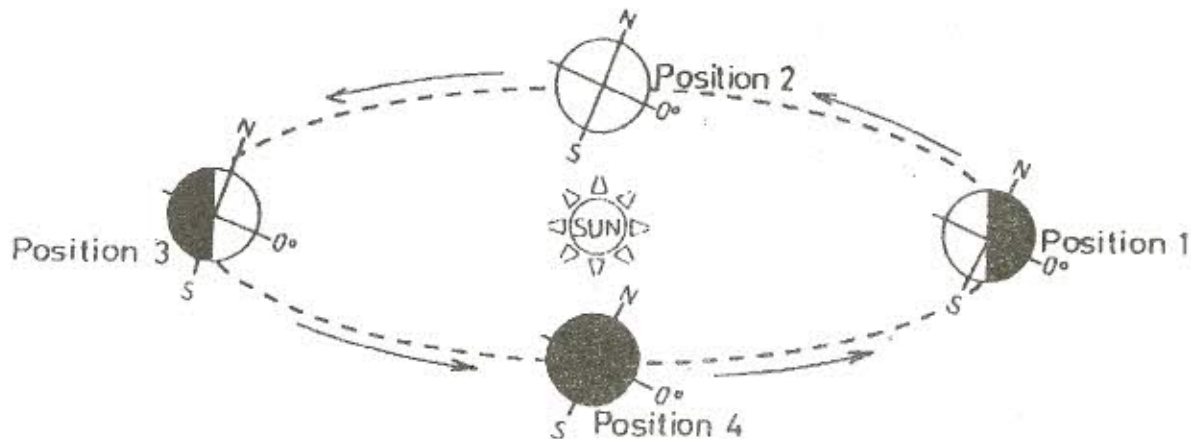


SECTION A

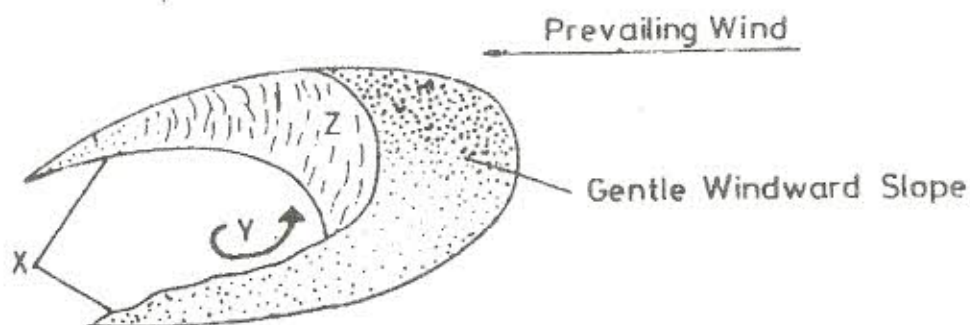
Answer *all* the questions in this section.

- (a) State **two** effects of the rotation of the earth. (2 marks)
- (b) Study the diagram below and answer the questions that follow.



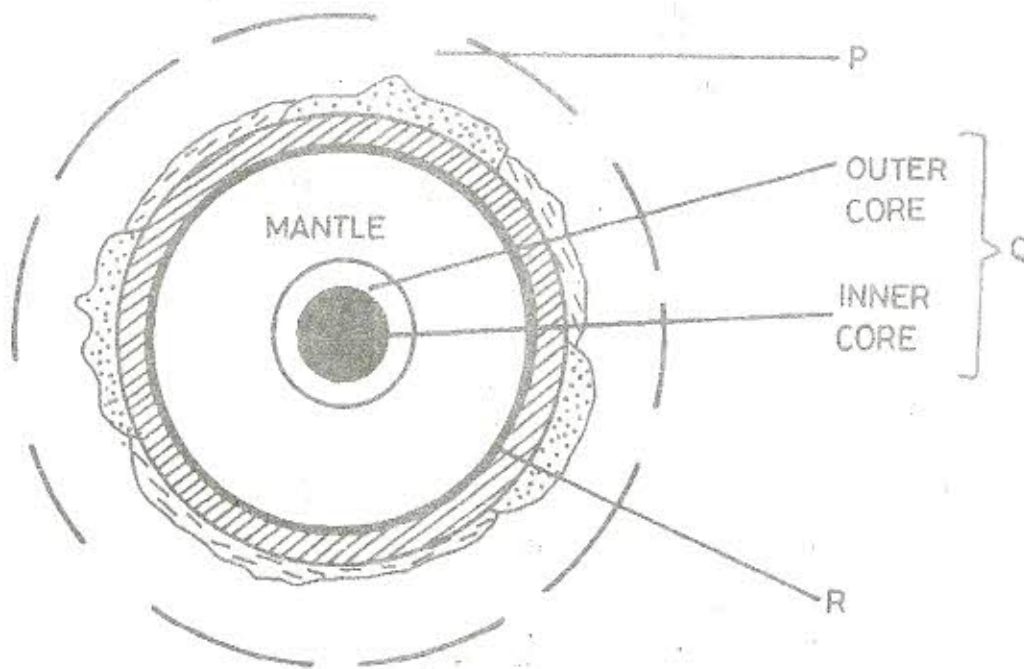
- (i) Which movement of the earth is represented by the diagram? (1 mark)
- (ii) Give **two** effects of the movement represented by the diagram. (2 marks)
- (a) Name **two** types of coastal deltas. (2 marks)
- (b) State **two** conditions that lead to deposition of silt at the mouth of a river. (2 marks)

The diagram below represents a barchan. Use it to answer question (a).



- (a) Name
- (i) the feature marked X. (1 mark)
  - (ii) the air current marked Y. (1 mark)
  - (iii) the slope marked Z. (1 mark)
- (b) Give two ways in which wind transports its load. (2 marks)

The diagram below represents the structure of the earth. Use it to answer questions (a).



- (a) Name
- (i) the parts marked P and Q. (2 marks)
  - (ii) the discontinuity marked R. (1 mark)
- (b) State three characteristics of the mantle. (3 marks)
- (a) Name the two major types of earth movements that occur within the earth's crust. (2 marks)
- (b) Describe the origin of the continents according to the Theory of Continental Drift. (3 marks)

## SECTION B

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

Study the map of Taita Hills (1:50,000) sheet 189/4 provided and answer the following questions.

- (a) (i) What is the bearing of the peak of Mwatunga hill in grid square 3214 from the water tank in grid square 2619? (2 marks)
- (ii) What is the length in Kilometres of the section of the Mwatate-Voi railway line in the south-eastern part of the map? (2 marks)

- (b) Draw a rectangle measuring 16 cm by 12 cm to represent the area enclosed by the Eastings 24 and 40 and Northings 20 and 30. (1 mark)

On the rectangle, mark and name the following features:

- Mgence hills (1 mark)
  - a rock out crop (1 mark)
  - All weather road, bound surface (1 mark)
  - River Ruhia (1 mark)
  - Ronge forest (1 mark)
- (c) Using evidence from the map, explain **three** factors that may have favoured the establishment of the Taita Sisal Estates in the southern part of the area covered by the map. (6 marks)
- (d) (i) Describe the distribution of settlements in the area covered by the map. (5 marks)
- (ii) Citing evidence from the map, give **two** economic activities carried out in the area covered by the map other than sisal farming. (4 marks)
- (a) Describe the following characteristics of minerals:
- (i) colour (2 marks)
  - (ii) cleavage (2 marks)
  - (iii) hardness. (2 marks)
- (b) (i) Give **two** types of igneous rocks. (2 marks)
- (ii) Explain **three** conditions necessary for the growth of coral polyps. (6 marks)

(c) State four uses of rocks. (4 marks)

(d) You are planning to carry out a field study on the rocks within your school environment.

(i) Give two secondary sources of information you would use to prepare for the field study. (2 marks)

(ii) State why you would need the following items during the field study:

- a fork jembe (1 mark)

- a polythene bag (1 mark)

(iii) Suppose during the field study you collected marble, sandstone and granite, classify each of these samples according to its mode of formation. (3 marks)

8 (a) (i) What is climate? (2 marks)

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

(b) 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 in °C	24	24	23	22	19	17	17	18	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 a vertical scale of 1cm to represent 10mm). (5 marks)

(ii) Describe the rainfall pattern of the station. (4 marks)

(iii) Calculate the average monthly temperature for the station. (Show your calculations). (2 marks)

(c) You are supposed to carry out a field study on the weather within your school compound.

(i) Describe how you would use the following instruments during the field study:

- the hygrometer (3 marks)

- the rain gauge (3 marks)

Turn over

- (ii) State **two** ways in which the information collected during the field study would be useful to the local community. (2 marks)
- (a) Give **three** processes that lead to formation of lakes. (3 marks)
- (b) (i) Describe how Lake Victoria was formed. (4 marks)
- (ii) Explain how Lake Victoria influences the climate of the surrounding areas. (6 marks)
- (c) (i) Apart from Lake Magadi, name **two** other lakes within the rift valley in Kenya that have a high level of salinity. (2 marks)
- (ii) Explain **three** causes of salinity in Lake Magadi. (6 marks)
- (d) Give **four** economic uses of lakes other than mining. (4 marks)
- 10 (a) (i) What is the difference between weathering and mass wasting? (2 marks)
- (ii) Apart from plants, give **three** other factors that influence the rate of weathering. (3 marks)
- (iii) Explain **two** ways in which plants cause weathering. (4 marks)
- (b) (i) List **two** types of mass wasting other than soil creep. (2 marks)
- (ii) Explain **three** factors that cause soil creep. (6 marks)
- (c) Explain **four** effects of mass wasting on the environment. (8 marks)