**OPENER EXAM**

**GEOGRAPHY – *MARKING SCHEME***

**FORM 3**

1.a)Main types of environment

- Physical

- Human

 b) Importance of studying geography

 - Through geography we learn about the origin the earth and solar system

 - Helps the learners to develop the skills of observing, reading analysing and interpreting maps, photographs, charts, diagrams and statistical data

 -Geography enables the learner to understand and appreciate different environmental influences

- It encourages international awareness interaction and co-operation

- it is a career subject

c) Weakness of passing star theory

- Chances of another star approaching the sun are minimal

- High temperature material drawn from the sun or from the star would disperse rather than condense

- It does not explain where the sun and the star came from

d) Proofs that the earth is spherical

- It is possible to fly or sail right round the earth following one direction, say East and coming back to the same point it is called circumnavigation

- When a ship is approaching a port an observer standing on a cliff or any raised ground will not see the whole ship until it is very close.. He will first see the smoke and the gradually see the other part of the ship

- The earth rotates from west to east the sun is received earlier in the east than in the west

- During the eclipse of the moon, the shadow of the earth appears spherical

- The Earth’s horizon is always circular

- Since all planets the moon and the sun are round when viewed through a telescope, it follows then that the earth being one of the planets must also be round

2. a) Factors influencing weather

- Altitude

- Latitude

- Distance from the sea

- Aspect

- Intertropical convergence zone (ITCZ)

- Cloud cover

- Humidity

 b) Why the interior of the earth is very hot:

-Radioactivity

- The height of the overlying rocks materials exerted pressure on the core

- In the process of cooling after breaking from the sun, the interior of the earth cooled at a slower rate than the outer part

 c) Weather refers to the atmospheric condition of a given place over a short period of time

 d) How the earth is heated

- Conduction

- Radiation

- Convection

3. a) Effects of revolution of the earth

- Revolution causes the four seasons

- Revolution of the earth causes changes in the position of midday sun at different times of the year

- Revolution causes varying lengths of day and night

- Causes lunar eclipse

 b) Hola 400E Difference in longitude

 Tema 00 = 400

 If 10  4min

 400\_\_\_\_\_\_\_\_\_\_ ?

 = 40x 4=160mins

 =160÷60= 2hrs 7mins

 = 12. 00 = 2hrs 7mins

 = 14.07 pm

 c) Aridity refers to a state of insuffiency moisture leading to scarcity or lack of vegetation and deficiency of soil fertility while desertification is the encroachment of large areas of barren land which are covered with sand

 d) Effects of aridity and desertification

- Desertification lowers fertility of the soils hence lowering the productivity of land

- Due to low productivity there is reduced food production leading to famine

- Desertification leads to destruction of water catchment areas

- It causes destruction of vegetation which consequently exposes land to erosion

- People from affected areas migrate to the un affected areas thus causing population pressure

4. a) Grasslands

Argentina- Pampas

Canada – Prairies

Eurasia – Steppe

S. Africa – Veld

 b) Characteristics of coniferous forests

 - The trees are light in weight

-the trees are ever green

-The trees occur in pure stands

- The trees have conical shape

- Trees have thick barks

- Trees have needle shaped leaves

 c) Problems facing forests in Kenya

- Demand for more land for crops and settlements from forests

- High demand for timber products

- Forests fires that destroy forests

- High demand of wood fuel

- Pest and diseases example aphids affect cypress

- Prolonged droughts