

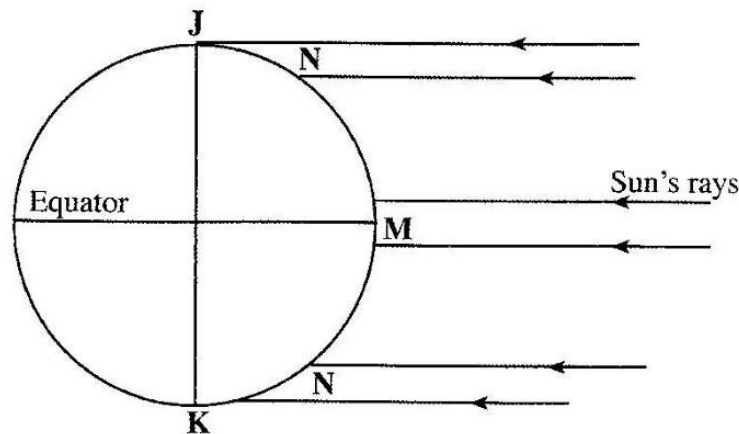
3.2.1 Geography Paper 1 (312/1)

SECTION A

Answer ALL the questions in this section.

1 The diagram below shows the angles of the sun's rays at different latitudes when the sun is at the equator.

Use it to answer questions (a) and (b).



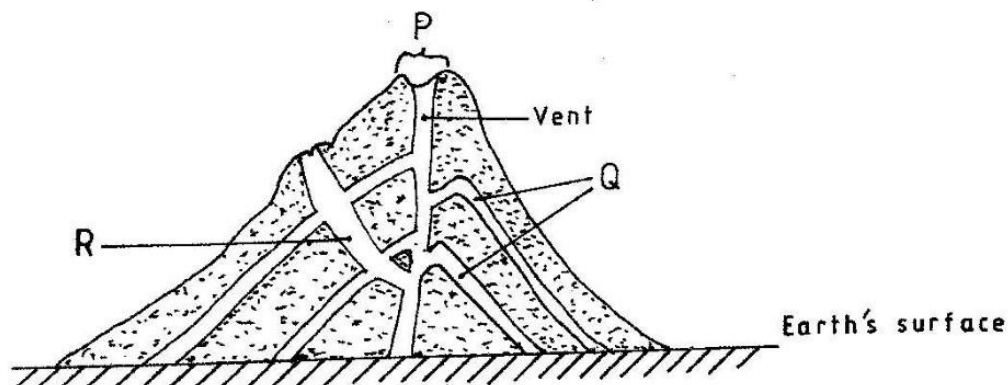
(a) Name the parts of the earth's surface marked J and K. (2 marks)

(b) Give **two** reasons why the intensity of the insolation is higher at M than at N. (2 marks)

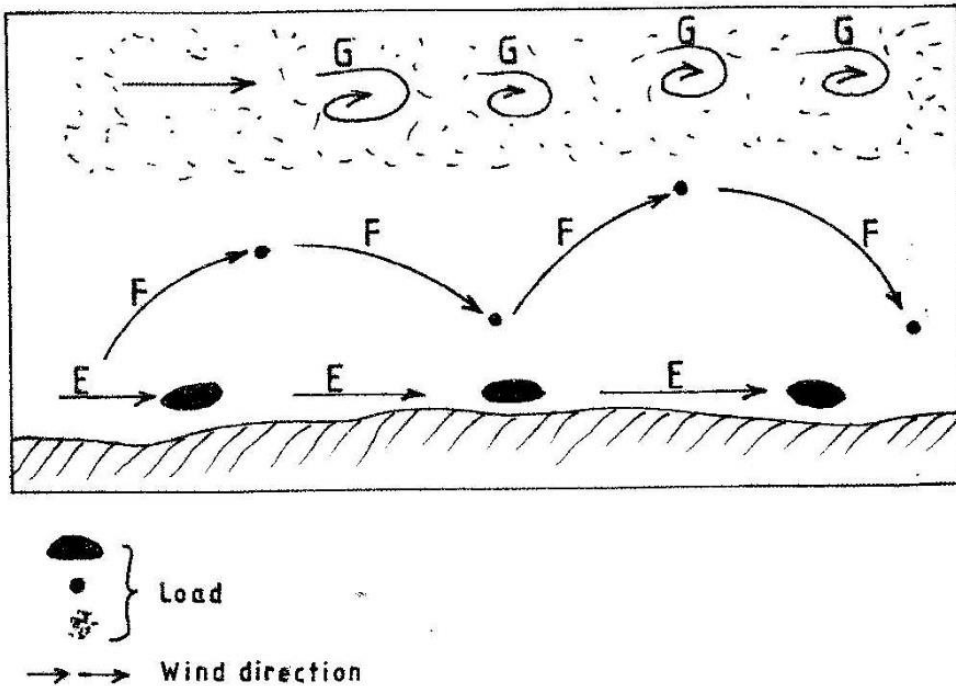
2 (a) What is weathering? (2 marks)

(b) Give **three** factors that influence the rate of weathering. (3 marks)

3 The diagram below shows a composite volcano.



- (a) Name the features marked **P**, **Q** and **R**. (3 marks)
- (b) How is a parasitic cone formed? (3 marks)
- 4 (a) What is land breeze? (2 marks)
- (b) Give **two** ways in which sea breezes influence the adjacent land. (2 marks)
- 5 The diagram below shows ways through which wind transports its load.



- (a) Name the **three** ways labelled **E**, **F** and **G**. (3 marks)
- (b) Name **three** features produced by wind abrasion in arid areas. (3 marks)

SECTION B

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

- 6 Study the map of Nkubu (1:50,000) sheet 122/1 provided and answer the following questions.
- (a) (i) Give the latitudinal and longitudinal position of the North East corner of the map extract. (2 marks)
- (ii) Give **two** methods used to represent relief on the map. (2 marks)
- (iii) What is the relief feature found at the top of Kirui Hill within Mt. Kenya forest. (1 mark)
- (iv) Apart from administration, give **three** other services that are provided at Nkubu Divisional Headquarters. (3 marks)

- (b) (i) What is the length in kilometers of the all-weather bound surface road from the bridge at Nkubu water works (509935) to the road junction near Gitimbi (509995)? (2 marks)
- (ii) State **three** problems that may be encountered during construction of roads in the area covered by the map. (3 marks)
- (c) Citing evidence from the map, give **three** reasons why cattle rearing is widespread in Nkubu area. (6 marks)
- (d) Describe the drainage of the area covered by the map. (6 marks)

7

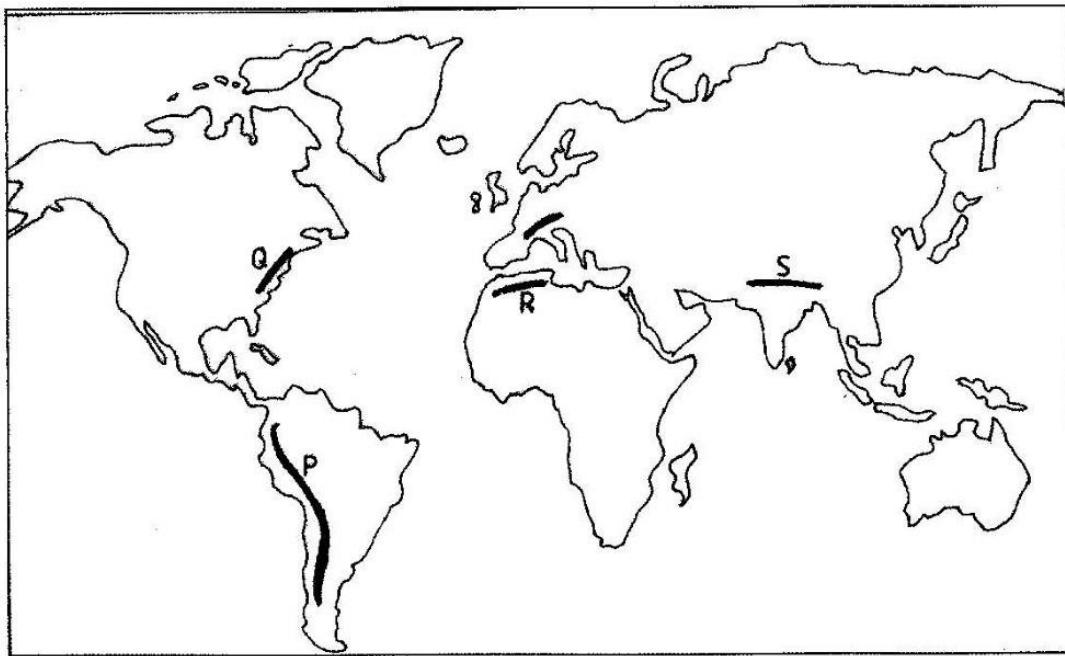
- (a) (i) State **three** conditions that are necessary for siting a weather station. (3 marks)
- (ii) Give **four** reasons why weather forecasting is important. (4 marks)
- (b) The table below shows the temperature and rainfall figures for a weather station in Kenya. Use it to answer question (b) and (c).

Month	J	F	M	A	M	J	J	A	S	O	N	D
Mean monthly temperature in °C	16.2	16.5	17.1	17.1	16.1	15.2	15.2	15.0	16.0	16.1	16.1	16.3
Rainfall 2125 mm	100	104	175	232	323	218	196	231	196	152	127	71

Calculate:

- (i) The mean annual temperature for the station. (2 marks)
- (ii) The annual range of temperature for the station. (2 marks)
- (c) (i) On the graph paper provided, draw a bar graph to represent the rainfall figures for the station. Use a vertical scale of 1cm to represent 20mm. (5 marks)
- (ii) Describe the characteristics of the climate experienced at the weather station. (3 marks)
- (d) Suppose you visited a weather station for a field study on weather;
- (i) Give **three** methods you would use to collect data. (3 marks)
- (ii) State **three** advantages of studying weather through fieldwork. (3 marks)

8 The map below shows the location of some mountain ranges.



(a) Name the ranges marked **P, Q, R** and **S**. (4 marks)

(b) (i) Apart from fold mountains, name **three** other features resulting from folding. (3 marks)

(ii) With the aid of labelled diagrams, describe how fold mountains are formed. (10 marks)

(c) Explain the significance of fold mountains to human activities. (8 marks)

9 (a) (i) What are tides? (2 marks)

(ii) Give **three** causes of ocean currents. (3 marks)

(iii) Name the **three** ocean currents along the western coast of Africa. (3 marks)

(b) (i) State **three** characteristics of submerged lowland coasts. (3 marks)

(ii) Explain **three** factors that determine the rate of coastal erosion. (6 marks)

(c) With the aid of labelled diagrams, describe the process through which a stack is formed. (8 marks)

10 (a) (i) What is a lake? (2 marks)

(ii) Name **two** crater lakes in Kenya. (2 marks)

- (b) Describe how the following lakes are formed.
- (i) corrie lake (4 marks)
 - (ii) oasis (4 marks)
 - (iii) lagoon. (4 marks)
- (c) (i) Give **three** reasons why some lakes in Kenya have saline water. (3 marks)
- (ii) Explain how each of the following has affected lakes in Kenya:
- deforestation (2 marks)
 - industrialisation (2 marks)
 - water needs. (2 marks)

3.2.2 Geography Paper 2 (312/2)

SECTION A

Answer all the questions in this section.

- 1 (a) Name **two** exotic breeds of commercial beef cattle reared in Kenya. (2 marks)
- (b) Outline **two** similarities of commercial beef cattle farming in Kenya and Argentina. (2 marks)
- 2 (a) Define the term fisheries. (2 marks)
- (b) State **three** ways in which marine fisheries in Kenya can be conserved. (3 marks)
- 3 (a) Name **two** prairie provinces of Canada where wheat is grown on a large scale. (2 marks)
- (b) Give **three** physical conditions that favour large scale wheat farming in the prairie provinces of Canada. (3 marks)
- 4 (a) State **three** reasons why paper milling industries are located near rivers. (3 marks)
- (b) Name **three** industries in Kenya that use agricultural non-food products as raw materials. (3 marks)
- 5 (a) State **three** measures which the government of Kenya has taken to reduce infant mortality. (3 marks)
- (b) Give **two** negative effects of low population growth in a country. (2 marks)

SECTION B

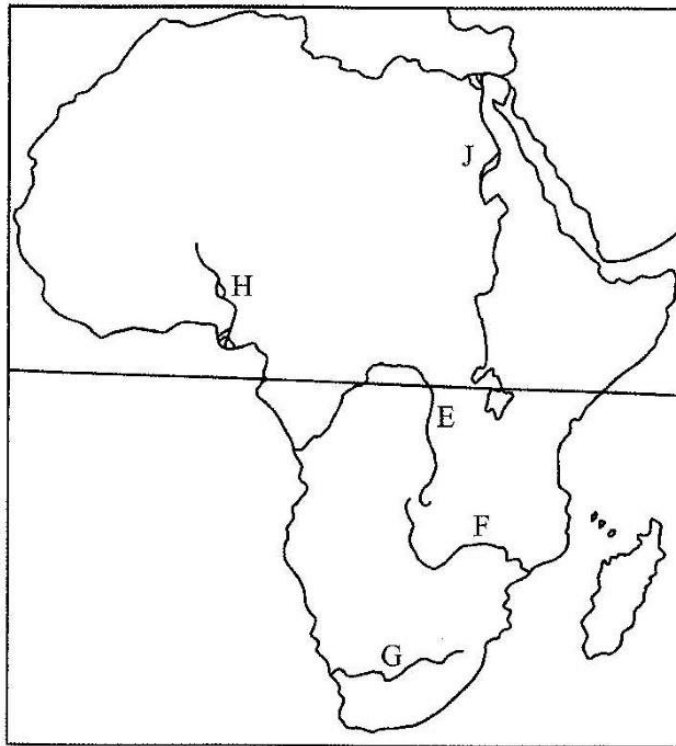
Answer question 6 and any other *two* questions from this section.

- 6 Study the photograph below and use it to answer question (a)



- (a) (i) What evidence shows that this is a ground general-view photograph? (2 marks)
- (ii) Draw a rectangle measuring 12 cm by 8 cm. (1 mark)
- (iii) On the rectangle, sketch and label the following features shown on the photograph:
- planted crops (1 mark)
 - tree stumps (1 mark)
 - forest (1 mark)
 - felled trees (1 mark)
 - the sky. (1 mark)
- (iv) Describe the characteristics of the forest shown on the photograph. (5 marks)
- (b) Explain **four** measures being taken by the Government of Kenya to control human encroachment on forested areas. (8 marks)
- (c) Give the differences between softwood forests in Kenya and Canada under the following sub headings:
- (i) tree harvesting (2 marks)
 - (ii) marketing of forest products. (2 marks)

7 Use the map below to answer question a(i) and (ii).



- (a) Name
- (i) The rivers marked **E**, **F** and **G**. (3 marks)
 - (ii) The human-made lakes marked **H** and **J**. (2 marks)
 - (iii) Explain **four** measures which should be taken to improve inland water transport in Africa. (8 marks)
- (b) State **four** ways in which communication contributes to economic development in Kenya. (4 marks)
- (c) Explain **four** problems facing railway transport in Africa. (8 marks)

- 8 (a) (i) Give **four** factors common to Kenya and the Netherlands that have favoured horticultural farming. (4 marks)
- (ii) State **three** features of horticultural farming in the Netherlands. (3 marks)
- (b) The table below shows the quantity and value of Kenya's horticultural exports between June 2008 and June 2009. Use it to answer question (b).

Month	Quantity (metric tonnes)	Value (Ksh in millions)
June 2008	15,300	3,480
July	15,600	3,900
August	14,000	4,000
September	14,900	3,500
October	15,600	4,000
November	14,700	4,020
December	14,000	4,000
January 2009	15,900	4,700
February	16,000	4,100
March	17,500	4,400
April	14,900	3,700
May	15,190	3,800
June	14,600	3,600

- (i) What was Kenya's total value of exports from horticulture between June 2008 and June 2009? (2 marks)
- (ii) Comment on the trend of the quantity of Kenya's horticultural exports between June 2008 and June 2009. (3 marks)
- (iii) Using the data provided, draw a simple line graph to represent the quantity of Kenya's horticultural exports. (5 marks)

Use a vertical scale of 1 cm to represent 500 metric tonnes.

- (c) Explain **four** difficulties that farmers in Kenya experience in marketing horticultural produce. (8 marks)
- 9 (a) What is eco-tourism? (2 marks)
- (b) (i) Give **four** tourist attractions found at the coast of Kenya. (4 marks)
- (ii) State **five** problems associated with tourism in Kenya. (5 marks)
- (c) State **four** ways in which game reserves are of benefit to the communities living near them. (4 marks)
- (d) Explain the differences between tourism in Kenya and Switzerland. (10 marks)
- 10 (a) Differentiate between a rural settlement and an urban centre. (2 marks)
- (b) Explain how the following physical factors influence human settlement:
- (i) relief (6 marks)
- (ii) climate. (4 marks)

- (c) Explain the causes of the following problems in urban centres in Kenya:
- (i) traffic congestion (4 marks)
 - (ii) environmental degradation. (4 marks)
- (d) (i) Name **two** towns in Kenya that started as agricultural collection centres. (2 marks)
- (ii) Give **three** social functions of Kisumu town. (3 marks)

K.C.S.E GEOGRAPHY 2012

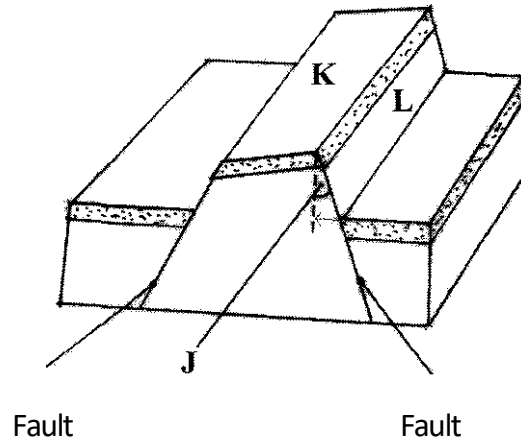
PAPER 1

SECTION A

Answer all the questions in this section.

- (a) What is the relationship between Geography and Mathematics? (2 marks)
- (b) State four reasons why it is important to study Geography. (4 marks)
- 2 (a) Name the two layers of discontinuity that are part of the interior structure of earth. (2 marks)
- (b) State **three** characteristics of the outer core in the interior structure of the earth. (3 marks)
- 3 (a) Name **two** forms of precipitation that commonly occur in Kenya. (2 marks)
- (b) What is a Stevensons screen? (2 marks)
- 4 (a) Identity two causes of earth movement. (2 marks)

The diagram below shows some features formed as a result of faulting.



(b) Identify:

(i) the angle marked J. (1 mark)

(ii) the features marked K and L. (2 marks)

(a) Identify two sources of water found in a lake. (3 marks)

(b) Give **three** characteristics of lakes formed due to faulting (2 marks)

SECTION B

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

Study the map of Kitale 1:50,000 (sheet 75/3) provided and answer the following questions.

(a) (i) Identify the two human made features found at the grid square 2320. (2 marks)

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

(iii) Give **three** types of natural vegetation found in the area covered by the map.

(3 marks)

(b) (i) What is the bearing of the Air Photo Principal Point at grid square 3426 from the

Air Photo Principal Point at grid square 2931?

(2 marks)

(ii) Measure the distance of the dry weather road (C 640) from the junction at point M (345142) to the junction at point N (416201). Give your answer in Kilometres. (2 marks)

(c) (i) Using a scale of 1 cm to represent 40 metres, draw a cross section from grid

reference 410180 to grid reference 500180.

(4 marks)

(ii) On the cross-section, mark and name the following:

• a dry weather road;

(1 mark)

• River Kaptarit;

(1 mark)

• a ridge.

(1 mark)

(iii) Calculate the vertical exaggeration (VE) of the section. (2 marks)

(d) Citing evidence from the map, identify five social services offered in Kitale Municipality. (5 marks)

(7) (i) What is a mineral?

(2 marks)

(ii) Describe the following characteristics of minerals:

• lustre;

(2 marks)

• colour;

(2 marks)

• density.

(2 marks)

(b) (i) Name **two** examples of extrusive igneous rocks. (2 marks)

(ii) Describe **three** ways in which sedimentary rocks are formed. (9 marks)

(c) Explain the significance of rocks to the economy of Kenya under the following subheadings:

(i) tourism; (2 marks)

(ii) energy; (2 marks)

(iii) water. (2 marks)

8.(a) Explain the following processes of weathering:

(i) hydration; (2 marks)

(ii) oxidation; (2 marks)

(iii) frost action. (3 marks)

(b) Describe how an exfoliation dome is formed. (6 marks)

(c) Explain three physical factors that enhance movement of materials along a slope due to gravity. (6 marks)

(d) (i) Give **two** processes of rapid mass movement. (2 marks)

(ii) State **four** indicators of occurrence of soil creep in an area. (4 marks)

9. (a) (i) Outline **two** factors that influence the development of drainage patterns. (2 marks)

(ii) Outline **five** characteristics of a river in its youthful stage. (5 marks)

(b) Describe the following processes of river erosion:

(i) attrition; (2 marks)

(ii) corrasion. (4 marks)

(c) Explain **three** negative effects of rivers to the human environment.

(d) Your class is planning to carry out a field study of a river in its old stage.

(i) State **three** reasons why it would be necessary to pre-visit the area of study. (3 marks)

(3 marks)

K.C.S.E. GEOGRAPHY P2

2012 QUESTIONS

SECTION A

Answer all the questions in this section.

1. (a) What is mining? (2 marks)
(b) State four benefits of Soda Ash mining to the economy of Kenya. (4 marks)
2. (a) Name two methods used in deep sea fishing. (2 marks)
(b) State three ways in which the government of Kenya is promoting the fishing industry.
(3 marks)
3. (a) Apart from the sun, name three other sources of electricity. (3 marks)
(b) Give three advantages of using solar energy. (3 marks)
4. Give three reasons why it is necessary for the government of Kenya to carry out a national census. (3 marks)
 - (a) Identify two methods used to control tsetse flies in Kenya. (2 marks)
 - (b) State three negative effects of uncollected garbage on the environment. (3 marks)

SECTION B

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

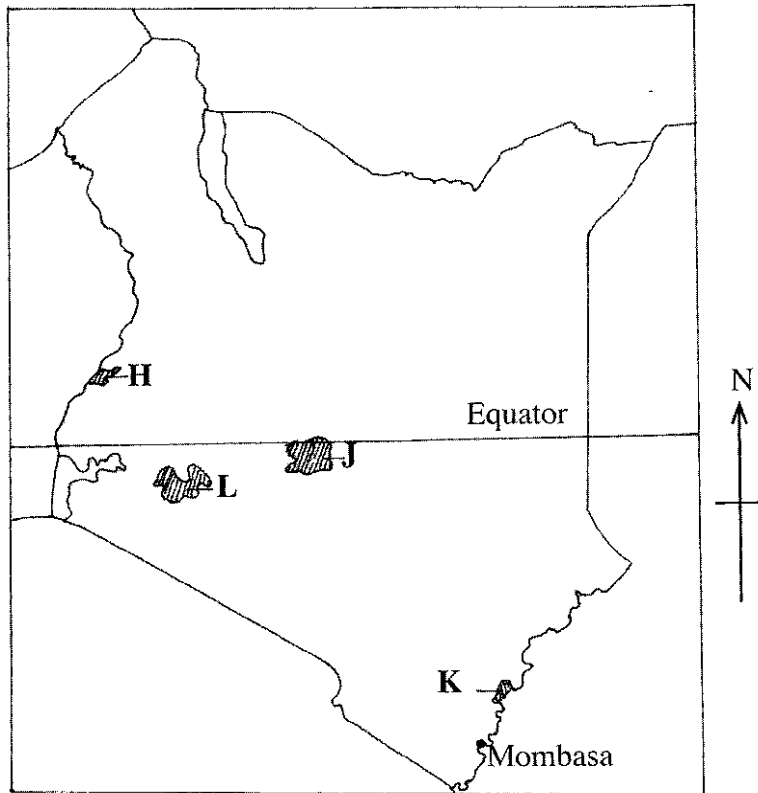
6. Study the photograph below and answer question



Source: Internet

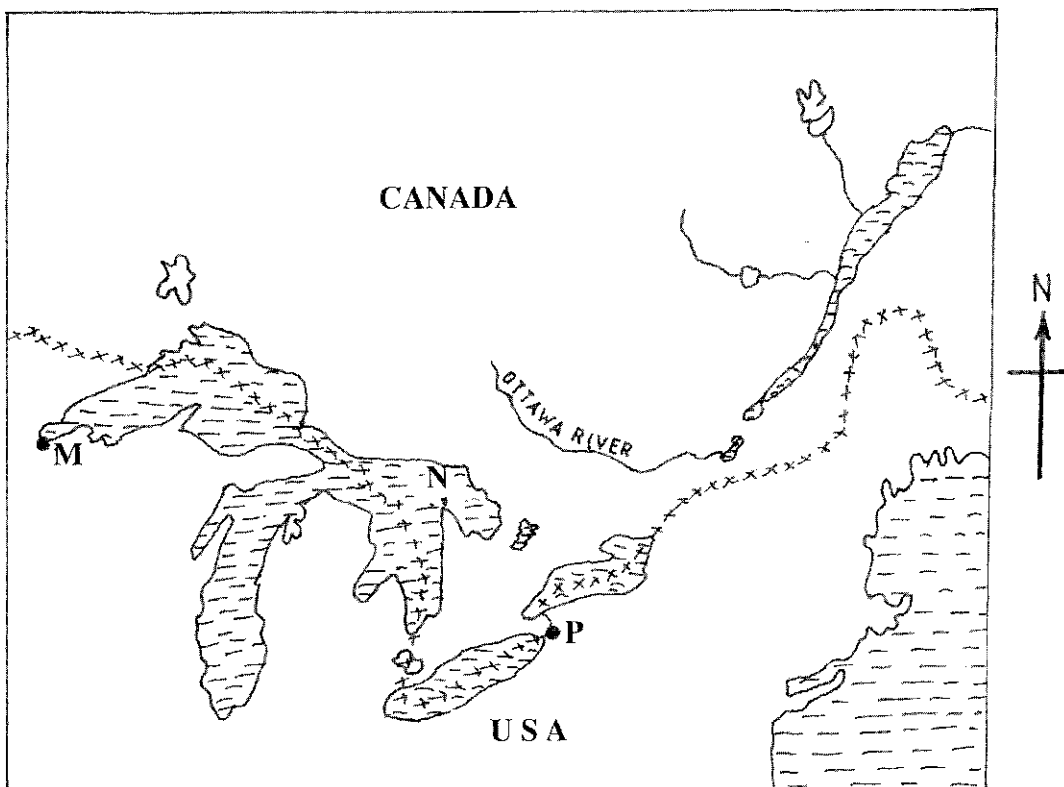
- (a) (i) Identify the type of photograph shown above. (1 mark)
- (ii) Draw a rectangle measuring 15 cm by 10 cm to represent the area covered by the photograph. (1 mark)
- (iii) On the rectangle, sketch and label **four** main features shown on the photograph.(4 marks)
- (iv) Using evidence from the photograph, identify **two** indicators which show that the area receives high rainfall. (2 marks)
- (b) (i) Name **three** exotic types of dairy cattle reared in Kenya.(3 marks)
- (ii) Explain **three** human factors that favour dairy farming in the Kenya Highlands. (6 marks)
- (C) Explain **four** ways in which dairy farming in Kenya is different from dairy farming in Denmark. (8 marks)

7. (a) (i) What is agro-forestry? (2 marks)
- (ii) Give **four** reasons why agro-forestry is encouraged in Kenya. (4 marks)
- (b) Use the map of Kenya below to answer questions (b) (i) and (ii).



- (i) Name the forest reserves marked **H, J** and **K**. (3 marks)
- (ii) Explain **four** factors that favour the growth of natural forest in the area marked **L**. (8 marks)
- (c) Explain **four** problems facing forestry in Kenya. (8 marks)
- 8.(i) Name **two** provinces in Canada where wheat is grown on a large scale. (2 marks)
- (ii) State **three** physical conditions that favour wheat farming in Canada. (3 marks)
- (b) Compare wheat farming in Kenya and Canada under the following subheadings:
- (i) research; (2 marks)
- (ii) government policy; (2 marks)
- (ii) transport. (2 marks)
- (a) Explain **four** problems that affect wheat farming in Canada. (8 marks)
- (b) Your Geography class intends to carry out a field study on wheat harvesting in a farm.
- (i) State **two** reasons for preparing a working schedule. (2 marks)

- (ii) Outline **two** problems that face wheat harvesting you are likely to find out. (2 marks)
 - (iii) Suppose during the field study you used the interview method to collect data, state **two** limitations of the method. (2 marks)
9. (a) (i) Identify the **three** types of inland waterways used for transport in Africa. (3 marks)
- (ii) Give **four** reasons why the government of Kenya is expanding pipeline transport. (4 marks)
- (b) (i) State **three** advantages of railway transport. (3 marks)
- (ii) State **four** conditions of roads in Kenya that may lead to motor vehicle accidents. (4 marks)
- (c) The sketch map below shows the Great Lakes and St. Lawrence Seaway. Use it to answer question C.



KEY:

xxxxxx - International Boundary.

Name:

(i) the ports marked M and P.

(ii) the Lake marked N.

(d) Explain **four** benefits of the Great Lakes and St. Lawrence Seaway to the economies of U.S.A. and Canada. (8 marks)

10. (a) (i) Name **two** settlement patterns. (2 marks)

(ii) Explain **four** physical factors that influence settlement. (8 marks)

(b) (i) Explain how the following factors have led to the growth of Thika town.

• Education; (2 marks)

• Transport; (2 marks)

• Land. (2 marks)

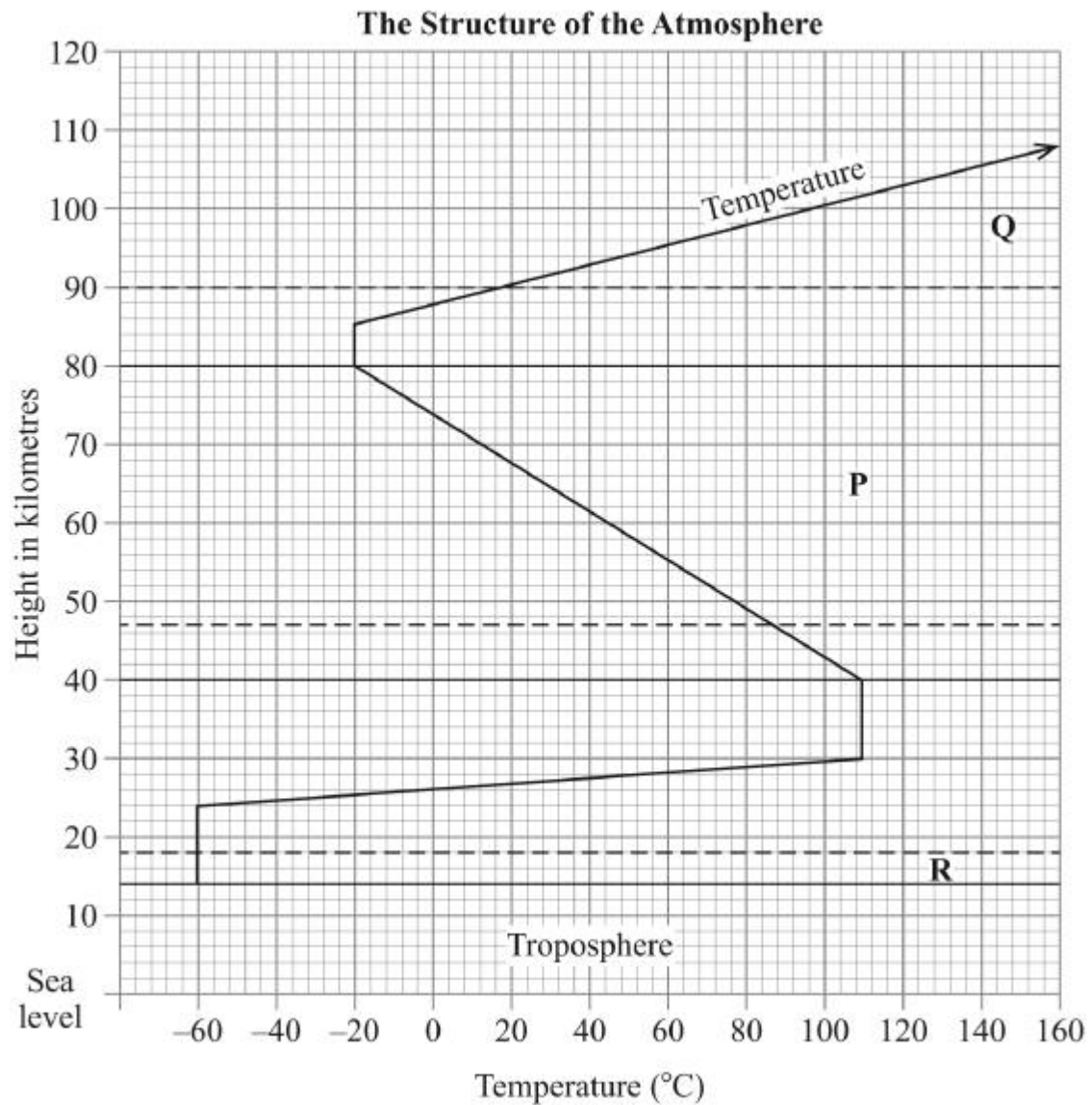
(ii) Apart from being a transport and communication centre, give **three** other functions of Thika town. (3 marks)

(c) Explain **three** positive effects of urbanization to a country. (6 marks)

SECTION A

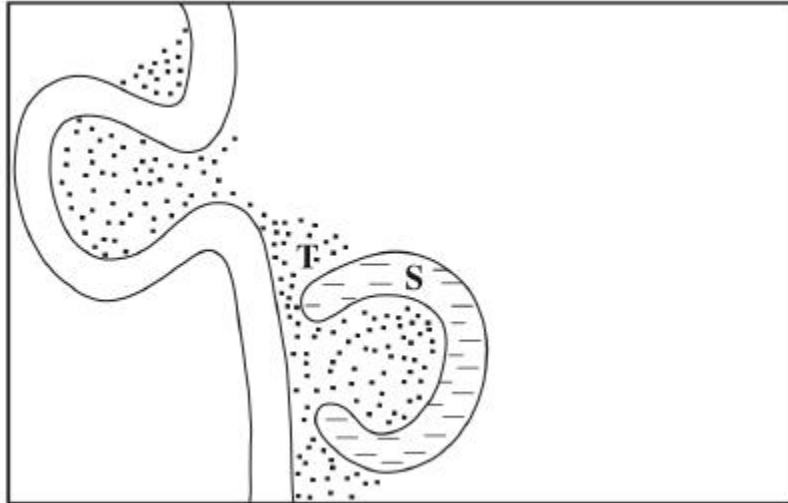
Answer **ALL** the questions in this section.

1. The diagram below represents the structure of the atmosphere. Use it to answer question (a).



- (a) Name
- (i) the parts marked **P** and **Q**. (2 marks)
 - (ii) the layer of discontinuity marked **R**. (1 mark)
- (b) State **two** characteristics of the weather conditions in the troposphere. (2 marks)
2. State **five** factors that influence mass wasting. (5 marks)

3. The diagram below shows a section of a river. Use it to answer the questions that follow.



- (a) Name the features marked **S** and **T**. (2 marks)
- (b) State **three** conditions that are necessary for the formation of the feature marked **S**. (3 marks)
4. (a) What is the difference between ice sheets and ice berg? (2 marks)
- (b) Name **three** types of glacial moraines. (3 marks)
5. (a) Give **two** types of soil degeneration. (2 marks)
- (b) State **three** economic benefits of soils. (3 marks)

SECTION B

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

6. Study the map of Karatina 1:50,000 (sheet 121/3) provided and answer the following questions.
- (a) (i) What is the four figure grid reference of the Technical Institute at Mathira? (2 marks)
- (ii) What is the bearing of Mount Kenya Campus at grid reference 932568 from the cattle dip at grid reference 990529? (2 marks)
- (iii) Measure the distance of the railway line from the Level Crossing at grid square 8652 to the Southern edge of the map. Give your answer in kilometres. (2 marks)
- (b) Draw a rectangle measuring 15 cm by 10 cm to represent the area enclosed by Eastings 90 and 100 and Northing 50 and 60. (1 mark)

On the rectangle mark and name the following:

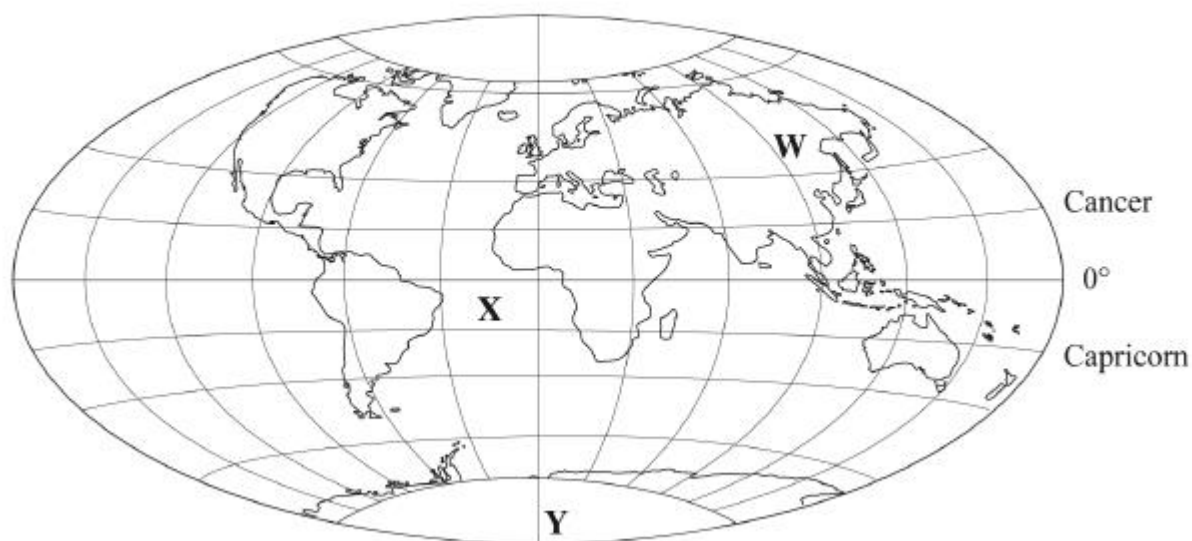
- (i) Kirinyaga District;
- (ii) All Weather Road Bound Surface;
- (iii) Forest;
- (iv) Coffee factory.

(4 marks)

- (c) Describe the distribution of the natural vegetation in the area covered by the map. (6 marks)
- (d) Identify **two** social functions of Karatina town. (2 marks)
- (e) Citing evidence from the map, explain **three** factors that favour trading in the area covered by the map. (6 marks)

- 7.
- (a) Name the first **two** planets of the solar system. (2 marks)
 - (b) Explain the origin of the earth according to the Nebula Cloud Theory. (8 marks)

Use the map below to answer questions (c)(i)

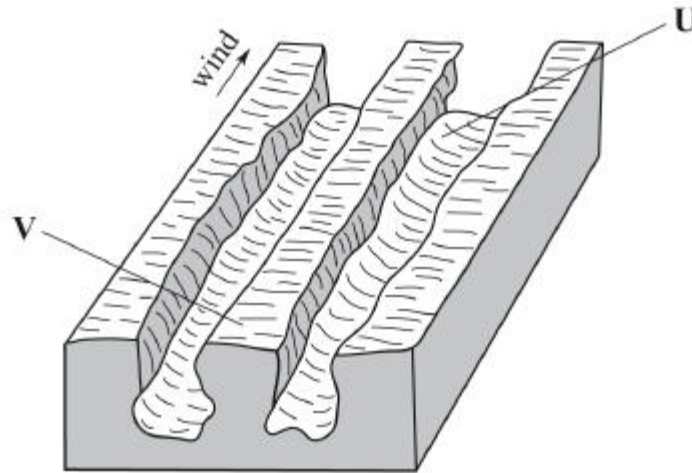


- (c) (i) Name:
 - I the continent marked **W**; (1 mark)
 - II the ocean marked **X**; (1 mark)
 - III the line of longitude marked **Y**. (1 mark)
- (ii) Give **two** reasons why the earth has a spherical shape. (4 marks)
- (iii) State **four** effects of the rotation of the earth on its axis. (4 marks)

- (d) Describe the structure of the earth's crust. (4 marks)
8. (a) What is volcanicity? (2 marks)
- (b) (i) Apart from a sill, name **three** other intrusive volcanic features. (3 marks)
- (ii) Describe how the following features are formed:
- I a sill; (3 marks)
- II hot springs; (5 marks)
- III a caldera. (4 marks)
- (c) Explain **four** negative effects of earthquakes. (8 marks)
9. (a) What is vegetation? (2 marks)
- (b) Explain how the following factors influence the distribution of vegetation:
- (i) relief (2 marks)
- (ii) soils. (4 marks)
- (c) Describe the characteristics of the savanna vegetation region. (6 marks)
- (d) You are planning to carry out a field study in a forest.
- (i) Give **four** reasons why it is important to seek permission from the school administration. (4 marks)
- (ii) List **three** sources of information you are likely to use before the actual field study. (3 marks)
- (iii) Identify **four** challenges you are likely to encounter during the field study. (4 marks)

10. (a) (i) Name **two** major deserts found in Africa. (2 marks)

The diagram below represents features resulting from wind erosion in a desert. Use it to answer question a(ii).



- (ii) Name the features marked **U** and **V**. (2 marks)
- (b) Describe the **three** processes through which wind transports its load. (6 marks)
- (c) Using a well labelled diagram, describe how a barchan is formed. (7 marks)
- (d) Explain **four** ways in which desert features are of significance to human activities. (8 marks)

3.9.2 Geography Paper 2 (312/2)

SECTION A

*Answer **all** the questions in this section.*

- 1 (a) Name the method of irrigation used in the Perkerra irrigation scheme. (1 mark)
- (b) State **three** factors that influenced the location of the Perkerra irrigation scheme. (3 marks)
- 2 State **four** effects of human encroachment into wildlife habitats. (4 marks)
- 3 (a) Name **two** countries to which Kenya exports petroleum products. (2 marks)
- (b) State **four** factors that influence external trade in Kenya. (4 marks)
- 4 (a) State **two** factors that lead to the development of nucleated settlement patterns. (2 marks)
- (b) Identify **two** differences in the functions of Nairobi and New York. (4 marks)
- 5 Identify **five** ways that are used to control floods in Kenya. (5 marks)

SECTION B

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

- 6 The table below shows the approximate population size of four districts in Nairobi in the year 2009.

Use it to answer question (a)

POPULATION OF FOUR DISTRICTS IN NAIROBI

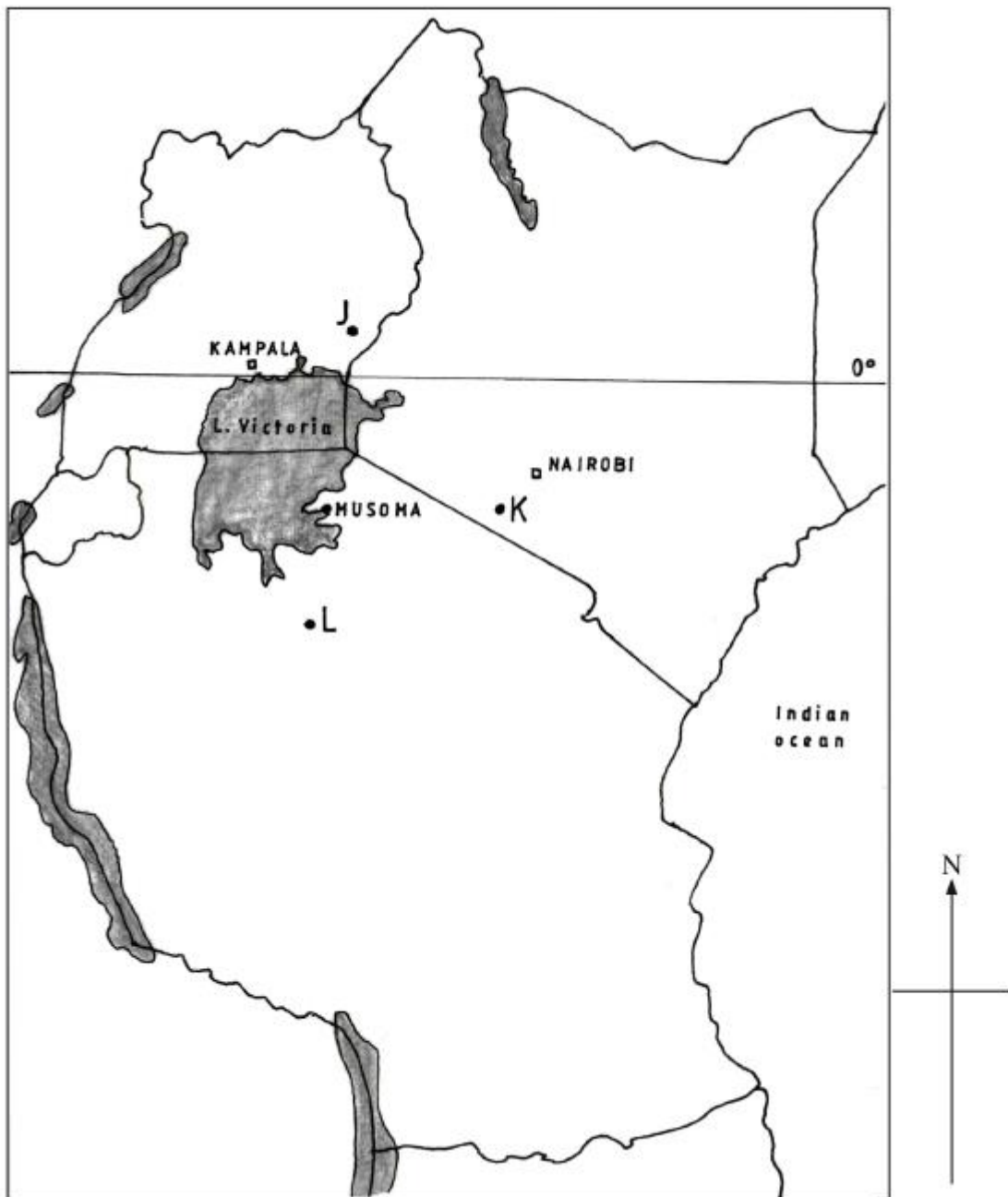
District	Population size
Nairobi West	685,000
Nairobi East	1,144,000
Nairobi North	1,062,000
Westlands	247,000
Total	3,138,000

Source: Kenya National Bureau of Statistics.

- (a) (i) Apart from pie charts, name **two** other statistical methods that can be used to represent the data in the table. (2 marks)

- (ii) Using a radius of 5 cm, draw a pie chart to represent the data in the table above. Show your calculations. (9 marks)
- (iii) Calculate the population growth rate of Nairobi over the 10 year period if the populations was approximately 2,143,000 in 1999. (2 marks)
- (b) Explain **two** factors that may have led to the large population increase in Nairobi between 1999 and 2009. (4 marks)
- (c) Explain **four** positive effects of low population growth in a country. (8 marks)

7 The map below shows the location of some minerals in East Africa.



- (a) Name the minerals mined in the areas marked **J, K** and **L**. (3 marks)
- (b) Explain how the following factors influence the exploitation of minerals:
- (i) mode of occurrence of minerals; (4 marks)
 - (ii) transport; (4 marks)
 - (iii) level of technology. (4 marks)
- (c) Describe the opencast method of mining. (4 marks)
- (d) Explain **three** benefits of petroleum mining to the economies of Middle East Countries. (6 marks)
- 8**
- (a) (i) What is agriculture? (2 marks)
- (ii) Identify **four** characteristics of Plantation farming in Kenya. (4 marks)
- (b) Give **four** physical factors that influence the growing of tea in Kenya. (4 marks)
- (c) Explain **four** problems facing small scale tea farming in Kenya. (8 marks)
- (d) You plan to carry out a field study in a tea farm.
- (i) Give **four** reasons why you need a route map for the study. (4 marks)
 - (ii) What information are you likely to gather about marketing of processed tea during the study? (3 marks)
- 9**
- (a) Identify **three** sources of renewable energy. (3 marks)
- (b) (i) Name **three** main Hydro Electric Power Stations along the River Tana. (3 marks)
- (ii) Apart from providing electric power, state **four** other benefits of the dams along the River Tana. (4 marks)
- (iii) Identify **two** problems that affect the production of power from the stations along River Tana. (2 marks)

- (c) Explain **four** measures the Government of Kenya has taken to conserve energy. (8 marks)
- (d) Some students carried out a field study on sources of energy by sampling the households around their school.
- (i) Identify **two** sampling techniques the students may have used during the study. (2 marks)
- (ii) Give **three** advantages of sampling the households for the study. (3 marks)

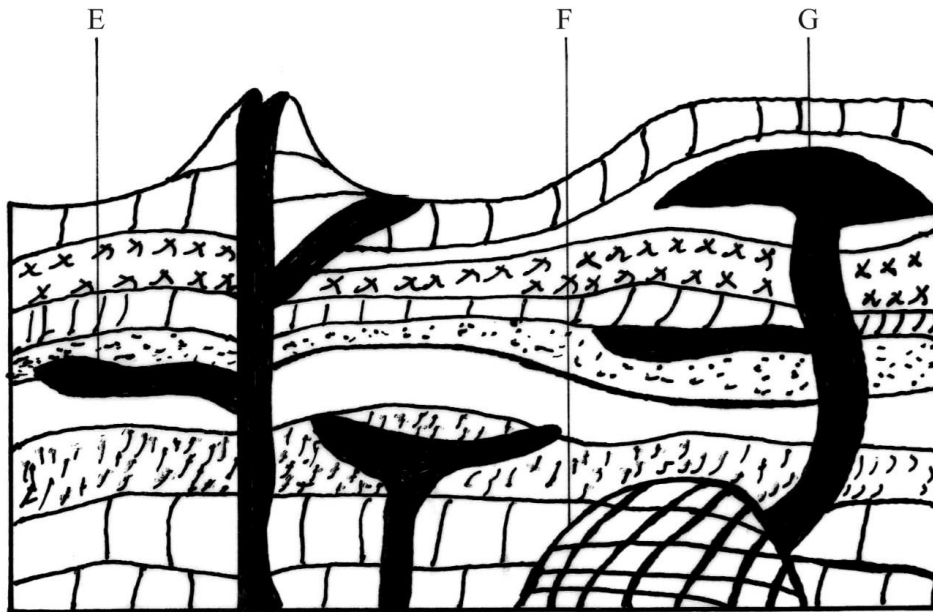
130

- 10** (a) Differentiate manufacturing industries from tertiary industries. (2 marks)
- (b) Explain why the Government of Kenya encourages the setting up of industries in rural areas. (8 marks)
- (c) Explain **four** factors that have contributed to the development of electronics industry in Japan. (8 marks)
- (d) You intend to carry out a field study in a nearby post office.
- (i) Identify **two** characteristics of a good hypothesis for the study. (2 marks)
- (ii) State **three** advantages of using the interview method to collect data during the study. (3 marks)
- (iii) Give **two** challenges facing postal services that you are likely to find out during the study. (2 marks)

SECTION A

Answer **ALL** the questions in this section.

- 1 Name **two** types of hypabyssal rocks. (2 marks)
- 2 (a) The diagram below shows intrusive volcanic features.



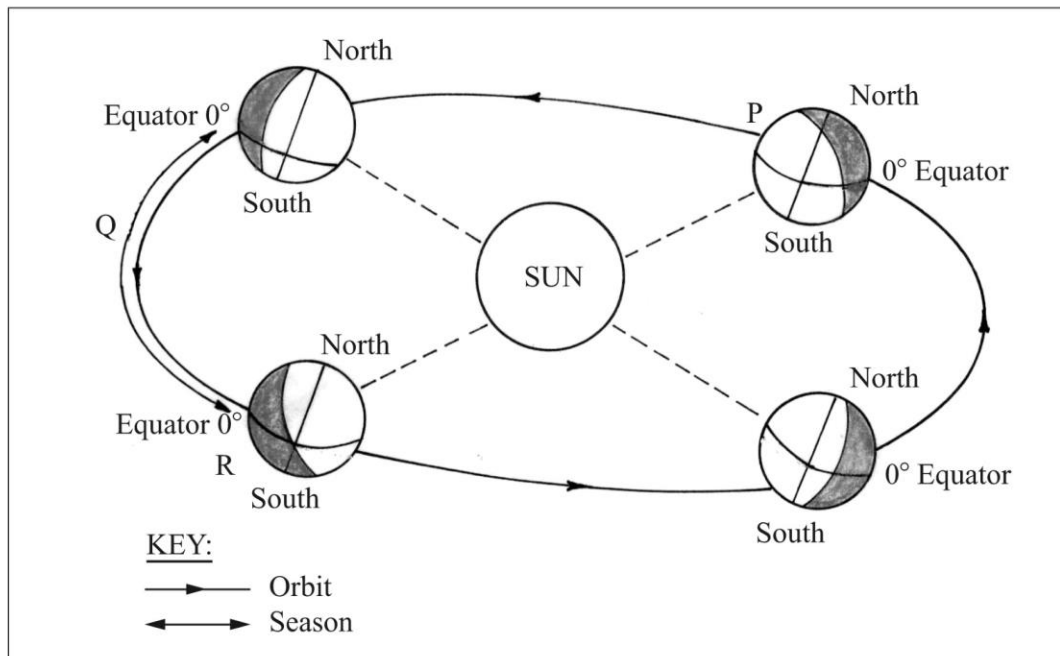
- Name the features marked E, F and G. (3 marks)
- (b) Name **two** active volcanoes in Kenya. (2 marks)
- 3 (a) Give **three** processes in the hydrological cycle. (3 marks)
- (b) State **four** factors that facilitate **deposition** in rivers. (4 marks)
- 4 (a) Explain **two** reasons why wind is the dominant agent of erosion in arid areas. (4 marks)
- (b) Identify **two** features formed as a result of wind deposition in arid areas. (2 marks)
- 5 (a) Describe podzolization as a process of leaching. (2 marks)
- (b) State **three** ways in which mulching helps in soil conservation. (3 marks)

SECTION B

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

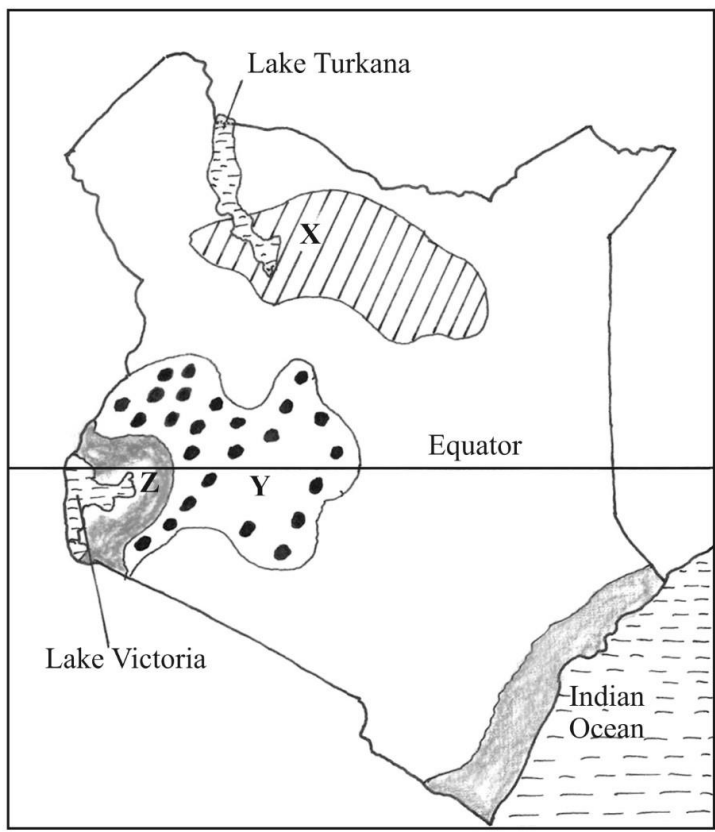
- 6 Study the map of Migwani 1:50,000 (sheet 151/1) provided and answer the following questions.
- (a) (i) Give the longitudinal extent of the area covered by the map. (2 marks)
- (ii) What is the magnetic variation of the map? (1 mark)
- (iii) Give the six-figure grid reference for the junction of the roads D503 and D507. (2 marks)
- (b) (i) Using a vertical scale of 1 cm to represent 100 metres, draw a cross section along the line marked J-K. (4 marks)
- (ii) On it, mark and label the following:
- footpath; (1 mark)
 - road; (1 mark)
 - water pipeline; (1 mark)
 - steep slope. (1 mark)
- (iii) Calculate the vertical exaggeration of the cross-section. (2 marks)
- (c) Citing evidence from the map, give **three** economic activities carried out in the area covered by the map. (6 marks)
- (d) Explain how relief has influenced the distribution of settlement in the area covered by the map. (4 marks)
- 7 (a) (i) Describe the solar system. (2 marks)
- (ii) The local time at Manual 60°W is 11.30 a.m. What is the time in Nairobi 37°E? (3 marks)
- (b) (i) State **five** characteristics of the mantle in the interior structure of the earth. (5 marks)
- (ii) Outline the evidence which support the theory of continental drift. (4 marks)

(c) The diagram below represents the revolution of the earth.



- (i) Name the solstice marked P. (1 mark)
- (ii) Identify the season represented in the region marked Q. (1 mark)
- (iii) Describe the climatic conditions in Europe when the Earth is in position R. (3 marks)
- (d) With the aid of a well labelled diagram, describe the occurrence of the solar eclipse. (6 marks)

8 The map below shows some climatic regions of Kenya. Use it to answer question (a).



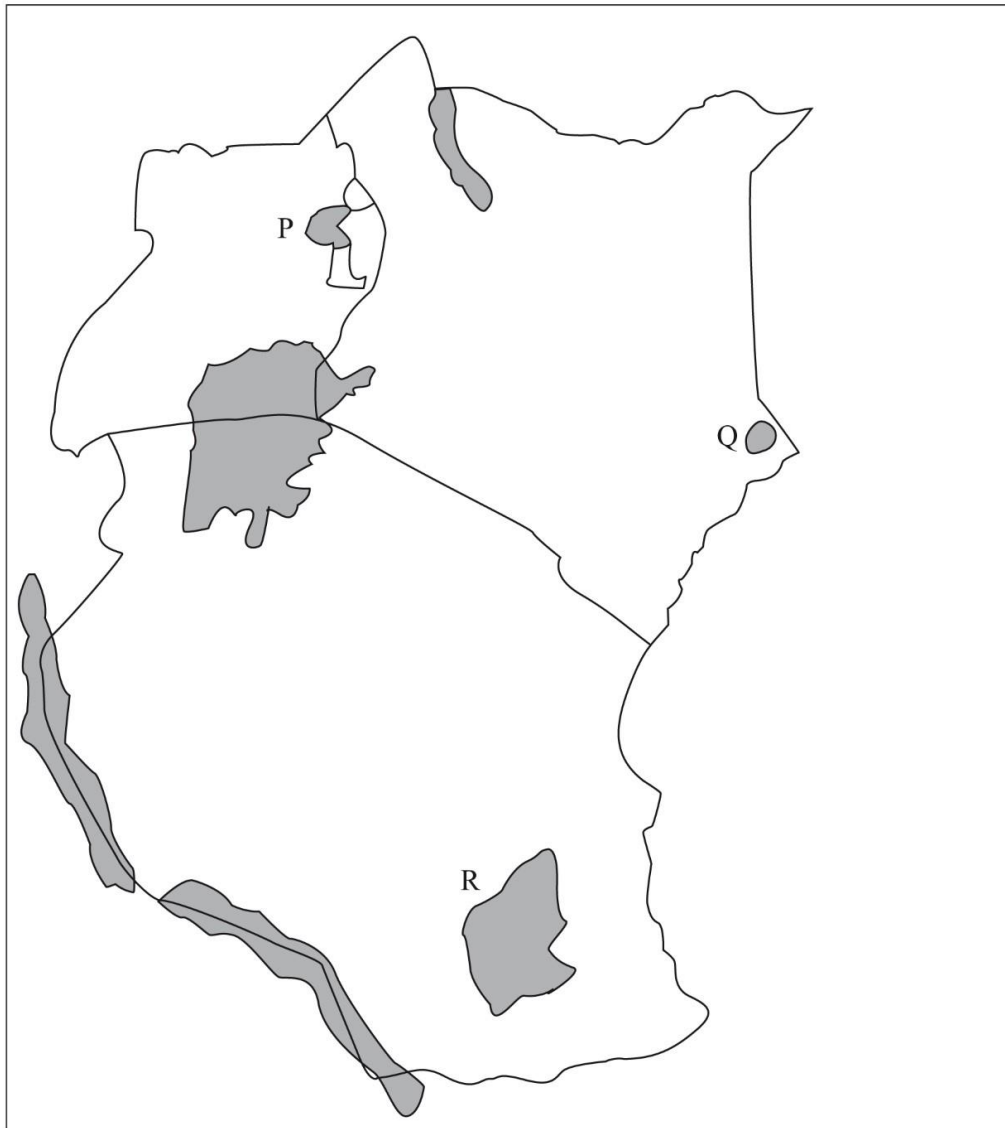
- (a) (i) Name the climatic regions marked X and Y. (2 marks)
- (ii) State **three** characteristics of the climatic region marked Z. (3 marks)
- (b) Explain how each of the following factors influence climate:
- (i) Altitude; (4 marks)
- (ii) Ocean currents. (4 marks)
- (c) What are the negative effects of climate change on physical environment? (6 marks)
- (d) Students visited a weather station to study recording of weather elements.
- (i) State **three** qualities in the construction of a Stevenson screen they would have observed during the study. (3 marks)
- (ii) Identify **three** types of data they are likely to have collected during the study. (3 marks)

- 9 (a) (i) Name **two** types of submerged highland coasts. (2 marks)
- (ii) Identify **two** resultant features of the emerged highland coasts. (2 marks)
- (b) State **three** factors influencing deposition by ocean waves. (3 marks)
- (c) With the aid of labelled diagrams describe the formation of the following coastal features:
- (i) Fringing reef; (5 marks)
- (ii) Spit. (5 marks)
- (d) Explain the significance of oceans to human activities. (8 marks)
- 10 (a) (i) Name **two** mountains in East Africa which are ice capped. (2 marks)
- (ii) Identify **three** ways in which ice moves. (3 marks)
- (b) Describe the formation of the following glacial features:
- (i) Hanging valley; (6 marks)
- (ii) Pyramidal peak. (6 marks)
- (c) You are required to carry out a field study on erosional features in glaciated lowland area.
- (i) Give **two** reasons why you would require a working schedule. (2 marks)
- (ii) Name **three** erosional features you are likely to observe during the field study. (3 marks)
- (iii) Give **three** follow-up activities you would undertake after the field study. (3 marks)

SECTION A: (25 marks)

*Answer **all** the questions in this section.*

- 1 (a) Give **two** uses of diamond. (2 marks)
- (b) Identify **three** problems facing diamond mining in South Africa. (3 marks)
- 2 (a) Apart from coniferous forests, name **two** other types of natural forests. (2 marks)
- (b) State **three** characteristics of coniferous forests which favour their exploitation. (3 marks)
- 3 Use the map of East Africa below to answer question (a).



- (a) Name the game reserves marked P, Q and R. (3 marks)
 - (b) State **two** factors which influence the distribution of wildlife in East Africa. (2 marks)
- 4
- (a) Give **two** reasons why Geothermal power has not been fully exploited in Kenya. (2 marks)
 - (b) State **three** causes of the energy crisis in the world. (3 marks)
- 5
- (a) Identify the **two** types of internal trade. (2 marks)
 - (b) Give **three** factors that limit trade among the member states of the common market for Eastern and Southern Africa (COMESA). (3 marks)

SECTION B: (75 marks)

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

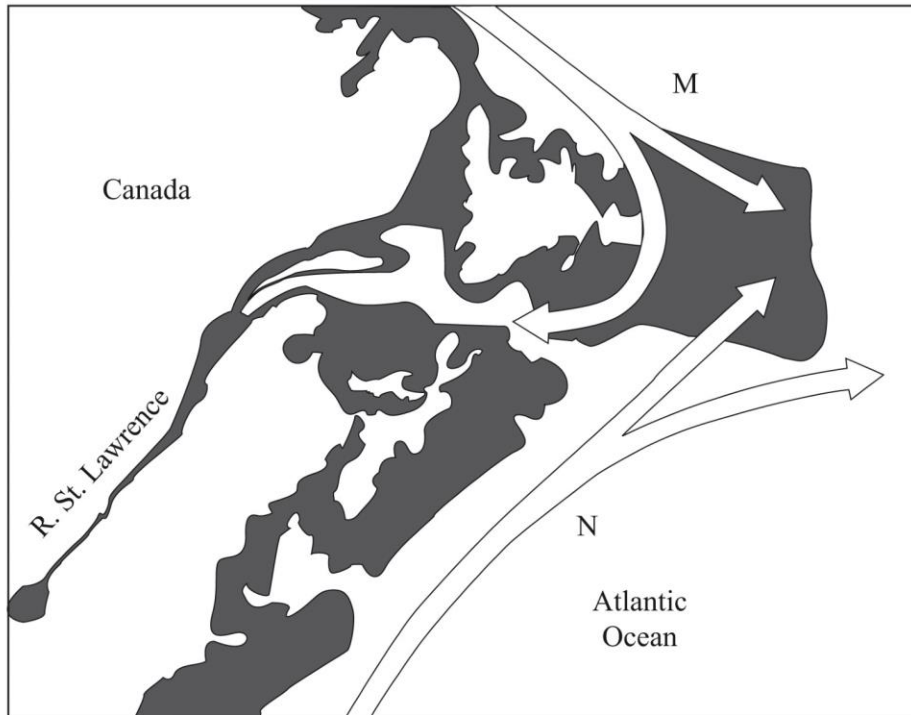
- 6 Study the photograph below and use it to answer question (a)



- (a) (i) Identify the type of photograph shown above. (1 mark)
- (ii) Name the type of settlement shown on the photograph. (1 mark)
- (iii) What time of the day was the photograph taken? (1 mark)
- (iv) Draw a rectangle measuring 15 cm by 10 cm. On it, sketch and label **five** human features shown on the photograph. (6 marks)

- (b) Explain **four** economic factors that influence settlement. (8 marks)
- (c) Describe **four** negative effects of urbanization. (8 marks)
- 7 (a) Explain **three** social factors that influence agriculture. (6 marks)
- (b) (i) Describe the cultivation of oil palm from land preparation to harvesting. (7 marks)
- (ii) Give **three** uses of palm oil in Nigeria. (3 marks)
- (c) Explain **three** reasons why horticultural farming is encouraged in Kenya. (6 marks)
- (d) Give **three** factors which favours beef farming in the Nyika plateau. (3 marks)
- 8 (a) Explain **four** ways in which land is being rehabilitated in Kenya. (8 marks)
- (b) (i) State **two** ways in which the salinity of the polders is reduced in The Netherlands. (2 marks)
- (ii) Explain **four** ways in which the Zuyder Zee project benefits The Netherlands. (8 marks)
- (c) You intend to carry out a field study on irrigation farming in Mwea Tebere Irrigation Scheme:
- (i) Identify the **two** types of hypotheses you would develop for the study. (2 marks)
- (ii) Name **three** crops, grown in the scheme that you are likely to identify. (3 marks)
- (iii) Give **two** reasons why you need to sample the area of study. (2 marks)
- 9 (a) Define the term fishing. (2 marks)
- (b) Explain **two** ways in which each of the following factors negatively affects fishing in Kenya.
- (i) Agricultural activities. (4 marks)
- (ii) Water weeds. (4 marks)

(c) Use the map of North-West Atlantic fishing ground to answer questions (c)(ii) and (iii).



- (i) Give **three** types of fish species caught in the North-West Atlantic fishing ground. (3 marks)
- (ii) Name the Ocean currents marked M and N. (2 marks)
- (iii) Explain **two** ways in which the convergence of Ocean currents marked M and N influence fishing. (4 marks)
- (d) Give **three** differences between fishing in Kenya and Japan. (6 marks)
- 10** (a) What is environmental management? (2 marks)
- (b) (i) Explain **four** negative effects of floods. (8 marks)
- (ii) State **two** measures being taken to control lightning. (2 marks)
- (c) Explain the significance of conserving the environment. (8 marks)
- (d) Your Geography class carried out a field work on floods along a river.
- (i) Name **two** types of field work they could have used. (2 marks)
- (ii) Give **three** advantages of studying floods through field work. (3 marks)

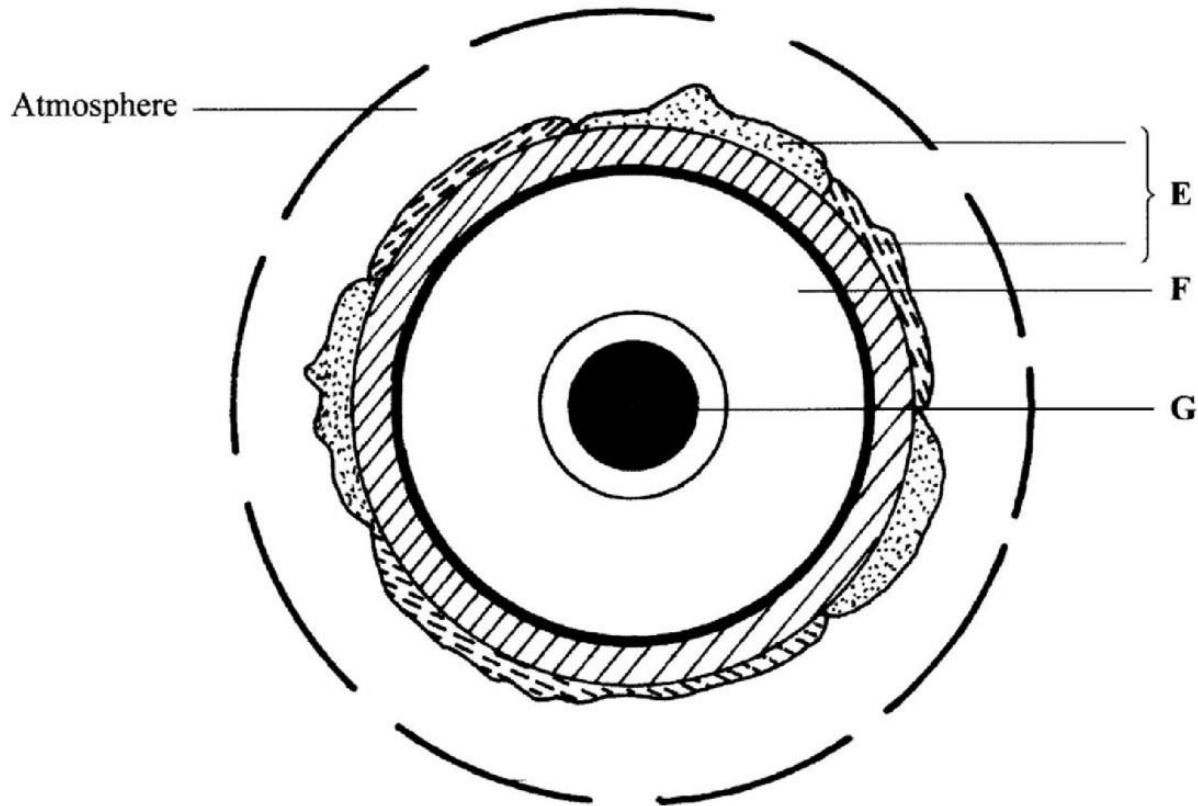
3.10 GEOGRAPHY (312)

3.10.1 Geography Paper 1 (312/1)

SECTION A

Answer all the questions in this section.

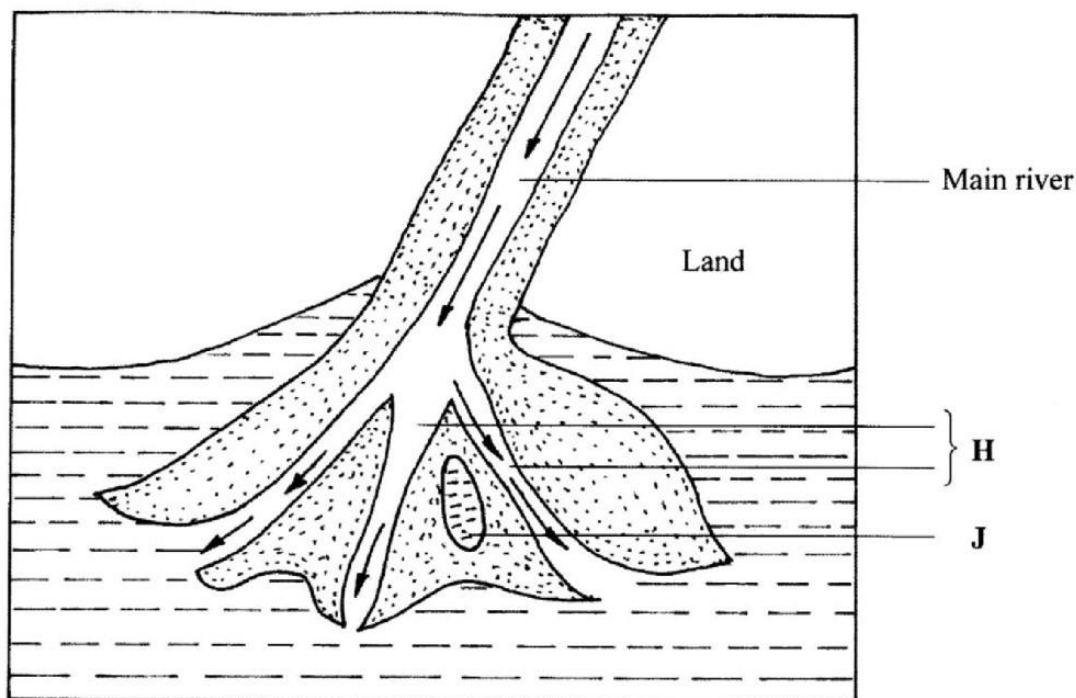
- 1** The diagram below represents the structure of the earth. Use it to answer question (a).



- (a) Name:
- (i) the layers marked **E** and **F**. (2 marks)
 - (ii) the minerals that make up the layer marked **G**. (2 marks)
- (b) Give **two** effects of the rotation of the earth on its axis. (2 marks)
- 2**
- (a) What is a metamorphic rock? (2 marks)
 - (b) Give **three** examples of metamorphic rocks. (3 marks)
- 3**
- (a) Name **two** types of boundaries according to the plate tectonic theory. (2 marks)
 - (b) Give **three** effects of the movement of tectonic plates. (3 marks)

- 4 (a) What is an earthquake? (2 marks)
- (b) Identify the scale used to measure:
- (i) the intensity of earthquakes; (1 mark)
- (ii) the magnitude of earthquakes. (1 mark)
- 5 (a) Give **three** characteristics of a river in its middle stage. (3 marks)

The diagram below shows a Bird's foot delta. Use it to answer question (b).



- (b) Identify the features marked **H** and **J**. (2 marks)

SECTION B

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

- 6 Study the map of Busia 1:50,000 (sheet 101/1) provided and answer the following questions.
- (a) (i) Convert the ratio scale of the map extract into a statement scale. (2 marks)
- (ii) What is the general direction of flow of river Sio? (1 mark)
- (iii) Identify the **two** dominant types of natural vegetation shown in the area covered by the map. (2 marks)
- (b) Draw a square 10 cm by 10 cm to represent the area to the west of Easting 30 and north of Northing 40. On the square, mark and label:
- (i) an international boundary;
- (ii) an air photo principal point;

- (iii) river Sio;
- (iv) the area above 1200 metres above sea level. (5 marks)

(c) Describe the relief of the area covered by the map. (5 marks)

(d) (i) Explain how the following factors have influenced the distribution of settlements in the area covered by the map:

- drainage; (2 marks)

- transport. (2 marks)

(ii) Citing evidence from the map, state **three** functions of Funyula town. (6 marks)

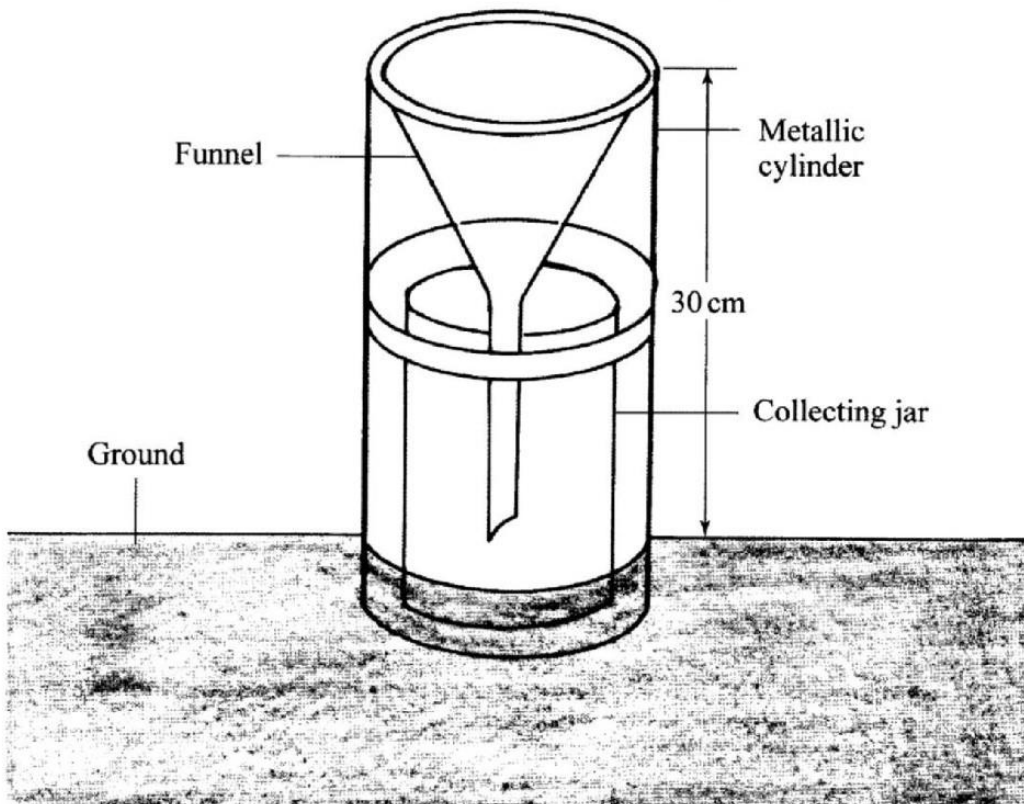
7 (a) (i) Define the term weather. (2 marks)

(ii) Explain how the following factors influence weather:

- cloud cover; (4 marks)

- local winds. (4 marks)

The diagram below represents a weather measuring instrument. Use it to answer question (b).



(b) (i) Which element of weather is measured using the instrument shown above? (1 mark)

(ii) Describe how the above instrument is used. (3 marks)

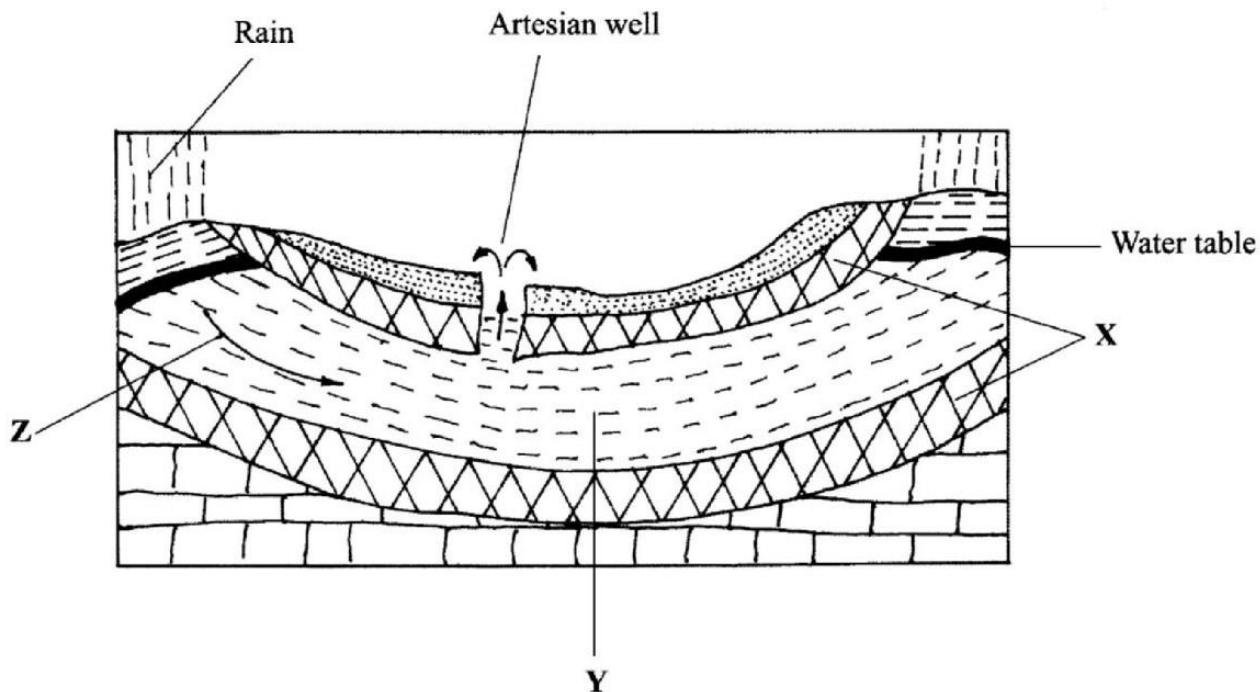
The table below shows the temperature and rainfall readings for station **T** in one week. Use it to answer question (c).

Day	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Temperature °C	23	23	24	21	25	25	23
Rainfall in mm	50	49	55	45	60	60	49

- (c) (i) Calculate:
- the range of temperature for the week. (1 mark)
 - the mean weekly rainfall. (2 marks)
- (ii) State **four** characteristics of the weather in station **T**. (4 marks)
- (d) Give **four** characteristics of the stratosphere. (4 marks)
- 8** (a) (i) Apart from the Rift Valley, name **three** other relief features formed as a result of faulting. (3 marks)
- (ii) With the aid of diagrams, describe how the Great Rift Valley may have been formed by tensional forces. (8 marks)
- (b) Explain **three** ways in which faulting may influence drainage systems. (6 marks)
- (c) Describe **four** ways in which features resulting from faulting are of significance to the economy of Kenya. (8 marks)
- 9** (a) (i) Apart from alternate wetting and drying, name **three** other processes of mechanical weathering. (3 marks)
- (ii) Describe the following processes of weathering:
- alternate wetting and drying; (3 marks)
 - hydrolysis; (2 marks)
 - carbonation. (3 marks)
- (b) (i) State **three** conditions that influence the process of solifluction in mass wasting. (3 marks)
- (ii) Give **three** negative effects of mass wasting on the physical environment. (3 marks)
- (c) You are planning to carry out a field study on types of mass wasting.
- (i) Identify **three** methods you would use to collect data. (3 marks)
- (ii) Give **three** types of rapid mass wasting that you are likely to observe during the field study. (3 marks)

- (iii) State **two** ways in which the information collected during the field study would be useful to the local community. (2 marks)

10 The diagram below represents an artesian basin. Use it to answer question (a).



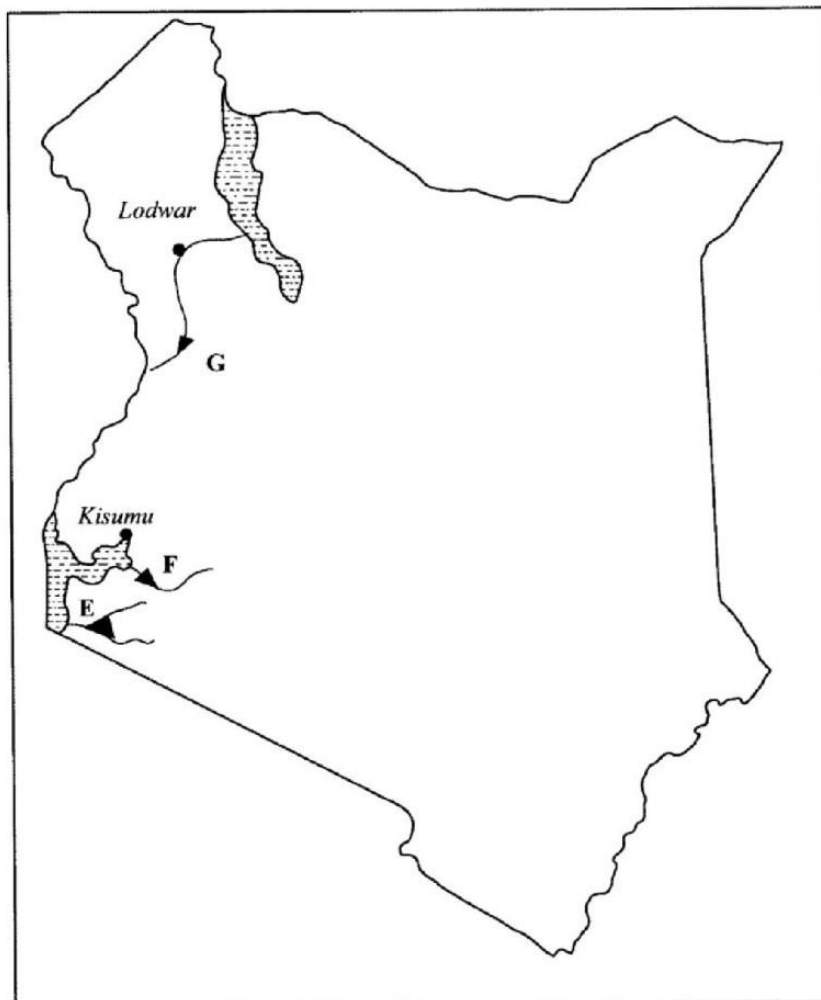
- (a) Identify:
- (i) the layers marked **X** and **Y**. (2 marks)
 - (ii) the process marked **Z**. (1 mark)
- (b) Explain how the following factors influence the amount of underground water in limestone areas:
- (i) rainfall; (4 marks)
 - (ii) vegetation cover. (4 marks)
- (c) (i) Apart from stalagmites, name **three** other underground features formed in limestone areas. (3 marks)
- (ii) With the aid of a diagram, describe how a stalagmite is formed. (8 marks)
- (d) Give **three** reasons why there are few settlements in Karst landscapes. (3 marks)

3.10.2 Geography Paper 2 (312/2)

SECTION A: (25 marks)

Answer *all* the questions in this section.

- 1 (a) Define the term environment. (2 marks)
(b) Give **three** effects of air pollution in major urban centres. (3 marks)
- 2 (a) Identify **three** factors that influence the occurrence of minerals. (3 marks)
(b) Name the area where the following minerals are mined in Kenya:
(i) diatomite; (1 mark)
(ii) salt. (1 mark)
- 3 (a) Distinguish between forest and forestry. (2 marks)
(b) Identify **three** activities that may be undertaken in your school to conserve trees. (3 marks)
- 4 Give **four** challenges facing Nomadic pastoralism in Kenya. (4 marks)
- 5 Use the map of Kenya below to answer question (a).



- (a) Name the hydro-electric power projects marked **E**, **F** and **G**. (3 marks)
- (b) State **three** advantages of geothermal power as a source of energy. (3 marks)

SECTION B: (75 marks)

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

- 6** The table below shows the value of some of Kenya's mineral exports from 2008 to 2011. Use it to answer questions (a) and (b).

Value of Kenya's mineral exports (Million Ksh.)

Mineral \ Year	2008	2009	2010	2011
Soda Ash	13 200	8 300	7 300	12 400
Petroleum Products	4 200	4 500	4 700	6 100
Cement	7 300	7 800	7 400	8 900

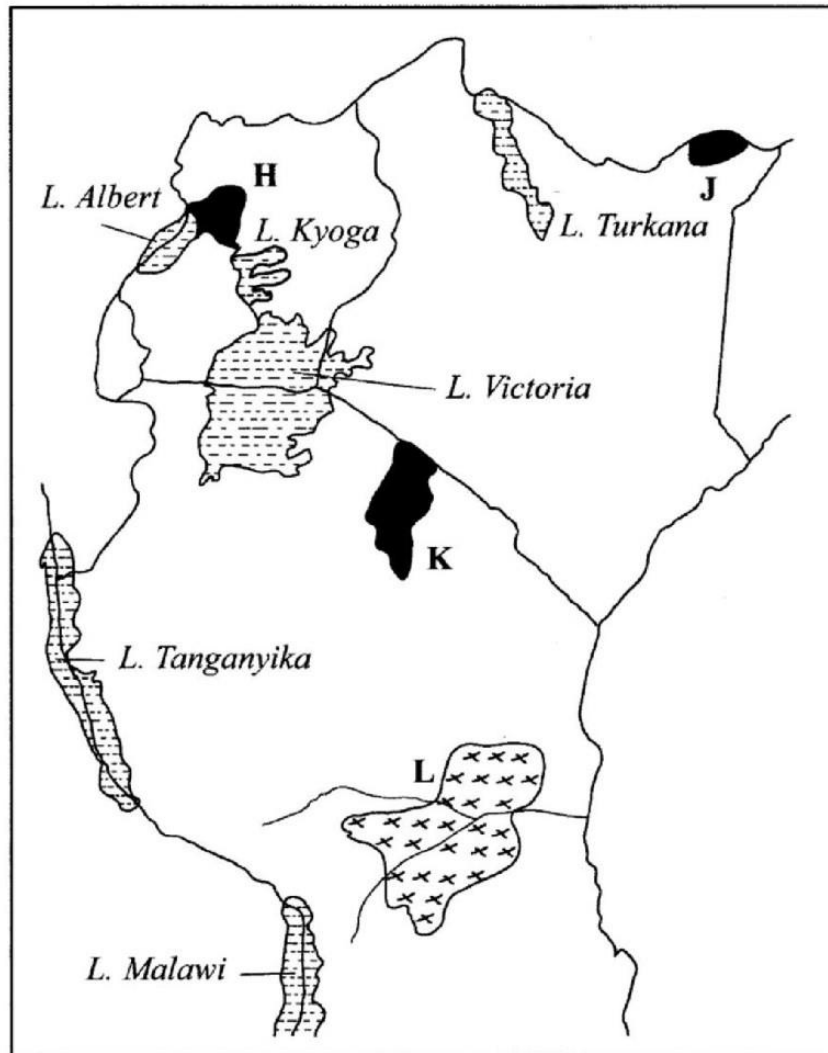
Source: Central Bureau of Statistics

- (a) (i) Using a scale of 1 cm to represent 1 000 million Kenya Shillings, draw a comparative bar graph to represent the data shown. (8 marks)
- (ii) State **three** advantages of using comparative bar graphs to represent statistical data. (3 marks)
- (b) Calculate the percentage increase in value of exports between the years 2010 and 2011. (6 marks)
- (c) Explain the significance of trade to the economy of Kenya. (8 marks)
- 7** (a) State **three** physical conditions which favour large scale sugarcane growing in Kenya. (3 marks)
- (b) (i) Describe the stages involved in the processing of sugarcane at the factory. (6 marks)
- (ii) Give **three** by-products obtained from sugarcane. (3 marks)
- (c) Explain **three** ways in which the Kenya Government is promoting the sugar manufacturing industry. (6 marks)
- (d) Your class visited a sugarcane plantation for a field study on land preparation and planting.
- (i) Outline **four** activities that you are likely to identify. (4 marks)
- (ii) Give **three** methods you would use to record data during the field study. (3 marks)

8 (a) Differentiate between domestic and international tourism.

(2 marks)

Use the map of East Africa below to answer question (b).



(b) Name:

(i) The national parks marked **H**, **J** and **K**.

(3 marks)

(ii) The game reserve marked **L**.

(1 mark)

(c) (i) Explain how the following factors influence tourism in Kenya.

• climate;

(2 marks)

• scenery;

(2 marks)

• tour companies.

(2 marks)

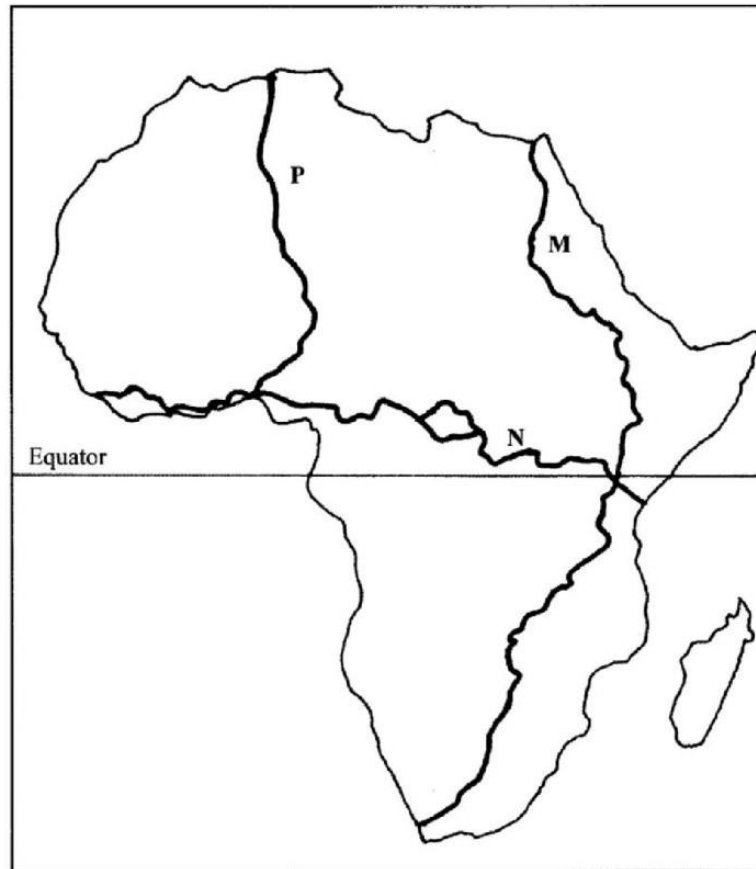
(ii) State **five** effects of floods on tourism.

(5 marks)

(d) Explain **four** ways in which the county governments in Kenya would promote sustainable tourism.

(8 marks)

9 Use the map of Africa below to answer question (a)



- (a) Name the trans-continental highways in Africa marked **M**, **N** and **P**. (3 marks)
- (b) (i) State **four** advantages of air transport. (4 marks)
- (ii) Explain **four** efforts that the Kenya Government has taken to improve air transport. (8 marks)
- (c) (i) Identify **two** types of communication. (2 marks)
- (ii) Explain **four** problems facing communication in Africa. (8 marks)
- 10 (a) (i) Give **two** main sources of population data. (2 marks)
- (ii) Outline the information that can be derived from a population pyramid. (3 marks)
- (b) Explain how the following factors have led to population increase in Kenya
- (i) cultural beliefs; (2 marks)
- (ii) migration. (2 marks)
- (c) Explain **four** problems which result from a high population growth rate in Kenya. (8 marks)
- (d) Describe **four** ways in which the population of Kenya differs from that of Sweden. (8 marks)

THE KENYA NATIONAL EXAMINATIONS COUNCIL

Kenya Certificate of Secondary Education

GEOGRAPHY

Paper 1

2¼ hours

Instructions to candidates

- (a) *This paper has two sections; A and B.*
- (b) *Answer all the questions in section A.*
- (c) *Answer question 6 and any other two questions from section B.*
- (d) *All answers must be written in the answer booklet provided.*
- (e) *This paper consists of 7 printed pages.*
- (f) *Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.*
- (g) *Candidates should answer the questions in English.*



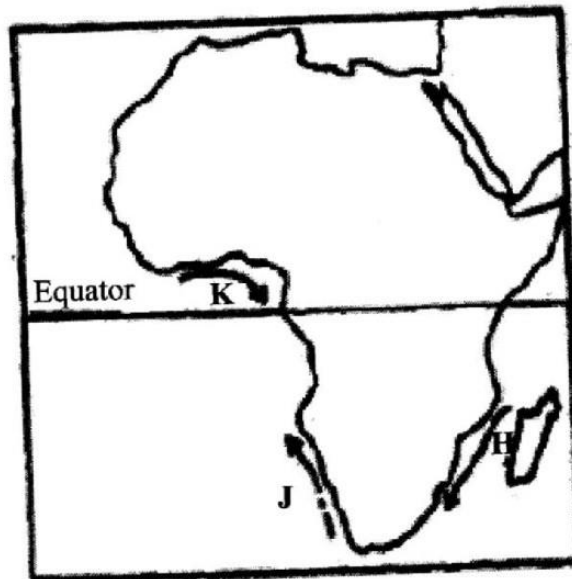
SECTION A

Answer **all** the questions in this section.

1. (a) How does a sea breeze occur?

(2 marks)

(b) Use the map of Africa below to answer question (b) (i)



(i) Name the ocean currents marked **H**, **J** and **K**.

(3 marks)

(ii) State **two** effects of a warm ocean current on the adjacent coastlands.

(2 marks)

2. (a) Name **two** types of boundaries according to the plate tectonic theory.

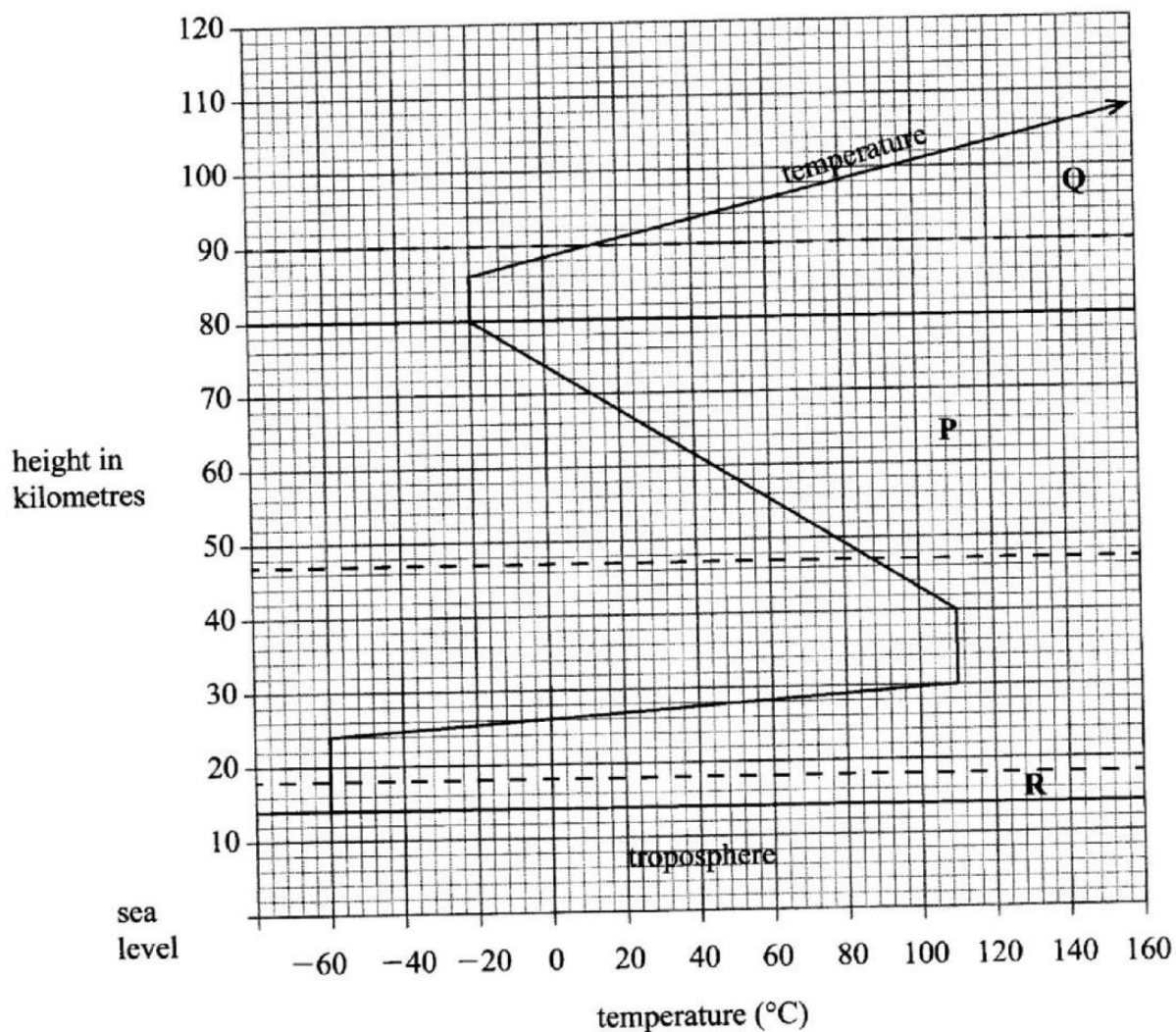
(2 marks)

(b) Give **three** effects of the movement of tectonic plates.

(3 marks)

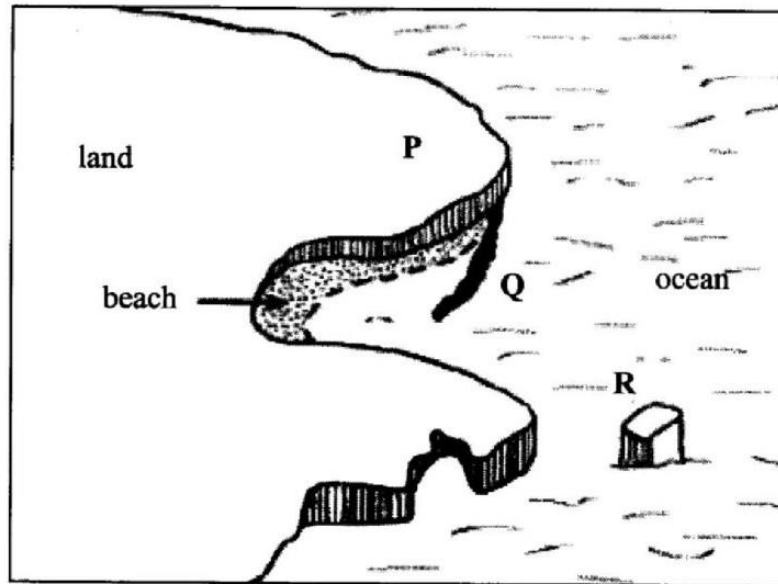
3. The diagram below represents the structure of the atmosphere. Use it to answer question (a).

The Structure of the Atmosphere



- (a) Name:
- The parts marked **P** and **Q**. (2 marks)
 - The layer of discontinuity marked **R**. (1 mark)
- (b) State **two** characteristics of weather conditions in the troposphere. (2 marks)

4. The diagram below shows coastal features.



- (a) Name the features marked **P**, **Q** and **R**. (3 marks)
- (b) State **two** conditions necessary for the formation of a beach. (2 marks)
5. Name the **three** major deserts in Africa. (3 marks)



SECTION B

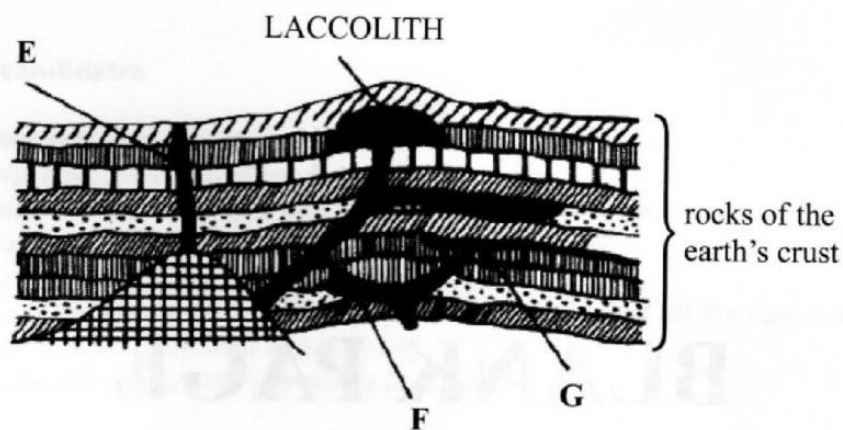
Answer question 6 and any other two questions from this section.

6. Study the map of **Kitale 1:50,000** (sheet 75/3) provided and answer the following questions.
- (a) (i) Identify **two** human made features found at the grid square 2320. (2 marks)
- (ii) What is the altitude of the highest point in the area covered by the map? (2 marks)
- (iii) Give **three** types of natural vegetation found in the area covered by the map. (3 marks)
- (b) (i) What is the bearing of the air photo principal point at grid square 3426 from the air photo principal point at grid square 2931? (2 marks)
- (ii) Measure the distance of the dry weather road (C640) from the junction at point M (345142) from the junction at point N (416201) Give your answer in kilometers. (2 marks)
- (c) (i) Using a scale of 1 cm to represent 40 metres, draw a cross-section from grid reference 410180 to grid reference 500180. (4 marks)
- (ii) On the cross-section mark and name the following:
- a dry weather road; (1 mark)
 - River Kaptarit (1 mark)
 - a ridge. (1 mark)
- (iii) Calculate the (VE) vertical exaggeration of the section. (2 marks)
- (d) Citing evidence from the map, identify **five** social services offered in Kitale. (5 marks)



7. (a) (i) Name **two** types of submerged highland coasts. (2 marks)
- (ii) Identify **two** resultant features of the emerged highland coasts. (2 marks)
- (b) State **three** factors influencing deposition by ocean waves. (3 marks)
- (c) With the aid of labelled diagrams, describe the formation of the following coastal features:
- (i) Fringing reef; (5 marks)
- (ii) Spit. (5 marks)
- (d) Explain the significance of oceans to human activities. (8 marks)
8. (a) (i) What is a lake? (2 marks)
- (ii) Name **two** crater lakes in Kenya. (2 marks)
- (b) Describe how each of the following lakes are formed:
- (i) corrie lake; (4 marks)
- (ii) oasis; (4 marks)
- (iii) lagoon. (4 marks)
- (c) (i) Give **three** reasons why some lakes in Kenya have saline water. (3 marks)
- (ii) Explain how each of the following has affected lakes in Kenya:
- deforestation (2 marks)
 - industrialisation (2 marks)
 - water needs. (2 marks)

9. (a) (i) Name **three** types of faults. (3 marks)
- (ii) Apart from compressional forces, explain **two** other processes that may cause faulting. (4 marks)
- (b) With the aid of diagrams, describe how compressional forces may have led to the formation of the Great Rift Valley. (8 marks)
- (c) Explain **five** ways in which faulting is of significance to human activities. (10 marks)
10. (a) Differentiate between magma and lava. (2 marks)
- (b) The diagram below shows some intrusive volcanic features.



Name the features marked E, F, and G. (3 marks)

- (c) Describe how the following features are formed and for each give an example from Kenya:
- (i) a crater (3 marks)
- (ii) a geyser (5 marks)
- (iii) a lava plateau. (4 marks)
- (d) Explain **four** ways in which volcanic features influence human activities. (8 marks)

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312/2

GEOGRAPHY

Paper 2

Nov. 2016

2¾ hours

Candidate's Signature.....*[Signature]*

Date *21st - NOV - 2016*.....



THE KENYA NATIONAL EXAMINATIONS COUNCIL

Kenya Certificate of Secondary Education

GEOGRAPHY

Paper 2

2¾ hours

Instructions to candidates

- (a) This paper has **two** sections: A and B.*
- (b) Answer **all** the questions in section A.*
- (c) Answer **question 6** and any other **two** questions from section B.*
- (d) All answers must be written in the answer booklet provided.*
- (e) This paper consists of **5** printed pages.*
- (f) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.*
- (g) Candidates should answer the questions in English.*

SECTION A

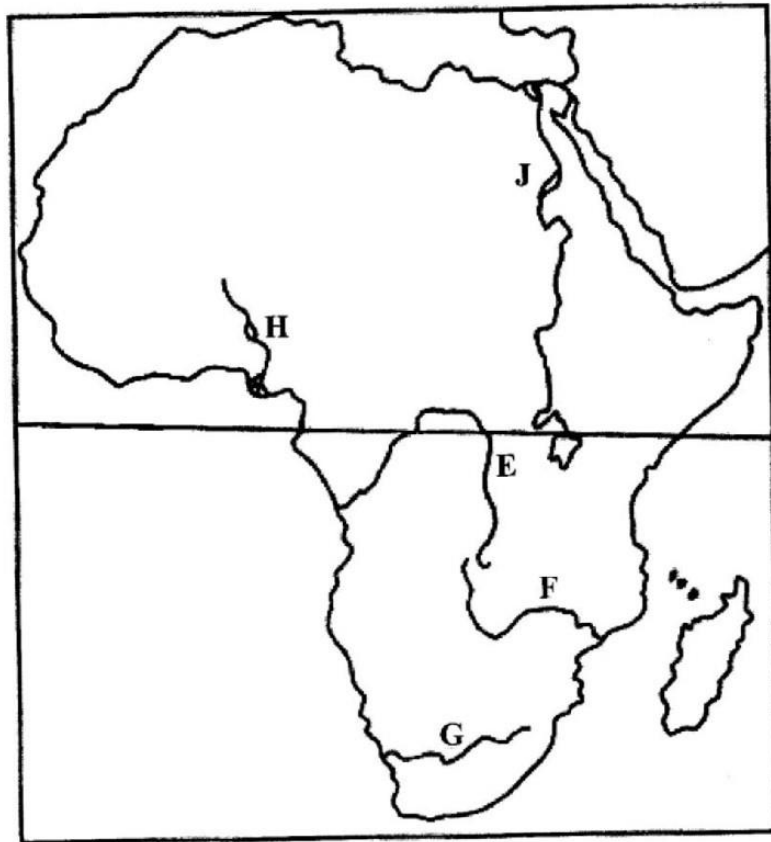
Answer all the questions in this section

1. (a) Name **two** exotic breeds of dairy cattle reared in Kenya. (2 marks)
(b) State **three** physical conditions that favour dairy farming in Denmark. (3 marks)
2. (a) Name the method of irrigation used in the Perkerra Irrigation Scheme. (1 mark)
(b) State **three** factors that influenced the location of the Perkerra Irrigation Scheme. (3 marks)
3. (a) Differentiate between transport and communication. (2 marks)
(b) State **three** causes of the decline in the use of letter writing as a means of communication in Kenya. (3 marks)
4. (a) Why is Kenya's petroleum refinery located at Mombasa? (2 marks)
(b) State **three** ways in which the clearing of forests has affected the natural environment in Kenya. (3 marks)
5. (a) State **three** measures which the government of Kenya has taken to reduce infant mortality. (3 marks)
(b) Give **three** negative effects of low population growth in a country. (3 marks)

SECTION B

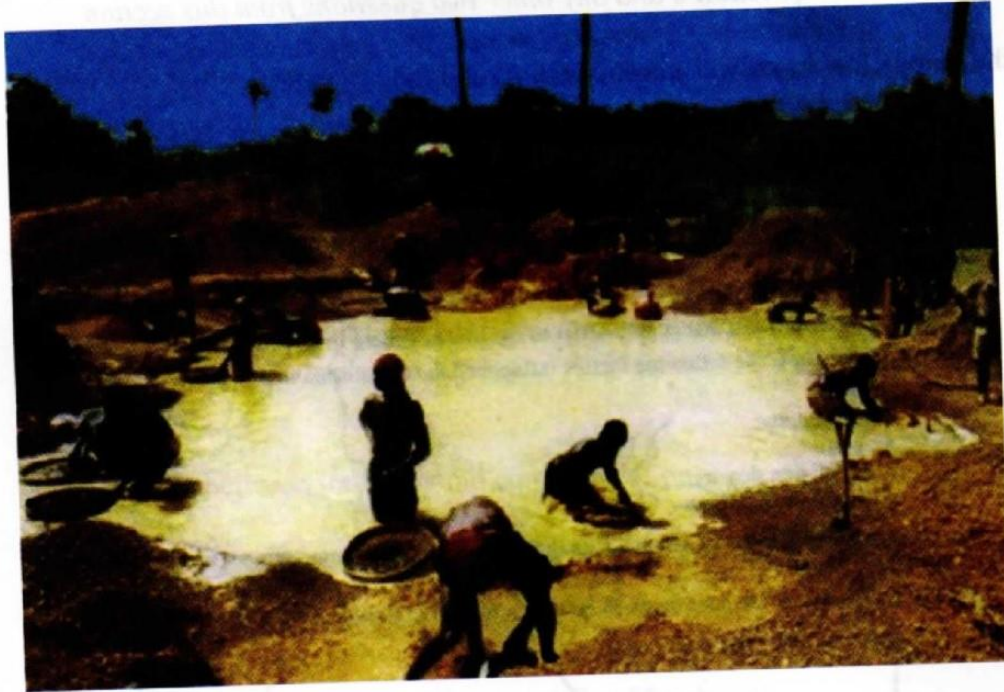
Answer **question 6** and any other **two** questions from this section

6. Use the map below to answer question (a) (i) and (ii)



- (a) Name:
- (i) The rivers marked **E**, **F** and **G**. (3 marks)
- (ii) The human-made lakes marked **H** and **J**. (2 marks)
- (iii) Explain **four** measures which should be taken to improve inland water transport in Africa. (8 marks)
- (b) State **four** ways in which communication contributes to economic development in Kenya. (4 marks)
- (c) Explain **four** problems facing railway transport in Africa. (8 marks)

7. Study the photograph below and answer questions (a) and (b).



- (a) Name:
- (i) the mining method shown in the photograph; (1 mark)
 - (ii) **two** minerals that may be mined using the method shown in the photograph. (2 marks)
- (b)
- (i) Using evidence from the photograph, give **four** indicators that show that the weather was hot when the photograph was taken. (4 marks)
 - (ii) Describe how minerals are obtained using the mining method shown in the photograph. (5 marks)
 - (iii) Citing evidence from the photograph, explain **two** ways in which the mining method shown has affected the environment. (4 marks)
 - (iv) Apart from the method shown in the photograph, name **three** other mining methods. (3 marks)
- (c) Explain how the following factors influence the occurrence of minerals
- (i) evaporation; (2 marks)
 - (ii) vulcanicity; (2 marks)
 - (iii) metamorphism. (2 marks)

8. (a) (i) Name **two** settlement patterns. (2 marks)
- (ii) Explain **four** physical factors that influence settlement. (8 marks)
- (b) (i) Explain how the following factors have led to the growth of Thika. (2 marks)
- Location; (2 marks)
 - Transport; (2 marks)
 - Land. (2 marks)
- (ii) Apart from being a transport and communication centre, give **three** other functions of Thika town. (3 marks)
- (c) Explain **three** positive effects of urbanisation to a country. (6 marks)
9. (a) Identify **three** sources of renewable energy. (3 marks)
- (b) (i) Name **three** main Hydro Electric Power stations along the River Tana. (3 marks)
- (ii) Apart from providing electric power, state **four** other benefits of the dams along the River Tana. (4 marks)
- (iii) Identify **two** problems that affect the production of power from the stations along River Tana. (2 marks)
- (c) Explain **four** measures the Government of Kenya has taken to conserve energy. (8 marks)
- (d) Some students carried out a field study on sources of energy by sampling households around their school.
- (i) Identify **two** sampling techniques the students may have used during the study. (2 marks)
- (ii) Give **three** advantages of sampling the household for the study. (3 marks)
10. (a) (i) What is visible trade? (2 marks)
- (ii) List **three** major imports to Kenya from Japan. (3 marks)
- (b) Explain **four** factors that influence internal trade in Kenya. (8 marks)
- (c) State **four** ways in which trade is of significance to Kenya. (4 marks)
- (d) Explain **four** benefits which member states of ECOWAS derive from the formation of the trading bloc. (8 marks)

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312/1 – GEOGRAPHY – Paper 1

Nov. 2017 – 2¾ hours

Name Index Number

Candidate's Signature Date

Instructions to candidates

- (a) This paper has **two** sections: **A** and **B**.
- (b) Answer **all** the questions in section **A**.
- (c) Answer **question 6** and any other **two** questions from section **B**.
- (d) **This paper consists of 20 printed pages.**
- (e) **Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**
- (f) **Candidates should answer the questions in English.**

For Examiner's Use Only

Section	Questions	Maximum Score	Candidate's Score
A	1-5	25	
B	6	25	
	7	25	
	8	25	
	9	25	
	10	25	
Total Score		100	



SECTION A

Answer all the questions in this section.

1. (a) State **three** reasons why it is important to study Geography. (3 marks)
- (b) Identify **three** ways in which Geography is related to Agriculture. (3 marks)
2. (a) What is weather forecasting? (2 marks)
- (b) Give **three** elements of weather. (3 marks)
3. (a) Name **three** features that make up the hydrosphere. (3 marks)
- (b) Explain how the movement of magma causes earth movement. (2 marks)
4. (a) Distinguish between a river capture and a river rejuvenation (2 marks)
- (b) Give **three** ways in which a river transports its load. (3 marks)
5. State **four** ways in which the savanna grasslands have adapted to climatic conditions. (4 marks)

SECTION B

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

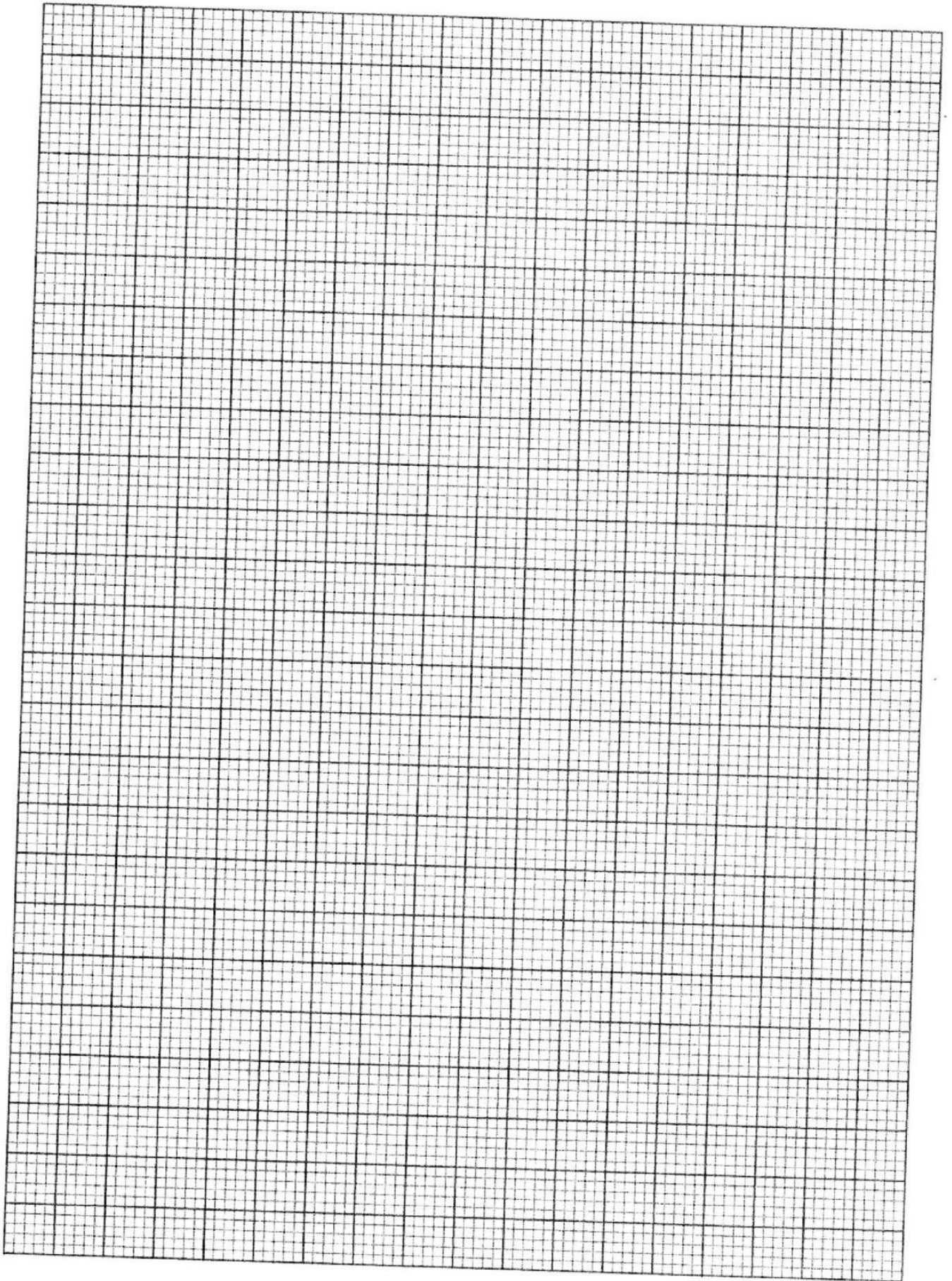
6. Study the map of Oyugis 1:50,000 (sheet 130/1) provided and answer the following questions.
 - (a) (i) What type of map is Oyugis map extract? (1 mark)
 - (ii) Give **two** scales that have been used in the map extract. (2 marks)
 - (iii) Measure the length of the township boundary shown on the map. Give your answer in kilometres. (2 marks)
 - (iv) Calculate the area covered by Koderia forest. Give your answer in square kilometres. (2 marks)
 - (b) (i) Identify the methods that have been used to represent relief of the area covered by the map. (2 marks)
 - (ii) Name the physical features found in the grid square 6842. (2 marks)
 - (c) Describe the drainage of the area covered by the map. (6 marks)



- (d) (i) Apart from agriculture, name **two** other economic activities in the area covered by the map. (2 marks)
- (ii) Citing evidence from the map, give **three** reasons why the area covered by the map is suitable for agricultural activities. (6 marks)
7. (a) (i) Apart from metamorphic rocks, name **two** other categories of rocks. (2 marks)
- (ii) Describe the following processes of formation of metamorphic rocks.
- Dynamic metamorphism (4 marks)
 - Thermal metamorphism (4 marks)
- (b) Explain **three** ways in which rocks are significant to human activities in Kenya. (6 marks)
- (c) You intend to carry out a field study on the types of rocks within the school locality.
- (i) Identify **three** items that you will carry during the study. (3 marks)
- (ii) State **three** activities that you will be involved in during the study. (3 marks)
- (iii) List **three** types of metamorphic rocks that you are likely to identify. (3 marks)
8. (a) (i) Apart from anticlinorium and synclinatorium complex, name **three** other types of folds. (3 marks)
- (ii) With an aid of a well labelled diagram, describe the formation of anticlinorium and synclinatorium complex. (6 marks)
- (b) (i) Name the young fold mountains found in the following continents.
- | | |
|---------------|----------|
| Africa | (1 mark) |
| Europe | (1 mark) |
| Asia | (1 mark) |
| North America | (1 mark) |
- (ii) Describe the formation of fold mountains according to the convectional current theory. (4 marks)
- (c) Explain **four** effects of folding on physical environment. (8 marks)



9. (a) (i) Define the term hydrological cycle. (2 marks)
- (ii) Give **three** factors that influence the occurrence of surface runoff. (3 marks)
- (iii) State the significance of the hydrological cycle. (4 marks)
- (b) Describe how the following lakes were formed.
- (i) moraine dammed lake (2 marks)
- (ii) oxbow lake (4 marks)
- (c) Explain ways in which lakes modify the climate of the surrounding areas. (6 marks)
- (d) Give **four** reasons why some lakes have fresh water. (4 marks)
10. (a) (i) What is soil structure? (2 marks)
- (ii) Explain how the following factors influence soil formation.
- Time (2 marks)
 - Parent rock (4 marks)
- (b) Describe the following properties of soil.
- **Soil texture** (2 marks)
 - **Soil porosity** (2 marks)
 - **Soil colour** (2 marks)
- (c) State **four** negative effects of soil erosion. (4 marks)
- (d) You are planning to carry out a field study on soil around your school.
- (i) State **four** preparations that you will make for the study. (4 marks)
- (ii) Give reasons why it is important to study soils through field study. (3 marks)



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312/2 – **GEOGRAPHY** – Paper 2

Nov. 2017 – 2¾ hours

Name Index Number

Candidate's Signature Date

Instructions to candidates

- (a) This paper has two sections: **A** and **B**.
- (b) Answer all the questions in section **A**.
- (c) Answer question **6** and any other **two** questions from section **B**.
- (d) This paper consists of **20** printed pages.
- (e) Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.
- (f) Candidates should answer the questions in English.

For Examiner's Use Only

Section	Questions	Maximum Score	Candidate's Score
A	1-5	25	
B	6	25	
	7	25	
	8	25	
	9	25	
	10	25	
	TOTAL	100	



SECTION A

Answer all the questions in this section.

1. (a) Identify **three** counties in Kenya where wheat is grown on a large scale. (3 marks)
(b) State **three** climatic conditions that affect wheat farming. (3 marks)
2. Give the differences between softwood forests in Kenya and Canada. (4 marks)
3. (a) List **three** traditional methods of fishing. (3 marks)
(b) Give **three** similarities of fishing in Kenya and Japan. (3 marks)
4. State **four** disadvantages of solar energy. (4 marks)
5. (a) Name **two** types of water transport. (2 marks)
(b) Give **three** challenges facing railway transport in East Africa. (3 marks)



SECTION B

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

6. The table below shows the number of visitors in '000 to selected national parks in Kenya for the years 2006 to 2008. Use it to answer the questions that follow.

Park/Yr	2006	2007	2008
Nairobi	102	93	92
Amboseli	153	156	82
Tsavo	354	372	182
Lake Nakuru	327	347	138
TOTAL	946	968	497

- (a) (i) What is the difference in the number of visitors who visited the parks in 2006 and those in 2008. (2 marks)
- (ii) Calculate the percentage increase in the number of visitors who visited Lake Nakuru National Park between 2006 and 2007. (2 marks)
- (b) (i) Draw a compound bar graph to represent the number of visitors to selected national parks in Kenya. Use the scale of 1 cm to represent 100,000 visitors. (10 marks)
- (ii) State **three** advantages of using compound bar graphs to represent geographical data. (3 marks)
- (c) Explain **four** problems associated with tourism in Kenya. (8 marks)
7. (a) (i) What is beef farming? (2 marks)
- (ii) Identify **five** factors that favour beef farming in Kenya. (5 marks)
- (b) State **six** features of nomadic pastoralism in Kenya. (6 marks)
- (c) Give reasons why beef production is higher in Argentina than Kenya. (6 marks)
- (d) Explain the role played by beef farming to the economy of Kenya. (6 marks)



8. (a) Apart from irrigation, give **four** methods of land reclamation in Kenya. (4 marks)
- (b) Explain **four** physical factors which influenced the location of Mwea irrigation scheme. (8 marks)
- (c) (i) Name **three** crops grown in the polders in Netherlands. (3 marks)
- (ii) Describe the stages of reclamation of land from the sea in the Netherlands. (6 marks)
- (d) State **four** benefits of land reclamation in the Netherlands. (4 marks)
9. (a) Explain the following types of settlement patterns (4 marks)
- Dispersed settlement pattern (2 marks)
 - Nucleated settlement pattern
- (b) State **four** problems facing the city of Nairobi. (4 marks)
- (c) State factors which led to the growth of Kisumu as a lake Port. (7 marks)
- (d) Explain **four** ways in which the Port of Mombasa differs from Rotterdam Port. (8 marks)
10. (a) Define the term environmental management. (2 marks)
- (b) (i) Name **two** areas in Kenya that are prone to lightening. (2 marks)
- (ii) State **four** problems caused by lightening. (4 marks)
- (iii) Explain **three** ways in which the menace of pests can be controlled in Kenya. (6 marks)
- (c) Give the measures that the government of Kenya has taken to conserve the environment. (6 marks)
- (d) Your class intends to carry out a field study in the limestone mining areas.
- (i) Identify **two** types of pollution that they may observe. (2 marks)
- (ii) What problems are they likely to encounter during the study? (3 marks)



Nov. 2018 - 2¾ hours

Name Index Number

Candidate's Signature Date

Instructions to candidates

- (a) Write your name and index number in the spaces provided above.
- (b) Sign and write the date of examination in the spaces provided above.
- (c) This paper consists of **two** sections: **A** and **B**.
- (d) Answer **all** the questions in section **A** in the space provided at the end of question 10.
- (e) Answer **question 6** and any other **two** questions from section **B** in the space provided at the end of question 10.
- (f) **This paper consists of 20 printed pages.**
- (g) **Candidates should check the question paper to ascertain that all the pages are printed as indicated and that no questions are missing.**
- (h) **Candidates should answer the questions in English.**



For Examiner's Use Only

Section	Questions	Maximum Score	Candidate's Score
A	1-5	25	
B	6	25	
		25	
		25	
Total Score			



- (b) (i) Explain how vulcanicity causes earthquakes. (6 marks)
(ii) Name **three** major earthquake zones of the world. (3 marks)
(c) Explain **four** effects of earthquakes on the human environment. (8 marks)

9. (a) Name **two** types of landslides. (2 marks)
(b) Explain how each of the following factors influence mass wasting:
(i) Climate (6 marks)
(ii) Slope (2 marks)
(c) (i) State **four** causes of soil creep. (4 marks)
(ii) Using a diagram, describe the process of solifluction. (5 marks)
(d) You intend to carry out a field study on the effects of mass wasting within the local environment.
(i) Give **two** methods of data collection that you would use for the study. (2 marks)
(ii) State **two** negative effects of mass wasting on the physical environment that you are likely to identify. (2 marks)
(iii) Give **two** follow-up activities you would be involved in after the field study. (2 marks)

10. (a) (i) Name the **three** types of river erosion. (3 marks)
(ii) Describe each of the following processes of river erosion:
I. Abrasion (4 marks)
II. Solution (3 marks)
(c) Describe the characteristics of the upper stage of a river. (6 marks)
(d) (i) What is river rejuvenation? (2 marks)
(ii) Give **four** causes of river rejuvenation. (4 marks)
(iii) Identify **three** features that result from river rejuvenation. (3 marks)

FOR ANSWERS SMS OR WHATSAPP 0723981225

Kenya Certificate of Secondary Education, 2018

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