KENYA NATIONAL EXAMINATION COUNCIL
REVISION MOCK EXAMS 2016
TOP NATIONAL SCHOOLS

BAHATI GIRLS HIGH SCHOOL

GEOGRAPHY

Paper 1

MARKING SCHEME

SCHOOLS NET KENYA
Osiligi House, Opposite KCB, Ground Floor
Off Magadi Road, Ongata Rongai | Tel: 0711 88 22 27
E-mail:infosnkenya@gmail.com | Website: www.schoolsnetkenya.co

BAHATI GIRLS HIGH SCHOOL KCSE TRIAL AND PRACTICE EXAM 2016

312/1

Paper 1

MARKING SCHEME

SECTION A

ANSWER ALL THE QUESTIONS IN THIS SECTION

1. Study the diagram below showing the Internal Structure of the earth and answer question (a) and (b)

   (a) Name the parts marked C and D (2 marks)

   C - Oceanic crust/SIMA

   D – Inner core

   (b) State three characteristics of parts marked E (3marks)

   - is divided into two parts/upper mantle and lower mantle
   - upper mantle has lower temperature than lower mantle
   - upper mantle is an elastic solid/semi- molten
   - lower mantle is viscous liquid
   - mantle is 2900km thick averagely
   - mantle has an average density of 3.0 to 4.0 gms/cc
   - dominant minerals is olivine/ferromagnesian silicate

2. Describe the origin of continents according to the theory of Continental Drift (5marks)

- Originally the earth was one huge land mass/Pangaea/super continent
- Pangaea was surrounded by large water mass/ocean/Panthalassa
- Pangaea broke into two sub-continents Northern Continent/Laurasia and Southern continent/Gondwana land.
- The two continents were separated by a narrow sea/Tethys
- The two continents broke further
- Laurasia split to form the continents on the Northern hemisphere.
- Gondwana split to form Southern continents the continents gradually drifted to their present position

3. (a) Give three processes that lead to the formation of Lakes. (3 marks)

- Deposition by water/rivers/glacier
- Erosion by wind /ice
- Crustal warping
- Volcanic activities
- Faulting
- mass wasting
- falling meteorites
- Weathering by solution

(b) Apart from Lake Magadi, name two other lakes within the Rift Valley in Kenya that have high levels of salinity. (2 marks)

- L. Nakuru
- LakeElementaita
- Bogoria

4. The diagram below shows erosional features of the waves at the coast. Use it to answer question

(a) Identify the features marked F and G. (2 marks)

-F – arc
- G- stack

(b) Give three submerged upland coasts (3 marks)

- Ria coasts
- Fiords/fjord coast
- Longitudinal/Dalmatian coast

5. (a) Distinguish between soil profile and soil catena (2 marks)

- Soil profile is vertical arrangement of soil particles from the surface to the bed rock while soil catena is horizontal arrangement of soil particle along a slope from the top to the bottom

(b) Give three soil forming processes. (3 marks)

-Weathering
-Decomposition of organic mater
-leaching

6. Study the map of Karatina (1:50,000) sheet 121/3 provided and answer the following questions.

(a) (i) Give the latitudinal extent of the area covered by the map. (2marks)

- O'15's to O'30's or 15'

(ii) Identify two districts represented in the area covered by the map. (2 marks)

- Nyeri district
- Kirinyaga district

(iii) Convert the ration scale used in the map to a statement scale. (2marks)

1:50 000: 1cm represents 50 000cm
50 000 ÷ 100 000 = 0.5
1cm represents 0.5km / ½ km

(b) (i) Calculate the bearing of Kiriti school in grid square 9745 from a school in grid square 9457. (2 marks)

$150^{o} \pm 1^{o}$ (149^{o} to 151^{o}

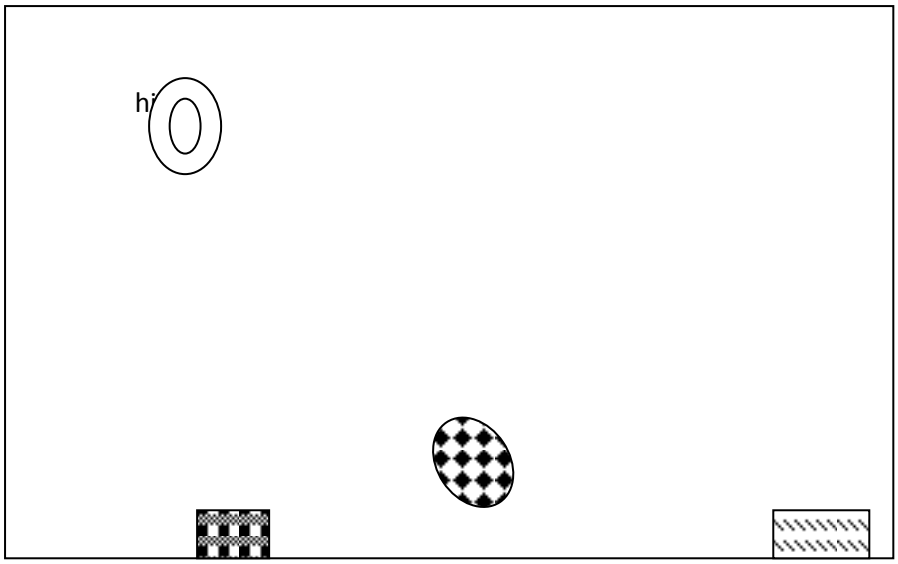
(ii) Measure the distance of an all weather road, bound surface from a junction in grid square 9247 to a junction at Gatei, grid square (9556) (2 marks)

10.9km $\pm$ 0.1 (10.8 to 11km)

(c) Draw a rectangle measuring 15cm by 12cm to represent the area covered by the map. On it mark and name the following

- Karatina town (1mark)
- Tumutumu forest (1 mark)
- A hill at Tagwa (1 mark)
- A papyrus swamp (1 mark)

15cm



12cm

Marks distribution

Rectangle 1 mark

Town 1mark

Forest 1 mark

(d) (i) Describe the distribution of settlement in the area covered by the map. (6marks)

- North Western part of the map has few settlements
- Generally the Southern part has more settlement
- There are nucleated settlements in the towns
- In Mt. Kenya forest, there are few settlements
- Near the papyrus swamps to the south east, there are few settlement
- Steep slopes have few settlements
- River valley also have few settlements

(ii) Citing evidence from the maps, explain the factors favouring coffee farming in the area covered by the map. (4 marks)

- High rainfall evidence by permanent rivers/forests suitable for coffee growing.
- Availability of labour evidence by dense settlement necessary for tendering coffee crop
- Good transport evidenced by roads/railway for taking coffee to the factories
- slopes evidence by close contours providing goof drainage for coffee growing
- High altitude evidenced by contours of over 5000 ft. suitable for coffee growing

1. Study the map of Africa provided below and answer questions (a) and (b)

(a)(i) Identify climatic regions marked H, J and K (3marks)

- H - Mediterranean
- J - Tropical continental
- K – Equatorial

(ii) Give the names of the towns marked L, M and N. (3 marks)

- L – Cairo
- M – Cape Town
- N - Mogadishu

(b) State five characteristics of climatic region marked P (5 marks)

- Temperatures are high throughout the year
- High diurnal temperature range/hot days and cold nights
- Low rainfall/upto or less than 250mm p.a
- Rainfall is convectional in nature
- Clear skies/cloudless skies
- Heavy storms/strong winds/dust storms

- Very low humidity
- High insolation / high sun intensity

(c) (i) Give three natural causes of climate change (3 marks)

- Variation in the earth's orbital position
- Variation in global atmospheric carbon dioxide
- Volcanic eruptions
- Variation in solar output

(ii) State five effects of climatic change (5 marks)

- Increased rainfall/severe drought
- Disruption of ecosystems
- Frequency flooding
- Shifting of climatic regions/vegetation zones
- Increased ultraviolet radiation
- Shifting of crop growing areas.
- Increased temperature in urban areas

(d) You are supposed to carryout a filed study on weather within your school compound.

Describe how you would use the following instruments during the study.

(i) The Hygrometer (3 marks)

- Taking the reading of the wet bulb thermometer
- Taking the reading of dry bulb thermometer
- Recording THE READINGS
- Working out the difference of the two readings
- Interpreting the readings

(ii) The rainguage (3 marks)

- Remove the water collecting jar from the metal holder
- Pour the water in a measuring cylinder
- Take the readings on the cylinder
- Record the readings
- Interpret the readings
- Resetting the instrument.

2. (a)(i) Distinguish between faulting and folding (2 marks)

- Faulting refers to breaking/fracturing/cracking of crustal rocks due to tectonic forces while folding is the bending/curving of crystal rocks due to compressional forces

(ii) The following diagram shows a shear fault. Name the parts marked Q and R.

Q - Fault plane

R – Fault line

(iii) Apart from shear fault give three more types of faults (3 marks)

- Normal faults
- Reverse faults
- Thrust faults
- Anticlinal faults

(b) Describe how a fault block is formed (4 marks)

- A block of land is subjected to compressional forces
- Reverse faults develop
- Central block is forced to rise
- The side blocks subsides
- The highland created is known as a fault block

(c) Explain four positive effects of faulting (8 marks)

- Highblock mountains are sources of rivers which provide water for domestic/industrial use
- Faulting leads to exposure of minerals making it easier for extraction
- High block mountains attract high rainfall suitable for agriculture
- Rift valley lakes are used for fishing.
- Faulted features attract tourists who bring foreign exchange used f or economic development
- Hot springs and geysers are harnessed for geothermal power.

(d) Your class intends to carry out a field study on t he floor of Gregory Rift. Valley

(i) Which three volcanic features would they identify? (5 marks)

- Volcanoes/mountains/hills
- Hot springs/caldera
- Plug dome/spine/plug volcano
- Fumaroles/solfatara/mofettes

(ii) State three problems which they are likely to experience (3 marks)

- Difficult to climb steep slopes/escarpment
- Students may get injured by rocks
- Unco-operative students
- The area is expansive hence difficult to cover the whole of it
- Inaccessibility of some parts of the area of study

9. The diagram below show glaciated highlands. Use it to answer question (a) (i)

(i) Name the features marked S,T, and U. (3 marks)

S – Pyramid peak
T - Arete
U – Cirque /corrie

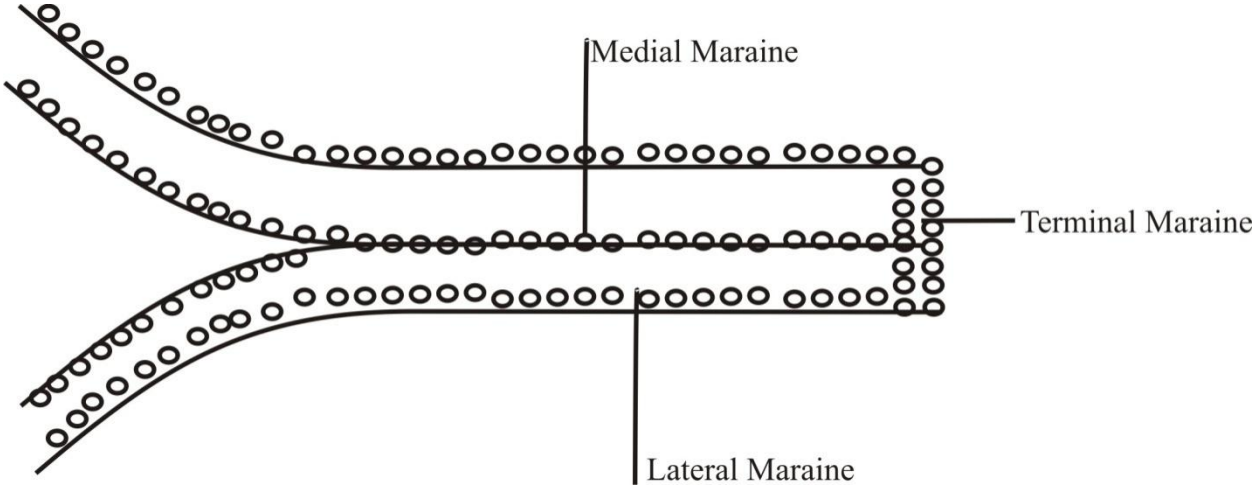
(ii) Give three ice capped mountains in Africa, (3 marks)

- Mt. Kilimanjaro
- Mt. Kenya
- Mt. Ruwenzori

(b) (i) Draw a diagram showing a valley glacier. (1 mark)

On it mark and name the position of the following types of moraines. (3 marks)

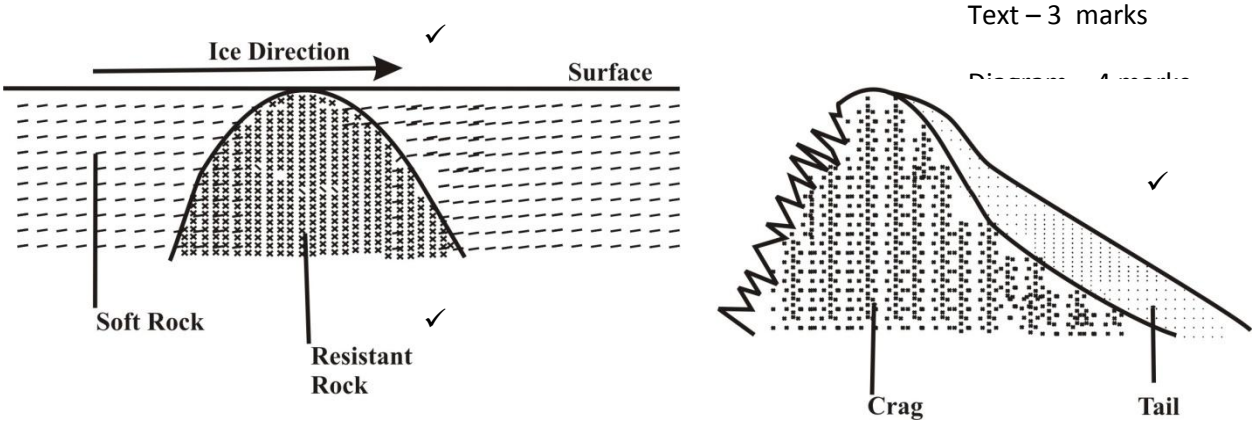
- Lateral moraine
- Medial moraine
- Terminal moraine



(ii) Using a diagram describe how a crag and tail is formed. (7 marks)

- A resistant rock outcrop occurs on the path of moving ice
- Upstream slope of the rock is eroded by plucking
- A rugged steep slope is left behind on the upstream side
- The resistance upstream protects the downstream part from erosion
- When the ice melts the protected soft rock form a tail
- Eventually a feature with a resistance upstream rock and soft downstream rock results. It is known as crag and Tail.

Text – 3 marks



(c) Explain four significance of glaciated landscape to human beings. (8 marks)

- Glaciated features attract tourist therefore by generating income/foreign exchange
- U-shaped valley floors provide suitable sites for settlement/agriculture.
- Hanging valley form waterfalls which are used in generating hydro-electric power
- Melt ice forms rivers used for irrigation /domestic/industrial purposes
- Outwash plains have fertile soils for agriculture=.
- Fiords are suitable for harbours
- Fiords also provide shelter for fish breeding hence growth of fishing industry.

10. (a)(i) Give four sources of underground water. (4 marks)

- Rains
- Lakes & seas
- Manmatic water
- Melting ice

(ii) Which are the three zones of saturation below the earth surface. (3 marks)

- zone of non-saturation
- zone of intermittent saturation
- zone of permanent saturation

(b) State three conditions necessary for the formation of Karst scenery. (3 marks)

- rock below must be limestone/chalk/dolomite/soluble
- Rock should be well jointed
- Area must have high rainfall
- Water table must be deep.

(c) The diagram below shows underground features in a karst area. Use it to answer the questions (i) and (ii)

(i) Identify the features marked V and W (5 marks)

V- Limestone rock

W- Limestone Pillar

(ii) Describe how feature marked X is formed (5 marks)

- Rain falls on limestone rock, and water percolates downwards
- Upon reaching a cavern, water drips from roof of the cavern
- Water drops delays falling from the roof.
- Evaporation takes place, carbon dioxide escapes
- Precipitates of hydrogen carbonate are left on the roof of the cavern
- Precipitates accumulates and project downward
- A finger like projection eventually forms and it is known as stalactite.

(d) Explain four ways in which karst features influence human activities (8 marks)

- Features formed in limestone area attract tourists
- Limestone rock is used as raw material for cement industry
- Limestone is used in iron and steel industries as flux.
- When dolines collapse, they may form lakes(expose underground rivers hence source of water for domestic use
- Karst areas have thin and dry soils hence discourage settlement