**312/1**

**GEOGRAPHY**

**PAPER 1**

**JULY/AUGUST 2016**

**TIME: 2 ¾ HOURS**

***Kenya Certificate of Secondary Education (K.C.S.E)***

**312/1**

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**INSTRUCTIONS TO CANDIDATES:**

* *This paper has* ***two*** *sections* ***A*** *and* ***B***
* *Answer* ***All*** *questions in Section* ***A***
* *In section* ***B*** *answer question* ***6*** *and any other* ***two*** *questions.*
* *All answers* ***must be*** *written on a separate answer sheet provided.*

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 *This paper consists of 5 printed pages. Candidates should check to ascertain that all pages are printed as indicated and that no questions are missing.*

**SECTION A**

***Answer all questions in this section.***

1. (a) Define the term Environment. (1mk)

 (b) Highlight **two** types of environment (2mks)

 (c) Briefly explain the relationship between Geography and chemistry. (2mks)

2. (a) State **two** effects of the revolution of the earth. (2mks)

 (b) What is the longitudinal of a place **X** whose local time is 8.00an, when the local time at Greenwich meridian (0o) at noon ? (3mks)

3. (a) Define the term mineral (1mk)

 (b) Distinguish between porous and pervious rocks. (2mks)

 (c) List **two** factors that influence the development of a soil profile (2mks)

4. The diagram below illustrates river capture.

**1**

**2**

**3**



 (a) Name the features marked **1**, **2** and **3**. (3mks)

 (b) State **two** causes of river rejuvenation. (2mks)

5. The diagram below shows the movement of the glacier.

**Y**

**Z**

**X**

Melt water

Movement of glacier

Glacier

1. Identify the moraines marked **X**, **Y**, and **Z**  (3mks)
2. State **two** factors that influence the movement of glacier. (2mks)

**SECTION B**

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

6. Study the map of Kitale 1:50, 000 (sheet 75/3) provided and answer the following questions.

 (a) (i) Name **two** administrative divisions of Kitale map extract. (2mks)

 (ii) Give the **six** grid reference of Kipsain police post. (2mks)

 (iii) Mention **two** methods that have been used to represent relief on the map extract. (2mks)

 (b) (i) Calculate the area of Kitale municipality. Give your answer in km2 (2mks)

 (ii) Name **two** functions of Kitale township (2mks)

 (iii) Give the longitudinal extent of Kitale map extract. (2mks)

 (c) (i) Using reduction fraction of ½ , reduce easting 32 to 40 and northing 11 to 17. On the reduced area mark house surface road number **C**638. (4mks)

 (ii) Giving evidence from the map extract, name **two** economic activities carried out within the map extract. (4mks)

 (d) Students from Onjiko high school went out for a field study within the area covered by the map extract. When journey started from Kitale Municipality towards Saiwa farms

 i) What preparations they made before the actual field study. (2mks)

 (ii) Give **two** reasons why it was necessary to carry out previsit before actual field study.

 (2mks)

7. (a) (i) Define Mass-wasting (1mk)

 (ii) State **three** factors that influence the speed of mass-wasting. (3mks)

 (b) Explain **three** causes of landslides. (6mks)

 (c) (i) State **three** factors necessary for the formation of Karst Scenery (Lime stone landscape) (3mks)

 (ii) Using a well labelled diagram, describe the formation of Grikes and Clints (5mks)

 (d) Suppose you carried out a field study of Karst scenery

(i) Name the underground features you observed. (2mks)

(ii) Give reasons why work-schedule is necessary in fieldwork. (3mks)

(iii) State **two** reasons why Karst landscape is not suitable for settlement (2mks)

8. (a) (i) What is volcano? (1mk)

 (ii) Differentiate between the following terms

* Magma and lava (2mks)
* Solfatara and moffete (2mks)

 (b) Draw an outline map of Kenya (1mk)

 On it mark and label;

* + - Mount Kenya (1mk)
		- Yatta plateau (1mk)
		- Equator (3mks)

 (c) Describe how the following features were formed

 (i) Mount Kenya (4mks)

 (ii) Yatta plateau (3mks)

(d) You are supposed to carry out a field study on a landscape influenced by vulcanicity

 (i) State **three** problems you are likely to experience during the field study? (3mks)

 (ii) Explain **three** negative effects of vulcanicity which you are likely to observe (6mks)

9. (a) (i) Identify **three** processing of wind erosion. (3mks)

 (ii) Give **three** reasons why wind is an effective agent of erosion in hot deserts (3mks)

 (b) Describe how the following features are formed. Illustrate your answer.

 (i) Rock pedestal (5mks)

1. State **three** features formed as a result of water action in the deserts. (3mks)
2. Muhoroni high school students conducted a field study in Chalbi desert.

(i) State **three** reasons why they needed to sample part of the desert. (3mks)

(ii) List **two** sampling techniques they are likely to have used. (2mrks)

10.

 (a) Explain how the following factors influence climate

 (i) Latitudes (2mks)

 (ii) Distance from the sea (2mks)

 (b) Study the climate map of Africa and answer the questions that follow.



 (i) Name the climatic region marked **P** and **Q**. (2mks)

 (ii) Describe **three** characteristics of equatorial climate. (3mks)

 (c) (i) What is climatic change ? (1mk)

 (ii) Explain **two** effects of climate change on the physical environment. (4mks)

 (d) The table below shows rainfall and temperature figures of a station in Africa.

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

 (i) On the graph paper provided draw a bar graph to represent the rainfall figures.

 (Use vertical scale of 1cm to represent 10mm). (5mks)

 (ii) Describe the rainfall pattern of the station. (3mks) (iii) Calculate the average monthly temperature of the station. (Show working). (2mks)

 (iv) Identify the type of climate represented in the table above. (1mk)