

MARKING SCHEME FORM 3 TERM TWO 2019
GEOGRAPHY 312/1

PAPER ONE

SECTION A

1. (a) Theories explaining causes of earth movement

- Continental drift theory
- Plate tectonic theory

(b) Boundaries separating tectonic plates

- Extension boundary - separate two plates that move away from each other
- Compression boundary - separate plates moving towards each other
- Shear / Transform boundary - found where two plates move in opposite direction/slide past each other

3 x 1 = 3mks

Award for a complete comparison

2. (a) Types of igneous rocks
Intrusive/plutonic rocks
Extrusive/volcanic rocks

2 x 1 = 2mks

(b) Classes of Igneous rocks based on their chemical composition

Acidic

Basic

Intermediate

Ultra basic

3 x 1 = 3mks

3. (a) Layer of atmosphere from earth surface upwards

Troposphere

Stratosphere

Mesosphere

3 x 1 = 3mks

NB: order should be followed

(b) Boundaries separating layers of the atmosphere

Stratopause

Mesopause

Tropopause

2 x 1 = 2mks

4. (a) (Components of Solar system apart from Sun

Planets

Moon

Comets

Meteorites/meteors

3 x 1 = 3mks

(b) Why sun is a unique star

- Generates its own energy
- All planets revolve around it in an orbit
- Its at centre of solar system
- It does not move its static unlike other stars

2 x 1 = 3mks

5. (a) Diagram of simple fold

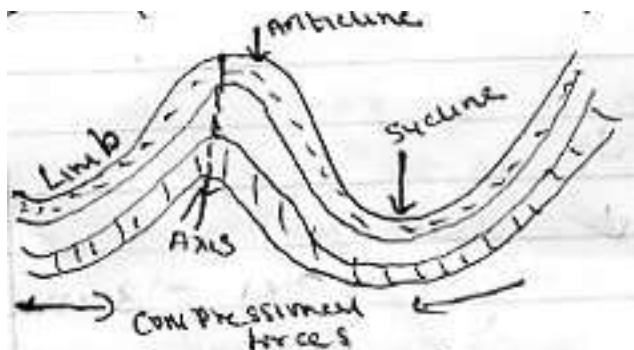


Diagram - 1mk
 Anticline - ½ mk
 Syncline - ½ mk
 Limb - ½ mk
 Axis - ½ mk
 Total (3mks)

- (b) Fold Mts in Africa
- Atlas
 - Akwapim hills
 - Cape ranges

SECTION B

6. (a) (i) The administrative divisions of Kitale

- West Pokot
- Tran - Nzoia
- Elgeyo Marakwet

-

2 x 1 = 2mks

- (ii) 6 Grid reference of Kupsain pouce post 341253

(2mks)

- (iii) Methods of presenting relief
- Contours
 - Trigonometric stations
 - Spot height

Any 2 x 1 = 2mks

- (b) (i) Area of Kitale Municipality
- Full squares 6 = 6
- Half squares $15/2 = 7.5/13.5 + 0.5$
- $= 13.5$ 59Km
- $13\text{Km}^2 - 14\text{Km}^2$

(2mks)

- (ii) Functions of Kitale township
 Health centre (hospital)
 Trading centre (shops)

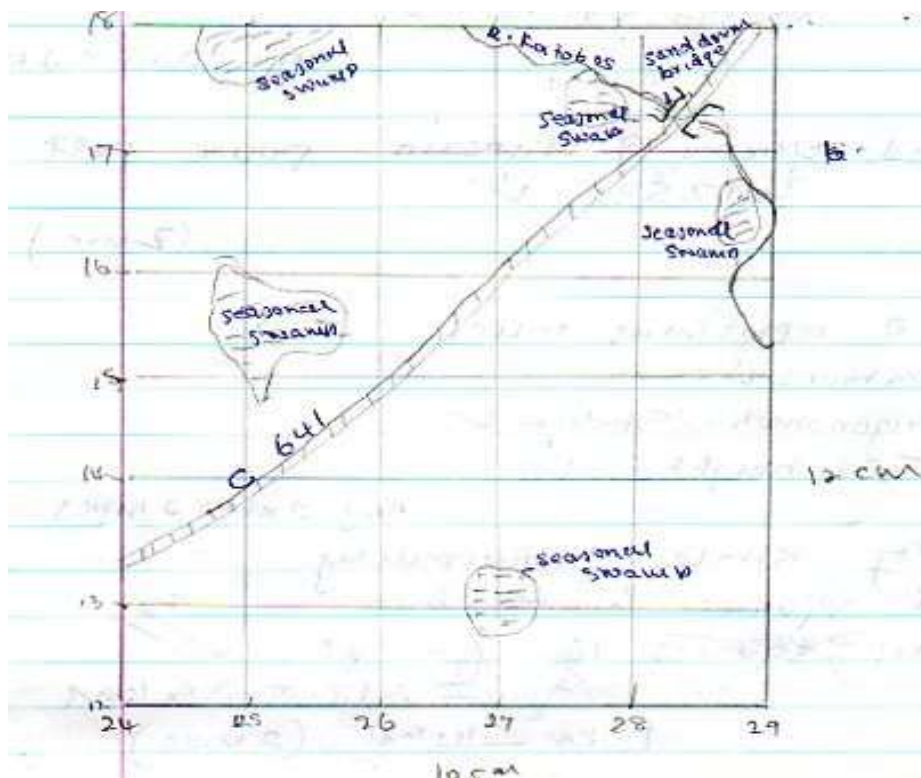
Recreation / Entertainment centre (Sports club)
 Administrative - police station
 Transport - Loose surface road

Any 2 x 1 = 2mks

- (iii) Types of vegetation
 Scattered trees
 Scrub
 Forest
 Woodland
 Papyrus swamp

Any 2 x 1 = 2mks

- (c) A rectangle measuring 10cm by 12cm between Easting 24 to 29 and Northing 12 to 18.



Title - ½ mk
 Seasonal Swamp - 1mk
 Sandrum Bridge - 1mk
 R. Katobos - 1mk
 Road C641 - 1mk

Total (5mks)

(d) Farmers at delgany farm carried out a study at colleagues farm at Longleat estate.

(i) Reasons why they need a Map of Kitale:-

- Get exact location of the area
- Identify suitable mode of transport to us
- Prepare work schedule
- Decide on suitable collection technique
- Get to know the extent of the area to be covered

Any 2 x 1= 2mks

(ii) Methods they would use to collect data

(2mks)

- Observation
- Interview
- Measurement
- Questionnaire

Any 2 x 1= 2mks

(iii) Data information they would collect

- Types of crops grown/animals reared
- Management principles
- Marketing of the products
- Problems experienced/solutions
- Mode of transport for their produce

Any 2 x 1= 2mks

7. (a)(i) Differentiate between Ocean and Sea.

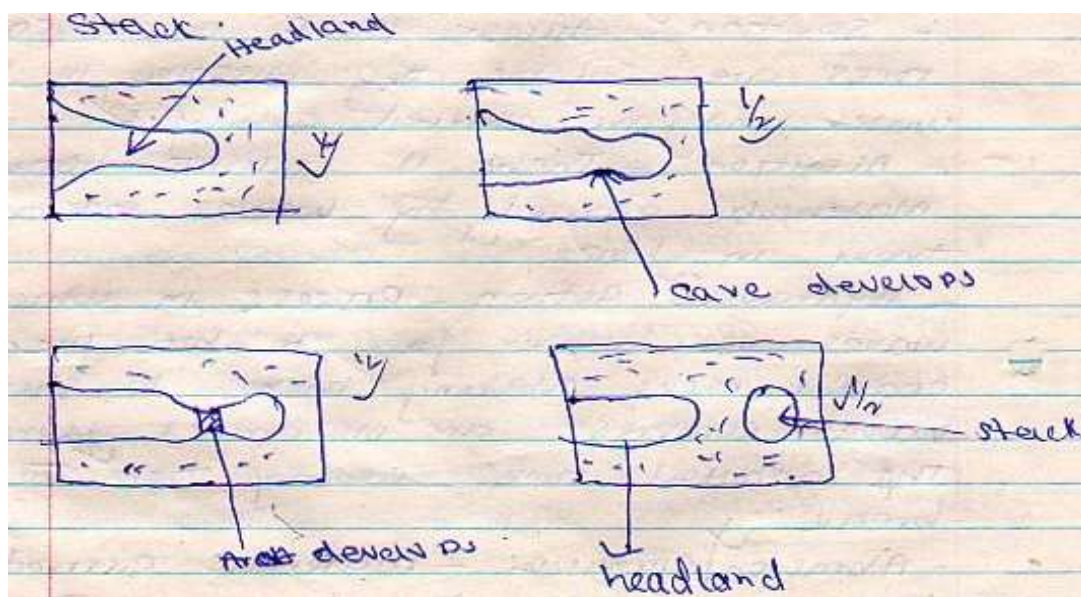
An Ocean is an extensive mass of Saline water between continents, while a Sea is a mass of Saline water along continental margins (2mks)

(ii) Name two types of waves along the African Coast

Swash waves
 Back wash waves

(2mks)

- (b) Describe three processes through which waves erode the coast.
- solution takes place where coastal rocks are soluble they dissolve in sea water and are carried away.
 - Attrition - there is collision between materials carried by waves reducing them in size.
 - hydraulic action – process in which waves use water force to hit the coastal rocks making them to shatter/waves compress air in cracks along the coastal rocks causing them to break.
- (c) Using diagrams describe how a stack is formed.
- its formed when a headland is attacked by wave action through abrasion and hydraulic action from both sides leading to development of notches on both sides of the headland.
 - Continued erosion leads to formation of caves on both sides.
 - Continued erosion on enlarged caves eventually makes the caves to join to form an arch.
 - The roof of the arch finally collapses. Water separates a section of the headland from the coast.
 - The separated headland leaves an isolated rock pillar known as a stack.



Award 2 marks for diagrams
Award 3 marks for explanation

Total (5mks)

- (d) (i) Name types of Coasts
Coral coasts
Submerged coasts
Emerged coasts

3 x 1 = 3 mks

- (ii) Conditions necessary for growth of coral polyps

- Sea water should be warm
- Sea water should be shallow to allow light to penetrate
- The water should be saline
- The water should be clear/free from silt or mud.
- There should be plenty of planktons
- The water should be well oxygenated

(3mks)

- (e) Students of Budonga carried field study along the coast. Some of wave depositional features they were able to identify

Spit
A tombolo
Off – shore bar
Beaches
Cuspate foreland
Marshes and mudflats
Bay bars

4 x 1 = 4 mks

8. (a) (i) Desert in Africa
Kalahari
Namib
Sahara
chalbi

2 x 1 = 2mks

- (ii) Types of deserts according to the nature of their surfaces

- Sandy/erg/koum deserts
- Stony/rep/seviv deserts
- Rocky/ Hamada deserts
- badland

3 x 1 = 3mks

- (b) (i) Two factors which influences wind transportation
- Strength and speed of the wind
 - Obstacles in the path of the wind
 - Nature and size of the load the wind is carrying
 - State of the obstacles

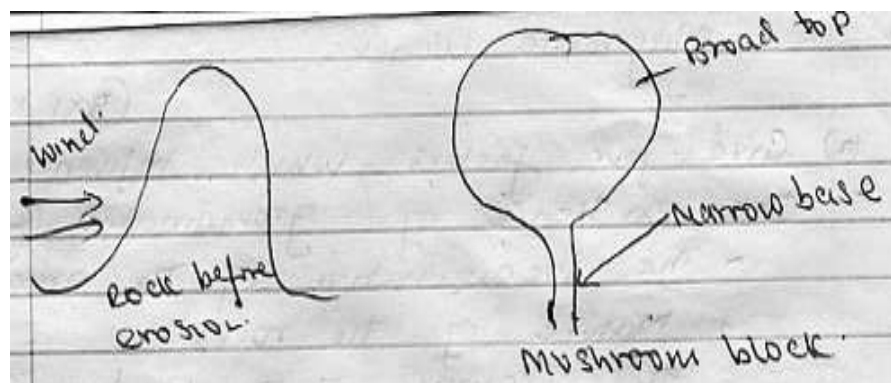
(2mks)

- (ii) Describe three ways in which wind transport its load
- Surface creep - process in which large materials and heavy are pushed along the ground surface
 - Siltation – the materials are rolled on the ground bounce off into the air and fall again
 - Suspension - very fine particles are suspended in the air or held up in turbulence of the wind

2 x 3= 6

- (c) Using illustrations describe the formation of mushroom block

- Wind abrasion attack a homogeneous rock
- There's more abrasion near the base of the rock where abrasive tools are heavier.
- The action produces a rock block with a narrow base and broad top which is polished known as a mushroom block



Award 4 marks explanation
2 marks diagram

(6mks)

- (d) Students of Kirima school carried out a field study of a desert region.

- (i) State two ways in which students prepared
- They formed groups
 - They sought permission from relevant authorities
 - They carried a pre-visit
 - They assembled necessary tools for study
 - They formulated objectives hypothesis
- (2mks)
- (ii) Name four desert water features they may have seen
- Inselbergs - Dry river valleys
 - Wadis - pediment
 - Messas/butes
 - Playas/Salinas
- (4mks)
9. (i) Sources of underground water
- Rain water
 - melt water
 - Lake/Sea water
 - Magmatic water
- (3 x 1 = 3mks)
- (ii) Give four factors which influence the existence of ground water
- The precipitation of the area
 - Nature of the rocks
 - The slope of the land
 - Vegetation cover
 - Level of saturation of the rocks
- 4x 1 = 4mks
- (iii) State four conditions ideal for the formation of artesian wells
- The aquifer must be sandwiched between impermeable rocks
 - The aquifer must be of same permeable rock/materials
 - The aquifer must be exposed in an area of sufficient precipitation
 - One or both ends of the aquifer must be exposed to allow water percolate.
- (4 x 1 = 4mks)
- (b)(i) Name three surface features found in Karst Scenery
- Grikes
 - Clints
 - Swallow holes
 - Dolines
 - Dry valley

- Uvala
- Polje
- Gorges

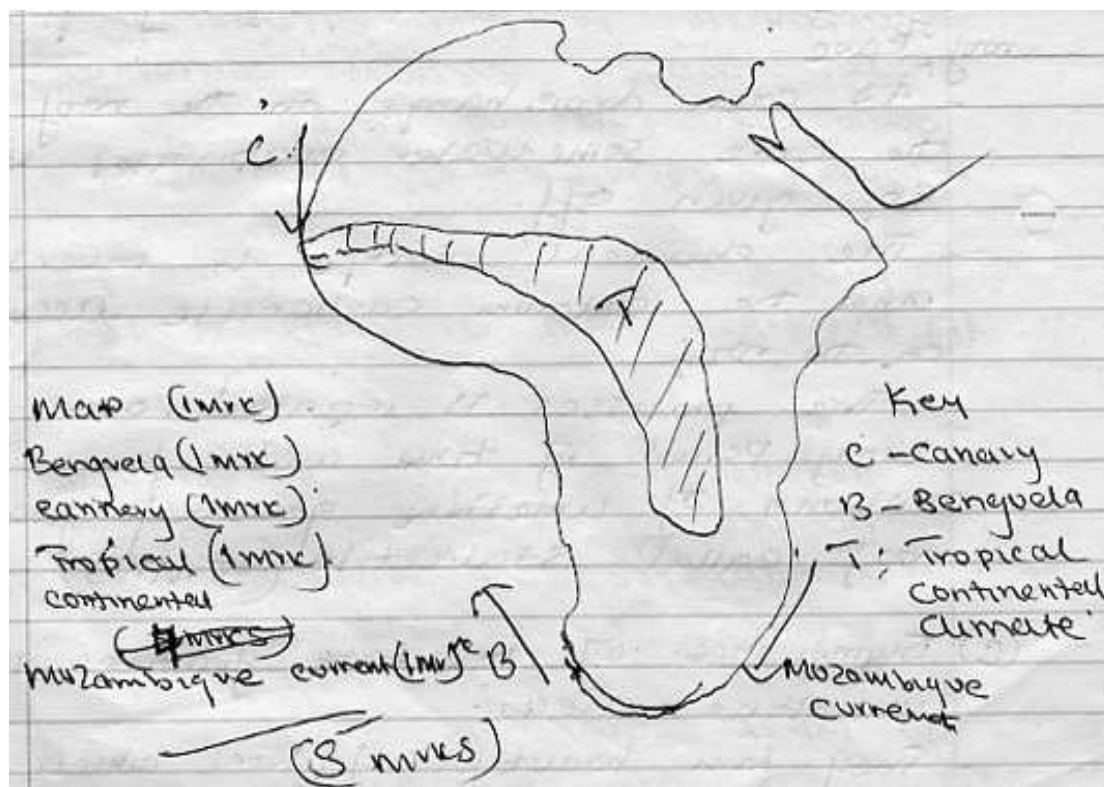
Any 3 x 1 = 3mks

- (ii) Describe how a stalactite is formed:-
- Water seeps through the roof of a cave in limestone area
 - The water dissolves calcium carbonate to form calcium bicarbonate.
 - The solution drips slowly from the roof of cave
 - As each drop hangs on the roof of the cave some water evaporates with CO_2 given off.
 - The chemical change is reversed and the calcium carbonate accumulates on the roof.
 - The process is repeated over a long period of time and forms a column of limestone growing from the roof called stalactite (5mks)
- (c) Significance of resultant features in limestone areas.
- They form beautiful features which attract tourists
 - The limestone landscape discourages settlement as some areas are rugged/rocky with thin soils.
 - Limestone blocks are used for building and construction/raw materials for cement manufacturing industry

3 x 2 = 6 mks

10. (a) Draw a Map of Africa and on it mark and name
- Benguela current
 - Canary current
 - Regions of tropical continental climate
 - Mozambique current

(b)



State six characteristics of tropical continental climate

- Rainfall is mainly convectional
- Rainfall comes in summer
- Summers are hot with temperatures rising upto 32°C
- Annual temperature range is about 12°C
- Moderate rainfall 730mm - 1308mm annually
- Winters are cool and mild with temperatures about 22°C
- Trade winds blows mountainous areas receive relief rainfall

(6mks)

(b) (ii) Factors influencing climate

(i) Latitude

Areas near the equator are hotter than the areas far away from the equator. This is due to a higher concentration of the Sun's ray per unit area at the equator/ the amount of Solar radiation decreases pole wards since it passes through a longer distance of atmosphere leading to low temperature at the poles.

The sun rays strikes the earth's surface at right angle / 90^0 at the equator leading to intense heating / the angle of the Sun rays is lower / acute at the poles leading to less intense heating (2mks)

(ii) Aspect

- In Northern hemisphere outside the tropics the north facing slopes are colder than the South facing slopes because they don't receive direct solar radiation.
- The reverse is true in Southern hemisphere.

- Windward slopes of high mountains / hills are generally wetter than toward slopes because the moisture laden winds rise and drop their moisture on this first (2mks)

(iii) Ocean currents

- Where winds are onshore, warm ocean currents have a warming effect on the adjacent coast/lead to higher rainfall than inland areas.
- Cold ocean current have a cooling effect/drying effect on the adjacent lands (2mks)

(c) You intend to carry out field study in a weather station around the school

(i) State four preparations you would make before field study.

- Formulation of hypothesis/objectives
- Conduct revisit
- Writing questions
- Discussing in class in groups
- Seek permission from relevant authorities
- Prepare necessary study tools

4 x 1 = 4mks

(ii) Name two instruments you would observe in the Stevenson Screen

- thermometer
- hydrometer / wet / dry bulb thermometer

(iii) Give two follow up activities you would undertake after the field study

- Carrying out class discussion
- Writing/ compiling notes
- Data analysis and interpretation
- Making conclusions based on the findings

Any 2 x 1 = 2mks

