

GEO P2 MS
FORM 3 GEOGRAPHY PAPER 2

MARKING SCHEME

1. a. Geography is the study of the distribution and interrelationship of phenomena in relation to the Earth's surface.
b. Importance of Geography in the learning process
 - Geography teaches learners how to manage time properly by drawing time schedules.
 - Geography helps in the planning of national projects.
 - Geography enables learner to understand and appreciate different environmental influences at work on different societies.
 - Geography teaches methods of collecting and representing geographical information.
 - Geography encourages international awareness and co-operation.
 - Geography for career.

2. a. layers of the earth. (4 mks)
 - Lithosphere
 - Asthenosphere
 - Barysphere
 - Centrospheres
b. i. Mohorovicic discontinuity (2 mks)
ii. Gutenberg discontinuity

3. a. effects of Earth's rotation
 - Atomic difference of one hour between meridians 15° apart.
 - Deflection of winds and ocean currents.
 - Rising and falling of ocean tides.
 - It causes day and night.
b. causes of Earth movements (3 mks)
 - Magma movement
 - Convectional currents
 - Gravitational force
 - Isostatic adjustments

4. a. examples of rapid mass movements (3 mks)
 - Rock falls
 - Debris avalanche
 - Landslides

- Debris fall

b. 3 fold mountains. (3 mks)

- Atlas mts - Africa
- Alps of Europe
- Himalayas of Asia
- Rockies of North America
- Andes of South Africa

5. What is agro-forestry. (2 mks)

- This is the growing of trees together with crops and animal pastures while rearing animals in the same piece of land.

SECTION B:

6. a. i. Mean: 18.33 (3 mks)

ii. Mean: 56.16 (3 mks)

iii. Median: 18.0 (2 mks)

iv. Temperature range = 14°C Rainfall range = 127 mm

- b. Title = 1 mk
Key = 1 mk
Labeling axis = 1 mk
Curve = 2 mks

c. Advantages of using a simple line graph (3 mks)

- Simple to construct and interpret.
- Due to the use of line it's a suitable method of showing phenomena that is continuous.
- The simple curve allows determination of intermediate values that were not plotted.
- Its easy to read the exact values against the plotted points.

d.

- Difficult to obtain the exact values from this graph.
- Fluctuations in values may be exaggerated out of proportion due to a poor choice of the Vertical scale.
- A false impression on the continuity of data may be given.

7. a. Vegetation

Vegetation refers to a community of plants (trees, shrubs, herbs and grasses) that grow in a given Place to give it a distinct character. (2 mks)

b. i. Factors that influence the distribution of vegetation.

- Climatic factors (rainfall, temperature, sunlight and wind).
- Physiographic factors (altitude, topography and aspects).
- Edaphic factors (soil related factors).

- Biotic factors (effects of living organisms).
 - Anthropogenic factors (those related to human beings). (4x2=8mks)
- ii. Uses of vegetation.
- Heavily vegetated areas act as water catchment areas.
 - Habitat for wild animals.
 - Sources of fuel.
 - Used as live fences for security reasons.
 - Source of raw materials for industries.
 - Vegetation purifies the atmospheric air. (4x2=8mks)
- c. i. Characteristics of savanna grasslands
- Mixture of grass and a few scattered trees.
 - Found in areas experiencing tropical continental climate.
 - Trees are flat topped with spreading branches.
 - Have a variety of grass species.
 - Grass has a very short cycle. (3x1=3 mks)
- ii.
- Prairies
 - Stepples
 - Pampas - America
 - Veldt - South Africa
8. A forest is a collection of trees of one or more species growing naturally or planted by human beings in an area. (2 mks)
- ii..Uses of forests and forest products in Kenya.
- Forests prevent the soil from erosion.
 - Provision of raw materials for various industries.
 - Source of fuel.
 - Source of food – sericulture and apiculture are practiced in forests.
 - Provide employment opportunities and are a source of revenue. (5x2=10 mks)
- iii. Problems facing forestry in Kenya.
- Over exploitation and illegal logging.
 - Destruction of forests by drought, fires, pests and diseases.
 - Massive deforestation due to encroachment into forest lands.
 - Poor forest management and conservation practices. (4x1=4 mks)
- iv..Forest conservation measures practiced in Kenya.
- Creation of forest reserves.
 - Agro-forestry and silviculture.
 - Encouraging afforestation and reafforestation practices.
 - Use of alternative sources of energy and energy saving devices.
 - Employment of forest warders who protect forests from illegal exploitation.(5x1=5 mks)

9. a. i. It's the extraction of valuable minerals from the ground. (3 mks)
- ii. ways in which minerals occur. (3 mks)
- As veins and lodes
 - Beds and seams
 - Weathering products
 - Alluvial/placer deposits
- b. i. Factors that affect mineral occurrence and exploitation. (4 mks)
- Value of the mineral
 - Transport costs
 - Labour availability
 - Political factors
 - Capital availability
 - Size of the mineral deposits
 - Demand for the mineral/market factors
 - Quality of the ore
 - Level of technology
- ii. two methods employed in underground mining. (4 mks)
- Shaft method – vertical shafts are sunk into the earth's crust and connected to horizontal tunnels in order to reach the mineral.
 - Drift/Adit method – horizontal tunnels are dug into the hill or valley sides to reach the mineral.
 - Solution method – pipes are sunk at great depths to the mineral deposits eg. sulphur. Super heated water is directed through the pipes to dissolve the mineral, which is then pumped to the surface.
 - Drilling method – wells are dug and oil or gas are extracted.
- c.i. Effects of mining on the environment. (4 mks)
- Leads to land dereliction.
 - Collapse of underground mines may lead to heavy casualties/loss of human lives and destruction of property.
 - Pollution of soil, air and water.
 - Mining activities interfere with the local water table.
- ii. Problems facing mining in Kenya. (4 mks)
- Extraction and processing of some minerals pollute the environment.
 - Inadequate capital for mineral exploitation.
 - Lack of skilled personnel limits mineral exploration and exploitation.
 - Mining activities are mainly in the hands of foreign companies who repatriate the profits to their home countries.
 - Competition from developed countries.
 - Shortage of power/energy for mining activities.

10.a. Minerals found in

- Rululu valley - coal
- Kariandusi - Diatomite
- Tororo - Limestone or phosphates. (any 3x1=3 mks)

b. Stripping method.

- The over burden is removed and dumped nearby.
- Explosives are used if need be to loosen the rock bearing the mineral.
- Huge power shovels or conveyor belts are used to remove the mineral deposits and load it in Lorries/trollers/trucks/railway wagons for transportation to the factory. (any 3x1=3mks)

c. Drawing a divided rectangle.

Limestone $\frac{10}{100} \times 10 = 1 \text{ cm}$

Coal $\frac{20}{100} \times 10 = 2 \text{ cm}$

Iron ore $\frac{50}{100} \times 10 = 5 \text{ cm}$

Trona $\frac{20}{100} \times 10 = 2 \text{ cm}$

IRON ORE	coal	Trona	Limestone
5 CM	2 cm	2 cm	1 cm

ii. Advantages of divided rectangles. (5 mks)

- Gives clear visual impression of individual components.
- It allows for comparison.
- It is easy to construct.
- Can be used to represent a wide a range of data. (3x1=3 mks)

d.i. Two areas where diamond is mined in S.A.

- Koffie
- Jagers fonta in
- Kimberley
- Pretoria (any 2x1=2 mks)

ii. Processing of diamonds

- The rock bearing diamond is crushed into small pieces.
- It is then washed to remove dirt.

- The remaining rock is passed over a rotating table. This table is covered with greese which repels water that is made to flow over it.
- The wet pieces of rock will not stick to the greese but slide off the table as waste.
- The diamonds stick to the greese.
- The rotating table is stopped and greese with the diamond is removed.
- The process is repeated several times.

iii. Economic contribution of diamonds.

- Provides employment.
- Earns foreign exchange.
- Promotes urbanization eg. Pretoria & Kimberley.
- Contributed to development of infrastructure like roads and railway. (any 3x1=3 mks)