QUESTIONS – GEOGRAPHY

FORM ONE

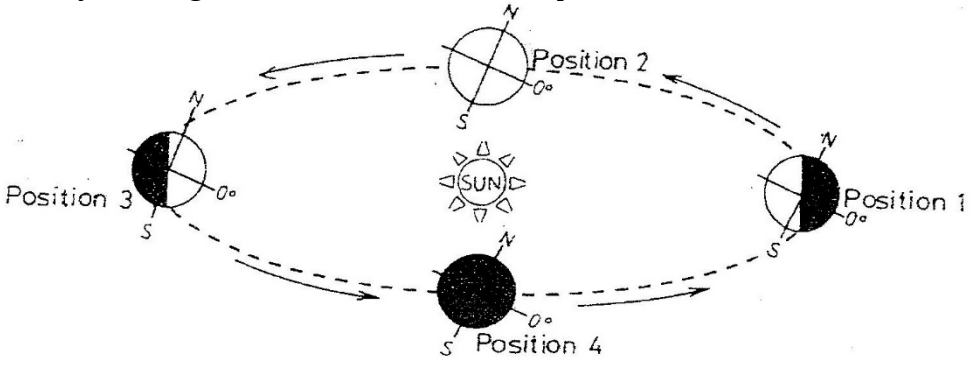
INTRODUCTION TO GEOGRAPHY – QUESTIONS

1. What is practical geography? (2mks)
2. Name two branches of geography (2mks)
3. Name any three study areas in human geography (3mks)
4. Define the term environment (2mks)
5. Explain three reasons for importance of studying geography (3mks)
6. Name five human features (3mks)
7. What is habitat (2mks)
8. List six disciplines related to geography (6mks)
9. Differentiate between each of the following:
   1. Democracy and population geography
   2. Economics and economic geography (4mks)
10. Name two Greek words from which term geography originate (2mks)

THE EARTH AND THE SOLAR SYSTEM.

1. (a) State two effects of the rotation of the earth (2mks)

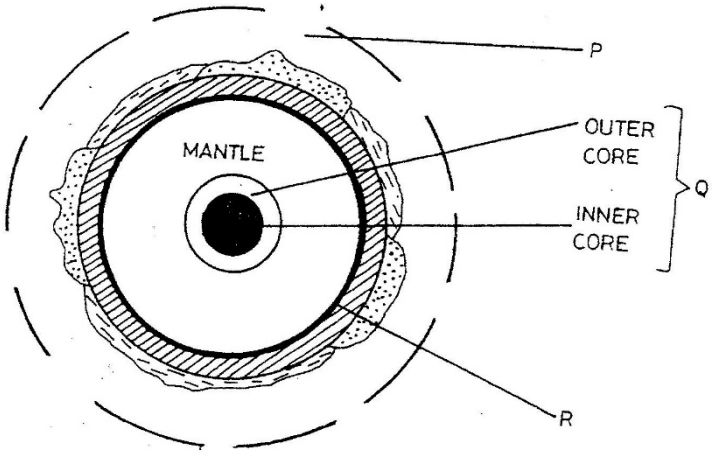
3. Study the diagram below and answer the questions that follow



(i) Which movement of the earth is represented by the diagram? (1mk)

(ii) Give two effects of the movement represented by the diagram (2mks)

2. The diagram below represents the structure of the earth. Use it to answer question



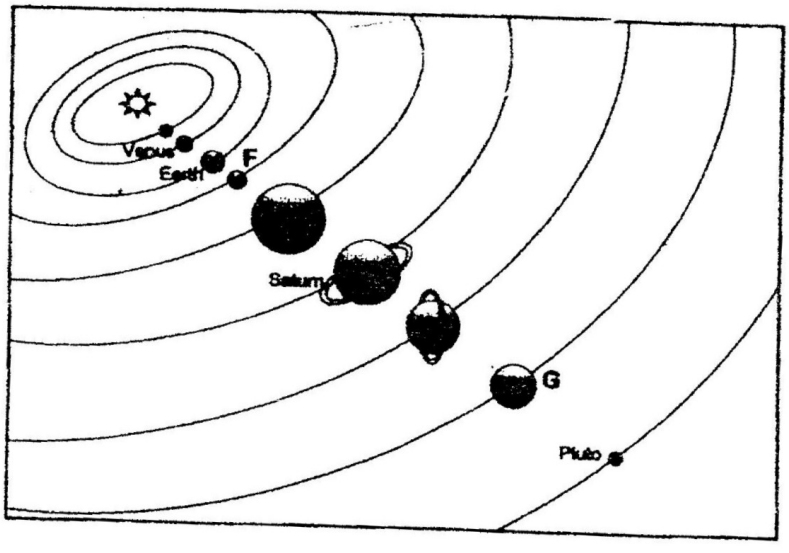
(a) Name

(i) The parts marked P and Q (2mks)

(ii) The discontinuity marked R (1mk)

(b) State three characteristics of the mantle (3mks)

3. The diagram below shows the composition of the solar system

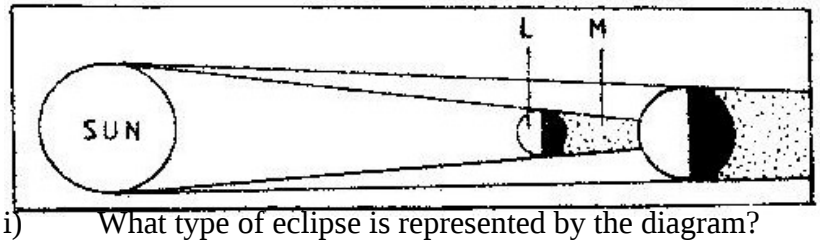


(a) Name the planets marked F and G (2mks)

(b) State three effects of the rotation of the earth on its axis (3mks)

4. a) What is the solar system?

b) Use the diagram below to answer the questions that follow.



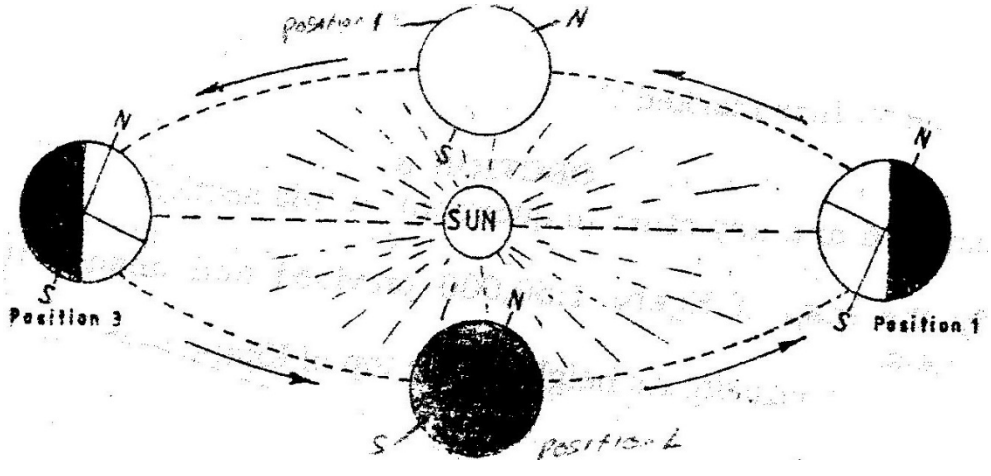
i) What type of eclipse is represented by the diagram?

ii) Name the features marked L and M

5. (a) (i) Give the two dates in a year during which the number of hours of darkness is equal in both the north and south poles.

(ii) Why do the lengths of days and nights vary from one part of the earth to another?

(b) The diagram below shows the revolution of the earth around the sun. Use it to answer the questions that follow



(i) If the earth takes 366 days to make a complete revolution during a leap year, how long will it take to move from position 1 to position 4?

(ii) What season is experienced in the southern hemisphere when the earth is in Position 1?

6. Define the following,

i. Solar system

ii. Galaxy

iii. Star

iv. Asteroids (6mks)

7. Differentiate between the following

(a) Latitude and longitude

(b) Dateline and international dateline

(c) Meteors and Meteorite. (6mks)

8. State three differences between solar eclipse and lunar eclipse. (2mks)

9. State four factors that support life on planet earth. (4mks)

10. (a) List four effects of earth rotation. (4mks)

(b) At Nairobi on longitude 37°E local time is 1 p.m. What time would it be at Sarissa on longitude 41 °E? (4mks)

11. (a) Define equinox. (2mks)

(b) State characteristics of summer solstice. (4mks)

12. The earth is inclined to the ecliptic plane at an angle of..... and the axis is also inclined at an angle ..... to perpendicular line. (4mks)

13. Fill in the table from (a) - (f) (10mks)

Property s/Layer	Major constituent	Thickness	Density	Temperature
Outer crust	(a)	iii. 16-24 kms	(b)	
Inner crust	ii. Magnesium	S (c)	2.8-30 gms/cc	
Asthensophere	i. Iron	2900 kms	(d)	5000 C
Centrosphere	ii. Nickle	(e)		(f)

14. State three weaknesses of the passing star theory. (6mks)

15. Differentiate between hydrosphere and atmosphere. (4mks)

16. Planet ... 1... is seventh planet from the sun and is greenish in colour. Planet ...2... takes shortest time to revolve round the sun about 88 earth day. Planet ...3... and ...4... are referred to as twin planets. Planet ...5... takes about 11.86 earth years to revolve round the sun. All the planets have satellite orbiting round them except planet ...6... and ...7...

(7mks)

17. Explain reasons for flattening and bulging of earth. (4mks)

18. State characteristics of winter solstice (4mks)

19. Differentiate between summer solstice and winter solstice. (4mks)

20. (a) What is an eclipse? (2mks)

21. Apart from planets name other heavenly bodies.

22. What is a longitude? (2mks)

23. State the effects of the elliptical shape of the earth's orbit. (6mks)

24. If the local time in Nairobi on longitude 37°E time is 10 p.m. What will the time be at Buchanan Liberia on longitude 10°W.? (4mks)

(a) What is the effect of International Date Line on crossing the line? (4mks)

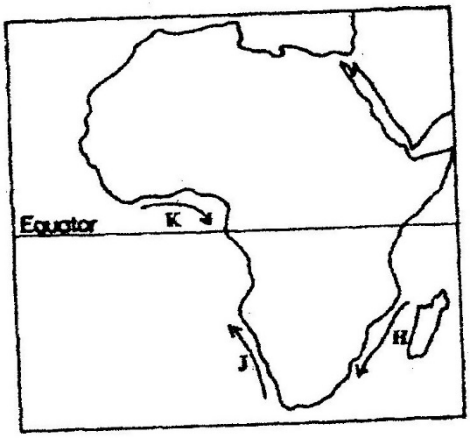
(b) What is the angle of inclination of the earth axis from its orbit? (2mks)

(c) Give four proofs that the earth is spherical in shape. (8mks)

WEATHER

1. (a) How does a sea breeze occur? (2 mks)

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



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

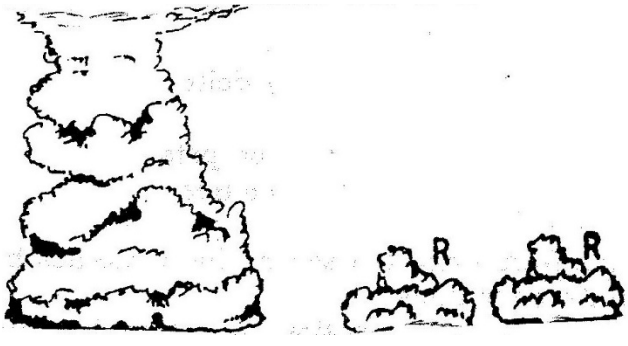
(ii) State two effects of a warm ocean current on the adjacent coastlands (2 mks)

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

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

3. (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

4. 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.

5. a) The table below shows climatic data of a station in Kenya.

Use it to answer question (a)

Month	Jan	Feb	Mar	Apri l	May	June	Jul	Aug	Sep	Oct	Nov	Dec

Temp in °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

4. What is the annual range of temperature at the station?
5. Calculate the total rainfall for the station.

b) State three factors that influence climate.

6. (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

7. (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)

8. Define relative humidity. (2 mks)

9. (a) Identify four characteristics of convectional rainfall. (4mks)

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

10. (a) Briefly describe how the six thermometers operate. (5mks)

(b) Three ways in which clouds are classified. (3mks)

11. (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)

12. Define the following terms:

(i) Climate

(ii) Relative humidity

(iii) Weather forecasting

(iv) Absolute humidity

(v) Weather lore (5mks)

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

14. (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 Lake Region or Kenya. (8mks)

(c) Briefly write down two problems associated with the type rainfall above.

(4mks)

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

(b) List four problems of weather forecasting. (4mks)

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

(4mks)

16. (a) Explain three ways in which clouds influence 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 of temperature.

(iv) Calculate the mean annual rainfall

(v) Which is the wettest month? (10 mks)

17. (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)

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

19. 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

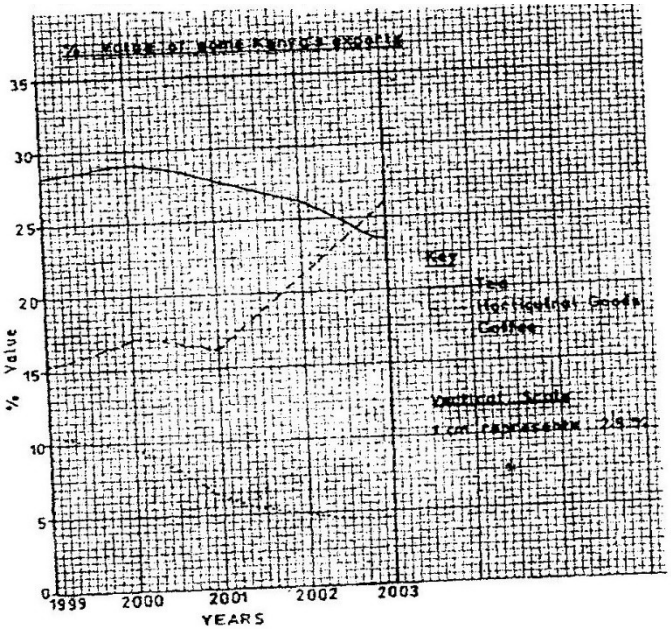
a) (i) What is the difference in production between the highest and the lowest producer (1mk)

(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 of questionnaires. (2mks)

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

(b) Differentiate between discrete data and continuous data giving relevant examples. (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 statistics in geography? (5mks)

7. (i) Name two types of graphs that you have 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 data recording.

- 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)

FIELD WORK

1. State two ways in which information collected during the field study would be useful to the local community. 2mks

2. Your class is required to carry out a field study of a river. What would be the advantage of dividing the class into groups according to the stages of the long profile 3 of a river?

3. What would be the disadvantages of c using secondary data in this kind of a field study?

4. You intend to carry out field study on population in the local open air market,

   (i) State three reasons why it would be necessary for you to visit the market before actual field study.

   (ii) Give two methods you would use to collect information on pollution. ,

   (iii) State three follow up activities necessary for the study. -51

5. You are supposed to carry out a field study on the uses of vegetation in the area around your school.

   (a) State three reasons why it would be necessary to visit the area *before* the day of the study.

   (b) Give four uses of vegetation you are likely to identify during the study. (3mks)

   (c) Why is it necessary to sample part of the forest for the study?

6. List three types of fieldwork. (3mks)

7. Explain the importance of field work. (5mks)

8. Outline the procedure for carrying out field study. (5mks)

9. List some topics in physical geography on which you can carry out a field study. (4mks)

10. State five ways in which you would prepare for field study to a weather. (5mks)

11. What is the importance of carrying samples from the field to the school? (4mks)

12. Formulate five suitable objectives for field study on a visit to a forest. (5mks)

13. Discuss types of hypothesis. (2mks)

14. List five methods of data presentation. (5mks)

15. Explain five problems one would encounter on field study in a forest? (5mks)

16. Why is reconnaissance important?

MAP WORK

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:

a. Mgange hills (1 mk)

b. A rock out crop (1 mk)

c. All weather road, bound surface (1 mk)

d. River Ruhia (1 mk)

e. 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 (6 mks)

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: 50,000 sheet 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 the trigonometrical station at grid reference 081980 from the rock antelop at grid reference 071992. (2mks)

(ii) Measure the length of the all weather 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

ROCKS AND MINERALS

1. (a) Describe the following characteristics of minerals

   (i) Colour (2mks)

   (ii) Cleavage (2mks)

   (iii) Hardness (2mks)

   (b) (i) Give two types of igneous rocks (2mks)

   (ii) Explain three conditions necessary fro the growth of coral polyps (6mks)

   (c) State four uses of rocks (4mks)

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

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

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

   i. A fork jembe (1mk)

   ii. A polythene bag (1mk)

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

2. (a) State two characteristics of sedimentary rocks (2mks)

   (b) Give two examples of chemically formed sedimentary rocks (2mks)

3. a) Name the type of rocks which results from the metamorphism of:

   (i) Granite

   (ii) Clay (2mks)

b) Give two reasons why sedimentary rocks are widespread in the coastal plain of Kenya.

(2mks)

4. (a) (i) What is a rock? (2mks)

(ii) Describe three ways through which sedimentary rocks are formed

f. Mechanically formed

g. Organically formed

h. Chemically formed (6mks)

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

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

(b) Plutonic rocks (1mks)

(c) Hypabyssal rocks (1mks)

(d) Volcanic rocks (1mks)

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

(i) Name three secondary sources of information you would use to prepare for the field study (3mks)

(ii) State four activities you would carry during the filed study (3mks)

(iii) State three problems you are likely to experience during the field study

(3mks)

5. (a) Differentiate between plutonic rocks and volcanic rocks

(b) Describe how lava plateau is formed

(c) (i) Name three volcanic features found in the rift valley of Kenya

(ii) Explain four negative effects of vulcanicity in Kenya

(d) You intend to carry out a field study of a volcanic landscape

(i) State four reasons why it is necessary to conduct a reconnaissance

of the area of study.

(ii) During your field work, you intend to study volcanic rocks, state why you would need the following items

6. (a) State two main conditions that influence the characteristics of igneous rocks. (2mks)

(b) Write down three characteristics of sedimentary rocks. (3mks)

(c) Name two examples of organic sedimentary rocks and where found in Kenya. (2mks)

(d) Name four examples of metamorphic rocks and state the original rock from which each was formed. (4mks)

(e) Describe the importance of rocks to human activities. (5mks)

7. (a) State with examples three classes of mechanically formed sedimentary rocks. (6mks)

(b) Differentiate between regional metamorphism and contact metamorphism. (4mks)

8. (a) List two examples of extrusive igneous rocks. (2mks)

(b) Differentiate between extrusive and intrusive rocks giving an example in each case. (2mks)

9. What is a rock? (2mks)

10. What is a mineral? (2mks)

11. Describe changes that occur in sedimentary rocks when they are subjected to high heat and pressure. (4mks)

12. Describe calcareous rocks. (2mks)

13. Describe carbonaceous rocks. (2mks)

14. Give examples of chemically formed sedimentary rocks. (2mks)

15. How are coral rock formed? (3mks)

16. How do rocks become metamorphic? (3mks)

MINING

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)

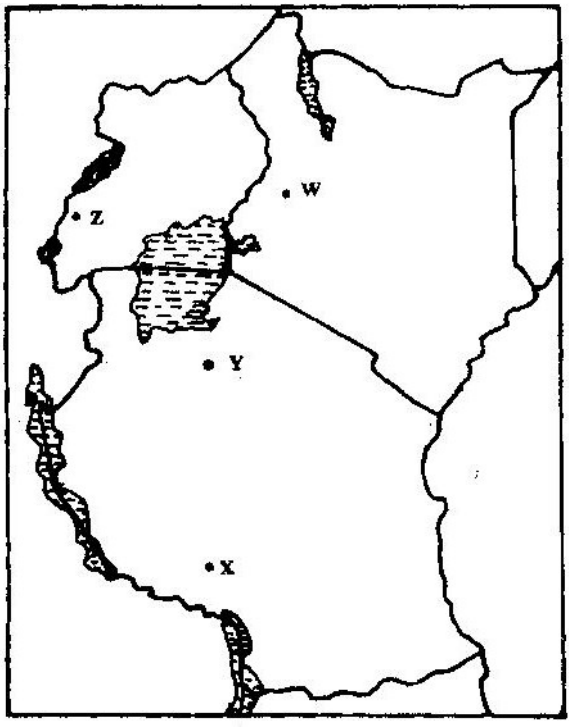
Country	Production in '000" barrels
Iran	3800
Kuwait	2550
Qatar	800
Saudi Arabia	9600
United Arab Emirates	2500
Iraq	1900

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. Use the map of East Africa below to answer questions (s).



a) (i) Name the railway terminuses marked P, Q R (3mks)

(ii) In each case give the main commodity transported by the railway lines marked s and T. (2mks)

b) (i) State four reasons why road network is more widespread than railways in East Africa. (4mks)

(ii) One of the problems facing road transport is the high frequency of accidents. Explain four conditions of roads in Kenya that may lead to accidents. (8mks)

c) i) Name three physical regions through which River Tana passes

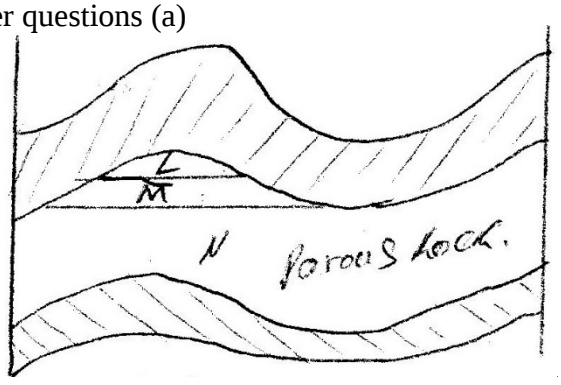
(3mks)

ii) Explain thee effects of land pollution can be controlled

d) State four ways through which land pollution can be controlled (4mks)

3. The diagram below show the occurrence of petroleum in the earth's crust.

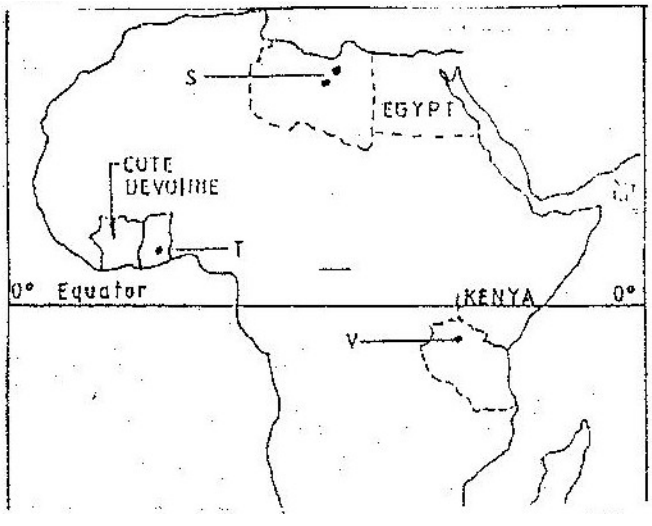
Use it to answer questions (a)



a) Name the substances in the areas labeled L. M and N (3mks)

b) Give two by-products obtained when crude oil is refined (2mks)

4. Use the map of Africa to answer question (a) (i)



i) Name the minerals mined in the areas marked S, T and V.

ii) State two formation in which mineral ores occur.

b) Explain four problems, which Zambia experiences in the exportation

of copper.

c) Explain three ways in which coal contributes to the economy of Zimbabwe.

d) Describe three negative effects of open cast mining on the environment.

5. a) Explain how deep shaft mining is done (2mks)

b) Disadvantages of using the above method (2mks)

6. Explain four effects of land dereliction on the environment. (4mks)

7. Describe how panning mining is carried out. (3mks)

8. Identify four problems facing gold mining in South Africa. (4mks)

9. (a) In what ways has Kenya benefited from the mining of soda ash in Lake Magadi? (2mks)

(b) What are the negative effects of mining on the environment? (4mks)

10. (a) Explain what is meant by placer mining. (2mks)

(b) Name three mining methods.

11. Describe the occurrence and exploitation of Trona in Kenya till it is ready for marketing.

12. Name seven significances of minerals in Kenya. (7mks)

13. Explain diamond and gold in South Africa under following headings:

- Occurrence
- Extraction
- Benefits to the economy
- Problems (10mks)

14. Name five uses of soda ash.