**MWAKICAN JOINT EXAMINATION GEOGRAPHY FORM 2 END OF TERM 1 YEAR 2014**

**MARKING SCHEME**

**SECTION A**

1. a) Define the term solar system (1mk)

**sun and the nine planets orbiting around it**

b) List down two theories that explain the origin of the solar system (2mks)

* **passing star theory**
* **Nebula cloud theory**

1. a) Give a brief explanation about the origin of the earth (4mks)

* **3rd planet on the solar system**
* **formed about 4600 million years ago**
* **a hot mass of gas was thrown off the sun**
* **these gases cool to form liquid**
* **Heavier material collected at the centre to form the core**
* **Less heavier formed mantle and crust**
* **As cooling continued the outer part of the earth hardened faster to form crust.**

b) Fill in the blank spaces on the dimension of the earth (4mks)

Equatorial diameter **12762 km**

polar diameter **12722km**

equatorial circumference **40085 km**

polar circumference **39955 km**

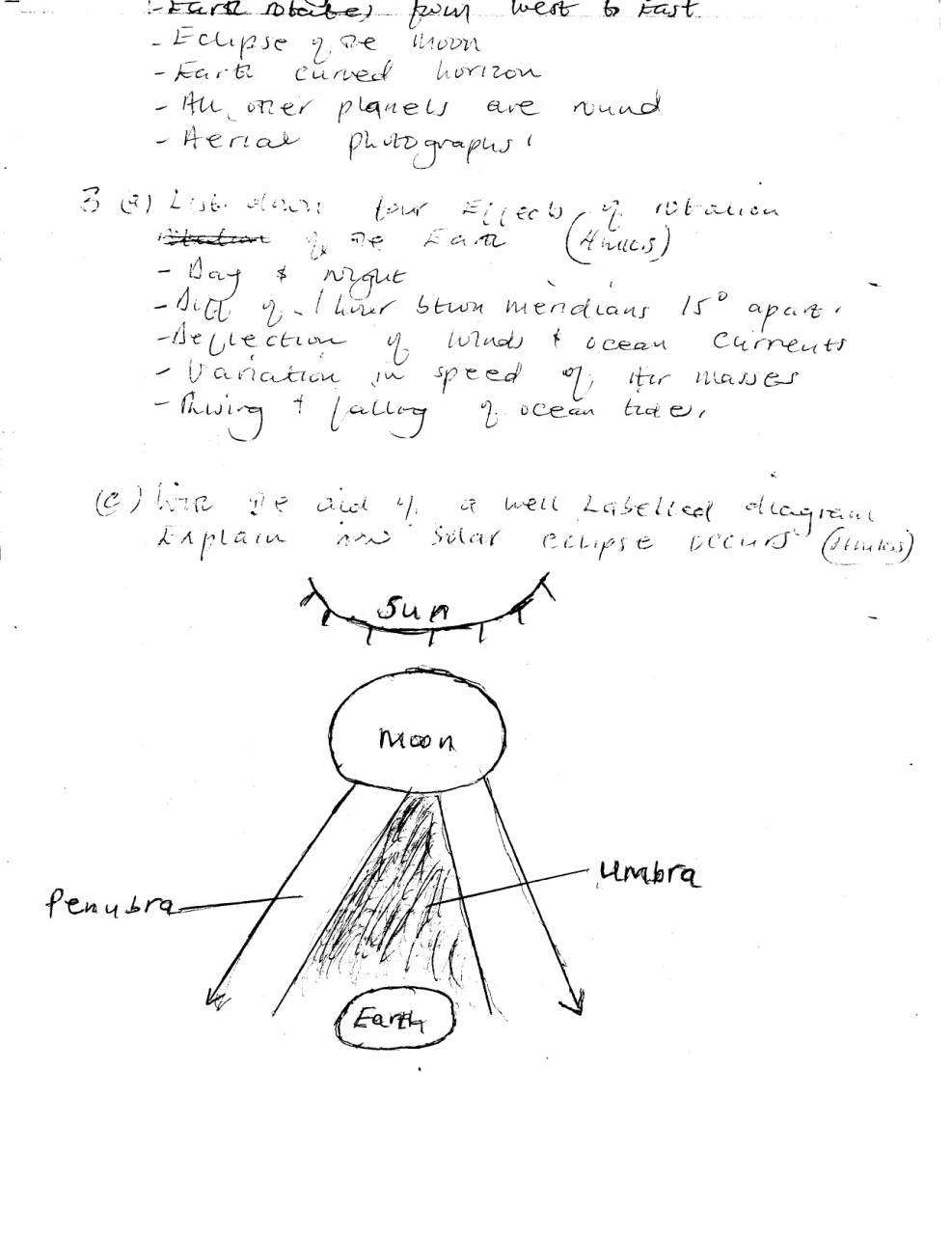
c) List down four proofs that the earth is spherical (4mks)

* **circumnavigation**
* **Approaching ship**
* **earth rotates from west to East**
* **Eclipse of the moon**
* **Earth curved horizon**
* **All other planets are round**
* **Aerial photographs**

1. a) List down four effects of rotation of the Earth (4mks)

* **Day and night**
* **Drifference of 1 hour between meridians 15° apart.**
* **Deflection of winds and ocean currents**
* **variation in speed of air masses**
* **rising and falling of ocean tides**

b)with the aid of a well labelled diagram, explain how solar eclipse occurs (4mks)



1. a) Define the term weather (1mk)

**condition of the atmosphere of a given place at a specific time over a short period of time e.g a day, month or a year.**

b) List down four factors that determine the amount of solar radiation which reaches the earth surface. (4mks)

* **intensity of suns radiation in space**
* **Transparency of the atmosphere i.e transmission absorption, scattering and reflection**
* **Position of the earth on its orbit**
* **The angle of inclination or surface on which the sun’s rays fall**
* **Area and nature of the surface on which rays fall**

1. a) Explain the term humidity (1mk)

**Condition of the atmosphere with reference to its water vapour content**

**b)**Differentiate between absolute humidity and relative humidity (2mks)

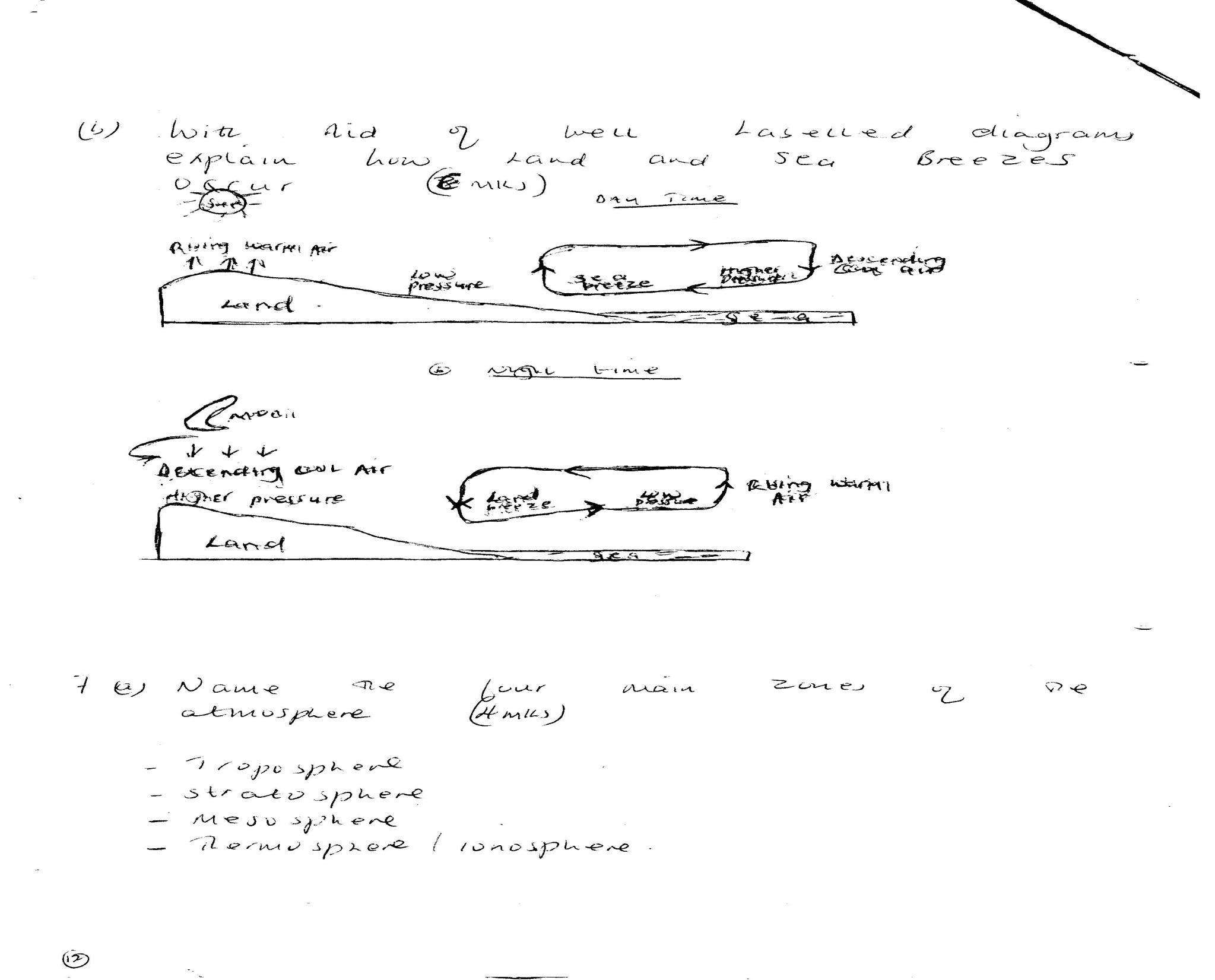
**Absolute – amount of water vapour in a given volume of air at a particular temperature expressed in gm/m3**

**Relative – Ratio between absolute humidity of a given mass of air and the maximum amount of H2O vapour that it can hold at the same temperature.**

1. a) What is the meaning of the term winds? (1mks)

**Moving air over the earth’s surface**

b) With Aid of well labelled diagrams explain how land and sea breezes occur (6mks)



1. a) Name the four main zones of the atmosphere (4mks)

* **Troposphere**
* **Stratosphere**
* **Mesosphere**
* **Thermosphere/ionosphere**

b) Differentiate between negative, positive and zero lapse rate. (3mks)

**Negative – Temp increase with increase in altitude**

**Zero- no charge in temp with increase in altitude**

**Normal lapse rate – decrease in temperature with increase in height**

c) What is the ozone layer? (2mks)

**Layer that absorbs ultra- violet rays from the sun/protective layer**

d) What is its importance to man? (2mks)

**- Protective layer, shields man from ultra-violet rays which may cause skin cancer and other forms of ailments.**

1. The table below shows rain fall and temperature in town x use it to answer the questions that follow

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Months | j | F | M | A | M | J | J | A | S | O | N | D |
| Temp °C | 23 | 24 | 26 | 28 | 29 | 28 | 26 | 26 | 26 | 30 | 28 | 25 |
| Rainfall mm | 3 | 0 | 3 | 1 | 18 | 500 | 720 | 408 | 300 | 70 | 15 | 0 |

1. Calculate
2. The total annual rainfall (2mks)

**2038**

1. The mean monthly rainfall (2mks)

**169.83**

1. The annual range of temperature (2mks)

**drifference between highest and lowest mean niontaly temperature in year 30-23 = 7°C**

1. The mean annual temperature (2mks)

**Mean annual temp = sum mean monthly temperature 319**

**12 12**

**26.58°C**

1. Using the table indicate the following
2. The wettest month (1mks)

**July**

1. The hottest month (1mk)

**October**

1. The coolest month (1mk)

**January**

**SECTION B**

1. a) Define the term Earth movements (1mk)

**Movement of crustal rocks by forces originating and operating in the interior of the earth known as tectonic forces**

b)Formation of internal or External land formas by tectonic forces is determined by the following (3mks)

* **Nature and age of the earth’s materials e.g degree of elasticity**
* **Type of movement involved**
* **Intensity and scale of the forces involved.**

c) List down two types of eath movements (2mks)

- **Horizontal/orogenic/lateral**

**- vertical /Epeirogenic**

1. a) Give two causes of earth movements (2mks)

* **Magma movement**
* **Gravitational force**
* **convectional currents**
* **isostatic adjustment**

b) List down thre evidences supporting continental drift theory (3mks)

* **Climatolog**
* **sea floor spreading**
* **jig saw fit of continental margin**
* **geological structure**
* **paleomagnetic studies**
* **ancient glacial deposits**
* **mid-Atlantic ridge**

c) List down three types of boundaries associated with plate tectonic movements 93mks)

* **Extension/constructive margins**
* **Compressional /destructive margin**
* **transform faults /conservative margins**

1. a) Define the term folding (1mk)

**bending/ crumbling of rocks on the earth’s crust.**

b) Briefly explain the process of folding (3mks)

* **compression of rocks – anticlines and synclines formed**
* **geosynclines filled with rediments –pressure created due to additional weight**
* **Compression in the earth’s crust- sediments wrinkle forming foreland and back land**

c) List down three different types of folds 93msk)

* **simple symmetrical**
* **asymmetrical**
* **over fold**
* **isoclinals fold**
* **recumbent fold**
* **napple/over thrust**
* **Aticlinorium synclinorium complex**

d) List down three features resulting from folding (3mks)

* **fold mountains**
* **Escarpments**
* **synclinal valley**
* **depressions**

c) Fill in the gaps below (5mks)

Fold mountain where found

1. Atlas  **N.W Africa**
2. **Alps**  Europe
3. **Himalagas**  Asia
4. Andes **S. America**
5. **Rockies**  North America

f) Give three significances of folding to human activities (3mks)

1. a) Define the term faulting (1mks)

**Its cracking or fracturing of rocks of the earth’s crust**

b) List down three types of faults (3mks)

* **Normal fault**
* **Reversed fault**
* **tear, shear slip fault**
* **Thrust fault**
* **An anti-clinal fault**

c) i)What is a rift valley? (1mk)

**Long** **narrow trough between two or more parallel faults with steep faults scarps on either side.**

ii) Mention three ways in which the rift valley may have been formed (3mks)

* **Tension**
* **compression**
* **Anticlinal arching**

1. a) Explain the meaning of the following terms;
2. A picture (1mk)

**An image of an actual object represented either as drawing, painting or photograph**

1. A map (1mk)

**Representation of part or whole earth on a flat surface e.g. sheet of paper and drawn to scale**

1. A plan (1mk)

**map of a place or a picture drawn to scale for a specific use.**

1. Give three uses of maps (3mks)

* **giving direction and location of place**
* **showing human and economic activities**
* **indicate physical features**
* **showing weather trends**
* **showing political and administrative boundaries**
* **for military strategy**