

3.2 GEOGRAPHY (312)

The year 2020 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 2020 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 2016 to 2020

Table 10: candidates’ overall performance in Geography for the last five years.

Year	Paper	Candidature	Maximum Score	Mean Score	Standard Deviation
2016	1		100	37.93	19.41
	2		100	46.79	20.99
	Overall	146,504	200	84.67	38.72
2017	1		100	42.21	17.09
	2		100	47.33	18.03
	Overall	156,057	200	89.36	33.69
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

The following observations can be made from the table above:

- (i) The candidature increased from **179,843** in 2019 to **211,874** in 2020.
- (ii) There was remarkable improvement in the overall performance of the subject from an overall mean of **93** in 2019 to **94.99** in 2020. The overall performance of the subject was good.
- (iii) There was a slight improvement in performance in Geography paper one (**312/1**) from a mean of **47** in 2019 to **47.39** in 2020.
- (iv) The performance of Geography paper two (**312/2**) registered a remarkable improvement in performance from a mean of **46** in 2019 to **58.74** in 2020.
- (v) The standard deviation in both papers, **19.57** in **312/1** and **18.37** in **312/2**, shows a reasonable spread of candidates’ scores from the mean.

Despite the improved performance, some questions were performed poorly 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 improved from a mean of 47 in 2019 to 47.39 in 2020. 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 1a), 3 a), 6c (i), (ii) and 8 a (i) and(b)

Requirement Q 1a)

Give two characteristics of comets.

Weaknesses

Many candidates did not write the characteristics of comets instead came up with characteristics of other heavenly bodies.

Expected responses

- They are made up of frozen gases, dust and small rocky particles.
- They have a head and tail.
- They move along oval-shaped orbit.
- They cross orbits followed by the planets.

Advice to teachers

Regular revision of the topic aided by ICT simulations would make the students master the unique characteristics of heavenly bodies better. Teachers should engage the candidates in discussions on characteristics of each heavenly body for better understanding.

Requirement Q 3 (a)

State two types of igneous rocks'

Weaknesses.

Some candidates gave the specific names of rocks instead of the types of rocks.

Expected responses.

Extrusive igneous rocks/Volcanic.

Intrusive igneous rocks/plutonic/hypabyssal

Advice to teachers

There is need for teachers to clearly differentiate types and examples of rocks while teaching the topic "Rocks". Teachers may use simple geological charts that show types and examples of rocks under each type for easier distinction

Requirement Q 6c (i) and (ii)

Using a vertical scale of 1cm to represent 100 metres, draw a cross section from the water tank on grid square 2592 to the peak of Kijabe hill on grid square 2699.

On it mark and label the following:

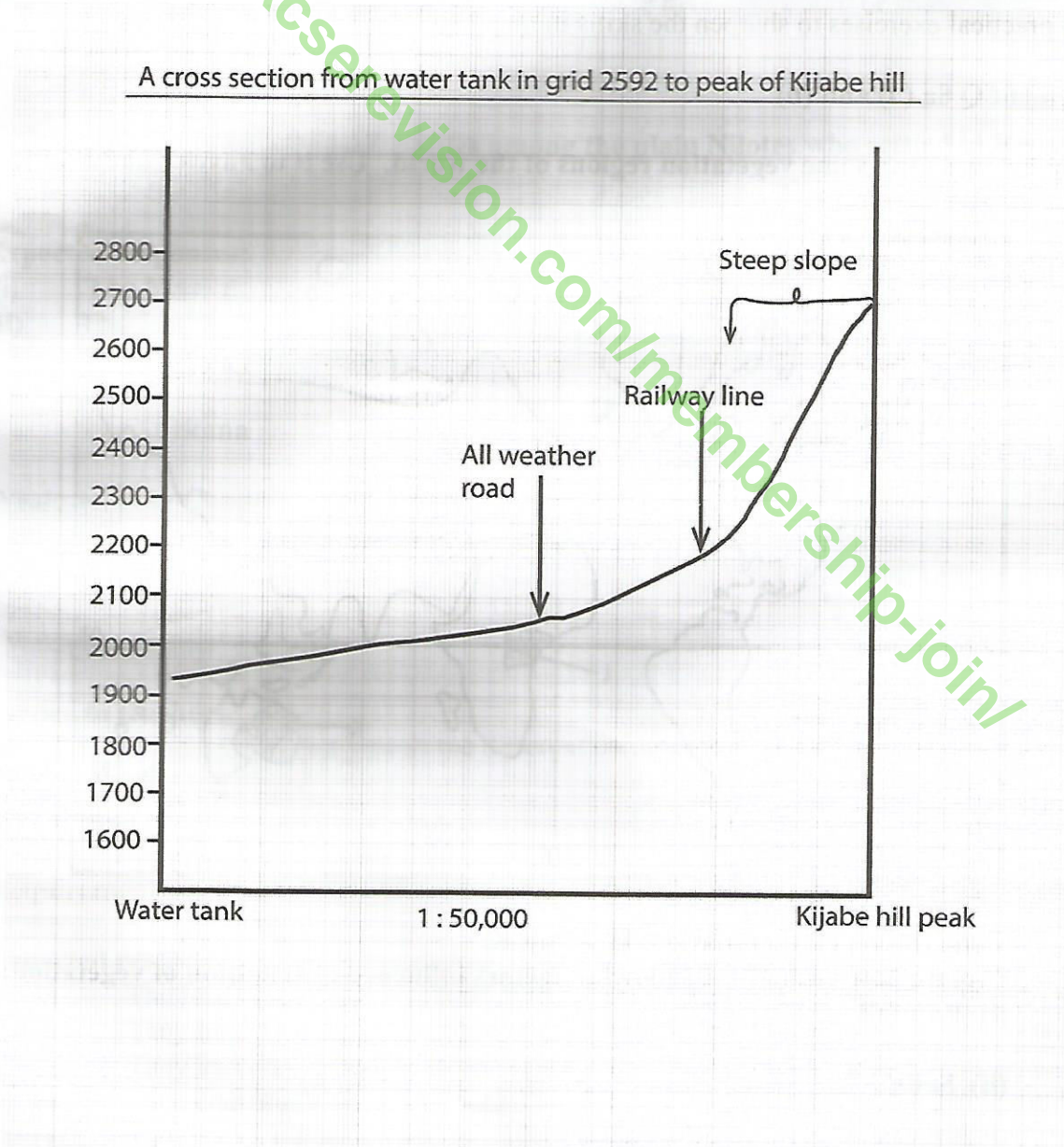
- I All weather road-bound surface.
- II Railway line
- III Steep slope.

ii) Calculate the vertical exaggeration of the cross section

Weaknesses:

Many candidates could not draw the cross section or calculate the vertical exaggeration. Some students drew sketch sections.

Expected responses



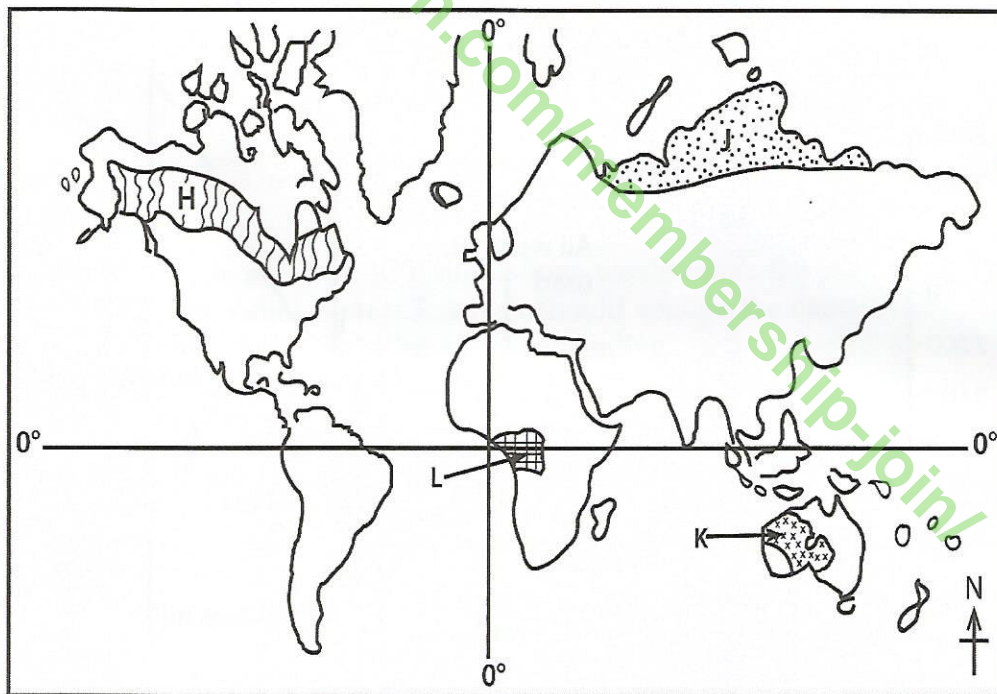
$$\begin{aligned} VE &= \frac{VS}{HS} = \frac{1:100m}{1:50,000cm} \\ &= \frac{1:1000}{1:50,000} = 1 \times 5 \\ &= 5 \text{ times} \end{aligned}$$

Advice to teachers

Teachers need to give more practical exercises to the students on drawing of cross sections in order for the learners to master the skill. Regular revision of map reading skills will make it easy for students to distinguish sketch sections and cross sections. Simplified notes can be provided coupled with frequent practical exercises to sharpen the skills in map reading.

Requirement Q 8a (i) and (b)

The map below shows some vegetation regions of the world. Use it to answer question (a) (i) and (ii)



- (i) Name the vegetation marked H, J and K.
- b) Explain how each of the following factors influence distribution of vegetation:
 - (i) Rainfall
 - (ii) Soils'

Weaknesses:

Many candidates could not identify the vegetation marked H, J and K. Some of the students were unable to describe how rainfall and soils influence the distribution of vegetation.

Expected responses

- H – Coniferous Forest
- J – Tundra vegetation
- K – Tropical desert vegetation

Rainfall

- Areas receiving high rainfall encourage growth of many varieties of tree species/luxuriant.
- Areas receiving low rainfall have few species/stunted/scarce vegetation.
- Areas of low rainfall have stunted vegetation.

Soils

- Deep and well drained soils support growth of dense vegetation.
- Poor/infertile/shallow/ thin soils support scanty vegetation.

Advise to teachers.

Teachers need to use the world map showing vegetation distribution when teaching this topic. Regular revision exercises requiring the students to use the atlas will help student to correctly identify the vegetation types.

3.2.3 Geography Paper 2 (312/2)

The performance of candidates in this paper registered an improvement from a mean of 46 in 2019 to 58.74 in 2020.

This report looks at question 1 (b), 8 (c) and 9a (ii) and 10 (c) which presented some challenges in the way some candidates answered them.

Requirement Q 1 (b)

State two physical conditions that favour dairy farming in Kenya

Weakness;

Some students failed to differentiate between physical and human conditions hence ended up with incorrect responses.

Expected responses

- High/moderate rainfall of 500-2500mm per year/ supply of water from rivers.
- Deep well drained, volcanic/loam soils.
- Cool/warm/hot conditions/moderate/high/ 10-30°C.
- Constant supply of natural pastures.
- Undulating/gentle sloping landscape

Advice to teachers.

Teachers need to exhaustively discuss in details the differences between physical and human conditions and how they influence dairy farming in Kenya. Students should be regularly engaged in group discussions on these factors as this will allow for in depth understanding of the differences.

Requirement Q 8 (c)

Explain three effects of adverse climatic conditions on wildlife in Kenya.

Weaknesses.

Many students explained the effects on either plants or animals thus limiting their responses. This showed that they lacked the understanding that wildlife consists of both plants and animals.

Expected responses.

- Prolonged drought leads to migration of animals to areas that have supply of water/pasture/some animals migrate to neighbouring countries reducing the number of wild animals.
- Prolonged drought leads to drying up of some plant species/starvation/death of some wild animals.
- Excess rain leads to flooding of some areas where wild animals are drowned/destruction of plants.
- After the floods there is shortage of pasture causing starvation of animals.
- When there is prolonged drought fire outbreaks are common leading to environmental degradation/destruction of habitat for animals.
- Prolonged drought causes wild animals to invade farms destroying crops.

Advice to teachers

Teachers should encourage candidates to read and understand questions well before attempting them. There is need to clearly define the terms outlined in the syllabus as this makes it easy for the students to answer related questions exhaustively.

Requirement for Q 9 a (ii)

Give four measures which Kenya may take to reduce unfavourable balance of trade.

Weaknesses:

Some candidates seemed not to know the meaning of unfavourable balance of trade and they therefore ended up giving incorrect responses.

Expected responses

- Encouraging development of Jua Kali industries.
- Diversify agricultural exports/have a variety of exports.
- Look for new markets.
- Advertise tourism/increase earning from invisible trade.
- Restrict importation of luxury items/impose high taxes on imported luxury items.
- Establish import substitution industries to reduce importation of some commodities.
- Encourage production of high quality export products.
- Develop alternative sources of energy.

Advise to teachers.

When teaching trade, it is important to clearly distinguish favourable and unfavourable balance of trade. Debates and discussions on the factors that can reduce unfavourable balance can be held after the topic in order for the students to have in depth understanding

Requirement Q 10 (c)

Explain three ways in which the port of Mombasa is similar to Rotterdam port.

Weaknesses;

Most students were not able to bring out clearly the unique similarities between the two ports. General descriptive terms were used to yet these are case studies.

Expected responses

- Both ports have modern facilities/spacious harbours which enable them to handle large quantities of exports and imports.
- Both ports handle containerized cargo which ensures the goods are safe since they have tamper proof seals.
- Both ports have rich/extensive hinterland which help their countries to collect a lot of revenue/markets.
- Both ports are located at the mouth of drowned rivers providing sheltered/deep harbour.
- Both ports are well served by transportation routes which ensures easy movement of goods to and from the interior.
- Both ports are commercial centres where a lot of trade takes place.
- Both ports have social amenities which serve the residents/tourists.
- Both ports are ice free thus used all year.
- Both ports are tourist destinations earning their countries foreign exchange.

Advice to teachers:

Students need to have an in depth study of these two ports with precision as they are case studies. Teachers need to guide the students to hold discussions that lead to identifying the similarities and differences between these two ports.

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 test 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 making an attempt.
- iv. Teachers should sensitize their learners on how to handle 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 should be carefully chosen.
- vi. Students should be exposed to varied topographical maps, photographs and statistical data for frequent practice on map reading, photo 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 handle the syllabus and detailed supervision by the quality and standards subject officers 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.