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**.
* Answer question **6** and any other **two** questions from Section **B**.
* All answers **must** be written in the answer booklet provided.
* 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.
* Candidates should answer the questions in English.

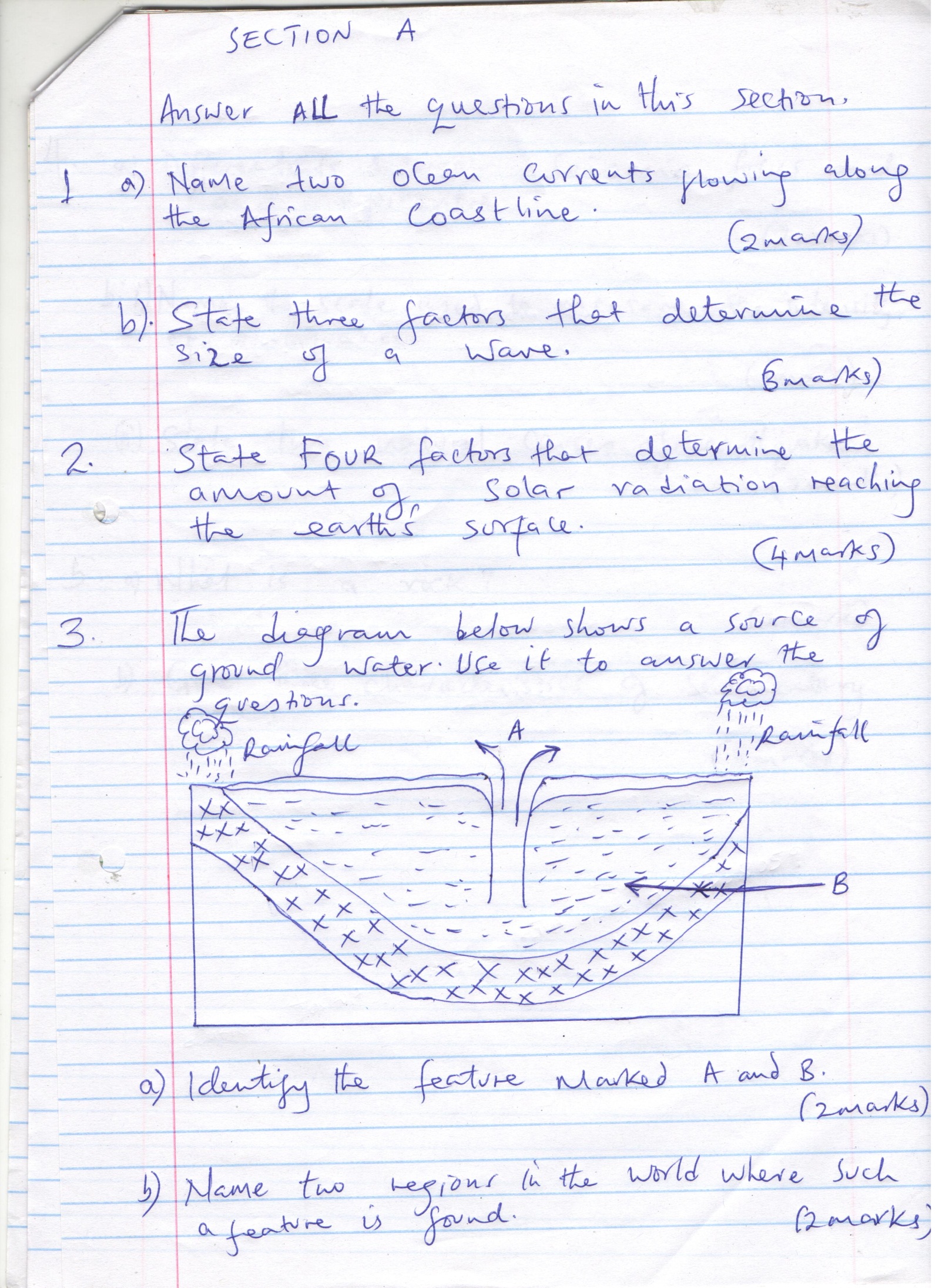
**SECTION A**

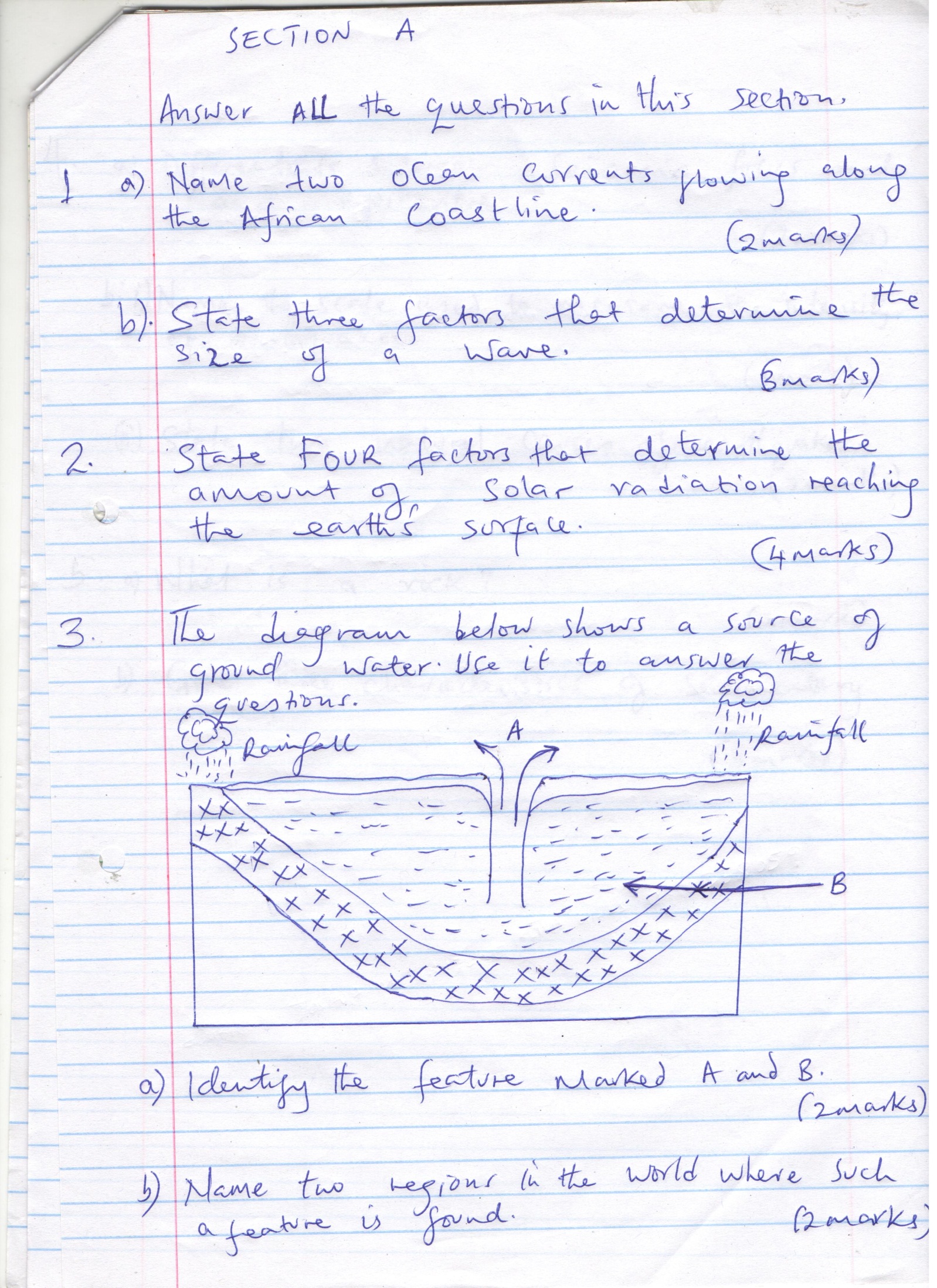
***Answer ALL questions in this section in the answer booklet provided.***

1. a) Name **two** ocean currents flowing along the African coastline. (2 marks)

b) State **three** factors that determine the size of a wave. (3 marks)

2. State **four** factors that determine the amount of solar radiation reaching the earth’s surface. (4 marks)

3. The diagram below shows a source of ground water. Use it to answer the questions.



**Rainfall**

**Rainfall**

**B**

**A**

a) Identify the feature marked A and B. (2 marks)

b) Name **two** regions in the world where such a feature is found. (2 marks)

4. a) Differentiate between seismic focus and epicenter. (4 marks)

b) i) Name the scale used to measure the intensity of earthquakes. (1 mark)

ii) State **two** natural causes of earthquakes. (2 marks)

5. a) What is a rock? (2 marks)

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

**SECTION B**

***Answer question 6 and any other two questions from this section in the answer booklet provided.***

6. a) i) Give the longitudinal and latitudinal extents of the area covered by the map extract . (2 marks)

ii) Measure the distance of the All-weather road from Thitani to Migwani shops.

Give your answer in kilometres. (2 marks)

b) i) Draw a rectangle measuring 10cm by 11cm to represent the area in the map extract

bounded by Eastings 91 and 11 and Northings 62 and 84. (1 mark)

ii) On the rectangle drawn, mark and name the following:

* Usiani school (1 mark)
* Nzeluni dispensary (1 mark)
* Mutitu health centre (1 mark)
* Dry weather road D507 (1 mark)

c) i) Citing evidence from the map, give two functions of Mutitu (Ndooa) town. (4 marks)

ii) Identify the highest and the lowest points of the area covered by the map. (2 marks)

iii) Give **two** methods used to represent relief on the area covered by the map. (2 marks)

d) i) Name the type of vegetation found on the grid square 1180. (2 marks)

ii) Give **four** figure grid reference of the trigonometrical station at Kwamutonya

SKT 33. (2 marks)

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

7. a) Differentiate between mass wasting and mass movement. (2 marks)

b) i) State **two** causes of soil creep. (2 marks)

ii) Explain **three** factors influencing mass wasting. (6 marks)

c) i) List **four** processes of chemical weathering. (4 marks)

ii) Describe the following physical weathering processes.

* Slaking (3 marks)
* Exfoliation (3 marks)

d) Students are planning to carry out a field study of on area affected by mass wasting.

i) How did they prepare for the field study? (2 marks)

ii) Identify **three** follow-up activities. You are likely to undertake after the study. (3 marks)

8. a) i) Distinguish between soil catena and soil profile. (2 marks)

ii) State **two** ways of managing and conserving soil. (2 marks)

iii) Draw a simple diagram of the soil catena. (3 marks)

b) Explain how the following factors influence soil formation:

i) Nature of the parent rock (3 marks)

ii) Topography (3 marks)

iii) Climate (3 marks)

c) State **two** characteristics of the following soils:

i) Chernozems (2 marks)

ii) Arenosols (2 marks)

d) Students in your school went out on field study on soils around the school.

i) State **three** causes of soil degradation they identified. (3 marks)

ii) Name **two** methods they used to collect information of the above. (2 marks)

9. a) i) State **three** causes of faulting. (3 marks)

ii) Differentiate between normal fault and reverse fault. (4 marks)

b) i) With the aid of well labelled diagram explain how compressional forces can lead

to the formation of a rift valley. (8 marks)

ii) Give **two** examples of horst mountains in East Africa. (2 marks)

c) Explain **four** effects of faulting on human activities. (8 marks)

10. a) i) Distinguish between a river divide and a river basin . (2 marks)

ii) List **three** types of river erosion. (3 marks)

b) i) Draw a well labelled diagram of the hydrological cycle. (5 marks)

ii) State **two** benefits of hydrological cycle. (2 marks)

c) i) Describe the following drainage patterns:

* Trellis drainage pattern (3 marks)
* Dendritic drainage pattern (3 marks)

d) You plan to carry out a field study on a river in its youthful stage.

i) State **three** reasons why you would need to prepare a working schedule. (3 marks)

ii) List **two** features you are likely to identify during the study. (2 marks)

iii) List **two** problems you may experience during the study. (2 marks)