NAME \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ INDEX NO. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

SCHOOL \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ SIGNATURE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**312/1**

**GEOGRAPHY**

**PAPER 1**

**TIME: 2¾ HOURS**

**FORM 4**

312/1

GEOGRAPHY

PAPER 1

TIME: 2¾ HOURS

**INSTRUCTIONS TO CANDIDATES**

* This paper has **two** sections: **A** and **B.**
* Answer **all** the questions in section **A**.
* In section **B,** answer question **6** and any other **two** questions.
* All answers **must** be written in the answer booklet provided.
* Candidates should answer the questions in English.
* This paper consists of **4** printed pages.
* Candidates should check the question paper 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) State how the following forces influence the shape of the earth. (3 marks)
2. Force of gravity
3. Centripetal force
4. Centrifugal force

b) Outline **three** significances of weather forecasting. (3 marks)

1. a) State **two** factors that determine the size of a lake. (2 marks)

b) Describe how a caldera lake is formed. (3 marks)

1. a) Differentiate between soil profile and soil catena. (2 marks)

b) State **three** factors which increase the process of leaching in tropical soils. (3 marks)

1. a) Distinguish between mass wasting and mass movement. (2 marks)

b) Name **three** processes of chemical weathering. (3 marks)

1. a) State **two** types of waves. (2 marks)

b) The diagram below shows a breaking wave.



b) Name the parts X and Y. (2 marks)

**SECTION B**

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

1. Study the map of Migwani 1:50,000 (sheet 151/1) provided and answer the following

questions.

1. i) What is the four figure grid reference of the court house at Ndooa town? (2 marks)

ii) What is the altitude of the highest point in the area covered by the map? (2 marks)

iii) Give **two** types of natural vegetation found in the area covered by the map? (2 marks)

1. i) Measure the distance of the all-weather road bound surface (C94) from the junction

at grid reference 9278 to grid reference 9083. Give your answer in kilometers. (2 marks)

ii) What is the bearing of the air photo principal point at grid square 9575 from the dam at grid reference 9078. (2 marks)

c) Draw a rectangle 10cm by 8cm to represent the area enclosed by Eastings 90 and 99, and

Northings 62 and 69. (1 mark)

On the rectangle mark and name the following: (4 marks)

1. Air photo principal point
2. Dam
3. Secondary trigonometrical station
4. Kyulu Hill

d) Explain three functions of Ndooa town. (6 marks)

e) Describe the drainage of the area covered by the map. (4 marks)

1. a) i) Define the term tsunami. (2 marks)

ii) The diagram below shows the mechanisms of earthquakes.



Name the parts labelled P, Q and R. (3 marks)

b) i) Using illustrations, describe three types of earthquake waves. (9 marks)

ii) Explain **four** proofs that the crust is in constant movement. (8 marks)

c) State three ways in which the earth’s crust is affected by the earthquakes. (3 marks)

8. a) i) Define the term artesian basin. (2 marks)

ii) State **four** factors influencing the development of a karst scenery. (4 marks)

b) i) Give **four** underground features in karst scenery. (4 marks)

ii) Describe briefly the formation of the following features in karst scenery;

* Polje (3 marks)
* Doline (3 marks)

1. i) Give **three** sources of ground water. (3 marks)

ii) Explain **three** significances of resultant features in limestone areas to human activities. (6 marks)

9. a) i) Explain three physical factors influencing the distribution of vegetation in Kenya. (6 marks)

ii) State **two** major vegetation regions of Kenya. (2 marks)

b) i) Describe **three** characteristics of the tropical rain forest. (6 marks)

ii) State **three** problems experienced during the exploitation of the tropical rainforest. (3 marks)

c) Suppose you were to carry out a field study on vegetation on Mt. Kenya.

1. State **three** objectives you would formulate for the study. (3 marks)
2. List **three** methods you would use to record your data. (3 marks)
3. Give **two** uses of mountain vegetation you are likely to study about. (2 marks)

10. a) Name three types of faults. (3 marks)

b) i) Apart from the Rift valley name three other features resulting from faulting. (3 marks)

ii) With the aid of well labelled diagrams, describe the formation of the rift valley by

tensional forces. (7 marks)

c) Explain the negative effects of faulting on human activities. (6 marks)

d) Your class plans to carry out a field study on a faulted landscape.

i) State **three** reasons why they would carry out a reconnaissance. (3 marks)

ii) Name **three** methods they would use to record their findings. (3 marks)