**CASPA AMUKURA PARISH 2021 EXAMINATION**

**FORM 2 GEOGRAPHY MARKING SCHEME**

SECTION A:

1. (a) Solar system comprises the sun, planets and other heavenly bodies e.g. comets, meteorites

(b) Planets without satellites (2mks)

 - Mercury

– Venus

2. (a) Three effects of rotation (3mks)

 -Causes day and night

- Causes deflection of winds and Ocean currents

- Causes rising and falling of tides.

- Causes difference in atmospheric pressure on the earth’s surface

(b) Three characteristics of the earths’ core (3mks)

- Temperature range is 3700 – 45000c

* Divided into two: inner core and outer core.
* Inner core composed of solid materials
* Outer core composes of very hot molten materials
* Outer core contains minerals iron and nickel
* Average density 10.5 – 17.0 gm/cm3
1. (a) Interior of earth is hot because
* Original heat retained after formation of the earth, interior cooled at slower rate.
* Overlying material exert a lot of pressure to the interior resulting to high pressure to the interior resulting to high pressure.
* Radioactivity processes in the interior of the earth produce a lot of energy in the interior

 (b) Instruments in Stevenson screen. (3mks)

- Maximum thermometer

- Minimum thermometer

- Six’s thermometer

- Hygrometer (wet bulb and dry bulb thermometer) any 3 x 1 (3mks)

1. (a) Weather forecasting is the prediction of the atmospheric condition of a place at specific time (2mks)

(b) – Weather forecasting determines farmers calendar of events e.g planting and harvesting.

* It determines time for sea/air travels
* It influences mode of dressing

- It influences sporting activities

5. - Veins and lodes

- Beds and seams

- Weathering products

- Alluvial/Placer deposits

-It determines fishing habits

Any 3 x1 (3mks)

1. (a) (i) A picture: I s an image of an object represented as a drawing, painting or photograph. (2mks)

A map is a representation of part or whole earth on a flat surface like a piece of paper or chalkboard. (2mks)

(i) Topographical map (1mk)

 Atlas Map (1mk)

(b) (i) – A sketch map should be neat and clear

– It must have a title

It must have a key for symbols and signs

It must have a compass direction

Any 4 x 1 (4mks)

(ii) - Maps show direction and location of places and phenomena on the earth’s surface e.g cities, Mountains, rivers etc.

* Maps show human and economic activities like land use settlement etc.
* Maps indicate physical features such as relief, drainage patterns etc.
* Maps show weather trends like rainfall, temperature and climatic regions
* Maps indicate political and administrative boundaries and adjudicated land ownership
* Maps are important in military strategies as enemy positions are pin – pointed through the use of maps.

Any 4 x 2 (8mks)

(c) A scale is a ratio between distance on the map and distance on the actual ground. (2mks)

(ii) Uses of scales:

* To measure distances on maps (1mk)
* To Calculate areas on Maps (1mk)
* (d) (i) Scale ½ 00, 000 into statement cm
* But 100 cm = 1m
* 200 000 cm = 200 000 = 2000 m
* 100
* 1000 m = 1 km
* 2000 m = 2000 2km
* 1000
* Thus 1 cm represents 2km. (2mks)
* (ii) 1cm to ½ km into ratio scale
* 1cm to 500m
* 1m = 1000 cm
* 500m = 500 x 100 50,0000 cm
* 1: 50000 (1mk)
1. (i) Mining is the process of extracting valuable minerals from the earth’s crust (2mks)

(ii) Underground/mining /deep shaft mining (1mk)

Alluvial/placer mining (1mk)

(iii) – Cutting and polishing metals

 – Making jewels (ornaments)

 – Making drill bits

 -Grinding metals

(b) – Land dereliction: damaged abandoned land with no vegetation and depleted minerals. eg muram pits, stone quarries etc.

 – Pollution: toxic gases cause air pollution and acid rain, noise pollution from heavy machines and explosures.

– Loss of biodiversity: - loss of vegetation that leads to destruction of animal habitats.

– Soil erosion/soil degradation: destruction of soil structure making it loose and vulnerable to a gents of erosion i:e wind and water.

– Landslides: sudden movement of materials down the slope may trigger tremors, burry settlements leading to destruction of property and loss of human life.

* + 1. Any 3 x 2 (6mks)

(c) - Value of minerals: Minerals with high demand and economic value may be runned ever at high cost. e.g. gold, petroleum, diamonds etc.

– Size of mineral deposit: big reserve justifies expensive equipment.

– Quality of ore: higher grade ores are economical to exploit than tower grade ores.

Method of mining: It depends on the mode of occurrence of the ore.

– Technology: Advanced technology is needed in mining and processing of minerals.

-Capital: Mining requires large outlay of capital

-Market world market prices are often unstable, thus affecting demand for minerals

- Transport costs: transportation cost of bulky ores by rail and road is very high.

 Any 5 x 2 (10mks)

(d) O.P.E.C

Means Organisation of petroleum Exporting countries (2mks)

1. (a) (i) Weather is the atmospheric condition of a particular place for a specific period of time (short period e.g a day)

(ii) Temperature - Air pressure

– Precipitation - Sunshine

* Humidity
* Wind
* Cloud cover

 Any 4 x1 (4mks)

 (b) (i) – Clear sky/absence of clouds to permit terrestrial radiation

– There must be sufficient moisture in the air

The air must be cooled below dew point

– Wind must be calm.

Any 3 x 1 (3mks)

(ii) – lapse rate is the rate at which temperature decreases with increasing altitude, while temperature inversion is where temperature increases with altitude. (2mks)

(c) (i) - Gentle sloping/ flat area.

- Free from flooding

- Away from tall buildings and trees

-Open area with a wide view of sky and free flow of air.

-Secure site for safety of instruments

 Any 4 x 1 (4mks)

(ii) – Clouds determine amount of solar radiation reaching the earth surface and amount leaving the earth’s surface.

* Day temperatures are moderated by clouds.
* Areas of thick dark clouds have high rainfall. Cumulo – nimbus and nimbo – stratus cause rain.

 Any 3 x 2 (6mks)

 (d) (i) Crossing it to the west, a day is lost. (1mk)

 Crossing it to the east, a day is gained (1mk)

 (ii) Difference between Buchanan and Nairobi is

 100 + 370 = 470

10 = 4min

470 = 47 x 4 = 188 min

In hours = 188 = 3hrs 8 Min

Time Buchanan is behind that of Nairobi

 **10.00 a.m**

 **- 3.08**

 **6.52 a.m (2mks)**

**9. (a)** (i) Folding is the bending of crustal rocks caused by compressional forces. (2mks**)**

 **(ii) Symmetrical folds**

* Crustal rocks are subjected to compressional forces of equal magnitude from both sides.
* Rocks bend evenly, with limbs dipping at the same angle.

 **(iii) Crustal rocks are subjected to compressional forces of unequal strength.**

* The side of the fold experiencing stronger forces will be pushed higher, becoming steeper than the other side.
* (Explanation 2mks, diagrams ( 2mks)
1. (b) Heavy rainfall on windward slopes of fold mts promote agriculture

– Forested wind ward slope of fold mts. Provide timber for construction industry, herbal medicine and wildlife habitat.

* Fold mts are water catchment areas as rivers originate and provide water for irrigation, domestic and industrial use.

 – Valuable minerals may be brought closer to the surface for easy mining.

 – Beautiful landforms attract tourists and earn revenue and foreign exchange

Any 3 x 2 (6mks)

(c) (i) ***Magma movemen***t: rocks in the interior of the earth are heated by high temperatures into molten state. High pressure forces it through faults, joints, cracks, and fissures for5cing crystal rocks to move horizontally.

 Gravittative pressure; The conventional currents in the mantle are in circular motions towards the crustal rocks. These currents exert a frictional drag with the sima rock, causing crustal rocks to move horizontally.

 Isostatic adjustment . Disruption of the balance that exists between the upper sial and the denser inner sima of the earth caused adjustment of the crust leading to movement ,either uplift or down warping.

 ii) Jid-saw-fit of continental margins

 Same geological structure over continents

 Distribution of ancient glacial deposits across many counties

 Similaries between fauna and flora on various continents (palaeontological evidences)

 Climatology: coal a mineral formed under warm and cold conditions was found in very cold continents

 Sea floor spreading newest rocks were in the centre of the ocean.

 Palaeomagnetic studies volcanic eruptions and alignments of the magnetic field are still taking place .

d) Extension boundaries or constructive margin

 Compressional boundaries or destructive boundaries

 Transform faults or constructive margins

10.a)(i) Faulting is the cracking of the rocks of the crust as a result of tectonic forces .

 (ii)In a normal fault, a part of the crustal rocks along a fault a plane is exposed to form escarpment ,while in a reverse fault, rocks along the plane are not exposed.

 A normal fault is caused by tensional forces while a reverse fault is caused by compressional forces.

 In a normal fault, the outer blocks move away from the middle block while in a reverse fault the outer blocks override the middle block.

b) (i) The earth was originally one huge landmass Pangea (super continent )

 Pangea was surrounded by a large water body called Panthalasa.

 Due to different gravitational forces Pangea split into two sub-continents, Laurasia and Gondwanaland. The two sub-continents were separated by sea called Tethys. Further split occurred on the two landmasses. Laurasia broke to form the continents in the Northern Hemisphere (N. America, Eurasia)

Gondwanaland broke to form the continents in the southern Hemisphere (S. America, Africa, Australia, Antarctica). The continents gradually drifted to their present positions. The drifting continues even today.

ii) A conservative boundary forms when two plate move past each other

 There is no destruction and no creation of new features

 This may lead to earthquakes in the region

c) (i) Taking photographs

 Note taking

 Field sketching

 Drawing maps

 Filling in questionnaire

 (ii) Hold discussions in class

 Presentation of findings by groups

 Drawing maps and diagrams of the area

 Display photographs

 Writing the reports

 Analyzing the soil samples

 Reading further on the topic