FORM FOUR TERM ONE EXAM 2017

MARKING SCHEME

GEOGRAPHY PAPER 1

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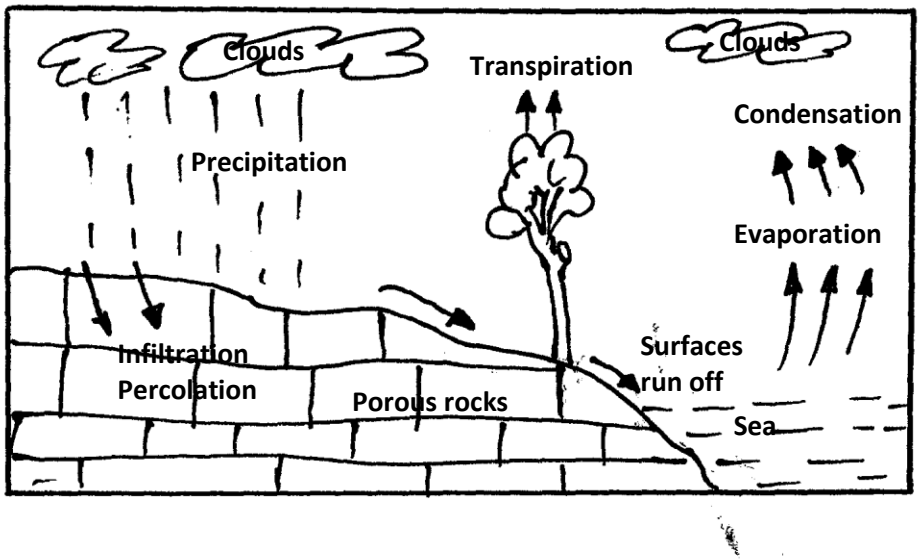
Section A

1. (a) P- Atmosphere✓
   Q- Crust✓
   R- Mantle /little sphere✓
   (1x3=3mrks)

   (b) Silica ✓
   Magnesium ✓
   (2x1=2mrks)

2. (a)



b) – Through springs/ wells✓
- Carry action through cracks✓
(1x2=2mrks)

3. X- Stalactite;✓
Y- Stalagmite ✓
Z- Limestone pillar / limestone column;✓
(1x3=3mrks)

4. (a) Isostatic adjustment ✓
Movement of magma✓
Grantational pressure.✓
Collision between tectonic plates✓
Explosions caused by man
(3x1=3mrks)

(b) –Collapsing or cracking of buildings.
- Loss of life (human /animal and plant)
- Outer of fires.✓
- Causes of transport and communication lives;✓
(Any 2x1=2mrks)

5. (a) - weathering
- Deposition✓
- Mass movements✓
- Erosion wind at ice✓
- Materites failing✓
- Human activities i.e damming ;✓
(Any 3x1=3mrks)

(b) –Are reservoirs in the hydrological cycle;✓
- Lead to formation of conventional rainfall;✓
- Modify local climate i.e. land atlake breezes;✓
- Support bio diversity (flora and fauna);✓
(Any 2x1=2mrks)

SECTION B

6. ***(a)*** (i) 1cm represents 0.5km✓ ***(1x1=1mrk)***
(ii) Longitudinal extent – 0.15^0s to o.30s✓
- Latitudinal extent - $37^0$00′E to $37^0$15′E
(1x2=2mrks)

(iii) $01^0 09^0$✓ 1x1=1mrk

(b) (i0 Area –complete squares 9
Incomplete squares 42/2 =20.5
Total =29.5
Area of one square I km x 1km =$1km^2$✓

Area = 29.5 x 1km^2 = 29.5km^2√

(2x1=2mrks)

(ii) –plantation farming // cash crop farming√ coffee factory at cithima.

-Trade – shops and a market at ciagatika √

- Livestock keeping – cattle dip at grid reference 9246√
- Fishing – Fisheries report at 9047√

3x1=3mrks

(c) (i) Aeress – section – on the graph paper.

(ii0 Vertical exaggeration = vertical scale

Horizontal scale

= 1cm represents 50m 1cm rep 5,000cm

1cm rep 50,000cm = 1cm rep 50,000cm

=1:5,000 = 1/5000 ÷ 1/50,000√

1;50,000

=1/5,000x 50 000/1

VE=10√

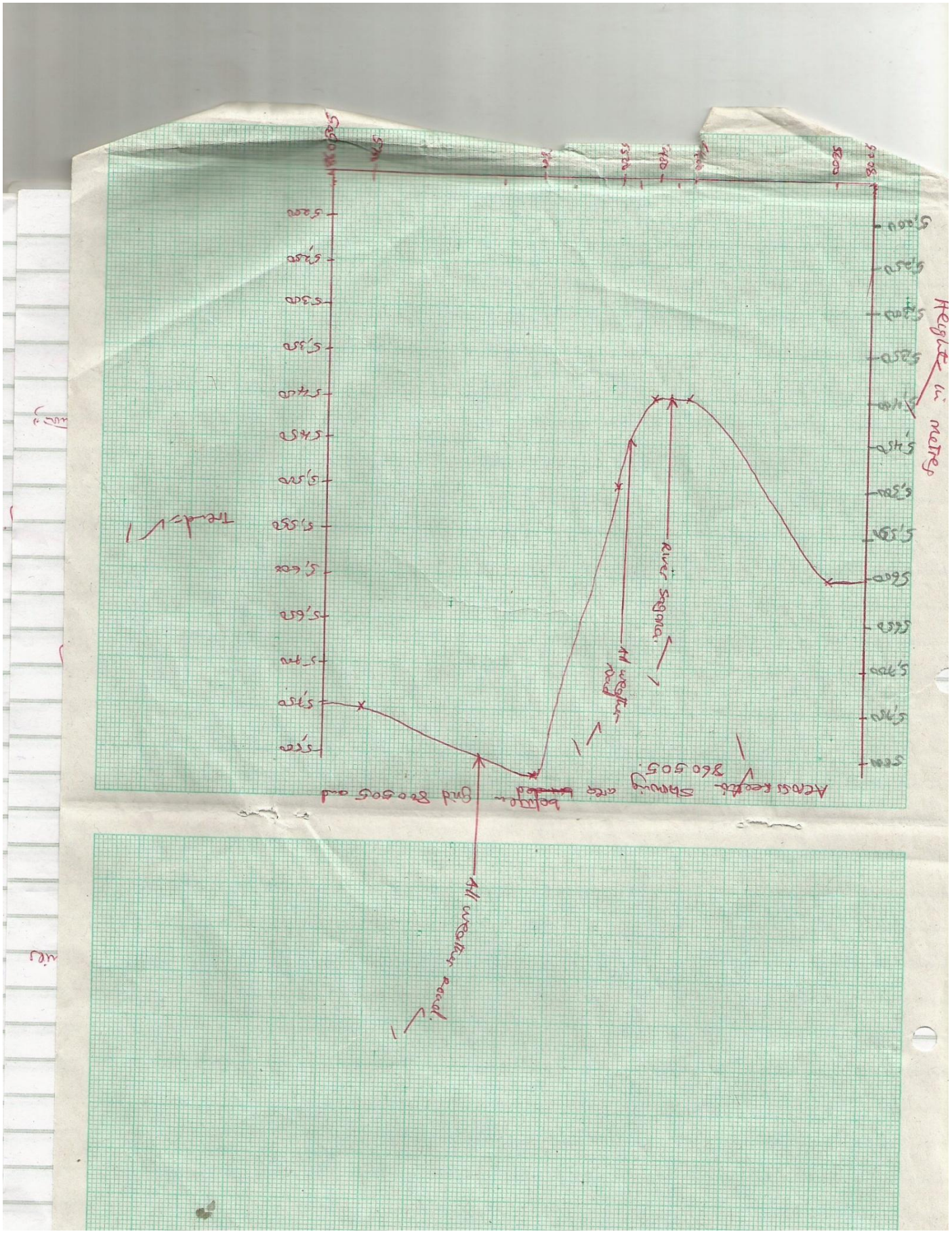
(d) (i) – The area covered by the map has many rivers;

- The area covered by the map has permanent rivers e.g. sagana
- The general flow of the rivers is from the southern part of the map to the northern part of the Map;
    - There are many water reservoirs on the area covered by the map
    - The area covered by the map has dams along rivers e.g. at grid reference 8947;
    - The main river is River Sagana.
    - River Sagana and its tributaries form dendrite drainage pattern.

(ii) Forests / mount Kenya forests – Forest areas sparsely population

Relief – Hilly areas are a sparsely populated which low land areas are populated.

- Industries – Areas with industries are densely populated e.g near coffee factory at Karatina municipality.



7. (a) Limestone ; /chalk;
Travetine;
Dolamite;
Rock salt;

Haematite;
Trona
(max 3x1=3mrks)

(b) (i) Temperature between 20-29^{0}C
- Warm;
- Clear and salty water / mud free
-Shallow water;
- Well oxygenated water.
(Any 3x1=3mrks)

(ii) Tiny marine organisms called coral polyps live in colories the sea;✓
The polyps die and their hard skeletons of calcium carbonate accumulated in a solid mass;✓
They extract calcium from the sea water to make their shell;✓
Successive colories grow on the solid mass; thus the rock grow in sea;// forming a cord rock.
The spaces between the dead coral polyps are cemented by calcareous algae.✓
(max 4)

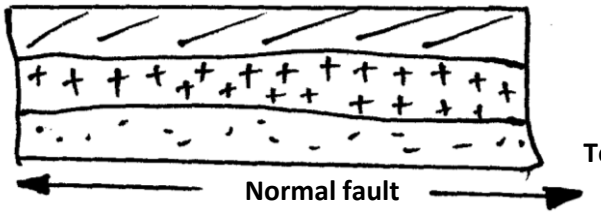
(c) – Some rocks e.g. granitic tors attract tourists this earns the country foreign exchange;✓
-Some rocks are exploited to provide building and construction materials ;(which promote industry)✓
- Some rocks e.g. limestone are exploited and used in building and construction;✓
- Some rocks have valuable minutes which are exploited and used to generate income /revenue;✓
-Some rocks e.g salt rock arre asource of food;
-Some rocks are carried and sold to generate income;✓
(Any 4x2=8mrks)

(iv)Field sketching
- Taking photographs; / video
- Note taking;
- Tabulating ;
- Labelling samples;
- Tape recording;
- Tallying

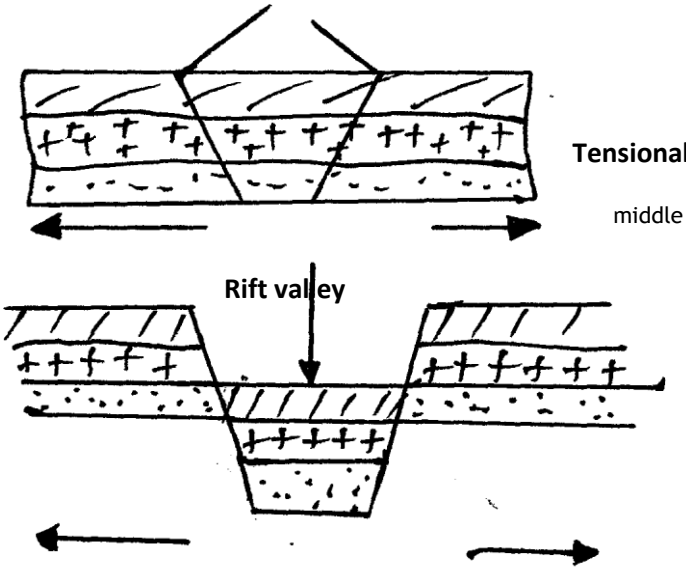
Any 4x1=4mrks)

8 (a) (i) tilt block
- Escarpment/ fault scarp;
- Block mountains / lorsts;

(ii0 Layers of rocks are subjected to tensional forces;✓when there is some instability with the earth crust;✓



The parallel normal faults 1 line o✓ weakness



The middle block sinks / subsides forming✓ the Rift Valley

(b) – Depression in the Rift Valley contain water to form lakes.

- Steps faulting make rivers to have waterfalls , rapids and cataracts.

(d) (i) Photographs/ pictures /films / slides /videos
Text books / pamphlets
- Geological maps
- Periodical / magazines / New papers;
- Tensional handonts

Any 3x1=3mrks)

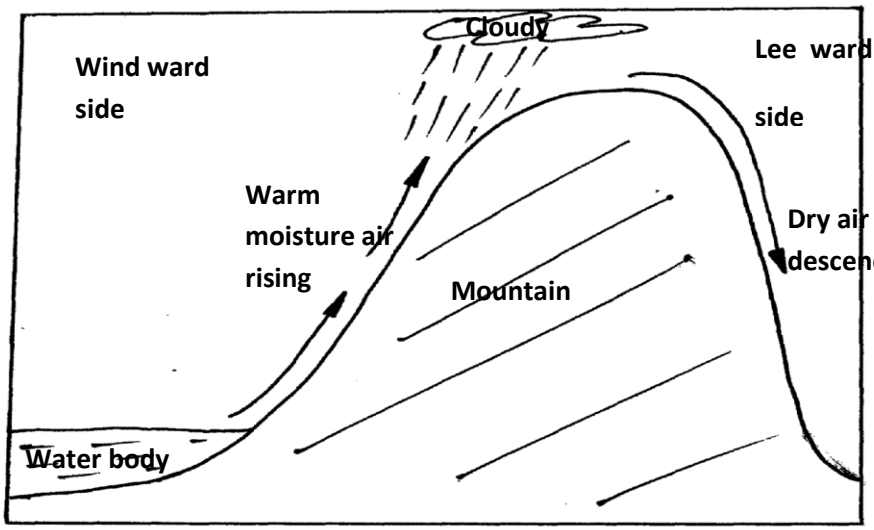
(ii) Setting up objective adhypotheisis;

- Identifying methods of data collection;
- Planning /making aworking schedule
- Carying reconnaissance
- Seak permission from relevant authority
- Drawing a route map.
- Identify advert out required tools and equipments.
- Identify method s of data collection.
- Dividing themselves in groups.

(Any 4x1=4mrks)

9. (a) Is a zone of low pressure / doldrums
   - It found within the tropies 23 ½ ºN and 23 ½ ºS.
   - It is azone where S.E trade winds and N.E. trade winds converge.
   -It migrates to the north and south of the equator with the apparent movement of the overhead sun.
   - It is associated with convectional rainfall and thunder stomes.
   - It is characterized by high temperatures;

(b) A water body /sea/lake id heated causing evaporation of water; moist air from the water body is forced to ascend a hill /a mountain /barriers ;The ascending air loses moisture due to expansion and cooling of air ;therefore condenses to form clouds on the wind ward side while the leeward side the dry air descends leading to no rainfall on the leeward side/usually is dry.



Diag max 2mks

Exp 4mks

(c) -Low annual rainfall of less than 250mm✓
   -Occasional flash floods. / sporadic rainfall✓
   - Relatively low temperatures at night.'
   -Clear skies and high day temperature✓
   - Large divinal range of temperature✓
   -Strong winds✓ of the district.
   -Low humidity and high evaporation;✓

(d) (i) – To show the extent of /size /area of the distract✓
   - to identify the winds to e followed / any obstacle.✓
   - To show relief of the district,✓
   - To show vegetation distribution✓
   - To estimate the distance to be covered✓
   - to enables them plan for awaking schedule

Any 3x1=3mrks

(i) Random ✓
Stratified ✓
(2x1=2mrks)

(ii) –to save on time
   - Its less expensive
   - To focus on relevant areas
   - For detailed study
   - Reduces biasness

(Any 2x1=2mrks)

- At the foot of the fault scarps forms springs✓
- One to faulting some rivers e.g. Katonga Uganda *✓had their directions of flow changed . /reversed drainage.✓
-One to faulting same rivers dispose in the faults;✓

Any 4x2=8mrks)

(c) (i) Able to draw up objectives and hypothesis.✓
   - To familiarize with the area of study.✓
   - To enable then prepare a working schedule.✓
   - To identify the tools and equipment required.✓
   - To seek permission from relevant authority✓

- To estimate the cost of study ;✓

any 4x1=4mrks)

ii) its expensive✓

- Its time consuming
- Its tiresome✓
- Only suitable to the sighted✓ ones

(Any 3x1=3mrks)

10. (a) H- lagoon✓
J- Bar / offshore bar✓
K- Tombolo✓
L- Spit✓
M- Estuary✓

(5x1=5mrks)

(b) (i) Agently stopping land at the sea shore;
- The shore should be shallow
- A strong swash and a neek back wash (constructive waves)
- Materials should be deposited.

(4x1=4mrks)

(iii) Hydraulic action
- Breaking waves hit against the cliff shattering rocks; the force of breaking waves compresses air into the cracks of the cliff face ; this enlarges the cracks and part of the rock break off;

Corrosion/ Abrasion
The rock fragments carried by the waves are used as a tool to erode the cliff as the waves break; the load is carried by the backwash erode the sea floor.
Attrition
The weaving down of particles as they contously * against each other and against the cliff.
Solution / corrosion
The solvent and chemical action weakens and removes the minerals found in the cliff and sea floor where there are lime stones;

(Any 3x2=6mrks)

(c) (i) A shore with a gentle gradient reduces the velocity✓/ speed of the floe of the back wash causing deposition to the place;✓
Where the shore asteep the velocity speed of * of the backwash will be high ; therefore little or no deposition;✓
(ii) Shallow water causes waves to break ;thus encouraging deposition;✓where the sea is deep there is less deposition✓because the sea bed is net in contact with the waves carrying deposits;✓

(4x1=4mrks)

(d) –To find out the importance of deposition features,
- To identify different types of depositional features
- To find out how constructive waves break at the shore .

(Any 2 other relevant 2x1=2mrks)

(c)(i) Unrealiable climatic conditions e.g droughts affect livestock on dairy farming
Pests and diseases like east coast fever and nagana affect and cause death of dairy
Inadequate water supply in animals ranches affects the quality of cattle
Inadequate capital to purchase supplementary feeds and necessary scientific equipement has adversely affected cattle ranching
Poor transport network and facilities cause delays in transportation of products
(ii) Provision of credit facilities
Provision extension services to farmers
Consultation of feder roads
Funding the KCC
Construction of boreholes to provide water for the livestock
Construction of cattle dips to control pests and diseases

(d) Specialized advanced technology
Presence of ready market for dairy products
The cold climate/moderate temperatures
Well developed transport and communication
Plenty of fodder pasture
Mechanized systems of farming
Present of extension services.
8(a) Warm currents meet cold currents and regulate the water temperature. This condition is ideal for fish survival
Convergence of the warm and cold currents improve circulation of oxygen and dispersal of nutrients for the fish
B(i) A traul net is usually used which is large and cone shaped
The mouth is kept open by floats weight
The traul net is dragged along the sea bed by a trawler
Fish is trapped in the trawl net as it is being dragged
Suffiecient catch is reaslized
Trawl net is hawled to the ship
(ii) Cool waters ideal for fish breeding because of the ubandant supply of plankton
Coast has many –offshore islands which provide sheltered inlets ideal for the establishment of fishing port/villages
Indented coastline provides secure breeding grounds for fish
Meeting of the warm Kuro siwo and cold siwo ocean currents result in upwelling of sea wafens thus bringing minerals for the planktons from the sea bed to the surface

Mountaneous nature of the country restricts agricultural activities hence fishing is alternation economic activity
Japanese have advanced technology used in fishing processing and preservation of fish
Japanese have long history of sea faring thus they are highly experienced in fishing
The shallow continental shelf allowa light to the sea bad for growth of micro organisms which are food for fish
Japanese have large population which provides ready local market for fish
(c) Inadequate capital- use traditional methods which greatly reduces their catch
Lack of funds to enable them purchase modern fishing gear and refrigeration equipments
Introduction of new species like nile perch cause diapperance of other species yet it is not polluted.
Growth of water hyacinth along the shore of the lake hamper fishing
Accidents affect fishermen canoes and boats capsize in the lake due to strong winds and storms prevaivailing in the area
Regional conflicts –boundary conflict between Kenya and Uganda over migingo island
9. (a)(i) Mining is extraction of valuable minerals either solid liquid or gas from the earht's crust
(ii) It causes shortage of Lnd for it leads to displacement of people
Blasting of rocks leads to instability of the basement rocks
Water collecting in hollows left harbours disease vectors
It destroys the natural vegetation which is cleared before extraction begins
(b) A vertical shaft is sunk to reach the minerals, seams on beds
Horizontal tunnels are dug from the shaft to reach mineral bearing rocks
Beams are erected to support the roof of the tunnels
The rock ore is blasted with explosives or dug out using mechanicsl shovels
Ore is transported on conveyor belts to the base of the shaft.
The ore is loaded into a lift and then taken to surface
(c) evaporation
Of pan L. Magadi acts as the evaporation pan
Availability of water-there is constant supply of water because L.Magadi has unlaid drainage and area receives 450mm
Favourable temperatures –high temp activate evaporation (23^{o}-41^{o}C)
Dry environment –the dry area helps increase evaporation rate because of the low humidity
(d) Inaccessibility of minerals- most minerals are found in hilly or mountaneous areas
insufficient capital-developing countries rely on loans from developed countries hence the capital not always available
inadequate skilled personel- developing countries rely exported skilled workers who are paid large sum of money in salaries
derelict land- land is dangerous to both people and animals for they can easily fall into pits
air is polluted –the dust and smoke emitted from wasting quarying and processing of mineral are harmful to human health.
Water leakage- from tip heaps and from underground water making it unhealthy for people and animals
10.(a) (i) Involves the cultivation of both crops and trees on the same piece of land
(ii) Provision of firewood/charcoal
Source of income to far mers after selling
Trees act as wind breakers
Trees create micro –climate within the farm
Some trees are medicinal value
Trees leaves decompose to form fertile soils/add manure to the soil
(b)(i) High demand
Population pressure
Pollution
Take long to mature to the soil
(ii) Valuable trees are scattered /not in pure stand
Bu...roots makes felling cumbersome
Dense undergrowth /thick forest hinder accessibility
Humid climate makes working condition unfavourable
Form habitat for dangerous animals which makes it insecure
Hot humid conditions encourage pests and diseases which are harmful
Inadequate capital limits the use of modern techniques in exploitation
(c) In Kenya there are both exotic and indigenous softwoods while in Canada the main species are coniferous type
In Kenya large tracks especially exotic are affected by pests and diseases e.g aphids while Canada track destroyed by fires and diseases
In Kenya wood products sold locally but some exported to Arabian, USA,and Europe
In Kenya transportation of logs is by tractors, lorries, trains etc while in Canada transported by rivers in winter
In Kenya tree grow faster while in Canada grow slowly
In Kenya there is no ice coverage in the forest while in Canada ice cover in forest
(d)(i) Area receive high rainfall 1000mm-2200mm through out the year
Area has deep fertile volcanic soil that allows roots to penetrate deep
Area is gazette reserve prohibiting cultivation and settlement
The steep slope discourages thus forests thrive
(ii) Pests and disease control
Expansion of farming and settlement areas
High demand for timber production
Illegal firewood cutting and charcoal burning
Forests trees cause by hunters by wild animals
Destruction of forests by wild animals

Cleaning of forests by drug growing