KENYA NATIONAL EXAMINATION COUNCIL
REVISION MOCK EXAMS 2016
TOP NATIONAL SCHOOLS

MOI GIRLS HIGH SCHOOL NAIROBI

GEOGRAPHY

Paper 1

MARKING SCHEME

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MOI GIRLS SCHOOL - NAIROBI KCSE TRIAL AND PRACTICE EXAM 2016

Paper 1

Marking Scheme

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1. (a) Disciplines related with the following areas study of geography
   (i) Geomorphology
   -Geology
   (ii) Biogeography
   -Biology
   (b) Three main areas of study of physical geography
   -The earth and the solar system
   -The internal land forming processes
   -The external land forming processes
   -Weather and climate
   -Vegetation
   -Soils and rocks
2. (a) Two main areas which make up the external part of the earth.
   -Atmosphere
   -Hydrosphere
   -SIAL
   (b) Three distributions which are found in the atmosphere
   -Tropopause
   -Stratopause
   -Mesopause
3. (a) Meaning of plate tectonic theory
   -A theory which argues that the earth's crust is made up of semi- rigid broken blocks called tectonic plates which floats of semi- liquid upper mantle
   (b) Three boundaries which develop due to movement of plate tectonics
   -Extensions boundaries
   -Compressed boundaries
   -Transform faults
4. (a) Definition of process.
   (i) precipitation
   -All forms of moisture formed when water vapour condenses in the atmosphere

   (ii) Evaporation
   -Process through which moisture is lost from the surfaces to the atmosphere through air movement and the sun's heat.
   (b) Four factors influencing the rate of evaporation from the earth's surface
   -Availability of moisture
   -Temperatures
   -Speed of wind
   -Hours sunshine
   -Characteristics of the water body –salinity and depth.
5. (a) (i) Type of rainfall shown on the diagram
   -Conventional 1x1
   (ii) Type of cloud marked (a)
   -Comululonimbus clouds 1x1

(b) Two weather conditions associated with the above (a) rainfall
-Thunderstorm and lightening
-Hailstones
-Warm air near surface in the afternoon hours

SECTION B

6 Study the map of Karatina 1:50,000 sheet 121/3 provided to the question that follow

(a) (i) Identifying features found in grid reference 967543
-Water intake 1x1

(ii) Distance of River sagana from the bridge in grid square 8347 to the southern edge of the map
-5.8, 5.9, 6.0 Km 2x1= (2mks)

(iii) Two methods that have been used to represent relief of the area covered by the map
-Contours
-Trigonometrical stations
-Spot heights
-Use of names of relief features 2x1 = (2mks)

(b)(i) Calculating the area covered by part of Mt Kenya forest east of easting 99 and south of Northing 55.
-9Km^2 3x1 =(3mks)

(ii) Two districts found in the area covered by the map
-Nyeri
-Kirinyaga 1x2 =(2mks)

(c)(i) Using a scale of 1cm rep 5om draw a cross section from grid reference 810500 to 870500 (Refer graph paper)

(ii) Cross section drawn mark and name
-All weather road (loose surface)
-River Rithithi
-Power line

(iii) vertical exaggeration

-VE $= \frac{vs}{Hs}$

$= \frac{1cmrep\ 50m}{1:\ 50,\ 000}$

=50 times

(d) Description of drainage on area covered by the map

- The most dominant drainage features found here are permanent rivers like Sagana,Rithithi etc
- Most rivers found on these areas originate in the Northern part especially from the mount Kenya forests and flow Southwards
- The largest river in the area covered by the map is rive Sagana found to the sw part.
- Most of the rivers found on the map shows some traces of radial drainage pattern because the seem to be originally from the Mt Kenya forests and flow to different directions.
- Some rivers also show dandrific drainage pattern e.g. River Nyanyaga Gathambi etc
- Most of the rivers found here are in their youthfull stages and have the presence of interlocking spurs e.g. Rivers Sagana ,Thego etc

- Drainage features like dams have been developed on the rivers especially along river Sagana in grid square 8348.
- Several other artificial drainage features are found on the map e.g. water reservoir , water intake , Cattle dips ,etc

7. (a) (i) Definition of faulting

-A process which takes place in rocks of the crust which makes them to fracture or break

(ii) Description of normal fault

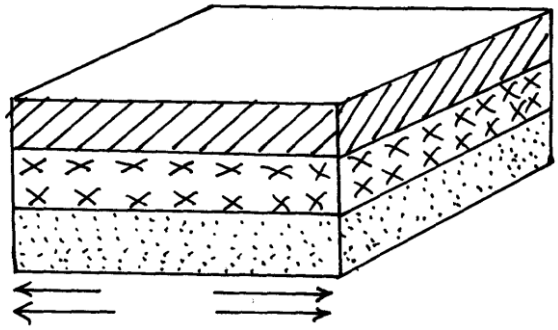
-Forces of tension act on rocks of earth's crust

-Forces pull away from each other

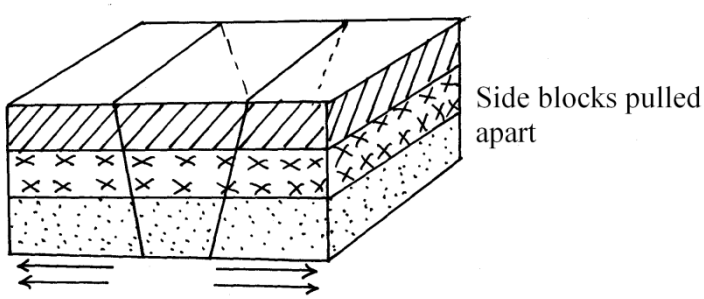
-vertical or inclined faults plane and direction of the down throw are both to the left and or both to the right. 1X2=(2mks)

(b) (i) Explaining formation of Rift valley by tension forces with aid of diagrams.

-The earth's crust is subjected to forces of tension .Forces pull away from each other

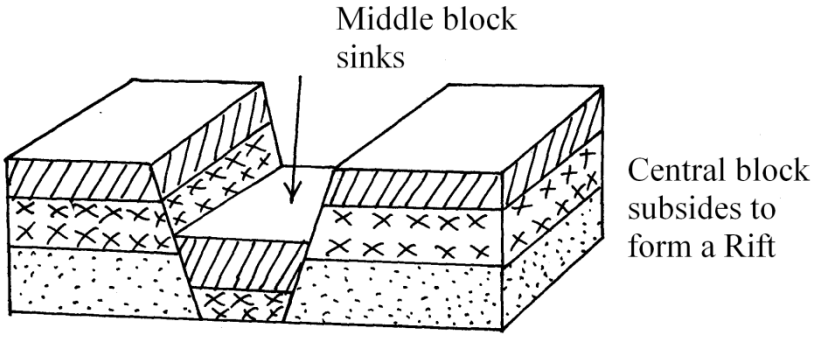


-Lines of weakness develop in the rocks of the earth's crust leading to the development of adjacent normal faults which are almost parallel



-The forces pull away the side blocks

-The middle block is formed to sink forming loading to the formation of a long trough between the faults which is called a Rift valley.



-Sometimes the normal faults may be multiple and as middle block sinks the other blocks are displaced unequally forming a rift valley with sides of step faulting.

(ii) other features formed by faulting a part from Rift Valleys
-Fault blocks /block Mountains
-Tilt blocks
-Fault scarps
-Tilt block landscape

(c) Mentioning five effects of the process of faulting to man
-Subsidence of land by faulting forms lakes which are rich in minerals which forms hot springs and geysers.
-Fascinating features of faulting like escarpments attract tourists.
-Foot of fault scarps underground water emerges leading to occurrence of springs.
-Windward sides of block mountains receives high rainfall becoming sources of rivers.
-Faulting may expose mineral that were found underground.
-Faulting disjoints land bringing problems in development of infrastructure.
-Fractures and displacement of land by faulting makes rivers change direction of flow or may disappear underground.

(d) A field study of a fault near Itiero Girls High School
(i) Three objectives for their study
-To find out the forces that were behind the formation of the fault block
-To investigate the age of the fault block.
-To know the economic importance of the fault block
-To find out the negative impact that the feature has had on the surrounding communities 1x3 = (3mks

(ii) Two secondary source of information that they would use to collect data
-Waiting films and videos.
-Listening to audio tapes.
-Reading published documents like books ,magazines. 1x2 =(2mks)

8. (a) (i) Climate marked
M- Equitorial
O-Mediterranean
P-Savana

(ii) Deserts. T-Namib
S- Kalahari

(b) Description of characteristics of climate marked N
-High mean annual temperatures but varies.
-Large diurnal /range of temperature absence of cloud cover

-High annual range of temperature about 26^0C
-Low rainfall (annual) less 250mm p.a
-winds found here are offshore most of the year.
-Sandstorms common in these places
-High rate of evaporation

(c) (i) Natural factors influencing aridity and desertification
-A place receiving insufficient rainfall.
-Extremely high temperatures at a place
A coastal region lying next to cold ocean currents.
-A place lying on leeward side of a mountain.
-A place being found far away from water bodies

(d) **Explaining five effects of desert features on human environment.**
-Loess deposits form good place for development of caves providing shelter in winter
-Loess deposits form deep and fertile soils which support agriculture.
-Desert features like yardangs, rocks pedestal offer fascinating features which attract tourist.
-Extensive and bare surfaces and sands are suitable for testing of weapons/machines ,military training etc.
Some defletion hollows contain water providing water for domestic and industrial use.
-Salt fluts can be used to provide salts required in salt industries.
-Sand dunes interfere with infrastructure e.g. roads.1x6 =(6mks)

9. (a) (i) **Defintion of sea.**
-A large body of saline water on margins of continents.
-A large body of saline water enclosed by landmass
-A large body of saline water connected to an ocean by a narrow stretch of water called a strait.

(ii) List any features which occur in the oceans.
-Continental shelf
-Continental slope
-The deep sea plains
-The ocean ridges.
-ocean deeps

Ocean trenches

(b) (i) definition of waves
-Ridges of running water developed by oscillationof water particles

(ii) Differentiating swash from backwash
-Swash refers to most of water up the shore as wave breaks while the backwash is backward movement of water to sea after breaking of a wave

(c) (i) Explain three processes of wave erosion
-Hydroalic action
-Corcasism
-Solution
-Attritium

(ii) explaining the formation of a tombolo
-A coastal area happens to have shallow waters
-Not far from this coastal place there is an island.

-Waves approach such a shallow coast and because of shallow depth they are forced to break

-The pebbles and sand the waves are carrying are deposited by the waves.

-As a result a low ridges is formed by these deposit and start developing from the coast

-More deposition of these materials take place and the ridge continues lengthening towards the side of the sea.

-Gradually the ridge joins up with an island on the side of the sea leading to the formation of a tombolo 1x4 =(4mks)

(iii) Giving three conditions necessary for formation of coral reefs.

-Sea temperatures of about 210c /high temperatures.

-Sunlight that penetrates the floor of sea up to a depth of 50m/shallow water

-Plenty ful supply of plant food (planktons)

(d) Listing three features which develop on submerged highland coasts.

-Rids

-Fiord

-Dalmatians coast

10. (a) (i) Three sources of underground water.

-Rainwater

-Meltwater

-Lake and sea water

-Magmaic water

(ii) Differentiate pervious rocks from porous rocks

-Pervious rocks are rocks that allow water to pass through them through their cracks /.joint fissures while porous ones allow water to pass through them via their spaces.

(b) Explaining four factors influencing the occurrence of underground water.

Amount of precipitation in an area.

-The nature of the slope of an area

-Nature of the rocks

-Amount of vegetations cover in an area

-Level of saturation of the ground

-Rate of evaporation –Transportation in an area.

(c) (i) Mentioning three factors necessary for formation of a karst scenery

-Thick limestone, chalk or dolomite rock

-Rocks must be hard and well jointed

-Hot and humid climate

-Water table deep below the ground

(ii) Three underground features in karst areas

-Stalactites

-Stalagmites

-Limestone pillars

-Underground caves

-Underground rives

(d) Explain three significant of karst features to man

-Features like stalagmites ,stalactites polijes attract tourist.

-The lime stone block can be used in building houses.

-Limestone rocks are also used as raw materials in the cement making industries.

-The limestone ground are dry and therefore provide good grounds for rearing of sheep.