Name: ………………….……………………………….……… School………………………………………………

Stream: ……………………….…………………………..……..Index No. …………………………….…………….

312/1

Geography

Paper one

Time: 2 hours 45 minutes

Form Four

**CHAMPIONS JET JOINT 2019**

***Kenya Certificate of Secondary Education***

**Instructions to candidates**

1. This paper has two sections, A and B
2. Answer all the questions in **Section A**
3. In Section B, answer question 6 and any other TWO questions.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **SECTION A** | 1 | 2 | 3 | 4 | 5 |  |  |
|  |  |  |  |  |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **SECTION B** | 6 | 7 | 8 | 9 | 10 |  |  |
|  |  |  |  |  |

|  |  |
| --- | --- |
| **TOTAL** |  |

**SECTION A (25 MARKS)**

***Answer all the questions in this section***

1. (a) Name **two** forces responsible for the shape of the earth (2mks)

(b) State **three** reasons why the interior of the earth is hot (3mks)

1. The table below represents rainfall and temperature figures for a system in Africa.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Month | J | F | M | A | M | J | J | A | S | O | N | D |
| Temperature | 24 | 24 | 23 | 22 | 19 | 17 | 17 | 18 | 19 | 20 | 23 | 23 |
| Rainfall (mm) | 109 | 122 | 130 | 76 | 52 | 34 | 28 | 38 | 70 | 108 | 121 | 120 |

1. Calculate the average monthly temperature for the station (2mks)
2. Describe the rainfall pattern for the station (3mks)
3. The diagram below shows way through which wind transport its load.





1. Name the ways marked E, F and G (3mks)
2. Identify **two** features formed by wind deposition in desert. (2mks)
3. (a) What is natural vegetation (2mks)

(b) State **three** reasons why Tundra region has scanty vegetation (3mks)

1. (a) Differentiate between an ocean and a sea (2mks)

(b) The diagram below represents occurrence of tides. Name the parts marked P, Q and R. (3mks)



**SECTION B**

***Answer question 6 and any other two questions from this section***

1. Study the map of Taita hills and answer the questions that follow.
2. (i) Measure the distance of river Ruhia from its confluence with river Voi Goshi to grid reference 345270 (2mks)

(ii) Give the location of St Marys’ High School by latitude and longitude (2mks)

1. (i) Describe the distribution of vegetation in the area covered by the map (4mks)

(ii) Identify methods which have been used to represent relief in the area covered by the map. (2mks)

1. (i) Draw a cross section from grid reference 310140 to grid reference 370140. Use vertical scale of 1 cm represents 20 meters. (3mks)

(ii) Along the cross-section mark and label the following.

* Hill (1mk)
* All weather road (bound surface) (1mk)
* Teita sisal Estate (1mk)
1. (i) A bore hole is supposed to be dug in the area covered by grid square 2615.State three factors which may make construction expensive (3mks)

(ii) Citing evidence from the map explain three factors which may favour cattle rearing in the area covered by the map. (6mks)

1. (a) Differentiate between a normal fault and a reverse fault (2mks)

(b) Study the diagram below and use it to answer question b(i)

Heave

 H

 J



Fault

 K

 L

Fault line

Throw

1. Name the parts labelled H, J, K and L (4mks)
2. Give **three** examples of fault blocks (3mks)
3. Using well labelled diagrams, describe the formation of the rift valley by tensional forces (8mks)
4. Explain **four** economic significance of faulting. (8mks)
5. (a) (i) Name **two** areas in Africa associated with karst scenery (2mks)

 (ii) State **three** characteristic of karst scenery (3mks)

(b) (i) State **three** ways through springs are formed (3mks)

 (ii) Explain **three** conditions necessary for the formation of an artesan well. (6mks)

1. Describe how the following features are formed: -
2. Grikes and clints (5mks)
3. Stalactite (6mks)
4. (a) (i) What is an ice sheet? (2mks)

 (ii) Name **two** mountains in East Africa which are ice capped. (2mks)

1. Identify **three** ways in which ice moves. (3mks)
2. Explain **three** factors that influence the movement of ice from the place it has accumulated. (6mks)

(b) Describe how an arete is formed (5mks)

(c) You are required to carry out a field study on erosional features in glaciated lowland areas.

(i) Give **two** reasons why you would require a working schedule. (2mks)

(ii) Apart from an arete, name **two** other erosional features you are likely to observe during the field study. (2mks)

1. Give **three** follow up activities you would undertake after the field study. (3mks)
2. (a) (i) What is soil (2mks)

(ii) State **three** main components of soil (3mks)

(b) Explain how the following weathering processes contributes to the formation of soil

1. Hydration (3mks)
2. Oxidation (4mks)

 (c) (i) Name the type of soil structures which fits the following descriptions

* Soil particles are arranged in thin sheets on top of each other. (2mk)
* Soil particles are arranged vertically in cylindrical manner (2mk)

(ii) The diagram below represents soil catena. Identify the nature of soils in the stages marked X, Y and Z. (3mks)



Z

Soil depth

X

Y

 Bedrock

1. Explain how the following factors cause soil degradation
2. Leaching (2mks)
3. Mono cropping (2mks)
4. Burring of land (2mks)