

FORM 1 EXAMINATION

GEOGRAPHY

October - 2016

MARKING SCHEME

SECTION A

1. a) Main branches of Geography

i) Physical geography

-the earth and the solar system.

-Internal and external land forming processes.

-Weather and climate etc

ii) Human geography

-forestry, wildlife, energy, industries, population, trade.

iii) Practical geography-statistical method, maps and mapwork, field work, photography work.

Any 2 and an example 2 marks

Total 4mks

b) Importance of studying Geography in secondary school

-To develop skills of observation, reading, analysing, interpreting maps, photograph etc.

-Help learner to be critical thinker

-Assist learner to make a caereer choice ie a geography teacher.

-Promote cooperation at all levels

-It promote international awareness and cooperation.

-It help learner to develop positive attitude towards immediate environment

Any 3 x 1= 3 mks

2. a) Theories used to explain the origin of the solar system

-The passing star theory

-Nebula cloud theory

Any 2 x 1 = 2mks

b) Reason why the sun is a unique star

-No other star known to man have heavenly bodies going round it.

-It radiates solar energy which is very important for life on earth.

-It is only a star in the solar system

-It produce its own light

Any 2 x 1= 2 mks

3. a) Shape of the earth.

-geoid or oblate spheroid (1 mk)

b) Forces responsible for the shape of the earth

-Centrifugal force-bulging at the equator

-Centrifugal force-causes flattening of the poles

-Forces of gravity-causes the rounding shape of the earth due to attraction of all points at the earth's centre.

Any 2 x 2= 4 mks

To score a reason/effects must be given.

4. a) Resolution-the movement of the earth/ planets around the sun on its own orbit once per year. 1 x 1= 1 mks

b) Effects of revolution

-It causes lunar and solar eclipse

-It causes the four season ie summer, winter, springs and autumn.

-It causes varying length of day and night at different time of the year.

-It causes change in the position of the mid day sun at different times of the year.

Any 3 x 1= 3 mks

5. a) Absolute humidity is the actual amount of water vapour in a given volume of air at a particular temperature while relative humidity is the ratio of absolute humidity to the maximum amount of moisture that this air mass could hold at the same temperature. mark as a block 4 mks

b) Factors that influences humidity.

-Temperatures

-Air pressure

-Supply of moisture

-Latitude

Any 2 x 1= 2 mks

SECTION B

6. a) i) Weather- Daily atmospheric conditions of a place.

- Day to day change of the atmosphere of a given place between 24-48 hrs

2mks

ii) Lapse rate

- The speed at which the temperature of atmospheric air decreases with increasing altitude.

2mks

b) Condition necessary for the siting of weather station

- An open place where there is free flow of air.
- The place should provide a wide view of the surrounding landscape and the sky.
- A way from obstruction eg trees building etc.
- The site should be free from flooding and relatively gentle sloping.

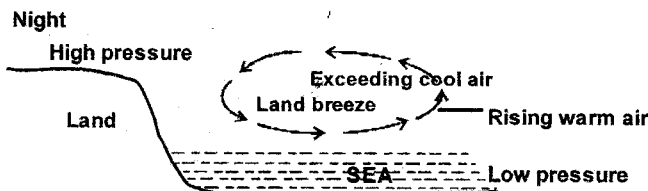
any 3 x 1 = 3 mks

c) Forms of precipitation.

- Dew
- frost
- snow
- fog
- mist

any 2 x 1 = 2 mks

d) Land breeze



- At night, land loses heat faster than water/ sea.
- High pressure develop over the land while low pressure is created over the sea.
- Warm air over the sea rises and cold air from the land flows seawards to replaces the one which is rising.
- The cold air from the land flowing toward the sea is referred as the land breeze.

Correct diag. 2mks

Explanation 2mks

Total 4mks

e) i) Objectives

- To find out which weather elements are measured in the weather station.
- To investigate the condition of weather instruments found in the weather station.
- To find out how the data collected at weather station is transferred to headquarters

any 2 x 1 = 2mks

ii) Preparation for the field study

- Carry out reconnaissance survey
- Ask/seeking permission from relevant authority.
- Read from reference books
- Prepare a working schedule
- Prepare relevant stationary/tools
- Prepare questionnaires
- Class/group discussion
- Formulate objectives and hypothesis of the study.

Any 3 x 1 = 3 mks

iii) Methods of data collection.

- observation
- oral interviewing
- Administering questionnaire
- Collecting samples
- Taking photographs
- Taking measurements

Any 3 x 1 = 3 mks

iv) Problems likely to experience during field study

- Unfavourable weather ie rain, hot sun
- The time may be inadequate for gathering enough information
- Unreliable/irrelevant answer from the resource person.
- Fatigue, sickness of some members

Any two relevant answers x 1 = 2mks

vi) Advantages of learning geography through field work

- It enables students learn through experience/ first hand information.
- It helps students to apply the theory they have learned in class.
- It enables a student develop skills such as observation, measuring, evaluation and listening.
- Students learn how to cooperate with others
- Help to break classroom monotonous
- The student is able to make his own record on weather.
- Increase interest in the student through activity and field observation.

Any 2 x 1 = 2 mks

7. a) Statistical data refer to the actual facts and figures collected from various area and arranged in organised manner.

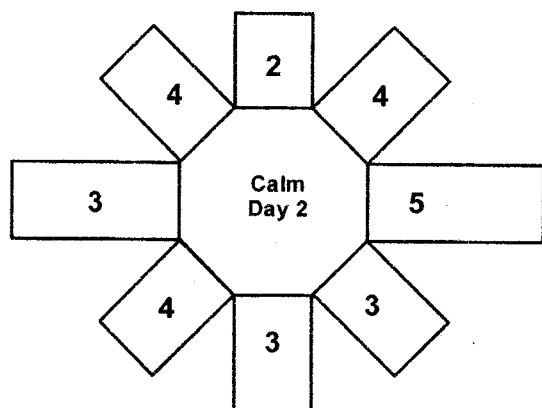
(2 mks)

b) Significance of statistics

- To show relationship between two varying qualities to help make valid conclusion.
- Geographical information can be summarised in different form.
- Statistics enable to explain geographical phenomena.
- It help make comparisons and to draw a meaningful conclusion.
- It is used to predict future trend in weather and climatic change.
- It gives a precise data rather than generalized information.
- It show change over time.
- Statistics help in planning at all level of development.

Any 2 x 1 = 2 mks

c)



d) Advantages of a windrose

- It gives a visual impression of the wind flow at a glance.
- It is relatively easy to construct.
- It is easy to understand the information represented.

Any 2 x 1 = 2 mks.

8. a) Minerals are inorganic substances which occur naturally at or beneath the surface of the earth while rock are aggregate of mineral particles.

(4 mks) block marking

b) Characteristics of minerals

- Various minerals have varying degree of hardness
- Some minerals have distinct features
- Some minerals have different number of elements
- Some minerals have distinct colour
- Minerals vary in texture
- Some are opaque, translucent, transparent

Any 3 x 1 = 3 mks

c) Types of rocks

- Sedimentary rocks
- Igneous rocks

d) i) Table

Original rock	Metamorphic rock
i) sand stone	quartzite, slate
ii) Limestone	marble
iii) Coal	graphite
iv) mud stone	slate

1mk for each
total 2mks

d) ii) Ways in which rocks may become metamorphic

- When the weight of the overlying rock layers created pressure on the lower layers it leads to change in structure grains alignment of the rock. This process known as dynamic metamorphism.
- During volcanic eruption, hot magma gas liquid may intrude into rock. The rock grains will recrystalize due to heat top form a new minerals-this process thermal/contact metamorphism.
- In mountain building process, rocks are compressed and due to this pressure heat is generated. This heat modifies the structure of the original rocks the process known thermal-dynamic metamorphism.

any 2 x 2 = 4mks

iii) Ways in which rocks contribute to the economy.

- It leads to the formation of soil for agriculture.
- Some rocks provide building materials which are used in construction industry.
- Some rocks provide fossil fuels.
- Some rocks provide salt use for domestic and industries
- Some rocks provide site which attract tourist who boast the Kenya economy.

Any 3 x 1 = 3 mks

9. a) Types of maps

- Topographical map
- Atlas map

any 2 x 1 = 2 mks

b) Characteristics of a good sketch map

- It should be neat and clear
- It has to be accompanied by a title
- It should be enclosed in a frame for neatness and clarity.
- It should have a key to explain featured used.
- It should have a compass point.

any 4 x 1 = 4 mks

c) i) Marginal information

-It refer to facts which are contained in the area surrounding the map/along the margin of a map.

2mks

ii) Use of a map

-measuring of distance on a map

-Calculating area of features on a maps

Any 2 x 1=2 mks

10. a) Mining

This is the process of extracting minerals and fossil fuels from the earth's crust either on or below the ground.

1 x 2=2 mks

b) factors affecting the exploration of minerals in Kenya.

-Demand for the minerals.

-The value of the minerals

-The size of deposit

-Quality of the core

-Transport cost

-Method of extraction

-Skilled and qualification of workers

-Availability of capital

Any 3 x 1= 3 mks

c) i) Use of soda ash

-Used in glass industry-glasses and bottles

-Used in soap industry-soap and detergents

-Paper industry

-Used in softening of hard water.

-Used in textile industry

-Used in oil refining

(Any 2 x 1=2 mks)

ii) Types of mining

-underground mining

-placer mining/Alluvial mining

Any 2 x 1= 2 mks

iii) Negative effects of open cast mining on the environment

-Land dereliction

-pollution of air, water and land

-soil erosion

-land slide

-wastage of agricultural land

-disruption or lowering of the water table

-wastage of agricultural land.

any 2 x 1=2 mks