**NAME:…………………………………………………………ADMNO:……………INDEX NO:………………………..**

**CLASS:………………………SIGNATURE:……………………………………………..**

**312/1**

**GEOGRAPHY**

**Paper 1**

**July, 2019**

**Time 2 hours 45 min.**

**MOKASA II JOINT EXAMINATION**

**Kenya Certificate of Secondary Education**

**312/1**

**Paper 1**

**GEOGRAPHY**

**INSTRUCTIONS TO STUDENTS**

* *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.*

**SECTION A: 25 MARKS**

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

1. Describe the formation of planet earth according to the passing star theory.

**(5 marks)**

2. (a) Give **two** examples of sedimentary rocks. **(2 marks)**

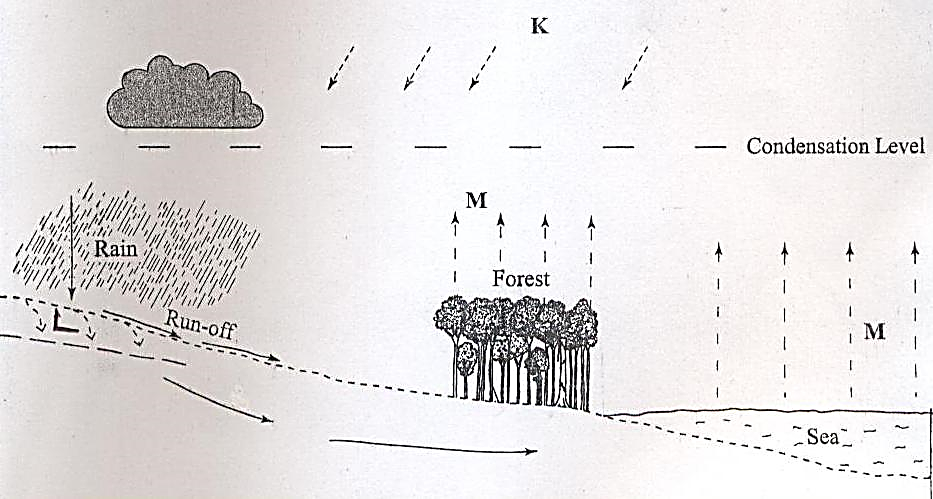
(b) State **three** characteristics of sedimentary rocks. **(3 marks)**

3. (a) Differentiate between weathering and mass wasting. **(2 marks)**

(b) State **three** causes of landslides. **(3 marks)**

4. (a) The diagram below shows the hydrological cycle. Study and use it to answer

the question that follows.



**L**

1. Identify the processes marked **K** and **L**. **(2 marks)**

(b) State **three** characteristics of a flood plain. **(3 marks)**

5. (a) State **two** reasons why wind erosion is dominant in arid areas.  **(2 marks)**

(b) Describe how a Bajada is formed. **(3 marks)**

**SECTION B**

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

6. Study the map of Taita hills, ***1:50,000*** sheet provided and answer the question that follow.

1. (i) What is the latitudinal and longitudinal extent of Taita Hills map extract? **(2 marks)**

(ii) Convert the ratio scale of the map into statement. **(2 marks)**

(b) Citing evidence from the map, identify **four** social activities in the area covered by Taita Hills. **(4 marks)**

(c) (i) Draw a rectangle 20cm by 16cm from Easting 32 to 37 Northings 14

to 18. **(2 marks)**

(ii) On the rectangle mark and name; **(4 marks)**

* Taita sisal estate
* Hills
* Main track/motorable
* River

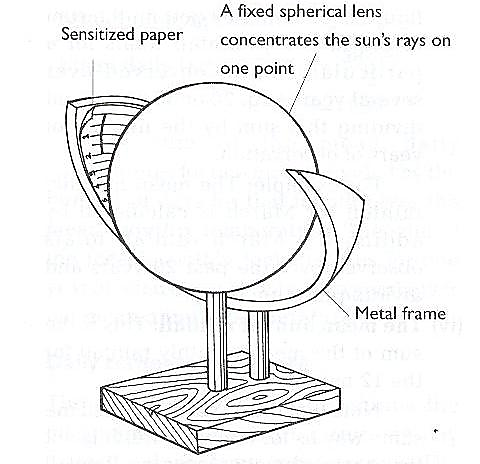
(iii) Calculate the new scale of the drawn rectangle. **(2 marks)**

(d) Citing evidence, explain **three** ways how relief has influenced the distribution of settlement in Taita Hills.  **(6 marks)**

(e) Describe the vegetation in the area covered by the map. **(3 marks)**

7. (a) Name **two** instruments kept in a Stevenson screen. **(2 marks)**

(b) The diagram below shows a weather measuring instrument. Use it to answer the questions below.



Metal frame

**M**

**N**

1. Name the parts marked **M** and **N**. **(2 marks)**
2. Describe how the instrument works. **(4 marks)**

(c) The table below shows climatic figure for station **Q**. Use it to answer the questions that follow.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Months | **J** | **F** | **M** | **A** | **M** | **J** | **J** | **A** | **S** | **O** | **N** | **D** |
| Temp in 0C | 30 | 31 | 31 | 29 | 27 | 27 | 28 | 29 | 28 | 28 | 27 | 30 |
| Rainfall in mm | 257 | 246 | 231 | 234 | 207 | 201 | 218 | 227 | 234 | 240 | 235 | 230 |

(i) Calculate the annual range of temperature for station **Q**. **(2 marks)**

(ii) Give **four** characteristics of climate for station **Q**. **(4 marks)**

(d) With the aid of a well-labelled diagram, describe the formation of cyclonic rainfall. **(6 marks)**

(e) You intend to carry out a field study of a weather station in your school.

(i) Give **two** methods of recording data that you are likely to use.

**(2 marks)**

(ii) State **three** reasons why the recording of data at a school weather station may be inaccurate. **(3 marks)**

8. (a) (i) Distinguish between a fault and a fold. **(2 marks)**

(ii) Give **three** factors that influence folding. **(3 marks)**

(b) Describe how isostatic adjustment cause earth movement. **(5 marks)**

(c) Describe how plate tectonic movements cause fold mountain formation.

**(5 marks)**

(d) (i) Name **two** features resulting from faulting. **(2 marks)**

(ii) Explain how faulting influences drainage of an area. **(8 marks)**

9. (a) Distinguish between soil profile and soil catena. **(2 marks)**

(b) Explain how the following factors influence soil formation:

(i) The parent rock **(4 marks)**

(ii) Relief **(2 marks)**

(c) Describe laterization process of leaching. **(4 marks)**

(d) State **three** importance of soil structure. **(3 marks)**

(e) Give **two** characteristics of Azonal soils. **(2 marks)**

(f) Explain **four** causes of physical soil degeneration. **(8 marks)**

10. (a) (i) Define the term Moraine. **(2 marks)**

(ii) State **three** conditions necessary for the formation of ice. **(3 marks)**

(b) Describe how ice moves through the following:-

(i) Basal slip **(3 marks)**

(ii) Extrusion flow **(3 marks)**

(c) Describe how an arete is formed. **(6 marks)**

(d) Explain the **four** Significance of lowland glaciated features to human

activities. **(8 marks)**