**Term 1 – 2023 OPENER EXAM**

 **GEOGRAPHY (312/1)**

 **PAPER 1**

 **FORM FOUR (4)**

 **Time: 2 ¾ Hours**

**Name**: …………………………………………………………. **Adm** **No**: ……………….

**School**: ……………………………………………………….. **Class**: …………………..

 **Signature**: …………………………………………………….. **Date**: ……………………

***Instructions to candidates***

1. *Write your name, admission number and class in the spaces provided above.*
2. *This paper has* ***two*** *sections:* ***A*** *and* ***B***
3. *Answer* ***all*** *the questions in section* ***A***
4. *Answer* ***question 6*** *and any other* ***two*** *questions from section* ***B***
5. *All answers* ***must*** *be written in the answer booklet provided.*
6. ***This paper consists of 12 printed pages.***
7. ***Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.***

**For Examiner’s Use Only**

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| --- | --- | --- | --- |
| **Section** | **Questions** | **Candidate’s****Score** | **Maximum****Score** |
| **A** | **1 – 5** |  | **25** |
| **B** | **6** |  | **25** |
|  |  | **25** |
|  |  | **25** |
|  | **Total Score** |  | **100** |

**SECTION A**

***Answer ALL questions in this section.***

1. (a) What is a natural satellite? (2 marks)

(b) The diagram below shows different positions of the earth during the revolution. Use it to answer the questions that follow.

 

1. Give the date when earth is at position marked **T** at midday. (1 mark)
2. Identify the seasons experienced when earth is at position marked **M**. (2 marks)
3. (a) Differentiate between sial and sima. (2 marks)

(b) Give **three** characteristics of the upper mantle. (3 marks)

1. (a) Give **two** types of folds. (2 marks)

(b) State **three** effects of folding on physical environment. (3 marks)

1. (a) What is Karst scenery? (2 marks)

(b) Give **three** ways in which a spring may be formed. (3 marks)

1. (a) Give **two** agents of weathering. (2 marks)

(b) State **three** factors that cause soil creep. (3 marks)

**SECTION B**

*Answer question* ***6*** *and any other* ***two*** *questions*

1. Study the map of Nyeri 1:50,000 (Sheet 120/4) provided and answer the following questions.
2. (i) What type of map is Nyeri map extract? (1 mark)

(ii) Give the **two** scales that have been used in the map extract. (2 marks)

(iii) Measure the length of the road D435 from the chiefs centre to grid square 7154. Give your answer in km. (2 marks)

(iv) Calculate the area of Aberdare forest to the south of northing 50. Give your answer in Km2 (2 marks)

1. (i) Identify the methods that have been used to represent relief in the area covered by the map. (2 marks)

(ii) Give the physical features found in the grid square 7564. (2 marks)

(iii) Apart from forest, give **two** other types of vegetation in Nyeri map. (2 marks)

1. Describe the drainage of the area covered by the map. (6 marks)
2. Citing evidence from the map, name **three** economic activities in the area covered by the map. (6 marks)
3. (a) (i) What is derived vegetation? (2 marks)

 (ii) State **three** ways in which relief influences vegetation. (3 marks)

(b) (i) A part from forests, name **two** other vegetation zones in Kenya. (2 marks)

 (ii) Give **three** categories of forests in Kenya. (3 marks)

(c) The diagram below shows major vegetation zones of the world.



1. Identify the vegetation zones marked **A**, **B** and **C**. (3 marks)
2. State **four** characteristics of the vegetation in the zone marked **B**. (4 marks)

 (d) Explain **four** significance of vegetation to human activities. (8 marks)

1. (a) Differentiate between a river discharge and river regime. (2 marks)

(b) Describe **three** ways through which a river transports its load. (6 marks)

 (c) The diagram below shows a section of a river. Use it to answer the questions that follow

 

 (i) At what stage of development is this section of the river? (1 mark)

 (ii) Name **two** rivers in Kenya along which the feature marked **W** is found. (2 marks)

 (iii) Describe how the feature marked **W** is formed. (6 marks)

 (d) Members of your class plan to carry out a field study on a river within the county.

1. Give **two** reasons why you would prepare a working schedule. (2 marks)
2. State **four** significance of depositional features of a river your likely to identify during the study. (4 marks)
3. Give **two** follow up activities you would be involved in. (2 marks)
4. (a) (i) Identify **two** types of desert surfaces. (2 marks)

 (ii) State **three** factors that have contributed to development of deserts. (3 marks)

(b) Describe **two** ways in which wind transports its load in arid areas. (4 marks)

 (c) Using well labeled diagrams, describe how the following features are formed.

 (i) Zeugen (5 marks)

 (ii) Rock pedestal (5 marks)

(d) Explain **three** economic benefits of desert landforms. (6 marks)

1. (a) (i) What is a glacier? (2 marks)

 (ii) Apart from a valley glacier, name **two** types of ice masses found on mountains in East Africa.

 (2 marks)

 (b) Explain how the following factors influence the movement of glacier.

* Gradient of the land. (2 marks)
* Nature of the surface. (2 marks)

 (c) Describe how a hanging valley is formed. (4 marks)

 (d) Explain **four** positive effects of glaciation in lowland areas. (8 marks)

 (e) Your class is to carry out a field study on land use on glaciated lowlands.

 (i) Give **three** preparations you would make for your field study. (3 marks)

 (ii) List **two** erosional features you are likely to identify during the study. (2 marks)