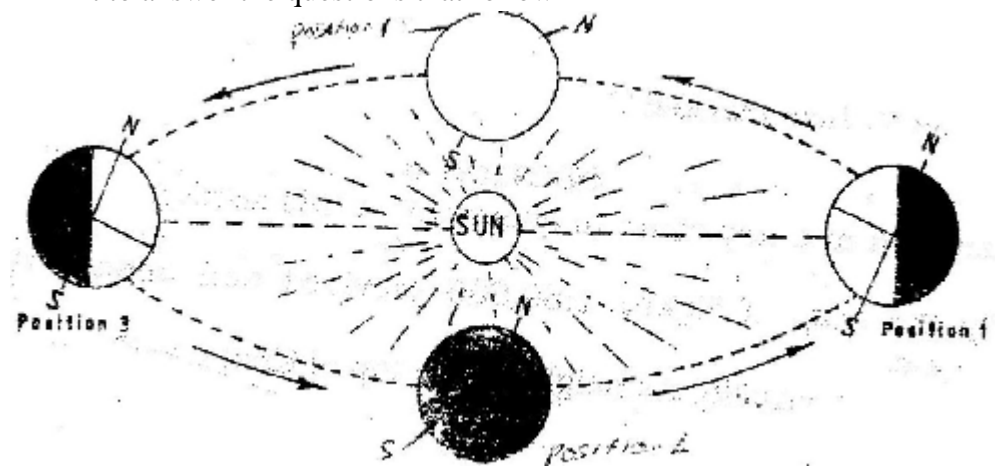


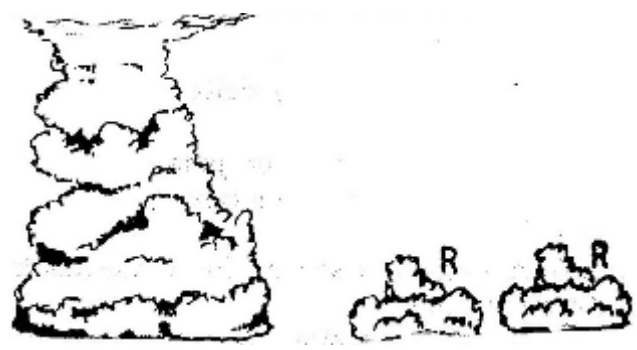
### GEOGRAPHY PAPER 312 /1 K.C.S.E 2001 SECTION A

Answer all the questions in this section

1. (a) (i) Give the two dates in a year during which the number of hours of darkness is equal in both the north and south poles.
- (ii) Why do the lengths of days and nights vary from one part of the earth to another?
- (b) The diagram below shows the revolution of the earth around the sun. Use it to answer the questions that follow

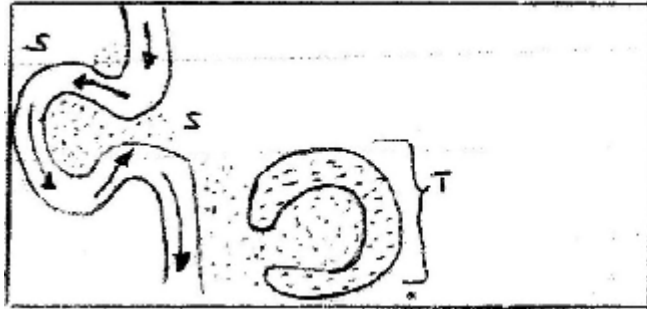


- (i) If the earth takes 366 days to make a complete revolution during a leap year, how long will it take to move from position 1 to position 4?
- (ii) What season is experienced in the southern hemisphere when the earth is in Position 1?
2. (a) State two conditions that are necessary for the formation of fog.
- (b) The diagram below shows some types of clouds. Use it to answer the questions that follow.



- (i) Name the clouds marked R
- (ii) Give two weather conditions associated with cumulonimbus clouds

3. (a) What is mechanical weathering?  
 (b) How is an exfoliation dome formed?
4. (a) State three climatic conditions experienced in the Sahara desert  
 (b) State three ways in which plants adapt to hot desert conditions
- (a) What are natural levees?  
 (b) The diagrams below shows a section of a river. Use it to answer the questions that Follow.



KEY  
 → RIVER CURRENT  
 = RIVER DEPOSIT

- (i) At what stage development is this section of the river?  
 (ii) Name the natural process that takes place at the part marked S  
 (iii) Name the feature marked T.

### SECTION B

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

6. (a) Study the map of Kijabe 1: 50,000 provided and answer the following questions:
- What is the appropriate height of the top of Kijabe hill?
  - Measure the length of Nairobi – Naivasha railway line from landhies (grid reference 257978) to the level crossing near Kijabe station ( grid reference 308984). Give your answer in kilometers.
  - What relief feature on the map may have created problems in the construction of the railway line?
- (b) Describe the drainage of the area covered by the map
- (c) Explain how relief has influenced the distribution of settlement in the area covered by the map.
- (d) Citing evidence from the map, state four economic activities carried out in the area covered by the map.
- (e) Suppose you were a student in the school at Kinari ( Kinale) and you plan to carry out a field study of Wakagwe forest,
- Design a working programme (schedule) you would use during the day of the study
  - Give three reasons why it would be necessary to sample part of the forest for the study
  - State two ways in which your findings would be useful to the local community.

7. (a)

- (i) What is a rock?
- (ii) Describe three ways through which sedimentary rocks are formed
  - Mechanically formed
  - Organically formed
  - Chemically formed

(a) Describe two process through which sedimentary rocks changer into metamorphic rocks

(b) Give an example of each of the following types of igneous rocks

- (i) Plutonic rocks
- (ii) Hypabyssal rocks
- (iii) Volcanic rocks

(e) Suppose you were to carry out a field study of rocks within the vicinity of your school

- (i) Name three secondary sources of information you would use to prepare for the field study
- (ii) State four activities you would carry during the filed study
- (iii) State three problems you are likely to experience during the field study

8.

- (a) Name two types of submerge coasts
- (b) Explain how the following factors determine the effectiveness of wave erosion along a coast
  - (i) Nature of the material transported by waves
  - (ii) Nature of the coastal rocks
- (c) With the aid of labeled diagrams, describe the process through which a stack is formed
- (d)
  - (i) State four conditions that favour the growth of coral
  - (ii) Explain three ways in which coral contributes to the economic development of Kenya.

9.

- (a) Name three components of soil
- (b) Explain how the following factors influence the formation of soil
  - (i) Climate
  - (ii) Topography
- (c)
  - (i) State two economic uses of soil
  - (ii) Explain four ways in which human activities contribute to soil erosion
- (d) Describe how the following types of erosion occur
  - (i) Sheet erosion
  - (ii) Gully erosion