GATUNDU FORM 4 EVALUATION EXAM

312/1
GEOGRAPHY
PAPER I
JULY/AUGUST 2015

MARKING SCHEME
SECTION A

1. a) Three reasons why the study of geography is important.
   - It helps to develop skills e.g. interviewing.
   - It helps the learners to understand/appreciate different environmental influences.
   - It encourages international awareness/co-operation.
   - It helps the learners to appreciate important social values e.g. co-operation.
   - It promotes positive attitudes towards conservation and protection of resources.
   - It helps the learners to manage time properly.
   - It leads to development of career opportunities.
   - It enables learners to explain the origins of earth and other land forms.

   3 x 1 = 3 marks

   b) Three forces that are responsible for the spherical shape of the earth are:
   a) Force of gravity
   b) Centrifugal force
   c) Centripetal force (3 marks)

2. a) The effect of crossing the international dateline from West to East is
   - 1 day is gained
   - The time is adjusted by 24 hours ahead (2 marks)

   b) Three reasons why the interior of the earth is still hot.
   i) The original heat is still retained – Much of the original temperature/heat is retained as the interior cooled slower.
   ii) Radio activity: Radio active materials exploding periodically within the interior of the earth due to nuclear fusion produce a lot of heat.
   iii) The weight of the crustal rocks – The heavy rock materials exert a lot of pressure which generates a lot of heat making the interior very hot. (3 marks)
3. a) Two factors considered in locating a weather station.
   - It should be away from buildings/trees vegetation and other relief features to give accurate measurement.
   - Security the place must be fenced to ensure security of equipments.
   - It should be on an open ground to allow free flow of air.
   - The ground should be gently sloping or relatively flat to protect flooding. (2 marks)

   b) The qualities of a good Stevenson screen giving reasons for the quality.
   - It should be painted white – to reflect excess light and heat
   - It should have louvered sides – to allow free circulation of air.
   - Raised at a height of 121cm above the ground to prevent direct radiation from the earth surface.

- Should have metallic stand to prevent termites' destruction.
- Have insulated double roof to prevent suns heat from reaching the inside of the screen. (3 marks)

4. a) Differentiate between River Rejuvenation and River capture.
- River rejuvenation is the rebirth of a river erosive power.
The revival/renewal of the rivers erosive activity.
- River capture – This is the diversion of the head waters of a weaker river into the system of adjacent more powerful river. (2 marks)

b) Three conditions for the river capture to occur.

i) The two rivers (pivate river and misfit river) flow in adjacent valley.
ii) Pirate river must be flowing in a wider valley/through areas of soft rocks.
iii) The pirate river must have more active headward erosion than the weaker river;
iv) The pirate river should be flowing at a lower level or lower slope than the weaker one. (3 marks)

5. Outline any four differences between volcanic/extrusive and plutonic/intrusive rocks.

Volcanic/Extrusive	Intrusive/Plutonic
1. They cool rapidly 2. They form small crystals 3. They are fine in texture 4. They are formed from cooling and solidification of lava.	- Cools slowly - They form large crystals - They are coarse grained or they have a coarse texture. - They are formed from cooling and solidification of magma.

(4 x 1 = 4 marks)
Question total = 25%

6. Migwani Map

6. They six figure grid reference of
i) Kauma dam. 902624 (2 marks)

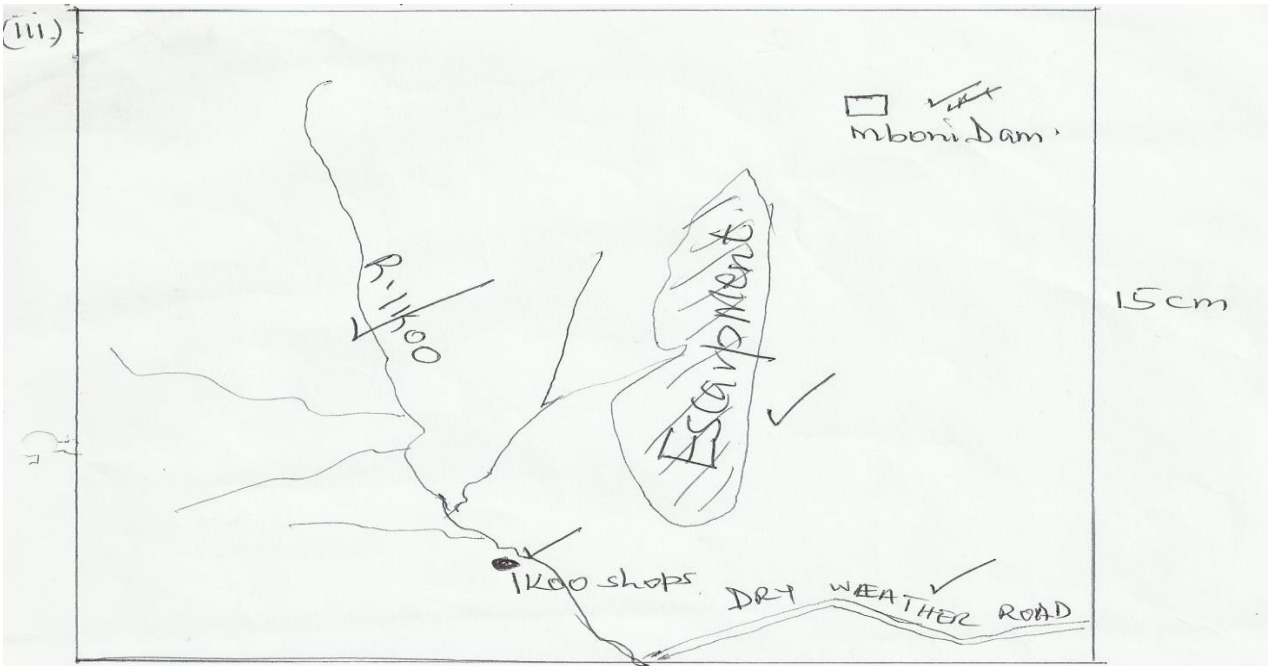
ii) The approximately distance of all weather road loose surface road to the north west of the map.
11kms (2 marks)

iii) Two ways of representing relief on the map are:
- Trigonometrical station
- Contours

b) (i) The bearing of Kyawea trigonometrical station (9226430) from Kagondi school (905 701) is

165^o (164^o – 166^o) (2 marks)
± 1

ii) The area of the enclosed by all weather loose surface road to the north west of the map extract is
$8km^2$ (2 marks)



c. (i) Three social services offered at Mtito Ndoa are:-

	Service	Evidence
i)	Health/medical	- Health centre Hospital
ii)	Religious services	- Church
iii)	Administration	- Chiefs office
iv)	Water supply	- Water pipe
v)	Education	- School
vi)	Transport	- Dry weather roads
vii)	Communication	- Post office

Any 3 x 1 = 3 marks

(ii) Identify two types of vegetation found along northings 68.

- Scrub vegetation
- Scattered trees
- Papyrus swamp mash, bog

Any 2 marks

iii)Describe the drainage of the area covered by the map.

- There are many permanent rivers
- The river rises from West to East.
- The river forms dendritic pattern
- The main river is Ikoo
- Some rivers are seasonal
- There are dams
- There is a borehole.

- Rivers to the north west forms radial drainage pattern.

- There is a spring
- There is a water tank. Any 5 x 1 = 5 marks

Question total = 25 marks

7. (i) Drainage basin definition
   - Drainage basin is the entire area drained by a river and its tributaries.

   i) Three types of river erosion are:-
   - Headward erosion – lengthens river course
   - Lateral erosion – widens the river bank
   - Vertical erosion – deepens the river bed.

   ii) Describe the process of abrasion
   - The materials carried by the river (load) is used as a tool for scouring.
   - The load is hurled by the river water against the banks and the floor.
   - The load being dragged smothering the river bed.
   - Eddy currents rotates rock particles in hollows and widen them into pothole.
   - Abrasion is responsible for wearing down the river bed and widening the banks as the river flows down stream. (3 marks)

   iii) Explain the four processes in which the river transports its load.

   - Solution –This is the process in which materials that are soluble in water like soil are transported down stream. Chalk in limestone areas.
   - Suspension – process where light insoluble materials like silt and mud are carried and maintained within the turbulence of flowing water.
   - Traction – process of transportation where large and heavier materials are rolled/dragged along river bed e.g. logs and rocks.
   - Saltation/hydraulic rifts – process whereby materials/particles such as small stones are transported downstream through a series of short hops and jumps.
     Particles that are not too heavy but cannot remain suspended in water are momentarily lifted by water turbulence and at times dropped into the river bed.

     Process 1
     Explanation 1 2 x 4 = 8 marks
     Process can score independently

b) (i) The importance of the route map.
   - To help to identify the direction to follow.
   - To help to prepare a work schedule.
   - To identify the location of features for study.
   - To estimate the distance to be covered.
   - To estimate the time the field work is supposed to take.

   (3 x 1 = 3 marks)

(ii) Two features that they may have observed and studied are:
   - Interlocking spurs
   - V-shaped valleys

- Gorges
- Rapids

- Water falls
- Pot holes

3 x 1 = 2 marks

(iii) Two problems that they may have encountered are:
- Harsh weather changes – rainy day
- Attack by wild animals e.g. crocodiles
- Accidents in the river.
- Loss of direction.

3 x 1 =2 marks

(iii) Any two follow up activities are:
- Discussing the findings
- Drawing diagrams
- Displaying photographs
- Read more about the topic writing field reports
- Sketching the features
- Analyzing collected data drawing conclusion

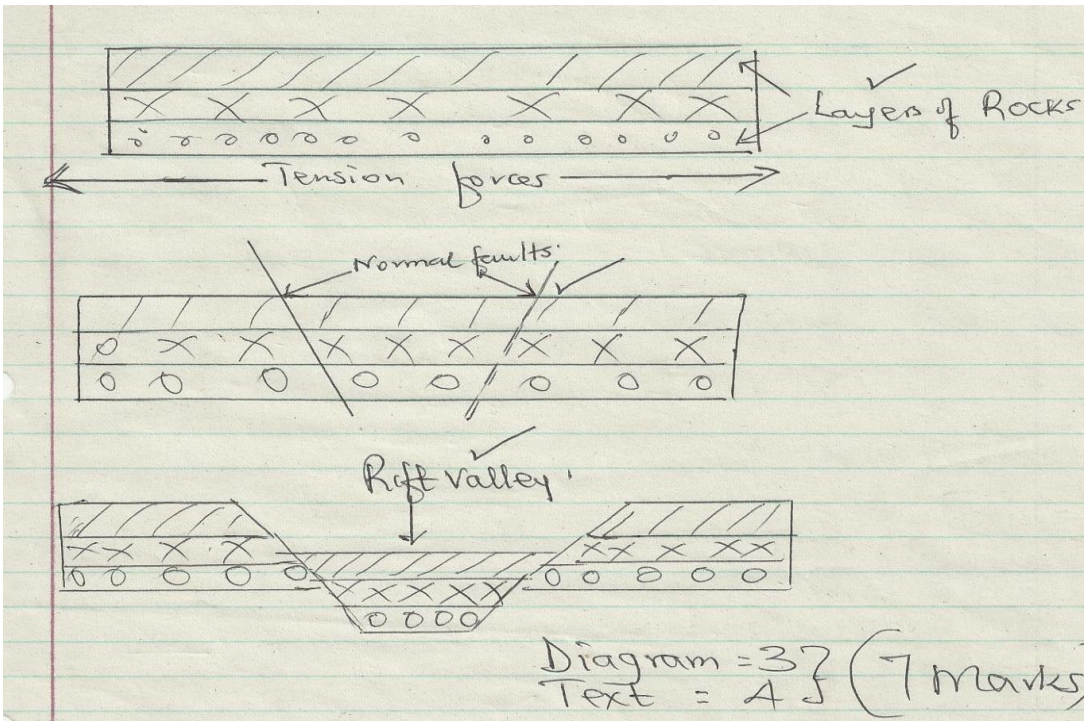
Assessing the information collected against the hypothesis. 2 x 1 = 2 marks

i) Faulting is process whereby the crustal rocks or rocks of the earth crust fractures or cracks. Process of breaking or fracturing of the rocks of the earth crust due to compression or tension forces (2 marks)

ii) Three types of features associated with faulting are:
- Fault scarps
- Fault steps
- Block mountains/horsts/fault blocks
- Tilt block any 3 x 1 = 3 mark

iii) Formation of the rift valley by tension:
Process:- movement within the crust causes instability
Layers of the rocks are subjected to tensional forces.
Parallel faults – Lines of weakness develops/cracks/fissues develops/ Normal faults develops.
- Continued tensional forces results with the middle block subsides/sink.
- Side blocks are pulled aside.
- The middle sunken part forms the Rift valley. Step faulting may follow.
- The hangings sides are later smothered by the forces of denudation/erosion weathering.

Any 4 x 1 = 4 marks



b)(i)Any two objectives of the study.
- To locate the different features
- To find out the main features associated with rift valley.
- Establish the land use around the area;
- To explain how the rift valley was formed.

ii)Three importance of studying faulting through fieldwork are:
-It enables the students to collect first information.
- It helps the student to develop manipulative skills
- It enables the students to develop co-operation with each other.
- It helps the student to apply the knowledge learned in the class room.
-It makes learning interesting
-It makes learning real
-It provides detailed/broader learning or in depth learning.
- It enhances vision memory. (3 marks)

(iii) The significance of faulting to human activities.

- Faulting leads to formation of features that provides beautiful sceneries which attract tourists.
- Faulting leads to formation of lakes that are important fishing grounds/tourist sites/mining sites/provide water for irrigation/domestic use/industrial use.
- Faulting leads to displacement of rocks which exposes minerals that are mined.
- Faulting may lead to formation of mountains/Horsts which attract rainfall on the wind ward side which favours agriculture/settlement forestry.

- When faulting occurs across a ridge it may provide a dip which could form a mountain pass where transport and communication liner can be constructed/may hinder development of transport.

- Subsidence of land as a result of faulting may lead to loss of life and property.
- Faulting may cause a river to change direction or disappear causing water shortage for the people downstream.
- Springs occurring at the foot of the fault scarps attracts settlements.
- Faulting creates a deep fault which are passages of steam jets which may be utilized for geo-thermo power projects.
- Rivers flowing over fault scarps may form waterfalls which may be suitable sites for Hydro-electric power production. (H.E.P).

9. (a) (i) A rock is a substance made up of minerals or combination of mineral particles cemented together and forms the solid part of the earth's crust. (2 marks)

(ii) Two reasons why sedimentary rocks are widespread in the coastal plain.
- The coastal areas was once on extensive part of the continental shelf of the Indian ocean sedimentation took place on this shelf extensively.
- The shallow continental shelf also provided a conducive environment for the formation of coral rocks.
- Upon the emergence of the land from the sea, extensive areas with sedimentary rocks and corals were exposed as dry land. (2 marks)

b) (i) Changes that occur to sedimentary rocks when they are subjected to intense heat and pressure.
- New minerals are formed
- Further recrystalization of minerals occur
- Rock particles become compacted
- The physical appearance/colour changes
- The rock becomes metamorphosed. (4 x 1 = 4 marks)

(ii) Processes through which sedimentary rocks changes into metamorphic rocks changes into metamorphic rocks.
- During the process of mountain formation pressure and heat are generated. They both modify the structure of the original rock. This is thermal dynamic metamorphism.
- Weight of overlying rocks exert pressure on the lower changing the rock structure. This is dynamic metamorphism.
- Hot gases, liquids or magma may intrude into rocks during volcanic eruptions. The heat recrystallize the rock grains changing its structure. This is thermal/contact metamorphism (metasomatism).

c) Formation of coral rocks
- They are formed by tiny marine organisms called coral polyps which live in colonies in the sea.
- The polyps extract calcium from the sea water to make their shells.
- When the polyps die, their hard exo-skeletons (the shells) of calcium carbonate accumulate into a solid mass.
- Successive colonies of polyps attach themselves onto the solid mass and out one another.
- The spaces between the dead coral popyps are cemented by calcareous algae.

- The rock grows in size to become coral rocks.

d)(i) Source of secondary information
- Text books/journals/periodicals/magnesium/newspapers

- Maps/geological maps.
- Photographs/pictures/videos/films
- Tape recorded information

(ii) Activities in the field study.
- Drawing sketches
- Observations
- Collecting of rock samples
- Making notes
- Taking photographs
- Asking/answering questions
- Studying geological maps.

10. a).(i) A spring is a natural outflow of water from the rocks or underground while a well is a hole sunk into permeable rock to reach the water table. (2 marks)

(ii) Four conditions favouring formation of artesian wells.
- The acquifer must be of semi permeable materials.
- The acquifer must be exposed in an area of sufficient precipitation.
- The acquifer must lie in between two impermeable rocks for it to retain water.
- The basin must dip towards a region where the land surface is lower than it is at the exposed and of the previous formation.
- There must be a partial construction or total blockage of exit sufficient for the water that comes in higher portion of the acquifer to be replaced under pressure. (4 x 1 = 4 marks)

b) (i) A Karsts scenery is a limestone region where water action has created unique feature. (2 marks)

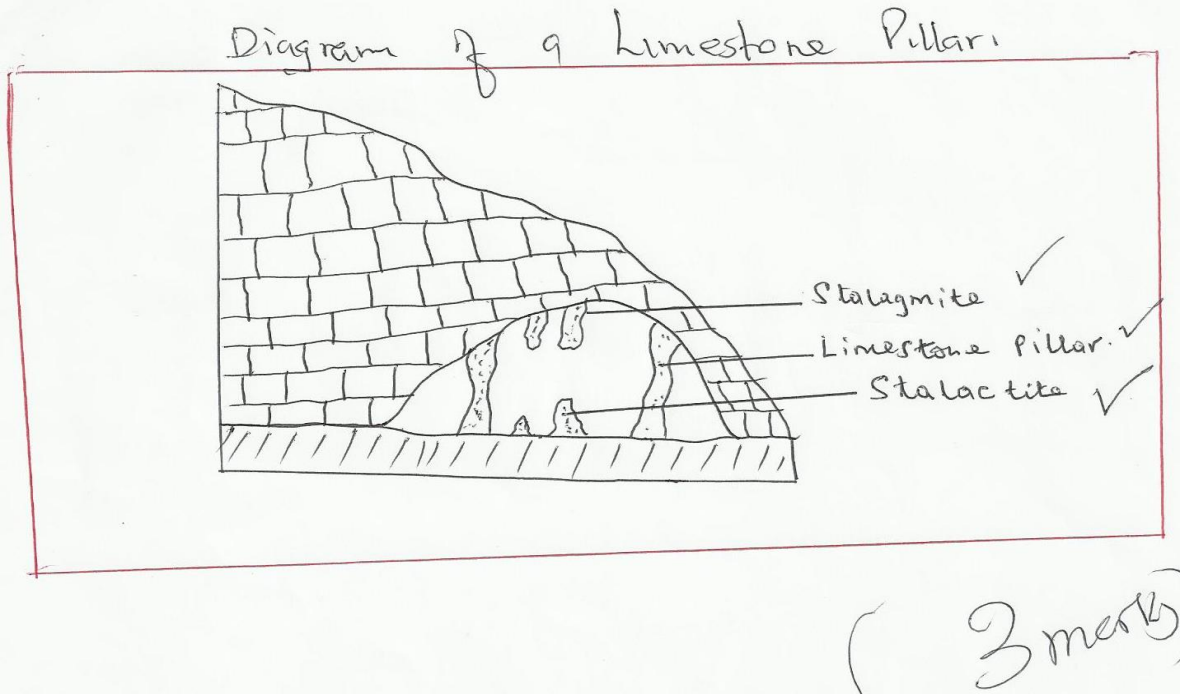
(ii) Karsts surface features.
- Scarps
- Hills
- Dry valleys
- Gorges
- Gully/grikes
- Clints
- Swallow holes/sink holes
- Dolines

a. Uraras
b. Pole
c. Karsts windows
d. Karsts bridges (5 x 1 = 5 marks)

c) Formation of limestone pillar
- Limestone pillars are formed when stalagmite join stalactite.

- If a stalagmite forms directly below a stalactite the two features grow towards each other
- They eventually meet forming a continuous column that resembles a pillar. This is a limestone pillar.

Exp – 3 marks
Diag – 3 marks
Total - 6 marks



d)Significance of Karsts scenery to human economic activities.

- Karsts features from good tourist attractions like the caves, gorges, dry valleys who bring in foreign exchange.
- Collapse of doline into water table may lead to lakes in the Karst area. Solution lakes occur in poljes and provides domestic and industrial water.
- Karsts scenery landscape is characterized with intermittent streams or obsence of streams leading to scarcity of water supply in these areas.
- The limestone areas are also characterized by outcrops of bare rock, rugged rock and steep sided dry valleys with gorges which make development of infrastructure especially roads not only difficult but also expensive.
- Lime stone areas are very favourable for grazing purposes, particularly for sheep because the soil is thin and the surface dry.
- Cement used in the building industry is derived from limestone rock e.g. in Kenya cement factories found at Bamburi due to coral limestone presence.

(3 x 2 = 6 marks)

GATUNDU FORM 4 EVALUATION EXAM

312/2
GEOGRAPHY
PAPER II
JULY/AUGUST 2015
TIME: 2 ¾ HOURS

MARKING SCHEME

1. a) Define the term fisheries (2 marks)
   Fisheries refer to an area or a place where fish are reared or caught in numbers.

   b) Three ways in which marine fisheries in Kenya can be conserved.
   i) Establishing of research stations to study various fish species their breeding habits.
   ii) Creating awareness on the importance of fish resources and fishing grounds to reduce pollution of these grounds.
   iii) The government should protect inland water resources by advising people not to interfere with the regular flow of rivers.
   iv) Indiscriminate fishing should be banned to avoid depletion of fish stock in water bodies.
   v) Laws should be enacted to allow only a small number of selected fishermen to carry out the activity.

2. a) Four factors that influence development of industries in Kenya. (4 marks)
   - Raw materials – industries are located near sources of raw materials as bulky materials may incur high costs of transportation.
   - Power is required to run machinery in the industries and therefore should be located near sources of power.
   - Transport and communication is important since this is well developed in urban areas most industries are located in such areas.
   - Some industries require regular supply of water and this requires that they be located near a river or a lake.
   - A ready market should be taken into account especially the purchasing power of the population.
   - Successful industrial development demands availability of both skilled and unskilled labour.
   - Government play a major role in that they may determine the location of an industry either on economic or political reasons.
   - Industrial investments are very expensive and require capital. A lot of money is required to purchase land or buy equipment.
   - Industrial inertia – some industries may remain in their original locations even if the original considerations for their establishment have changed.

   b) Identify three factors that favoured the location of cement processing plant in Athi River near Nairobi.
   i) There was the availability of raw materials i.e. limestone.
   ii) A ready market is provided by the dense population in the area.
   iii) A good transport net work that facilitates movement to the market.

3. a) State three factors that favour the growth of forests on mt. Kenya. (3 marks)
   i) The cool climate enables forests to flourish.
   ii) High rainfall experienced in the area enhance growth of trees.
   iii) The steep nature of the forested land makes it a conducive area for forest growth.

   b) Name two types of indigenous hand wood trees found on Kenyan forests. (2 marks)
   - Elgon olive
   - Elgon teak
   - Meru oak
   - Mvule
   - Camplum

4. a) State three main functions of rural settlements. (3 marks)
   - Residential area for the rural population.
   - There are educational centre – there are many schools in these areas.
   - Religious centers are available in rural areas involving various denominations.
   - Recreational and cultural centers are also available in rural areas.
   - Administrative centre – there are local chiefs and sub chiefs.

   b) List three factors that led to the location of Mombasa as a city and port.
   1) The site was strategic calling point for early traders to and from East Africa.
   2) The island provided a good defensive site against external aggression.
   3) The coral limestone found in the area was used for building.
   4) The fland land was ideal for construction of buildings.
   5) The two rivers Mwachi and Kombeni provided fresh water for the settlers.
   6) The deep water at the kilindini Creek provided a well sheltered natural harbour.
   7) Mombasa has a large and rich hinterland which covers Kenya Rwanda and Southern Sudan.

5. List three forms of telecommunication services in Kenya.
   Landline/mobile phones telephone services
   Telex services
   Telegraphic services
   Paging services
   Radio communication services

   (3 x 1)

SECTION B

6. Use the table below showing the number of tourist who visited Tanzania between the year 2010 to 2013.

Origin/year	2010	2011	2012	2013
KENYA	100,000	80,000	60,000	40,000
SPAIN	80,000	50,000	45,000	45,000
ITALY	70,000	40,000	35,000	30,000

a) i) Using a scale of 1cm to represent 20,000 tourists, draw a cumulative/compound bar graph to represent this data. (8 marks)

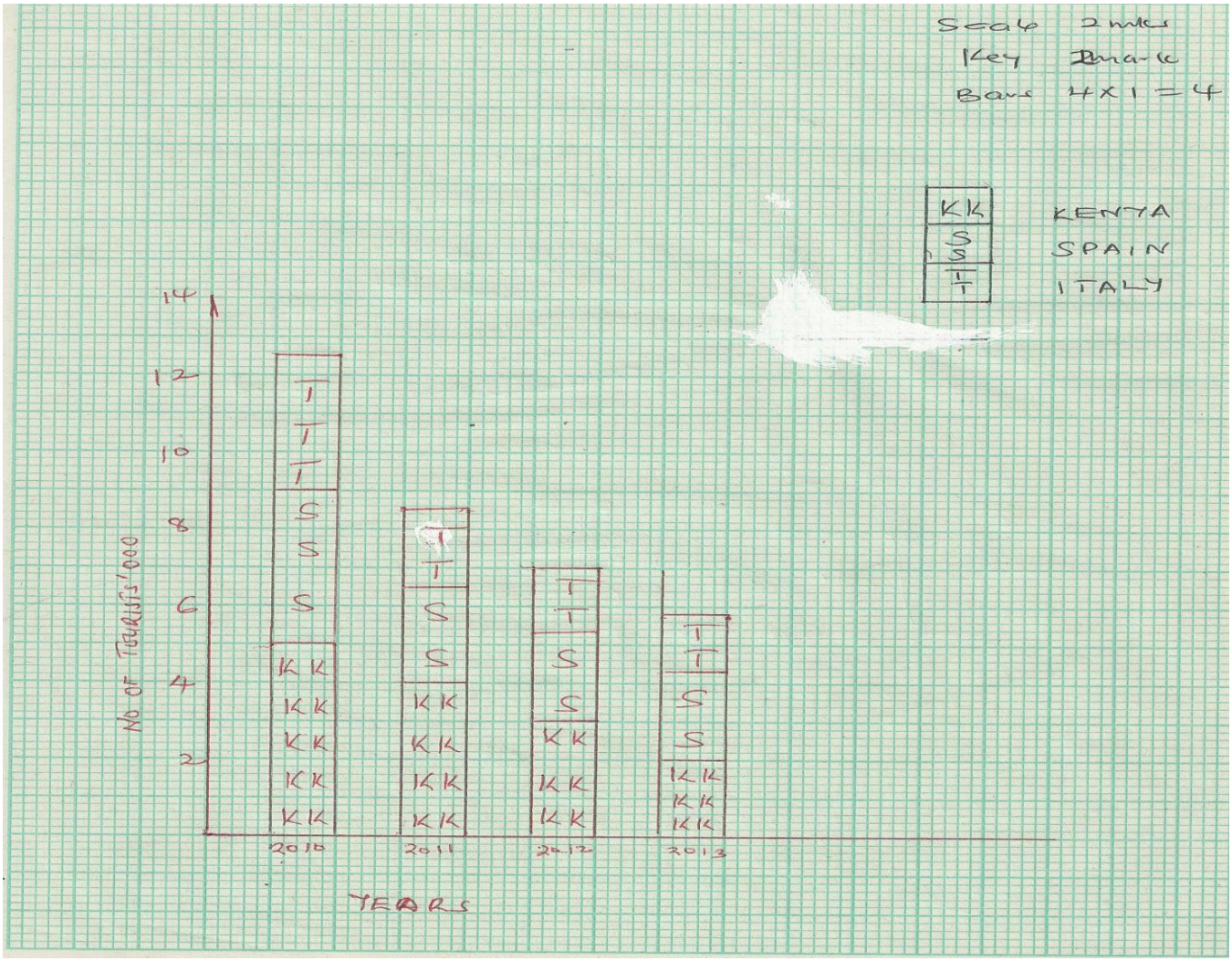
ii) Find out the number of tourists who visited Tanzania in the year 2011. (2 marks)

b) State three advantages of the technique used in (a) above (3 marks)

c) Differentiate between a national park and a game reserve. (4 marks)

d) i) Explain the significance of tourism to Tanzania. (5 marks)

ii) Name three main tourist attractions in Kenya. (3 marks)



6. a) ii) Find out the total number of tourist who visited Tanzania in the year 2011. (2 marks)

answer 80,000 + 50,000 + 40,000 = 170,000

= 170,000 tourist

b) State three advantages of the technique used in (a) above. (3 marks)
i) It provides a clear visual impression of total values.
ii) Easy to read and interpret the highest and the lowest totals at a glance.
iii) The increase or decrease in the ground total values is easy to see.

c) Differentiate between a national park and a game reserve. (4 marks)

National park	Game reserve
- Area set aside and run by the government exclusively for preservation and protection of wildlife.	- Area set aside and run by the local people and accommodate both wildlife and domestic animals.
- Grazing is not allowed.	- Grazing is allowed.
- They are large in size.	- They are small in size.
- Are located for from easy of human settlement.	- Are usually found neighbouring human settlements.

d) (i) Explain the significance of tourism in Tanzania. (5 marks
- Source of revenue
- Source of foreign exchange
- It has led to the development of infrastructure e.g. roads.
- Creation of employment opportunities
- Creation of markets for both manufactured and agricultural goods.

ii) Name three main attractions in Kenya. (3 marks)
i) Unique sceneries e.g. Mt. Kenya.
ii) Culture of the Kenyan people.
iii) Vegetation.
iv) Wildlife
v) Museums.

7. a) i) State three levels of monetary trade. (3 marks)
i. Local trade
ii. Regional trade
iii. International trade

ii) Outline four factors that influence trade
i) Differences in natural resources in the world indicate that no single region can produce all the commodities needed to satisfy its people hence the need to trade.
ii) Population affects the volume of trade transacted in different regions. A large population provide a widen market for local or foreign trade.
iii) Demand and supply outlined the kind of trade that can take place between the coutries of the world. The more the demand the higher the supply.
iv) Nature of exports and imports which are mainly manufactured goods this may lead
v) Adequate and efficient means of transport and communication are essential for successful trade. Poor transport and communication discourage trade.

vi) Capital – money is required by traders to start business ventures. Lack of capital hinders large scale production of commodities.
vii) Trade restrictions such as tariffs, quotas trade agreements discourage trading, high taxes reduce and discourage transactions.
viii) Tracking blocks or association are formed to promote the trade. Countries involved have better prospects of trading with one another leading to economic development of these countries.
ix) Political relationship among countries, involved may encourage or discourage trade. Warring nations do not in most cases trade together.
x) Security leads to prosperity of a trading
xi) Use of different currencies can be an obstacle of trading because of the varying rates of exchange. Some benefit more.
xii) Different technological levels leads to adverse balance of trade especially with the developing countries.

(4 x 1)

b) Explain three ways in which trade is of significance to Kenyans economy. (6 marks)
i) Economic growth – trade makes goods available where there is demand. It leads to development of industries in both agricultural and manufacturing sectors.
ii) Industrial growth – demand for goods stimulates industrial growth more industries are set up to satisfy increased demand.
iii) Trade enables Kenya to earn foreign currency which is used in local investment and imports.
iv) Kenya has developed its transport and communication through trade.
v) Source of revenue – The government earns revenue by changing sales tax on manufactured goods sold locally.
vi) Trade has created employment in sectors dealing with foreign trade as well as in wholesale and retail enterprises.
vii) Trade has stimulated specialization in the production of goods. Countries specialize in areas where they can produce quality products.
viii) Development of settlements – many towns owe their origin to starting of small markets.

c) (i) Outline four roles played by the common market for Eastern and Southern Africa in the economy of its members states. (4 marks)
a) COMESA promotes social and economic integration of its member states – this has led to rapid and sustainable growth and development of the economies.
b) It fosters good relations, peace, stability and high standards of living in member states.
c) It has established a free trade area, a common external tariff and a customs union for members countries.
d) Its has acted as a stepping stone towards the establishment of the African economic community.

(ii) Identify four problems facing regional trading blocks in Africa. (4 marks)
- Some of the countries produce similar goods which hinders regional trade.
- Poverty in some of the countries makes members lack the purchasing power.
- Some member countries fail to remit annual subscriptions to the trading bloc limiting their operations.
- There is poor transport and communication networks between the member states.
- Civil wars among and between communities cause insecurities which affects trade.
- Tree trade may affect local trade since some imported commodities may be cheaper than locally manufactured goods.

- Reliance of some countries in other
  Difference in the level of economic development makes some countries rely on others for some products.

d) Explain the meaning of the following terms.
i) Balance of trade (2 marks) – This refers to the difference in value between a country visible exports and imports.

ii) Invisible trade (2 marks) – There are the services which can earn foreign exchange without the transfer of goods from one country to another.

8.a) (i) Name two diseases that affect sugar cane. (2 marks)
i) Ratooming – stunting disease
ii) Smut
iii) Sugar cane mosaic

ii) Name two main pests that affect sugar cane crop. (2 marks)
i) White scales
ii) White grub
iii) Termite

b) Give four ways in which sugar is used. (4 marks)
i) Its used as sweetener for various foods and beverages.
ii) Used in the manufacture of sweets chocolates, sprits, soft drinks and juices.
iii) The brown coarse sugar is used in the manufacture of local brews.
iv) Molasses is used to manufacture of ethanol, acetone and ethyl acetate
v) The filter cake which results from filtration process is used as manure.
vi) It is used as a sweetener of syrup.

c) Give four physical conditions that favour sugar cane growing. (8 marks)
i) Temperature: Sugar cane requires hot climate with temperature that range between 21^{o} C and 27^{o} C.
ii) Rainfall of between 1250mm and 2000mm well distributed throughout the year.
iii) Dry season when it is almost time for harvesting the weather should be dry and sunny.
iv) Sugar cane requires well drained soils i.e. loam, clay, sandy.
v) Topography sugar cane requires gently sloping land to facilitate mechanization.
vi) Altitude sugar cane grows well at high altitude of upto 1600m.

d) Describe the steps involved in sugar processing after the cane is harvested (9 marks)
i) The cane is weighed while still on the lorries and tractors.
ii) It is off loaded and put in large water tanks when it is washed.
iv) It is passed through a machine which cuts it into pieces.
v) The pieces are then passed between rollers which clash the cane and squeeze out the juice the juice is put in a clarifier, where the fine matter is suspension and the soluble non-sugars are precipitated forming a dark coloured mud which is separated from the juice.
vi) The juice is put into boilers called evaporators where it is boiled with lime under reduced pressure until it turns into thick syrup.
vii) The syrup is then passed on a vacuum pan with very low pressure a dark brown mixture of molasses and sucrose crystals called massecuite is formed.
viii) The massecuite is then put in open tanks called crystallizers when sugar crystals grow.

ix) The massecuite is then put in centrifuges where crystals are separated from molasses. The raw and coarse sugar is brown which is further refined to give brown, white and other various grades.

9.a) Define the term wildlife. (2 marks)- It refers to the animals and plants existing in their natural habitat.

b) Explain four physical factors that influence the distribution of wildlife in East Africa. (8 marks)

-Climate – most wild animals are found in hot and warm zones while few animals are found in high mountain areas e.g. mountain gorillas at the same time vegetation grows well in areas with high rainfall this attracts wide range of wild animals i.e. elephants, buffalos etc in grassland areas with low rainfall carnivorous animals are found

- Relief: altitude influence vegetation e.g. mountain tops attract plants i.e. Lobelia which is not found in lowland areas that face sunrays more vegetation.
  Rugged landscape are not suitable for wildlife.
- Soil: Different types of plants grow in different soils, earthworm, and burrowing animals like rodents can only live in particular types of soil, crabs and beetles are found in some soils i.e. sandy vegetation are habitat for different animals e.g. Natural forest are habitats for elephants, buffaloes etc. savannah grasslands attracts herbivores i.e. gazelles wild beast, zebras etc.
- Drainage: Well drained soils support a wide variety of plants and animals some plants survive in water logged soil e.g. Papyrus some animals e.g. water snakes, crabs, water buck are found there.

(4 x 2 = 8 marks)

c) What are the problems facing wildlife in Kenya. (8 marks)

- Poaching where animals are killed for meat , tusks, horns illegally leading to decline in animal species.
- Human wildlife conflict due to high population.
- Encroachment of land reserved for wild animals.
- Fires in the forests destroy both plants and animals.
- Inadequate capital to maintain Maitland parcel and game reserves.
- Overgrazing and soil erosion as a result of increase in animal population.
- Environmental population e.g. sewage disposal.
- Over-exploitation of wildlife
- Overcrowding caused by tourist traffic leading to wildlife harassment and stress.

(4 x 2 = 8 marks)

d(i)Students of Karatu high School intend to visit a national park near their school, outline four objectives for their visit. (4 marks)

- To find out the food chain system in the park.
- To find out the types/species of trees in the park.
- To find out the problems experienced in the park
- To identify the animal species in the park.

(ii) Identify three methods they could use to collect the data; (3 marks)

- Observation
- Oral interview
- Preparing a questionnaire
- Secondary sources
- Taking photographs

10(a)(i) Define the term forest (2 marks)

It's a continuous and extensive law covend with a closed stand of tall tree.

(ii)Describe the characteristics of tropical hardwood forests. (8 marks)

- Some trees are evergreen and shed a few of their leaves at a time.
- Some of the trees grow beyond forty six metres with straight trunks
- Most of the trees have large trunks with buttressed bares.
- The trees are very heavy with some even not floating on water
- The trees take a long time to mature usually between sixty five and hundred years.

(b) Explain four major factors that influence the distribution and types of forests. (8 marks)

- Altitude has a great influence on temperature and rainfall. Low altitude areas have higher temperatures a while high altitude areas have lower temperature – the rate of growth slows with decrease in temperature.
- Aspect – windward slopes of mountains are usually wetten and therefore forests are denser than leeward slopes.
- Precipitation – heavy precipitation throughout the year favours proper tree growth.
- Temperature – for growth different plants require different amounts of warmth in areas with high temperatures and heavy rainfall plant growth is accelerated.
- Soil – plants depend on soil for nutrients and anchorage. Soil extensities such as texture structure and acidity influence plant growth
- Human activities play a big role in influencing the distribution of natural forests. Agriculture leads to depletion of forests.

c) Discuss soft wood forests in Kenya and Canada under the following sub headings.

i) Tree species(2 marks) – In Kenya there are both the exotic and indigenous species while in Canada they are all indigenous.

ii) Marketing (2 marks) –In Kenya most of the wood products are sold locally while in Canada they are sold to USA Britain and parts of Europe.

d)Students of Gakoye High school carried out study in a local forest. What problems are they likely to experience (3 marks)

i) Rugged steep terrain

ii) Encounter with dangerous wild animals

iii)Harsh weather