**NAME……………………….……………………………………CLASS……….ADM:..................**

**DATE…………………………….………………………………. SIGNATURE…………………...**

**(312/1**

**FORM 4 GEOGRAPHY Paper 1)**

**Time: 2¾ hours**

***Kenya Certificate of Secondary Education***

**312/1**

**GEOGRAPHY Paper 1**

**FORM 4 JANUARY 2023 TERM 1 OPENER EXAM**

**INSTRUCTIONS TO CANDIDATES**

* *This paper has* ***two*** *sections:* ***A*** *and* ***B***
* *Answer* ***ALL*** *the questions in* ***section A.***
* *In section* ***B,*** *answer* ***questions 6*** *and any other* ***TWO*** *questions.*
* *Candidates must answer the questions* ***in English****.*

**FOR EXAMINER’S USE ONLY**

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| --- | --- | --- | --- |
| **Section** | **Questions** | **Maximum****Score** | **Candidate’s****Score** |
| **A** | **1 – 5** | **25** |  |
| **B** | **6** | **25** |  |
|  | **25** |  |
|  | **25** |  |
| **Total Score** |  |

***This paper consists of 4 printed pages. Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions/pages are missing.***

**SECTION A**

1. The diagram below shows a type of an eclipse.



 (a) Name the parts marked A, B, and C. (3 marks)

(b) Apart from the occurrence of eclipses, state **three** other effects of the movement of the earth round the sun. (3 marks)

2. (a) What are metamorphic rocks? (2 marks)

 (b) Give **two** examples of organically formed sedimentary rocks. (2 marks)

3. (a) List **three** landmasses that formed from Gondwanaland according to continental drift theory. (3 marks)

 (b) Give **two** types of tectonic plate boundaries. (2 marks)

4. (a) What is an earthquake? (2 marks)

 (b) State **three** natural causes of earthquakes. (3 marks)

5. The diagram below shows some features that form ocean relief.



(a) Identify the features marked X, Y and Z. (3 marks)

(b) List **two** main forms of horizontal movements of ocean water. (2 marks)

***SECTION B***

*Answer question* ***6*** *and any other* ***TWO*** *questions in this section.*

1. Study the map of Nyeri 1:50,000 (sheet 120/4) provided and answer the following questions.

(a) (i) Give the ***six figure*** grid reference of the forest Guard Post in Nyeri forest. (2 marks)

 (ii) Name the adjoining sheet to the south East of the map (1 marks)

 (iii) What is the general direction of the flow of river Chanya? (1 mark)

(b) (i) Using a vertical scale of ***1cm*** to represents ***50m;*** draw a cross section along Northing 64 from Easting 68 to Easting 78. On it mark and label the following.

* All weather road
* A hill.
* River Amboni (Honi). (8 marks)

 (ii) Calculate the vertical exaggeration of the cross section. (2 marks)

 (iii) Determine the intervisibility of the cross section. (1 mark)

© Describe the distribution of natural vegetation in the area covered by the map.

 (6 marks)

(e) Explain ***two*** ways relief has influenced the distribution of settlement in the area covered by the map. (4 marks)

7. (a) (i) Differentiate between weather and weather climate. (2 marks)

(ii) Give **three** types of rainfall. (3 marks)

(b) Explain how the following factors affect the climate of a place:

(i) Cold ocean currents. (4 marks)

(ii) Inter Tropical Convergence Zone. (2 marks)

(c) With the aid of a well labelled diagram, describe how sea breeze occurs.(8 marks)

(d) Suppose you were to carry out a field study at a weather station:

(i) Give **three** methods that they would use to collect data (3 marks)

(ii) State **three** follow up activities for the field study. (3 marks)

8. (a) (i) Define the term folding. (2 marks)

(ii) Name **three** types of folds. (3 marks)

 (b) The world map below shows the distribution of some fold mountains. Use it to answer question (i)



 (i) Identify the fold mountains marked W, X, Y and Z (4 marks)

1. With the aid of well labelled diagrams, how Fold Mountains were formed. (10 marks)

(c) Explain **three** negative effects of Fold Mountains (6 marks)

9. (a) (i) What is a karst scenery? (2 marks)

(ii) State **five** characteristics of karst landscapes. (5 marks)

(b) Give **four** sources of ground water. (4 marks)

(c) Explain how the following factors influence the occurrence of ground water:

(i) Nature of rocks. (2 marks)

(ii) Slope of land. (2 marks)

(iii) Vegetation cover. (2 marks)

(d) Explain **four** conditions that favour the development of an artesian well.(8 marks)

10. (a) (i) What is glaciation? (2 marks)

(ii) Outline **four** factors which determine the rate at which ice moves.(4 marks)

(b) Apart from a cirque, name **four** other glacial erosional features. (4 marks)

(c) Using well-labelled diagrams, describe how a cirque is formed. (8 marks)

(d) Students of Nanyuki High School carried out a field study on glaciation on Mt.

 Kenya

(i) Give **three** reasons why they conducted a reconnaissance. (3 marks)

(ii) State **two** factors they must have considered when selecting the data

 collection methods. (2 marks)

1. Give **two** activities they may have been involved in during the study.

 (2 marks)