# GOLDEN ELITE EDUCATIONAL PUBLISHERS

## FORM 1 LATEST GEOGRAPHY TOPICAL QUESTIONS

### INTRODUCTION TO GEOGRAPHY (QUESTIONS)

**1.** Explain the two relationships between geography and physics. (4 marks)

**2** What is the relationship between Geography and Chemistry? (2mks)

**3**Give **two** reasons why it is important to study Geography (2mks)

**4**. (a) Define Ecology (2marks)

(b) Explain the relationship between Geography and Biology (3marks)

**5**a) Give the relationship between Geography and Agriculture (2marks

**6**(a) Give **two** areas of study in human and economic geography. (2 marks)

(b) State **three** economic importance of studying geography in our educational institutions. (3 marks)

### THE EARTH AND THE SOLAR SYSTEM

**1**.State five proofs that the earth is spherical. (5 marks)

**2**(a) What is the difference between a meteor and a meteorite? (2 marks)

(b) State **three** effects of earth's revolution. (3 marks)

**3. a)** Name three constituents of the troposphere. (3 marks)

**b)** Name the gas that is found in the stratosphere and state its significance. (2 marks)

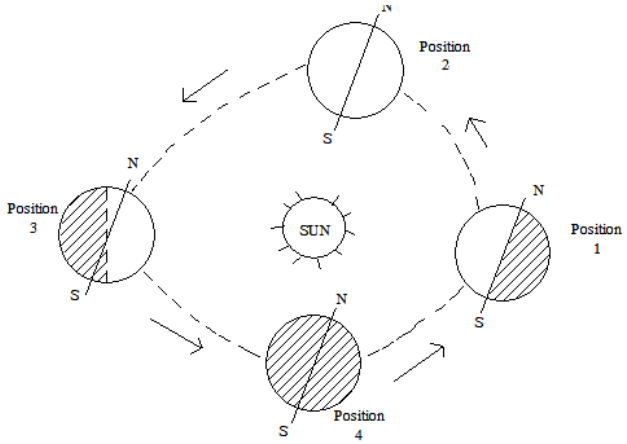
**4. a)** State three effects of the revolution of the earth. (3 marks)

**b)** The local time of town Y at 37° is 10.00a.m. What will be the time at town X longitude 10°W.(2 marks)

**5.** a) Name two layers of discontinuity that make up the internal structure of the earth (2 mks)

b) State threenatural forces that give the Earth its shape (3 mks)

**6**) Study the diagram below and answer the questions that follow.




Give **three** effects of the movement represented by the diagram. (3mks)

**7**. a) Apart from planets, name **two** other members of the solar system. (2mks)

b) State **three** characteristics of planets. (3mks)

**8**. a) i) State two days in a year when the length of day and night is equal. (2mks)

ii) Draw a well labelled diagram to show the eclipse of the moon (Lunar eclipse) (3mks)

b) i) Give **four** characteristics of planet Jupiter. (4 mks)

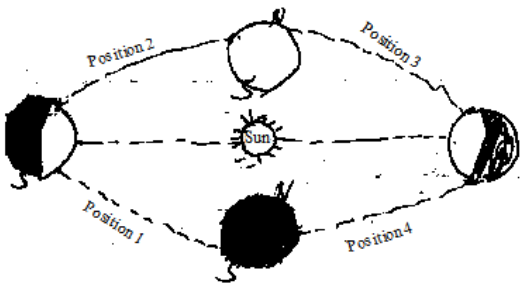
ii) Give **three** possible consequences of the revolution of the earth on lengths of days and nights. (3 mks)

**9**) Highlight **two** weaknesses of the passing star theory **(2mks)**

**10**. (a) What are asteroids **(2mks)**

(b) Name **two** forces responsible for the geoid shape of the earth

**11.** The diagram below shows the revolution of the earth around the sun. Use it to answer the questions that follow;




(a) (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 2 to position 4 ? **(1mk)**

(ii) What season is experienced in the Southern hemisphere when the earth is in position 1? **(1mk)**

(b) State **three** effects of rotation of the earth. **(3mks)**

**12** a Name the **three** main layers of the atmosphere from the earths surface upwards **3mks**

**13** Give **three** forces that are responsible for the spherical shape of the earth **3mks**

**14.** a) Define the term rotation of the earth. (2 Mks)

b) State **three** factors that contribute to the geoid spheroid shape of the earth (3 Mks)

**15** Give three reasons why the interior of the Earth is hot. **(3marks)**

**16**. (a) Differentiate between equinox and summer solstice. (2marks)

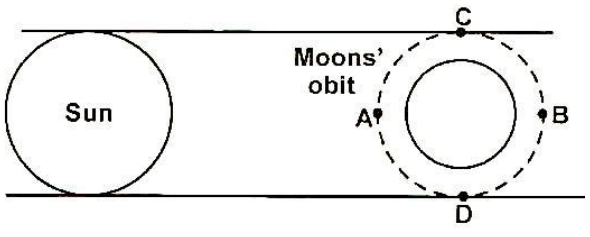
(b) Give three proofs to show that the earth is an oblate spheroid. (3marks)

**17**(a) State three effects of revolution of the earth. (3marks)

(b) The local time at Tema on $0^0$ longitude is 12.00 noon. Calculate the local time at Hola $40^0$E.(2marks)

**18**a) State three characteristics of planet Earth. (3 marks)

**19**a) The diagram below shows the sun, the earth and the orbit of the moon round the earth. Study it and answer the questions that follow




At what position is the moon likely to be for a solar eclipse to occur ? (1mark)

b) State ***four*** proofs that the shape of the earth is spherical. (4mark)

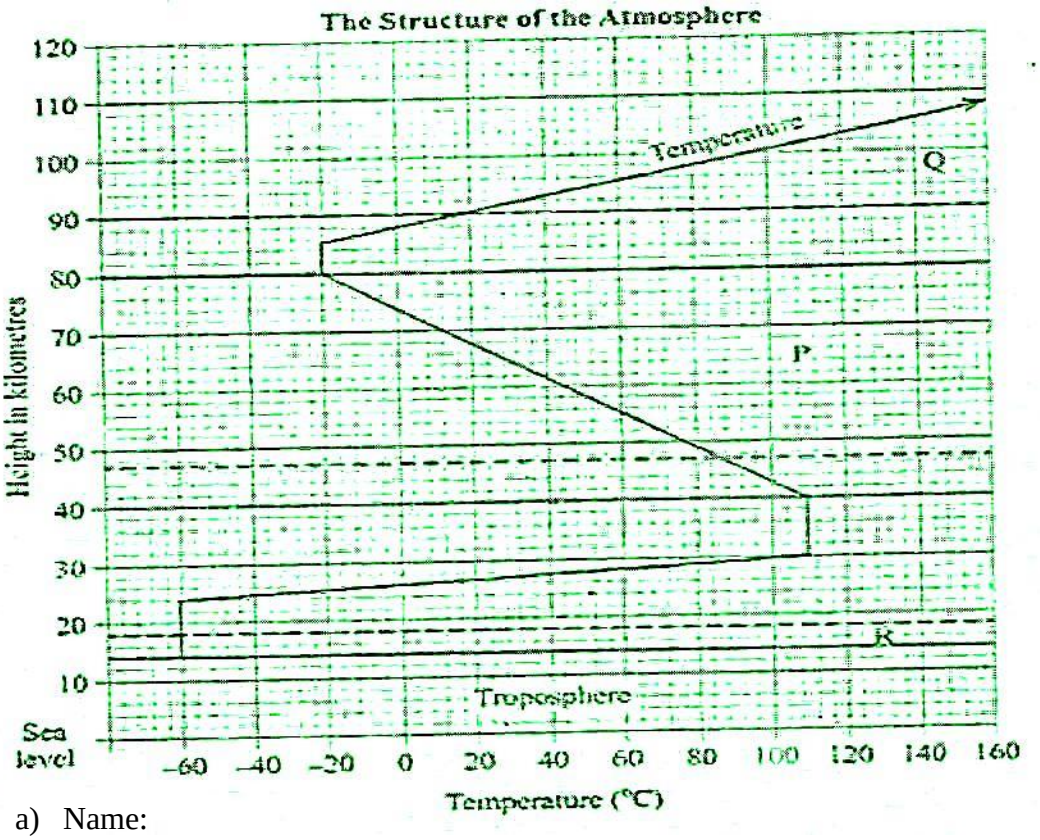
**20**. a) Name two heavenly bodies. (2mks)

b) Give three reasons why the interior the earth is believed to be very hot. (3mks)

**21** a) State the four layers that makes the atmosphere. (4mks)

b) Explain any four proofs that the earth is spherical. (4mks)
c) Name the forces that are responsible for:
(i) flattered shape of the earth at the poles. (1mk)
(ii) For the bulging shape around the earth. (1mk)

**22**The diagram below represents the structure of the atmosphere. Use it to answer question




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)
(a) What is the longitude of place M whose local time is 11.00 am. If local time at longitude $30^0$E is 2.00 pm? (3 marks)
(b) State the effects of International Date Line on time (1 mark)

**Weather**

**1**a) what is an air mass? (2 marks)
b) Give four characteristics of the intertropical convergence zone (ITCZ) (4 marks)
**2.** a) Give **three** methods of predicting weather (3 Mks)
b) Why is weather predictions by the weather man in the recent past not been accurate (2 Mks)
**3**(a) Give **three** reasons why recording of data at a weather station may be inaccurate. (3 marks)
(b) Give **two** weather conditions associated with cumulonimbus clouds. (2 marks)

**4**(a) Distinguish between absolute humidity and relative humidity. (2 Marks)

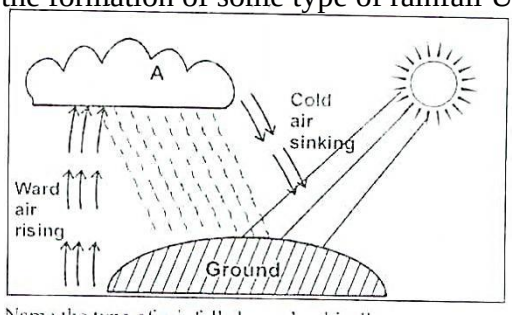
(b) State two factors that influence humidity. (2 Marks)

**5**. (a)Differentiate between relative humidity and absolute humidity. (2marks)
(b) State the significance of water vapour in the atmosphere. (2rmarks)

**6**. (a)What is a land breeze? (2marks)
(b) Give **three** ways in which sea breezes influence the climate of adjacent land. (3marks)

**7**(a) What is temperature? (2marks)
(b) Give three factors that determine the amount of solar isolation received on the earth's surface. (3marks)

**8**The diagram below show the formation of some type of rainfall Use it to answer question (a) and (b).




i.Name the type of rainfall shown by this diagram. (1 mark)
ii. Name the type of cloud marked (A) (1 mark)
b) List three weather conditions associated with the above named type of rainfall (3 marks)

**9** a) Name **two** elements of weather that can be recorded at a school weather station (2 marks)
b) The diagram below represents a weather measuring instrument. Use it to answer the questions that follow.

(i) Which element of weather is measured using the instrument shown above (1 mark)
(ii) Describe how the above instrument is used (2 marks)

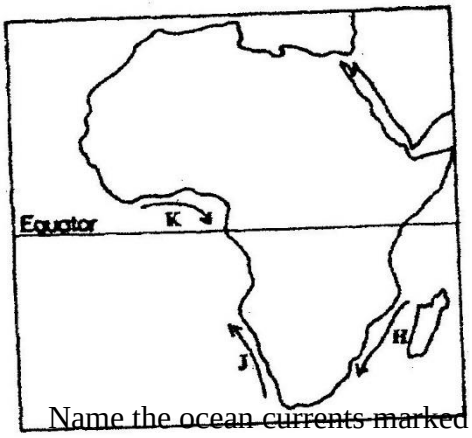
**10.** a) Apart from water vapour, name <u>three</u> other substances that are suspended in the atmosphere(3 mks)
b) State <u>two</u> factors that are considered when classifying clouds (2 mks)

**11**. a) Name two forms of precipitation common in Kenya. (2marks)
b) Give two reasons why the recording of data at a school weather station may be inaccurate. (2marks)

**12**) i) Name **three** instruments found in a Stevenson screen. (3mks)
ii) State and explain **four** qualifications which makes Stevenson screen suitable four its work. (4mks)
d) With the help of a well labelled diagram, explain the formation of frontal /cyclonic rainfall.(6mks)

**13.** (a) List **two** elements of weather. **(2mks)**
(b) Name **three** processes through which the atmosphere is heated. **(3mks)**

14. (a) How does a sea breeze occur? ( 2mks)
(b) Use the map of Africa below to answer questions (b) (i)




(i) Name the ocean currents marked H, J, and K (3 mks)

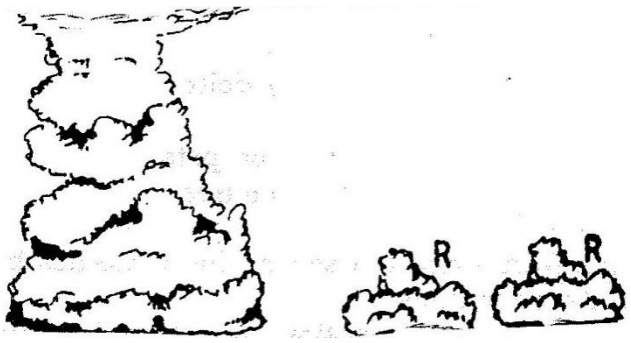
(ii) State two effects of a warm ocean current on the adjacent coastlands (2 mks)

15. (a) Name two theories of the origin of the earth (2 mks)

(b) Name four layers of the earth's atmosphere (4 mks)

16. (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

17 a) the tables below represent rainfall and temperature of stations X and Y. Use them to answer questions (a) and (b)

| MONTHS | J | F | M | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEMPERATURE IN $^{0c}$ | 30 | 31 | 31 | 31 | 30 | 29 | 29 | 28 | 28 | 29 | 29 | 30 |
| RAINFALL IN MM | 250 | 250 | 325 | 300 | 213 | 25 | 25 | 25 | 100 | 275 | 380 | 200 |

| MONTHS | J | F | M | A | M | J | J | A | S | O | N | O |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TEMPERATURE IN $^{0}C$ | 21 | 20 | 20 | 17 | 15 | 13 | 12 | 13 | 15 | 16 | 18 | 20 |
| RAINFALL IN MM | 12 | 12 | 15 | 50 | 90 | 110 | 87 | 87 | 50 | 35 | 20 | 15 |

a) (i) For each of the two stations calculate the mean annual temperature.

X -

Y -

(ii) Calculate the annual rainfall for station Y

(iii) On the graph paper provided, draw a bar graph to represent rainfall for station x. Use vertical scale of 1cm to represent 50mm

b) Describe the climatic characteristics of station Y.

18. a) The table below shows climatic data of a station in Kenya. Use it to answer question (a)

| Month | Jan | Feb | Mar | April | May | June | Jul | Aug | Sep | Oct | Nov | Dec |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp in $^{o}$C | 28.9 | 29.7 | 30.3 | 29.9 | 29.7 | 29.2 | 28.4 | 28.7 | 29.6 | 30.1 | 29.2 | 28.7 |
| Rainfall in mm | 9.0 | 8.0 | 21.0 | 49.0 | 25.0 | 9.0 | 20.0 | 10.0 | 4.0 | 10.0 | 17.0 | 11.0 |

i) What is the annual range of temperature at the station?

ii) Calculate the total rainfall for the station.

b) State three factors that influence climate.

19. (a) Name two elements of weather that can be recorded at a school weather station

(b) Give three reasons why the recording of data at a school weather station may be inaccurate

20. (a) Describe a suitable site where you would locate a weather station in your School (2 mks)

(b) Give reasons why a Stevenson's screen is:

(i) Painted White (2 mks)

(ii) Has louvers (2 mks)

21. Define relative humidity. (2 mks)

22. (a) Identify four characteristics ofconvectional rainfall. (4mks)

(b) State the difference between radiationfog and advection fog. (4mks)

23. (a) Briefly describe how the sixthermometers operate. (5mks)

(b) Three ways in which clouds areclassified. (3mks)

24. (a) Give three precautions to be taken when citing a weather station. (3mks)

(b) State three factors determining the amount of solar radiation reaching the earth's surface. (3mks)

25. Define the following terms:

(i) Climate

(ii) Relative humidity

(iii) Weather forecasting

(iv) Absolute humidity

(v) Weather lore (5mks)

26. State the advantages of studying weather through field work. (5mks)

27. (a) Describe how you would use the following apparatus during a field study. Rainfall, maximum and minimum thermometers. (3mks)

(b) Identify and explain the formation of the type of rainfall found in the LakeRegion or Kenya. (8mks)

(c) Briefly write down two problemsassociated with the type rainfall above.(4MKS)

28. (a) What is weather forecasting? (2mks)

(b) List four problems of weatherforecasting. (4mks)

(c) State four ways in which weather forecasting is important to the human activities. (4mks)

29. (a) Explain three ways in which cloudsinfluence weather. (3mks)

(b) Use the data below to answer questions that follow.

| Month of the year | J | F | M | A | M | J | J | A | S | O | N | D |
|---|---|---|---|---|---|---|---|---|---|---|---|---|

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Temp in °C | 25 | 26 | 26 | 24 | 23 | 22 | 21 | 21 | 22 | 22 | 22 | 22 |
| Rainfall in mm | 42 | 40 | 73 | 171 | 90 | 89 | 163 | 160 | 71 | 68 | 64 | 42 |

(i) Calculate mean annual temperature
(ii) Calculate annual rainfall
(iii) Calculate annual range oftemperature.
(iv) Calculate the mean annual rainfall
(v) Which is the wettest month? (10 mks)

30. (a) Define 3 air mass. (2mks)
(b) Name types of air masses. (3mks)
(c) A mass of air at 15°C can hold 20gm/cm3 of moisture. The same air at the same temperature has 6gm/cm$^3$ of moisture. What is its relative humidity? (4MKS)

31. Name two instruments placed in the Stevenson Screen. (2mks)

32. Why does sea breeze flow at night time? (3mks)

**STATISTICAL METHODS**

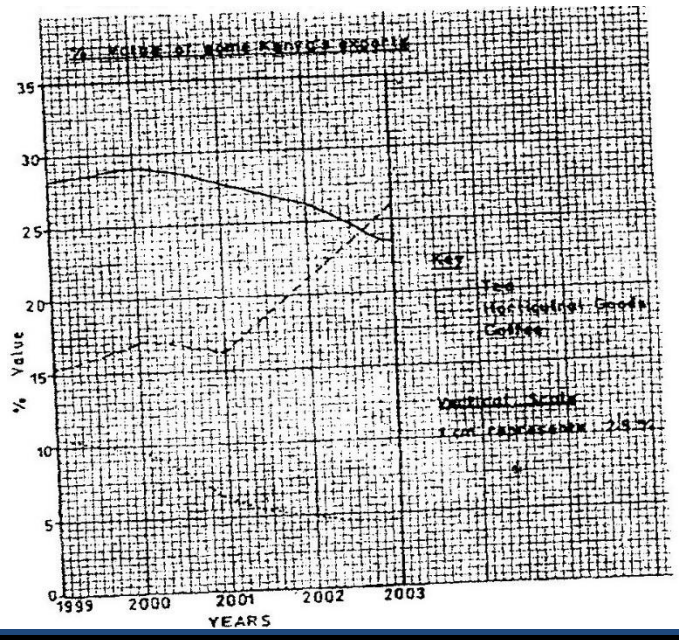
1. The table below shows petroleum production in thousand barrels per day for countries in the Middle East in April 2006. Use it to answer question (a)

| Country | Production in '000" barrels |
|---|---|
| Iran | 3800 |
| Kuwait | 2550 |
| Qatar | 800 |
| Saudi Arabia | 9600 |
| United Arab Emirates | 2500 |
| Iraq | 1900 |

a) (i) What is the difference in production between the highest and the lowest producer (1mk)
(ii) What is the total amount of petroleum produced in April 2006 in the region? (1mk)

b) State three conditions that are necessary for the formation of petroleum (3mks)

2. The graph below shows percentage value of some export commodities from Kenya between 1999 and 2003. Use it to answer questions (a) and (b)



(a) (i) What was the percentage value of the tea exported in the year 2000? (2mks)

(ii) What was the difference in the percentage values of the horticultural products and coffee exports in 1999? (2mks)

(iii) Describe the trend of the value of coffee exports from 1999 to 2003 (3mks)

(iv) Explain three factors which may have led to the increased export earnings from horticultural produce in Kenya between years 1999 and 2003 (6mks)

(v) Give three advantages of using simple line graphs to represent data. (3mks)

(b) State four reasons why Kenya's agricultural export earnings are generally low (4mks)

(c) State five reasons why the common market for Eastern and southern Africa (5mks)

3. (a) Define the following terms
   - Statistics
   - Statistical data
   - Statistical methods (6mks)

   (b) State two types of statistical data. (2mks)

   (c) Write down two types ofquestionnaires. (2mks)

4. (a) What factors must be considered in selecting methods of data collection. (3mks)

   (b) Differentiate between discrete dataand continuous data giving relevantexamples. (4mks)

5. (a) What is sampling (1mk)

   (b) State 3 types of sampling. (3mks)

6. (a) Name two main methods used in analyzing statistical data. (2mks)

   (b) What is the significance of statisticsin geography? (5mks)

7. (i) Name two types of graphs that youhave learnt about. (2mks)

   (ii) What are the advantages of using graphs named above in representing statistical data? Give advantages. (4mks)

8. (i) What is a questionnaire?

   (ii) State four advantages of using questionnaires in collection of' statistical data. (4mks)

   (iii) Explain oral interview method. (2mks)

9. Explain the following methods of datarecording.
   - Tabulation
   - Photographing
   - Tape recording
   - Tallying

10. What is data? (2mks)

11. Marks 72, 60, 65, 70, 65, 80, 65, 70, 80, 84, 63, 75, 63, 71, 74
    Use the data above to find out mean and mode. (4mks)

12. With the help of data above explain how median is obtained. (3mks)

**MAPWORK**

1. 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? (2mks)
   (ii) What is the length in kilometers of the section of the Mwatate – Voi railway line in the south – eastern part of the map? (2mks)
   (b) Draw a rectangle measuring 16cm by 12 cm to represents the area enclosed by the Eastings 24 and 40 and Northings 20 and 30 ( 1 mk)

   On the rectangle, mark and name the following features:
   - Mgange hills ( 1 mk)
   - A rock out crop ( 1 mk)
   - All weather road, bound surface ( 1 mk)
   - River Ruhia ( 1 mk)
   - Ronge forest ( 1 mk)

   (c) Using evidence from the map, explain three factors that have favoured the establishment of the Teita sisal Estates in the Southern part of the area covered by the map ( 6mks)
2. Study the map of Nyahururu, 1: 50,000 (sheet 105/4) provided and answer the following questions
   (a) (i) Give the six figure grid of the junction where the road to Ndaragwa (D 388) meets with the road to Nyeri&Nanyuki (B5) (2mks)
   (ii) Calculate the bearing of point X from point Y (2mks)
   (iii) Name three physical features found along the line XY (3mks)

   (b) (i) Draw a square 12 cm by 12 cm to represent the area enclosed by the Easting 10 and northing 10 to the North- eastern part of the map (1mk)
   (ii) On the square, mark and label
   - The main river (1mk)
   - All weather loose surface road (1mk)
   - A forest (1mk)

   (c) Citing evidence from the map, explain two
   (i) Physical factors that may have influenced the location of Nyahururu town (4mks)
   (ii) Factors that favour saw milling in the area covered by the map (4mks)

3. Study the map of Taita Hills (150: 50,000sheet 189\4) to answer the following questions.
   a) What is the approximate height of the hill at the grid square 3926. (2mks)
   b) Measure the length of all weather 6 to roads (bound surface) from Wundanyi to southern edge of the area covered by the map. (2mks)
   c) Citing evidence from the map describe the relief of the area shown. (5mks)
   d) State differences between a map and a plan. (2mks)
   e) Explain two importance of scale in maps. (2mks)
4. Study the map of Kisumu East(1:50,000) and answer the following questions.
   (a) (i) What is the bearing of thetrigonometrical station at gridreference 081980 from the rockantelop at grid reference 071992. (2mks)
   (ii) Measure the length of the allweather road (bound surface) 1321, from, the junction at grid reference 974911 to the edge of the map, grid reference 947967. (2mks)

(b) (i) Describe the relief of the area covered by the map.
(ii) Explain how relief has influenced the settlement in the area covered by the map. (8mks)

(c) Citing evidence give three economic activities carried out in the area covered by the map.

(d) Students from the school at Masago (grid square 0681) carried out field study of the course of river Ombeyi.
(i) State three findings they are likely to have come up with. (3mks)
(ii) Give three advantages of studying rivers through field work

**Field-Work**

**1** You are to carry out a field study on the forest vegetation around Mau region.
i) State **two** reasons why6 it is necessary to have route map. (2 marks)
ii) Give **two** reasons why you need a tape measure. (2 marks)
iii) Identify **two** challenges you might encounter during the course of the field study. (2 marks)

**2** Form three students of Butuk secondary school carried out a field study around lake Victoria.
i) Name the type of breeze they most likely experienced. (1 mark)
ii) Give two economic activities
iii) State two methods they used in recording data. (2 marks)

**3** You intend to carry out a field study on Jua Kali industries in your local market.
i) State **two** reasons why it will be necessary for you to visit the area of study in advance. (2 marks)
ii) For your field study, you have prepared a work schedule. State two items you could include in the schedule.(2 marks)
iii) Give **two** advantages of studying Jua Kali industries through field study. (2 marks)

**4** Your geography class intends to carry out a field study at Olkaria geothermal power plant.
i) State **two** objectives of your study. (2 marks)
ii) What **two** follow-up activities are they likely to engage in after the study? (2 marks)

**5** Students of TukJowi Girls were to study the rocks around their school.
(i) Identify **two** methods they would use to classify the rocks around their school. (2 marks)
(ii) Identify **three** Follow up activities they would engage in. (3 marks)
(iii) Give three advantages of studying rocks through field work. (3 marks)

**6)** Suppose you were to carry out a field study on the influence of rainfall on vegetation.
i) State two hypothesis for your study. (2 marks)
ii) What methods will you use to represent your data? (3 marks)
i)During a field study students noted that the area received frontal rainfall.
Describe its formation. (4 marks)

**7)** Your class is planning to carry out a field study of a river in its old stage.
i) State two objectives of your study.
(2 marks)
ii) State two advantages of observation as a method of collecting data during field study.
(2 marks)
iii) State two characteristics of a river at the old stage that you are likely to observe during the study.
(2 marks)

**8)** You intend to carry out a field study in a coffee factory near your school.
a) State three reasons why you would visit the area of study in advance. (3 marks)
b) You have prepared a work schedule for your study. State three items you would include in your schedule. (3 marks)

**9**) Some students are planning to carry out a field study on rock weathering around their school.
i) List four secondary sources of information they are likely to use as they prepare for the study. (4 marks)
ii) State five activities they would carry out during the study. (5 marks)

**10** Your class carried out a field study on an industry.
(i) Give three reasons for dividing the class into groups. (3marks)
(ii) List three types of data you collected. (3marks)

**11**) i) Supposing you were to carry out a field study on rocks at the Kenyan coast
Why do you think sedimentary rocks are the most widespread in the coastal. (3 marks)
ii) Why would sampling part of the area be necessary as you conduct a field study. (3marks)

**12**) i) State four reasons why it is necessary to conduct a reconnaissance in a field study of a volcanic landscape.
ii) During your field study you intend to study volcanic rocks, state two problems you are likely to encounter during the
field study. (2marks)

**13**) Student of a school are planning to carry out a field study in a folded region.
i) Identify **three** ways in which Fold Mountains that they would come across are likely to have been formed. (3mks)
ii) State **four** ways in which the students would prepare themselves for the study. (4mks)
iii) Give **three** advantages of studying landforms through field work. (3mks)

**14)** You are planning to carry out a field study on the course of a river.
i) What would be the advantages of dividing the class into groups according to the stages of the long profile of a river. (4mks)
ii) What would be the disadvantages of using secondary data in this kind of field study? (6mks)
iii) Mention **three** methods they would use to record their data. (3mks

**15)** Students of a school at the coast are planning to carry out a field study in a mangrove forest.
i) Formulate **two** objectives they would prepare for the field study. (2mks)
ii) Mention **one** type of data they would use in their field study. (1mk)

**16**) Suppose you carried out a field study on a lake;
(i) Give **three** methods you would use to collect data **(3mks)**
(ii) State **three** advantages of studying lakes through fieild work **(3mks)**
(iii) Give **two** uses of lakes they may have identified **(2mks)**

**17**) You are supposed to carry out a field study of an eroded area
(i) List down **two** indicators which would prove that the area is severely eroded **(2mks)**

(ii) Give **two** follow-up activities you would carry out after field work **(2mks)**
(iii)State **three** recommendations you would give to control soil erosion
**(3mks)**

**18** Your class is planning to visit a dairy farm within your county
(i) State **three** objective for the study **(3mks)**
(ii) Name two methods of data collection you would use
**(2mks)**

**19**) 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.
**(3mks)**
(ii) State **four** activities you would carry out to determine why deposition occurs at this stage.
**(4mks)**

**20** You intend to carry out a fieldstudy of rocks in the area around your school.
(i) Show how you would use the following during the study.
(a) Geographical hammer **1mk**
(b) Polythene bags **1mk**
(ii) Give **three** reasons why it would be necessary to conduct a reconnaissance of the area of study
**3mks**
(ii) State **three** importance of rocks that you may identify
**3mks**

**21**) Students carried out a field study on rocks around their school.
(i) State **two** objectives they formulated (2 Mks)
(ii) Give **two** reasons why they prepared a route map. (2 Mks)
(iii) Give **two** activities that the students were involved in during the field study (2 Mks)

**22**) Students of a school in Mombasa County went for a field study at the oil refinery in Mombasa.
(i) List **two** methods that they used to record data. (2 marks)
(ii) Give **three** problems that they might have faced during the study. (3 marks)

**Minerals and Rocks**

**1**(a) i) Distinguish between minerals and rocks . (2 marks)
(ii) List **three** characteristics of minerals. (3 marks)
(b)Describe the formation of coral rocks. (4 marks)
(c)Explain **four** Ways in which sedimentary rocks are significant to the Kenyan Economy.(8 marks)

**2.** **a)** i) Differentiate between plutonic and volcanic rocks. (2 marks)
ii) Describe the process of the formation of mechanically formed sedimentary rocks. (5 marks)
iii) Give two types of mechanically formed sedimentary rocks. (2 marks)
**b)** i) State three ways in which metamorphic are formed. (3 marks)
ii) Fill in the table below. (3marks)

| Original rock | Metamorphic rock |
|---|---|
| Sandstone | ..... |
| Gneiss | |
| Coal | ..... |

**3.** **a)** Give two examples of organically formed sedimentary rocks. (2 marks)

**b)** Describe how intrusive igneous rocks are formed. (3 marks)

**4**. a) Identify three characteristics of minerals. (3 marks)
b) What is a rock? (1 marks)
c) i) Describe two processes through which sedimentary rocks change into metamorphic rocks.(6 marks)
ii) Identify three changes that may occur in rocks when they are subjected to heat and pressure. (3 marks)
d) Explain three conditions necessary for the growth of coral polyps that form coral limestone rock. (6 marks)

**5** (a) What is a rock **(2mks)**
(ii) Describe the following characteristics of minerals
- Texture
- Lustre
- Element composition **(6mks)**

(b) (i) Name **two** types of hypabyssal rocks **(2mks)**
(ii) Describe **three** ways through which an original rock can be converted into metamorphic rock **(9mks)**
(c) Explain three significances of rocks **(6mks)**

**6.** (a) (i) State **two** characteristics of sedimentary rocks. **(2mks)**
(ii) Describe **three** ways through which sedimentary rocks are formed. **(6mks)**
(b) Describe **two** processes through which sedimentary rocks change into metamorphic rocks. **(4mks)**
(c) Give an example of each of the following types of igneous rocks.
(i) Plutonic rocks **(1mk)**
(ii) Hypobesal rocks **(1mk)**
(iii) Volcanic rocks **(1mk)**
(d) (i) Give **two** examples of chemically formed sedimentary rocks. **(2mks)**
(ii) State **five** uses of rocks. **(5mks)**
(iii) Describe the following characteristics of minerals:-
- Lustre **(1mk)**
- Colour **(1mk)**
- Density **(1mk)**

**7** (i) Distinguish between minerals and rocks **2mks**
(ii) Give **three** ways in which rocks can be classified **3mks**
b (i) The table below shows types of sedimentary rocks. Fill in the blank spaces.

| **Type** | **Example** |
|---|---|
| Chloride | _____ |
| Aranaceous | _____ |
| _____ | Coal |

**3mks**

(ii) Describe how sedimentary rocks are formed through physical processes **4mks**
c (i) Give **three** changes that occur in rocks during metamorphism **3mks**
(ii) State **two** reasons why sedimentary rocks are dorminant along the Kenyan coast **2mks**

**8** a) i) What is a rock? (2 Mks)
ii) State **two** reason why sedimentary rocks are wide spread in the Coastal plain (2 Mks)
b) For each of the following rocks, name the resultant rock formed after metamorphism
(i) Sandstone (1 Mk)
(ii) Limestone (1 Mk)
(iii) Granite (1 Mk)

c) Describe how extrusive igneous rocks are formed (4 Mks)
ii) List **two** examples of extrusive rocks (2 Mks)
d) Explain **three** economic significance of rocks in Kenya. (6 Mks)

**9**(a) List two methods used to determine the age of rocks. (2 Marks)
(b) List down three metamorphic processes. (3 Marks)

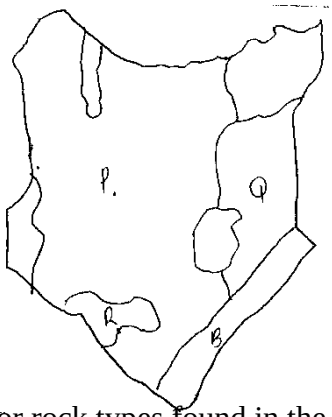
**10**. (a) Give the difference between minerals and rocks. (2 Marks)
(b)(i) Explain the three ways through which sedimentary rocks are formed. (6 Marks)
(ii) Outline three ways through which rocks become metamorphic. (3 Marks)
(c) Classify the rocks listed in the table below

| Name of Rock | Class |
|---|---|
| Marble | |
| Granite | |
| Limestone | |

(3 Marks)

(d) Explaining the meaning of the following terms in relation to rocks
(i) Relative dating. (2 Marks)
(ii) Absolute dating. (2 Marks)

(e) The map of Kenya below shows the distribution of major rock types in Kenya. Use it to answer the questions below.




(i) Name the major rock types found in the area marked Q and R. (2 Marks)
(ii) Account for the distribution of rocks in the areas marked P and B. (2 Marks)
(iii)State three ways in which rocks contribute to the Kenyan economy. (3Marks)

**11**. (a)Give **two** characteristics of plutonic rocks? (2marks)
(b) State **three** ways in which rocks are significant to Kenya's economy. (3marks)

**12**. (a) (i) Differentiate between a mineral and a rock. (2marks)
(ii) Name any **two** intrusive igneous rocks. (2marks)
(b) (i) Name **four** characteristics of minerals. (4marks)
(ii) Describe **three** ways in which sedimentary rocks are formed. (9marks)
(c) Explain **four** significances of rocks. (8marks)

**13**(a) Name**two** examples of hypabyssal rocks. (2marks)
(b) Name **three** elements that form minerals on the earth surface. (3marks)

**14**a) Give three examples of mechanically formed sedimentary rocks (3 marks)
b) State two changes that occur in sedimentary rocks when they are subjected to intense heat and pressure (2 marks)

**SECTION B**

**15**a) i) Differentiate between minerals and rocks. (2marks)
ii) Give ***three*** ways in which rocks can be classified. (3marks)
b) i) Name one example of each of the following types of sedimentary rocks.

- Chlorides (1mark)
- Arenaceous (1mark)
- Carbonaceous (1mark)

ii) Describe how sedimentary rocks are formed through physical processes. (4marks)
c) i) State **three** changes that occur in rocks during metamorphism (3mark)
ii) Give **two** reasons why sedimentary rocks are dominant along the Kenyan coast. (2 marks)
d) You are planning to carry out a field study on rocks in your county.
i) State three reasons why it would be necessary for you to conduct a reconnaissance of the study area(3marks)
ii) Give **two** methods you would use to record data. (2marks)
iii) State ***three*** importance of rocks you will identify (3marks)

**Mining**

**1**a) Name two ports through which some minerals mined in East Africa are exported. (2 marks)
b) State three ways in which mining derelicts can be reclaimed. (3 marks)

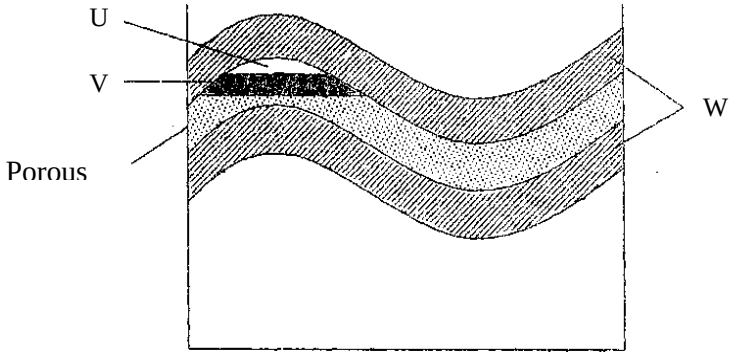
**2. a)** State two ways through which minerals occur on the earth crust. (2 marks)
**b)** Give three effects of mining on the environment. (3 marks)

**3. a)** Name two minerals that are extracted through placer mining method. (2 marks)
**b)** State two problems facing soda ash production in Kenya. (2 marks)

**4.** a) What is derelication ? (2 marks)
b) Name two by-products of crude oil. (2 marks)

**5** (a) Describe how trona is extracted from Lake Magadi. (3marks)
(b) State two uses of Soda ash. (2marks)

**6**. a) Name **two** countries in Africa south of the equator where petroleum is mined. (2 marks)
b) The diagram below shows the occurrence of petroleum in the earth's crust.




(i) State **three** conditions necessary for the formation of petroleum. (3 marks)

c) Explain **four** effects of increased oil prices on the economies of oil importing countries. (8 marks)

**7** a) State **two** formations in which mineral ores occur. (2mks)

b) Give **three** reasons why coal resource in the Mui basin Kitui county has not been commercially exploited. (3mks)

**8**. a) Name **two** major minerals mined in Kenya's Rift Valley. (2mks)

b) i) Apart from deep shaft mining, name three other mining methods. (3mks)

ii) Explain how shaft mining methods is carried out. (7mks)

c) State any **four** conditions necessary for the formation of petroleum. (4mks)

d) How does Kenya stand to gain from the exploitation of petroleum in the Turkana County? (9mks)

9. (a) (i) Name **two** minerals which occur as placer deposits **(2 mks)**

(a) Describe how shaft mining is carried out **(5 mks)**

(c) Explain how the following factors influence exploitation of minerals

(i) Value of mineral **(2 mks)**

(ii) Quality of the ore **(2 mks)**

(iii) Mining methods **(2 mks)**

(d) Explain **four** ways in which gold mining has contributed to the economy of South Africa **(8 mks)**

(e) State **four** negative effects of mining on the environment **(4 mks)**

**10.** Explain how the following processes influence the occurence of minerals.

- Vulcanicity **(2mks)**
- Sedimentation **(2mks)**

**11**. Use the map of Kenya below to answer questions (a)

(a) Name the minerals mined in the areas marked P and R. 2mks
(b) State **three** benefits of Gold mining to the economy of South Africa. 3mks

**12**. (a) Give ***two*** uses of soda ash. (2 marks)
(b) State ***three*** ways in which mining derelicts can be rehabilitated. (3 marks)

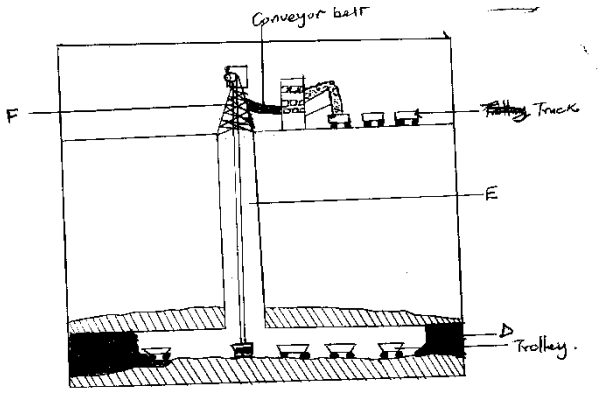
**13**. (a) (i) What is mining. (2 marks)
(ii) Give **four** main formations in which minerals occur.
(4 marks)
(b) (i) Apart from shaft methods name **three** other types of underground mining. (3 marks)
(ii) Describe the shaft method of mining. (5 marks)
(iii) Explain **four** ways in which gold mining has contributed to the economy of South Africa.
(8 marks)
(d) State **three** negative effects of mining on the environment. (3 marks)

**14**. (a) State **two** methods of mining. (2marks)
(b) State **three** problems facing diamond mining in South Africa. (3marks)

**15**(a) (i) Name **<u>two</u>** examples of energy minerals. (2marks)
(ii) Describe open cast method of mining. (4marks)
(b) Explain **<u>four</u>** effects of mining on the environment. (8marks)

(c) Explain **<u>four</u>** problems facing gold mining in South Africa. (8marks)
(d) Give **<u>three</u>** countries which produce oil in the Middle East. (3marks

**16**(a) The diagram below shows a mining drill. Name the parts marked D, E & F. (2 marks)




(b) State <u>two</u> factors necessary for the occurrence of oil. (2 marks)

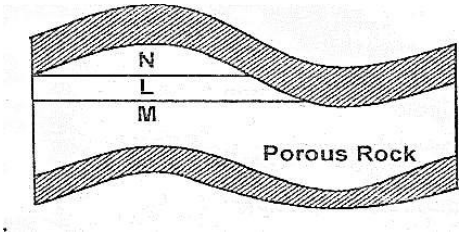
**17**a) Name two middle East countries which produce large quantities of petroleum (2marks)
b) State three problems facing petroleum exploitation in the Middle East countries (3marks)

**18**. a) Name two minerals mined in South Africa (2marks)
b) Give three problems facing the mining industry in South Africa (3marks)

**19**Give four ways in which Kenya will benefit as a result of oil discovery in Turkana county (4 marks)

**20**. a)i)Name two mining methods used to mine diatomite in Kariandusi in Kenya (2marks)
ii) State three formations in which mineral ores occur. (3marks)
b) State four factors influencing exploitation of minerals in Kenya. (4marks)
c) Explain three negative effects of mining on the environment. (6marks)

d)The diagram below shows the occurrence of petroleum in the earth's crust.




i) Name the substances in the area labelled L, M and N. (3marks)
ii) Give two by-products obtained when refining crude oil. (2 marks)
e) State five significance of mining in Kenya. (5marks)

**21**a) What is mining? (1 Marks)
b) State **three** negative effects of mining on the physical environment (3 Marks)

**22**(a) Give three examples of mechanically formed sedimentary rocks. (3 marks)
(b) State two changes that occur in sedimentary rocks when they are subjected to intense heat and pressure.(2 marks