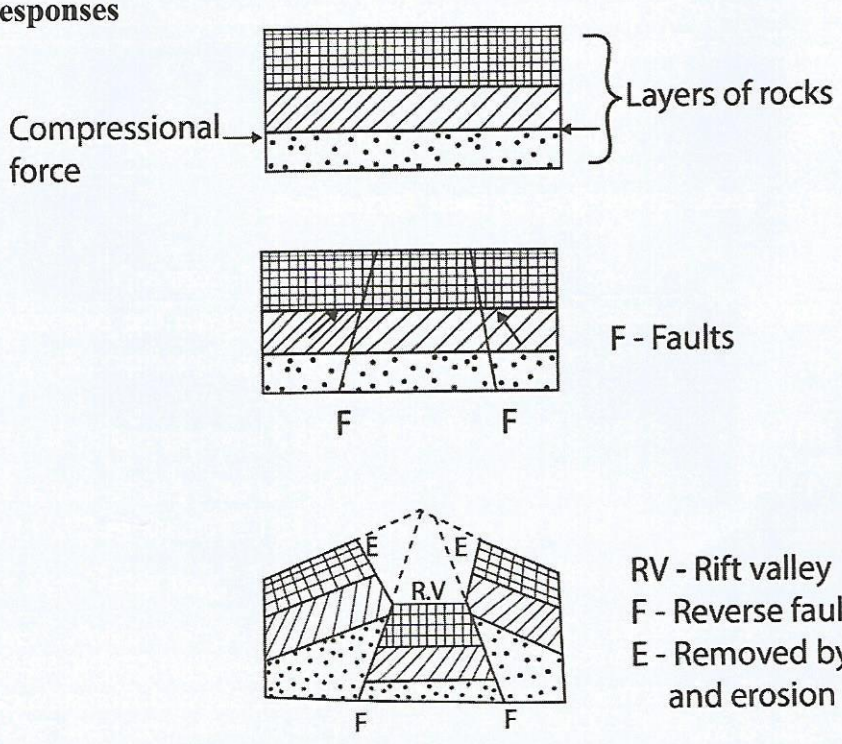
Advice to teachers
There is need for teachers to clearly distinguish features of faulting from those of folding by using well labelled diagrams when teaching this topic. Teachers are also encouraged take students on field study where applicable to help students have first hand experience of some of the features , this enhances understanding.

Requirement Q 7(b ii)

With the aid of well labelled diagrams, describe how the Rift Valley may be formed by compressional forces.

Weaknesses
Many candidates were not able to distinguish forces of compression from those of tension when describing the formation of the rift valley hence interchanged reverse faults with normal faults ending up with wrong diagrams.

Expected responses



- Layers of rocks are subjected to compressional forces then there is some instability within the earth's crust.
- Lines of weakness develop to form reverse faults.
- The compressional forces push the outer blocks towards each other.
- The middle block may remain static but at a lower level/sunk forming the floor of the Rift Valley.
- The overhanging parts of the outer blocks eventually collapse/ are eroded to form an escarpment.

Advice to teachers

Teachers are encouraged to engage and guide learners in taking frequent exercises on drawing well labelled features for better understanding of concepts.

Requirement Question 7 (C)

Explain how faulting influences each of the following

i. Drainage

ii. Transport

Weaknesses

Many candidates had difficultie explaining how faulting influences the given factors hence most of them wrote incorrect responses.

Expected responses

Drainage

- Some rivers may disappear into the ground through a fault forming underground streams.
- Vertical faulting across a river may cause a change in the base level resulting in the formation of a water fall.
- Uplift of some parts of the river channel may cause river rejuvenation.
- Basins/depressions resulting from faulting may be filled with w ter to form lakes/inland drainage basins.
- Uplift of the landscape which may cause rivers to reverse their direction of flo
- Faulting may expose underground water to form springs.
- Faulting may cause a river to flow along a fault line leading o fault guided drainage pattern.

Transport

- Presence of fault scarps makes it difficult/expensive to constr t roads/railways across fault scarps.
- When faulting occurs, part of the land is disjointed, this disrupts forms of transport/pipelines/ power lines/railway lines
- Faulting may lead to subsidence of land which damages roads/railways/pipelines.
- Fault features such as waterfall/cataracts become a barrier to water transport.
- Faulting may occur across a ridge forming a pass where transport lines are constructed
- Some rift valley lakes are used for water transport

Advice to teachers

Teachers need to encourage candidates to read and understand questions well before answering as this makes it easy for them to answer the related questions exhaustively. There is also need to expose candidates to the different key terminologies used in question to enable their correct interpretation.

Requirement Q 8 (c)

Explain how ocean currents influence the climate of adjacent coastal land

Weaknesses
Some students were not able to explain the effect of ocean curr nts on the adjacent coastal land.

Expected responses
- Moist winds blowing over a cold ocean current are cooled and condensed resulting in rainfall over the ocean.
- The winds proceed to the adjacent coastal land as dry winds causing drying effect
- Winds blowing over a warm ocean current are warmed and carry a warming effect to the adjacent coastal lands/raise the temperatures.
- When winds blow over a cold ocean current, they are cooled hence carrying a cooling effect to the adjacent coastal land/lowers the temperatures.
- Winds blowing over a warm ocean current are warmed enabling them absorb more moisture leading to increased humidity/increase the amount of rainfall received on adjacent land.

Advice to teachers
When teaching this subtopic there is need to clearly explain the effects of ocean currents on onshore winds of different characteristics and how they influence climate of the adjacent coastal land. The teachers need to use relevant diagrams/charts to enable students grasp the concepts well.

Requirement Question 10 (c)

Explain the significance of glaciated upland a eas to human activities.

Weaknesses
Most students were unable to link specific upland features to human activities in their explanation which led to to generalized responses.Some students confused upland areas for lowland areas hence gave wrong responses.

Expected responses
- Corrie lakes/ tarns, offer suitable areas for trout fishin
- Glaciated mountains discourage human settlements hence growth of forests and therefore lumbering is practiced.
- U-shaped valleys form natural route ways.
- Fiord coastlines form deep well sheltered natural habours/ good fishing grounds
- Glaciated upland areas form magnificent features that encourag recreation/ tourism.
- Waterfalls formed in glaciated uplands provide suitable sites for hydro-electric power production.
- The warm glaciated valleys are suitable for livestock farming/ cultivation.
- Glacial erosion exposes minerals leading to easier mining
- Melt glaciers form rivers which provide water for domestic/industrial/agricultural use.

Advice to teachers
Teachers should encourage candidates to read and understand questions well before answering them. There is also need to to expose candidates to the different key terminologies used in testing. Students need to read and understand the requirements of each question before attempting it to enable correct interpretation.

3.2.3 Geography Paper 2 (312/2)

The performance of candidates in this paper registered a drop from a mean of **50.71** in 2021 to **49.66** in 2022.

This report looks at question 2b, 5b, 9a(ii) and 10c which presented some challenges in the way some candidates answered them

Requirement Question 2 (b)

Give three social factors which influence agricultu e.

Weakness
Most candidates dwelt on physical and economic factors whereas the question required them to give the social factors which influence agriculture hence ended up ith incorrect responses.

Expected responses
- Land tenure system/land ownership
- Religious beliefs/practices
- Cultural beliefs/practices/traditions
- Level of education
- Gender
- Interaction between people leads to adoption of new foods/farming techniques.

Advice to teachers
Teachers need to exhaustively discuss in detail the differences between physical, social, economic factors and how each of the factors influence agriculture.Students should be regularly engaged in group discussions/debates on these factors as this will allow for in depth understanding of the differences

Requirement Question 5(b)

State ways in which ecotourism has led to sustainable tourism industry in Kenya.

Weaknesses
Most candidates were not able to link Ecotourism to sustainable tourism in Kenya. The candidates' responses were too general and did not relate to ecotourism.

Expected responses
- Conservation of the environment/preservation of scenic beauty
- Respect of rights and active partnership with stakeholders
- Equitable distribution of benefits accrued from touris
- Respect/safeguarding of local customs/culture
- Harmonious development of tourism sector alongside other economic sectors

Advice to teachers
Teachers are encouraged to embrace the use of ICT/videos/films to teach this topic. Conduct related field study to make learning real and enhance understanding o the topic.

Requirement for Question 9a(ii)

State five ways in which government policy influences location industries in Kenya.

Weaknesses

Many candidates gave general factors that influence location of industries yet the question required them to limit themselves to government policy.The question was largely misinterpreted therefore candidates ended up giving incorrect responses.

Expected responses

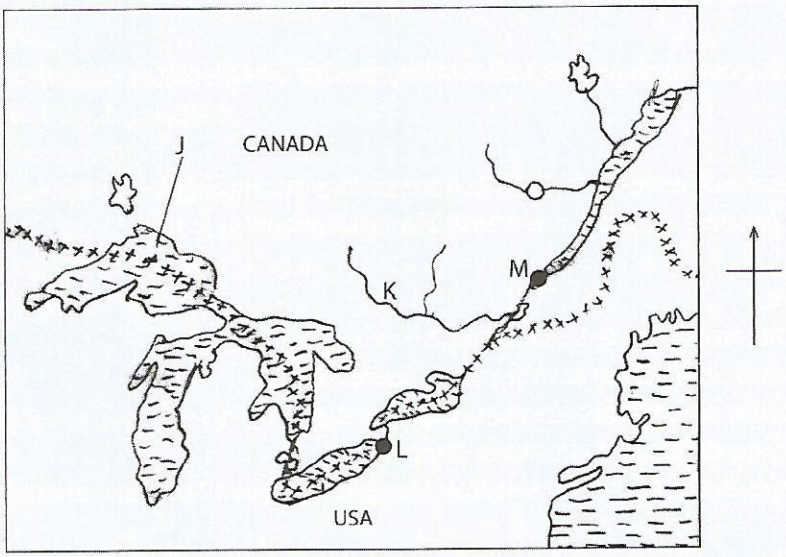
- Legislating industrial laws that restrict industrial location to given areas
- Offering special concessions/financial support to industrial ts towards industrial locations
- Developing roads/railway lines/airports that attracts industries to a given area
- Developing of sources of power/hydroelectric power/geothermal
- Providing security in areas where industries are meant to be established/located
- Government may set aside land for the location of certain industries
- Government may provide technical support/advise on industrial locations
- Signing industrial locational agreements with other countries
- The government may influence the decentralization of industries

Advise to teachers.

Candidates need to be trained on how to interpret questions.Debates and discussions on factors that influence location of industries can be held after the topic is covered in class for the students to have in depth understanding.

Requirement Question 10 (c)

The sketch map below shows the Great Lakes and the St. Lawrence seaway. Use it to answer question (c) .



Name:

(i) The lake marked **J**,

(ii) The river marked **K**

(iii) The ports marked **L** and **M**

Expected responses

J - L. Superior
K - River Ottawa
L - Buffal
M - Quebec

Weaknesses

The few students who attempted this question were not able to name required features .

Advice to teachers

Teachers need to regularly use Atlases/maps,while teaching this subtopic.
Learners need to learn to draw sketch maps and familiarize themselves with the the major features/ landmarks along the St Lawrence seaway.

3.2.4 General comments

i. Teachers should comprehensively cover the syllabus within the time allocated, marked by in-depth teaching of terms and concepts. The comparative studies outlined in the syllabus should be emphasized using approved revision books/Case Studies/Field work.

ii. Teachers should effectively assess on the syllabus topics and desist from using unapproved revision examinations; they can use the KNEC past papers or teacher made tests. They should train candidates on approaches to answer questions to avoid using a generalised approach.

iii. The teachers should train their students to use the rubric (instructions to candidates) and follow it during examinations. They should learn to thoroughly read and understand the requirement of each question before attempting.

iv. Teachers should sensitize their learners on how to tackle application questions.

v. The teachers should expose students to discussions and debates and use of teaching and learning aids like videos, maps, charts, and atlases in geography lessons for the learners to understand better the concepts. The resources used by teachers should be carefully chosen.

vi. Students should be exposed to varied topographical maps, photographs, and statistical data for frequent practice on map reading, photograph interpretations, statistical data calculation and interpretation to enhance acquiring of different skills

vii. Field excursions /study should be encouraged for better understanding of taught concepts.

viii. Candidates should be encouraged to do in depth revision and reading on the topics covered in the syllabus using the relevant diagrams. Rote learning should be discouraged.

ix. There is need for in-service for geography teachers on how to manage the syllabus and detailed supervision by the quality and standards subject officer in the department of education at the county levels.

x. County subject specialists' seminars /workshop should be held on annual basis to brainstorm on the best approach to improve subject performance and popularity.