**NAME………………………………………… ADM.NO. ………………………….**

**312/1**

### GEOGRAPHY

**PAPER 1**

**TIME: 2 ¾ HOURS**

**INSTRUCTIONS TO CANDIDATES:**

* This paper consists of **two** sections: **A** and **B**
* Answer **all** the questions in section **A**
* Answer question **6** and **any two** questions from **section B**
* All answers **must** be written in the answer booklet provided

**FOR EXAMINER’S USE ONLY**

|  |  |
| --- | --- |
| **QUESTION** | **MARKS** |
| **1-5** |  |
| **6** |  |
| **7** |  |
| **8** |  |
| **9** |  |
| **10** |  |
| **TOTAL** |  |

# SECTION A

# ANSWER ALL THE QUESTIONS IN THIS SECTION

1.a) Name two layers of discontinuity that are part of the interior of the earth. (2mks)

b) State the characteristics of the outer core in the interior structure of the earth. (3mks)

2.a) What is a lake? (2mks)

b) Give three ways in which water weeds have affected lakes in Kenya. (3mks)

3.a) Name two types of faults associated with faulting. (2mks)

(b) State three effects of faulting on drainage of an area. (3 marks)

4. a) i ) What is a soil profile? (1mk)

ii) Name two components of soil. (2mks)

iii) Differentiate between soil structure and soil texture. (2mks)

5. (a) Differentiate between secondary vegetation and planted vegetation. (2mks)

(b) State three characteristics of Mediterranean type of vegetation. (3mks)

# SECTION B

**ANSWER QUESTION 6 AND ANY OTHER TWO QUESTIONS FROM THIS SECTION**

6. Study the map of Kijabe 1:50 000 (sheet 134/3) provided and answer the following questions.

(a) (i) What is the approximate height of Kijabe Hill? (1mk)

(ii) Measure the length of Narok all weather-Bound surface road (B3) from grid reference 2690 to the junction of road A104 at grid reference 3191.

Give your answer in kilometers and meters. (2 mks )

b) Explain three ways on how relief has influenced settlement in the area covered by the map . (6 marks)

c) Describe the drainage of the area covered by the map. (4mks)

d) i ) Using a vertical scale of 1cm to represent 40 meters ,draw a cross section from grid reference 280910 to grid reference 330940. (5 mks )

ii) On the cross-section mark and label the following

* Thicket.
* River.
* Power line. ( 3 mks)

iii) Identify three social services offered in the area covered by the map. (3mks)

iv) Identify two methods used to present relief on the area covered by the map. (2mks )

7.a ) i) Distinguish between weather and climate. (2mks)

ii) State three conditions that are necessary for sitting a weather station. (3mks)

b) Explain how the following factors influence climate.

i) Aspect. (2mks)

ii) Ocean currents. (2mks)

1. The table below shows rainfall and temperature for a station in Africa.Use it to answer the questions that follows.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| MONTH | J | F | M | A | M | J | J | A | S | O | N | D |
| TEMPERATURE | 27 | 28 | 27 | 26 | 23 | 21 | 21 | 21 | 23 | 25 | 26 | 27 |
| RAINFALL(MM) | 232 | 250 | 219 | 107 | 60 | 32 | 27 | 26 | 22 | 37 | 90 | 210 |

i)Calculate the annual range of temperature. (2mk)

ii) Describe the annual rainfall pattern of the station. (4mks)

d) The world map below shows a certain climatic region .Study it and answer the following questions.



i) Identify the climate experienced in the shaded region. (1mk)

ii) Describe the characteristics of the climate named above. ( 4mks)

e) Distinguish between aridity and desertification. (2mks)

ii) State three human activities that contribute to aridity and desertification. (3 mks)

8. (a) (i)Name three types of hot desert landscape. (3mks)

ii) State two reasons why wind erosion is very effective in hot deserts.(2 mks)

b i) ) Apart from Yardangs name three features that results from wind action in deserts.

(3 mks)

1. Using well labelled diagrams, describe how Yardangs are formed. (7mks)
2. Explain how the following processes of wind erosion occur in the desert areas.
3. Saltation. (2mks)
4. Surface creep. (2mks)
5. You intend to carry out a field study in an arid area near your school.
6. State two reasons for carrying out a pre-visit. (2mks)
7. State four positive effects of desert features to man that you are likely to identify. (4 mks)

9. a) i) Differentiate between a rock and a mineral. (2mks)

b) Describe the following characteristics of minerals.

i) Color. ( 2mks )

ii) Hardness.(2mks )

C. i ) What are igneous rocks? (2mks)

ii) State three notable differences between plutonic and volcanic rocks. (3mks)

d)Describe the formation of the following rocks.

i) Mechanically formed sedimentary rocks. (3mks)

ii) Chemically formed sedimentary rocks. (3mks)

1. i) Identify the missing type of rocks. (3mks)

|  |  |
| --- | --- |
| Original rock | Metamorphic rock |
| Limestone | (i) |
| (ii) | Graphite |
| Granite | (iii) |

1. Supposing you were to carry out a field study on rocks at the Kenyan coast.
2. State two reasons as to why you would ask for permission from the school administration. (2mks)
3. What reasons would you give for the widespread of sedimentary rocks at the coastal plain. (3mks)

10. (a) (i) Differentiate between a spring and a well (2 marks)

ii) State four conditions favoring formation of artesian well. (4 marks)

b). ( i ) What is a Karst scenery? (2 marks)

(ii) Name five features formed on the surface in a Karst area. (5 marks)

c). With the aid of a well labeled diagram describe how a limestone pillar is formed. (6 marks)

d) Explain three significance of Karst scenery to human economic activities. (6 marks)