GEOGRAPHY GRADE 10

MID TERM 2 EXAM 2026

MARKING SCHEME

1(a) Define Geography. (2 marks)

Study of the Earth and its features. (1)

Study of people, their activities, and the relationship between people and the environment. (1)

1(b) Name two branches of Geography and give one example of a topic studied in each. (2 marks)

Any two branches, 1 mark each with correct example:

Physical Geography — landforms, climate, rivers, soils. (1)

Human Geography — population, settlements, industry, transport. (1)

1(c) What is a contour line on a topographic map? (1 mark)

A line joining places of equal height above sea level.

1(d) State two map symbols commonly used to show human features. (2 marks)

Any two, 1 mark each:

Road.

School.

Market.

Church.

Settlement/buildings.

Railway.

2. Population

2(a) Define population density. (1 mark)

The number of people living per unit area, usually per square kilometre.

2(b) Give two physical factors that influence population distribution. (2 marks)

Any two, 1 mark each:

Climate.

Relief/topography.

Soil fertility.

Availability of water.

Drainage.

3. Earthquakes and floods

3(a) What is an earthquake focus? (1 mark)

The point inside the Earth where seismic waves originate.

3(b) Give two human activities that increase vulnerability to floods. (2 marks)

Any two, 1 mark each:

Building on flood plains/wetlands.

Deforestation.

Poor drainage systems.

Dumping waste in rivers/drains.

Cultivation along river banks.

4. Map scale

4(a) Define the term “scale” as used in maps. (1 mark)

The relationship between a distance on a map and the corresponding distance on the ground.

4(b) Convert the scale 1:50,000 into a statement scale. (2 marks)

1 cm on the map represents 50,000 cm on the ground. (1)

= 500 m or 0.5 km. (1)

5. Map reading calculations

5(a) Calculate ground distance between A and B. (4 marks)

Award marks for:

Correct map distance measured. (1)

Correct use of scale. (1)

Correct conversion to ground distance. (1)

Final answer with correct units. (1)

5(b) Calculate the average gradient between A and B. (4 marks)

Award marks for:

Correct vertical interval/height difference. (1)

Correct horizontal distance. (1)

Correct formula: gradient = vertical distance / horizontal distance. (1)

Final answer expressed correctly, e.g. ratio or 1 in x. (1)

5(c) Calculate the actual area of forest F in square kilometres. (3 marks)

Award marks for:

Correct measurement of map area. (1)

Correct conversion using scale. (1)

Correct final answer in km^2. (1)

5(d) Draw a vertical cross-section along line AB. (5 marks)

Marking points:

Correct transfer of line AB and main height points. (1)

Correct plotting of heights. (1)

Correct shape/profile. (1)

Accurate labels/points. (1)

Neat, properly drawn completed cross-section. (1)

6. Grid reference and bearing

6(a) Give the grid reference (four-figure) of the settlement centre marked S. (2 marks)

Correct eastings. (1)

Correct northings. (1)

6(b) Find the magnetic bearing from point A to B. (2 marks)

Correct direction line measured from north clockwise. (1)

Correct bearing written in three figures. (1)

7. Earth structure and earthquakes

7(a) Describe the internal structure of the Earth with a labeled diagram. (6 marks)

Award up to 6 marks for:

Crust described correctly. (1)

Mantle described correctly. (1)

Core described correctly. (1)

Correct labels on diagram. (1)

Proper order from outside to inside. (1)

Additional detail such as outer/inner core or thickness/state. (1)

7(b) Explain three causes of earthquakes. (6 marks)

Any three, 2 marks each:

Sudden movement along faults.

Volcanic activity.

Folding or faulting due to tectonic movement.

Isostatic adjustment.

Human activities such as mining, blasting, reservoir loading.

8. Volcanoes

8(a) Describe five effects of volcanic eruptions. (10 marks)

Any five, 2 marks each:

Loss of life.

Destruction of property and infrastructure.

Destruction of vegetation and farmland.

Creation of fertile soils after weathering.

Formation of new landforms.

Emission of poisonous gases and ash causing health problems.

Displacement of people.

Disruption of transport and communication.

8(b) Give three conditions necessary for the formation of volcanoes. (2 marks)

Any three, 2 marks total, e.g.:

Presence of weak zones/faults in the crust.

Magma under pressure.

Tectonic plate boundaries or hotspots.

Crustal instability.

9. Folding

9(a) With aid of well-labelled diagrams, describe how anticlines and synclines are formed. (6 marks)

Award marks for:

Correct explanation of compressional forces. (1)

Upfolding of rock layers to form anticlines. (1)

Downfolding of rock layers to form synclines. (1)

Diagram of anticline correctly labelled. (1)

Diagram of syncline correctly labelled. (1)

Proper direction of stress and fold limbs shown. (1)

10. Population and statistics

10(a) Explain three social factors that influence population distribution in Kenya. (6 marks)

Any three, 2 marks each:

Education: areas with schools attract people.

Health services: people settle near hospitals/clinics.

Security: safer areas attract more settlement.

Culture: some communities prefer certain areas.

Recreation/amenities: towns attract more people.

10(b) Calculate the mean and range for household sizes: 12, 15, 18, 20, 22, 25, 30. (4 marks)

Sum = 142. (1)

Mean = 142 ÷ 7 = 20.3 approximately. (2)

Range = 30 − 12 = 18. (1)

11. Settlements and industries

11(a) Explain four characteristics of planned settlements. (4 marks)

Any four, 1 mark each:

Regular street layout.

Zoned land use.

Proper services and infrastructure.

Controlled plot sizes/building standards.

Well planned roads and drainage.

11(b) Describe three factors that influence the location of industries in Kenya. (6 marks)

Any three, 2 marks each:

Raw materials availability.

Power/electricity supply.

Transport and market access.

Labour availability.

Capital availability.

Government policy/incentives.

12. Soil conservation

12 Explain four methods used to conserve soil in agricultural areas. (8 marks)

Any four, 2 marks each:

Terracing.

Contour ploughing.

Mulching.

Strip cropping.

Afforestation/agroforestry.

Cover cropping.

Crop rotation.

Gully control/check dams.

13. GIS, coordinates, area and imagery

13(a) State four functions of GIS in natural resource management. (4 marks)

Any four, 1 mark each:

Mapping resources.

Monitoring environmental change.

Land-use planning.

Resource inventory and management.

Disaster risk mapping.

Decision support for conservation.

13(c) Calculate the area of a 0.8 km by 0.6 km field in hectares. (3 marks)

Area = $0.8 \times 0.6 = 0.48$ km². (1)

1 km² = 100 hectares. (1)

0.48 km² = 48 hectares. (1)

13(d) Explain one advantage and one limitation of using satellite imagery. (3 marks)

Advantage: covers large areas quickly / provides up-to-date information. (1)

Limitation: expensive / needs skilled interpretation / may be affected by cloud cover. (2 or 1+1 depending on depth).