PRESIDENT'S OFFICE

MOCK EXAM GEOG 1.

MARKING SCHEME.

SECTION A- GEOGRAPHY 1

1. (a) Measured distance on the Map = 30.8 cm. 1 mark

Then.

Given Scale = 1:50,000. Change into Statement

1 Km = 100,000 cm

? = 50,000 cm

$\frac{1 Km \times 50,000 cm}{100,000 cm} = \frac{1}{2} Km$ 1 mark

$= \frac{1}{2} Km$

∴ 1 cm = $\frac{1}{2}$ Km

30.8 cm = ?

$\frac{30.8 cm \times \frac{1}{2} Km}{1} = 15.4 Km.$ 1 mark

∴ The ground distance of the road from 153750 to 108895 is 15.4 Km. 1 mark

(b) The Latitudinal Location of the mapped area is - 4° 37 35-4 00" S and 4°45'00" S. 2 marks.

(c) The type of climate of the mapped area is Modified Equatorial climate 1 mark

Reason

(i) Latitudinal Location is 4°45'00" S 1 mark

(ii) Vegetation Cover of the Mapped area such as Palm Trees around North East of the Map and forest around South East. 1 mark

(iii) Water bodies. The mapped area there water bodies such as Lake and Ponds. 1 mark

(d) Factors Influencing the composition of the mapped areas

(i) Purpose of the map
(ii) Type of the Scale Used
(iii) Date of Compilation.
(iv) Nature of the Land.
(v) Seasons of the Year.
(vi) level of technology.

1@ 1 marks.

(e) Population of the mapped area is Unevenly distributed, some areas have high dwellers while other area dominated by low population eg. Area around Duga, Mikanyewe and Mcegumbini have high population while Mahandawini there low population.

1 mark.

Factors Influencing Unevenly Population in a Mapped area

(i) Nature of the area
Area with gentle slope and steep slope have low population compared to areas with flatness.

(ii) Transportation and communications.
Many people tend to settle along the main roads and Tracks. In a mapped area many people found along Duga mtandiken road

(iii) Social Services 1@ 3 mark
Areas with good social services like school, Hospital and Market dominated by high population while area with poor social Services characterized with low population

(1) Geomorphological processes.

(i) Erosional processes.

Due to presence of the Rivers, dams and Pond.

(ii) Deposition processes.

Due to presse presence of the River.

1@ 2 mum

(2) $MV_2 = MV - TC$

Data

$MV_1 = 54^\circ 40' W$

Rate of change $= 10' E$

1 mark

$Time_2 = 2020 \quad 11$

$Time_1 = 2000 \quad 03$

$TC = ?$

$MV_2 = ?$

Find the difference in atime

$T_2 - T_1 = \begin{array}{ll} 2020 & 11 \\ 2000 & 03 \\ \hline 20 & 08 \end{array}$ 1 mark

$Time = 20\ 8/12 = 20.66.$

1yr $= 10'$

$20.66 = X$?

$\frac{20.66 \times 10'}{1yr} = 206.6' E$

Remember $1^\circ = 60' \quad 1' = 60''$

$\therefore 206.6'$

$\frac{206.6'}{60'} = 3^\circ 32'$ 1 mark

Total Change = 3°32'

New Magnetic Variation = MV_1

$MV_2 = 54^\circ 40' W - 3^\circ 32'$

$= 51^\circ 08' W$

∴ Magetic Variation at 2020 march will be $51^\circ 08' W$ 2 marks.

2 (i) The type of photograph is Aerial / Vertical photograph because a camera held perpendicular to the Earth and mounted on Aircraft. 4 marks

(ii) characteristics of Aerial photograph

- It show top view of an object.
- It cover large area of the landscape 1 (a) 4 marks
- It has constant scale
- It does not have hidden information
- It does not contain horizon part.

(iii) - Vertical photograph cover large area while horizontal photograph cover small area

- Aerial photograph show top view of an object while horizontal photograph show front side view of an object.
- Aerial photograph does not contain hidden information (the dead ground) while horizontal photograph contain hidden information. 1 (a) 4 marks
- Aerial photograph has constant scale while horizontal photograph contain scale distordation.

And any other related points

(iv) It is difficult to interprete Aerial photograph due to the following reasons:-

(i) It show top view of an object.
(ii) It cover large area of the landscape

1½ @ 3 marks

3. Causes of discrepancies in prismatic survey.
- Improper balancing of the compass.
- Inaccurate levelling of the compass box.
- Carelessness in reading and recording data 1½ @ 7½ marks
- Plane of sight not being vertically.
- Variations in declination.

Measures to Avoid discrepancy in prismatic survey
- Avoid using compass survey in area with local attractions
- Ensure accuracy booking
- Avoid & using outdated instrument
- Avoid & put on (wear) metallic materials eg Bangles and Earrings.
- Ensure repetition during booking.

1½ @ 4 7½ marks

4. Introduction
Meaning of Rock and Rocks type as well as Rock Cytle 2½ marks

Main body
Processes of rock interchanging.
(i) Cooling and solidification of magma.
This processes lead to the formation of Igneous rocks

(ii) Weathering and Erosion.

Igneous rock is attacked by weathering to form sedimentary rocks.

(iii) Deposition and Cementation.

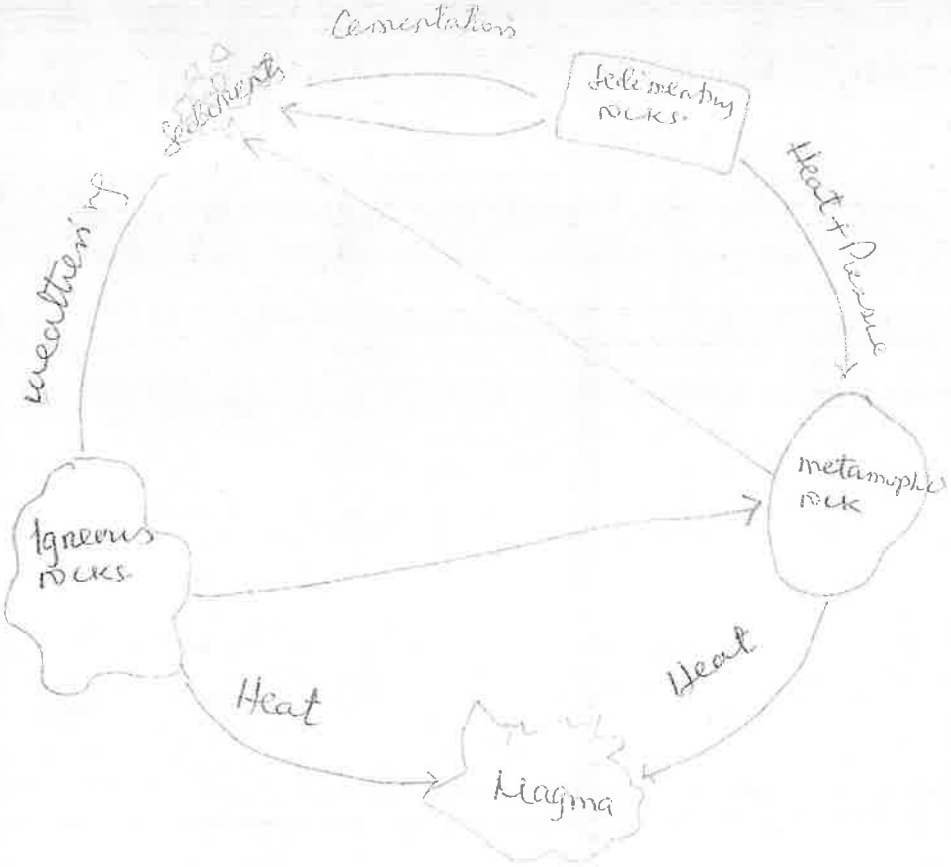
Sediments deposited and cemented to form sedimentary rocks.

(iv) Metamorphism 2 ½ marks 12½ marks

Any type may undergo metamorphism due to pressure or heat to form Metamorphic rock

(v) Melting and Cooling

Either metamorphic or sedimentary or Igneous subjected by high temperature, they melt and cool to form Igneous rocks.



3 marks

Conclusion

Provide any relevant conclusion 2 marks

Introduction
Relevant introduction of Lakes 1 mark

Main body.

(i) Lakes according Earth's movement
⇒ Crustal Warping Lakes eg Lake Chad & Victoria.
This formed when the Crust is subsidence as a result of tectonic movement. 2 mans
Diagram. 1 mark
⇒ Rift Valley Lakes. eg Turkana and Tanganyika 2mans
Diagram. 1@

(ii) Lakes according to Volcanicity.
⇒ Crater lake - Lake Magadi, Naivasha, Empakai 2mans
Diagram 1 mans
⇒ Lava dammed lakes - Lake Kivu, Lake Edward. 2 mans
Diagram 1 mark

(iii) Lakes according to Glacial deposition.
⇒ Moraine dammed Lake - Lake Garda in Italy 2mans
⇒ Boulder clay lake - Canadian & Scandinavian Lakes. 2mans
Diagram 1 mans 1 mark.

Conclusion (1) mans

20 mans

6. Introduction

Based on Global warming and climate change (2 marks)

Main body.

Causes of Global warming.

(i) Deforestation
(ii) Burning of fossils fuels.
(iii) Increase of global Energy production. 2@ 8 mans
(iv) Transportation and Industrial activities.
(v) Agricultural activities eg Excessive burning of the remains of Paddy and decomposition of organic matter.

Impacts of Global Warming.

(i) The melting of Ice Cape
(ii) The rise of sea level
(iii) Depletion of biological species 2@ 8 mans.
(iv) Decline of agricultural production
(v) Increase of desertification

Conclusion 2 mans

7. Introduction

Meaning of Soil fertility. 2 mans.

Main body.

Methods of Improving Soil Fertility.

(i) Crops Rotation
(ii) Mulching
(iii) Applying organic Manure. 3@ 18 mans
(iv) Intercropping.
(v) Crops Covering.
(vi) Soil Examination.

And any other related points.

Conclusion 1 mark