

NAME.....CLASS.....ADM.....

CANDIDATE'S SIGNATURE.....DATE.....

MARKING SCHEME

312/2

GEOGRAPHY PAPER TWO

END TERM 2 EXAMINATION

JULY/AUGUST 2025

FORM THREE

SECTION A

1. (a) Distinguish between human and physical Geography. (2marks)
 - Human Geography is a branch of geography that deals with the study of people and their activities on the earth surface while Physical Geography is a branch of Geography that deals with the natural environment around humankind.
- (b) Explain how Geography and Economics are related. (2marks)
 - Geography focuses on the exploitation of resources of resources, methods of their production, transportation of commodities and their consumption.
2. (a) List **three** main categories of natural forest. (3marks)
 - Tropical hardwoods.
 - Temperate hardwoods.
 - Coniferous softwoods.
- (b) State **four** factors favouring the exploitation of softwood forest in Canada. (4marks)
 - High demand for forest products such as newsprint, paper and sawn timber in Canada, U.S.A, United Kingdom and Japan.
 - Presence of large and permanent rivers such as Fraser and River Ottawa which provides cheap water transport for logs.
 - Coastal location of some softwood forests favour exploitation and exportation through Vancouver Port.
 - River Fraser and Ottawa provide clean water for processing of softwoods in paper mills.
 - Availability of hydroelectric power generated from some Canadian rivers for running machines in saw mills and paper mills.

3. (a) Define the term aerial photograph. (2marks)

- These are photographs taken from the air using aircraft or satellites.

(b) State **three** characteristics of ground oblique photographs. (3marks)

- Taken when the photographer is standing on a high ground.
- The horizon/sky is never seen captured on the background.
- The camera is tilted at an angle towards the objects.
- Images appear to reduce in size from foreground towards the background.

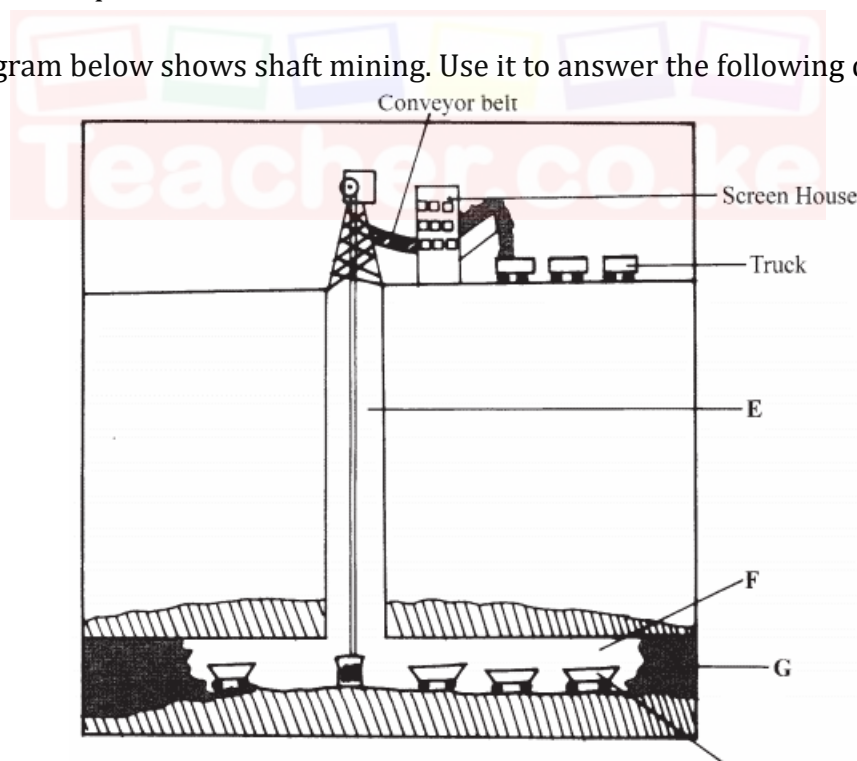
4. (a) Give **three** examples of minerals that occur as beds and seams. (3marks)

- Trona.
- Gypsum.
- Petroleum.
- Coal.

(b) State **three** ways in which mining contributes to pollution. (3marks)

- Dumping of rock waste from open cast and underground mines results in land pollution.
- Powerful explosives used to blast some hard rocks produces loud blasts that cause noise pollution.
- Open cast mining produces a lot of dust which contributes to air pollution.
- Removal of vegetation to pave way for mining results in severe soil erosion which is a main cause of water pollution.

5. The diagram below shows shaft mining. Use it to answer the following questions;



(a) Name the parts marked **E, F** and **G**. (3marks)

- **E** – Main shaft.
- **F** – Horizontal tunnel.
- **G** – Mineral ore/seam/layer.

SECTION B

(ANSWER ALL THE QUESTIONS IN THIS SECTION)

6. The table below shows the total number of dairy cattle reared in Kenya Highlands in the years 2021 and 2022. Use it to answer the following questions;

Type of dairy cattle	2021	2022
Friesian	942000	965000
Ayrshire	120000	154000
Jersey	97000	128000
Guernsey	94000	103000
Simmental	19000	24000
Sahiwal	29000	41000
TOTAL		

- (a) State the type of dairy cattle with the highest increase between 2021 and 2022.
(1mark)

Ayrshire.

- (b) Calculate the percentage increase of Friesian cattle between 2021 and 2022.
(2marks)

2022- 965000

2021-942000

Difference -

965000-942000=23000

$(23000 \div 942000) \times 100\% = 2.442\%$

- (c) Calculate the difference in the total number of dairy cattle reared in Kenyan Highlands between years 2021 and 2022.
(2marks)

2021- 942000+120000+97000+94000+19000+29000=1,301,000

2022- 965000+154000+128000+103000+24000+41000=1,415,000

1,415,000-1,301,000=114,000.

- (d) Draw a divided rectangle 15cm long to represent the data above for the year 2021.
(11marks)

Friesian $\frac{942000}{1301000} \times 15 = 10.9\text{cm}$

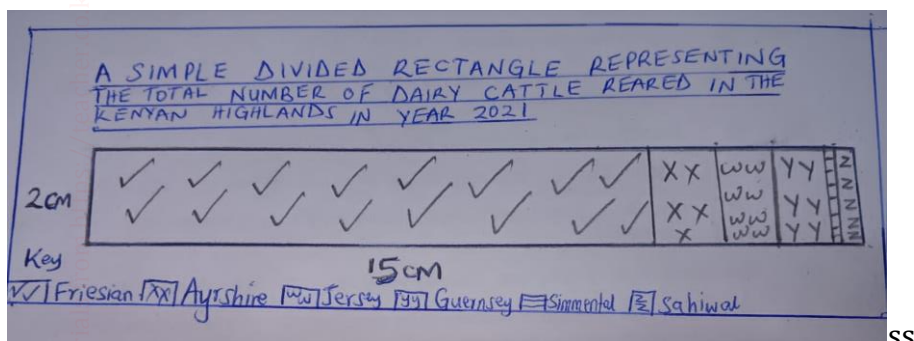
$$\text{Ayrshire} \frac{120000}{1301000} \times 15 = 1.4\text{cm}$$

$$\text{Jersey} \frac{97000}{1301000} \times 15 = 1.12\text{cm}$$

$$\text{Guernsey} \frac{94000}{1301000} \times 15 = 1.08\text{cm}$$

$$\text{Simmental} \frac{19000}{1301000} \times 15 = 0.22\text{cm}$$

$$\text{Sahiwal} \frac{29000}{1301000} \times 15 = 0.33\text{cm}$$



(e) State **four** advantages of using divided rectangle to represent geographical data. (4marks)

- Easy to construct.
- Allows for easy comparison.
- Gives a clear visual impression.
- Can represent a wide range of data due to its flexibility.

(f) Apart from simple divided rectangle, give **two** other statistical methods that can be used to represent data above. (2marks)

- Comparative bar graph.
- Compound bar graph.

(g) State **three** conclusions that can be derived from the rectangle drawn in (d) above. (3marks)

- Friesian dairy cattle are the most reared in Kenyan Highlands.
- Simmental dairy cattle are the least reared in Kenyan Highlands.
- Ayrshire are the second leading reared dairy cattle in Kenyan Highland.

7. (a) (i) What is forestry? (2marks)

- Forestry is the science of developing and managing forests including cultivating them.

(ii) Name **three** examples of secondary forest products. (3marks)

- Charcoal.

- Paper.
- Plywood.
- Chipboard.
- Block boards.
- Particle boards.

(b) Explain how the following factors have influenced distribution of natural forest.

(i) Climate. (2marks)

- Many trees species do well in temperature between 10C and 35C while above 21C, tropical rain forests dominate. Regions with low temperature have fewer tree species mainly coniferous.
- Regions that receive rainfall over 1200mm annually supports tree growth thus dense forest.

(ii) Human activities. (2marks)

- People may clear natural forests for timber, wood fuel or mining or settlement land thus reducing the area under natural forests.

(iii) Aspect. (2marks)

- Windward slopes of mountains have denser and luxuriant forests while leeward slopes have fewer tree species. In the northern hemisphere, the south facing slopes are warmer thus support luxuriant growth of forests while the colder north facing slopes supports very few plant species.

(c) Compare forestry in Kenya and Canada under the following sub-headings.

• Maturity of trees. (2marks)

- In Kenya, softwood tree species mature faster due to warm conditions/moderate to high temperatures whereas in Canada, softwoods take a longer duration to mature due to cold winters.

• Mode of exploitation. (2marks)

- In both countries , commercial logging is mechanized.
- In Kenya, tree harvesting /logging is done through selective cutting while in Canada, harvesting is done through clear cutting.
- In Kenya, workers are transported daily to logging sites while in Canada, a camp for workers is established within the region to be exploited.

- Tree species. (2marks)

- In Kenya, there are both indigenous and exotic tree species whereas in Canada, all tree species are indigenous.
- Exotic softwoods mainly grown in Kenya are **pine** and **cypress**.
- Indigenous softwoods in Kenya are **Cedar, podo** and **Bamboo**
- In Canada, the main tree species are **white pine, Douglas fir** and **Spruce**.

(d) Explain **four** factors that limit the exploitation of tropical rainforest in Africa.

(8marks)

- Some very tall trees have wide buttress roots that make exploitation difficult.
- The hardwood tree trunks are very heavy making lifting and transportation difficult.
- High rainfall throughout the year makes roads very muddy thus difficulties in transportation of logs.
- Occurrence of mixed tree species/scattered species makes identification and exploitation of key tree species difficult.
- Trees grow very close to each other which makes the cutting and freeing very tall trees difficult.
- Tropical hardwoods have limited uses unlike softwoods which discourages their exploitation.

8. (a) Define the term alluvial mining. (2marks)

- Alluvial mining is the extraction of minerals that are found deposited together with sand, clay and gravel along beds/banks of rivers or lakes.

(b) (i) Name **three** areas where diamond is mined in South Africa.

(3marks)

- Kimberly.
- Pretoria.
- Jagersfontein.
- Koffiefontein.

(ii) Explain the stages involved in processing of gold in South Africa.

(6marks)

- Gold bearing rock is brought to the surface from the deep mines and crushed into powder.
- The ground ore/fine powder is placed in a tank containing sodium cyanide solution.
- The sodium cyanide dissolves the gold particles forming sodium gold cyanide solution.
- Zinc powder is added to the sodium gold cyanide solution causing gold to precipitate.
- The gold precipitate is then separated from cyanide solution in filter process.
- Gold is then smelted in a furnace. Borax and soda ash are added to the molten gold to remove other less precious metals and impurities.
- Pure gold obtained is then moulded into standard bars ready for sale.

(iii) Explain **four** problems facing gold mining in South Africa. (8marks)

- Shortage of skilled labour due to competition from other countries and sectors of economy.
- Inadequate water supply for processing due to rapid urbanization and seasonal rainfall as gold requires a lot of water.
- Depletion of gold in the old mines results in high cost of exploring new sites.
- Mines have become deep leading to problems of cooling, ventilation and pumping out of excess flood water.
- Cost of mining has increased due to deepening of mines as South African gold mines are some of the deepest in the world.

(c) Explain **three** contributions of petroleum production in the Middle East countries. (6marks)

- Middle East countries earn foreign exchange from exports of crude oil and refined petroleum products e.g Saudi Arabia.
- The petroleum industry provides employment opportunities to many people who earn income thus improving their standards of living.
- Revenues obtained from the sale of petroleum has enabled Middle East countries to develop efficient roads, railways health and education institutions.

