



5.2 GEOGRAPHY (312)


5.2.1 Geography Paper 1 (312/1)

(a)	Distinguish between Geography and Environment Geography refers to the study of the distribution of natural and human features/phenomena and their interrelationship on the earth surface/ study of earth as home of human kind while environment refers to external conditions that surround an organism and has influence on its behaviour.	2x1=2 marks
(b)	Identify the two branches of Geography - Physical Geography - Human Geography - Practical geography	Any 2x1= 2 marks
(a)	Name the parts marked P, Q and R. P – Vacuum Q - Glass tube R - Mercury	1x3=3 marks
(b)	State three benefits of weather forecasting to human activities. - It enables farmers to plan their farming activities. - It helps in guiding tourist activities. - It enables military personnel to plan their military activities. - It enables people to choose suitable clothing. - It guides people on sporting activities. - It guides people on fishing activities. - It helps to determine the times for air/sea travels - Planning for weather related disasters	Any 3x1= 3 marks
3.	Give four proofs that support the theory of continental drift. - Some continents seem to fit geometrically/ jigsaw fit along the coastal margins - There are similarities between the fossils of flora and fauna found on both sides of Atlantic Ocean. / Paleontological/Paleozoological evidence. - Some geological structure can be traced from one continent to another. - There are similarities in the past climate in the different parts of the world. /Paleo climatological evidence. - There are continuous mountain ranges made up of young volcanic rocks at the mid Atlantic. - The shores of Red Sea exhibits evidence of having undergone lateral displacement. /Sea floor spreading. - Paleo magnetic evidence/minerals with same alignment are found in different continents adjacent to one another. - Similarity of fauna/flora in different continents (Congo & Amazon).	Any 4x1= 4 marks

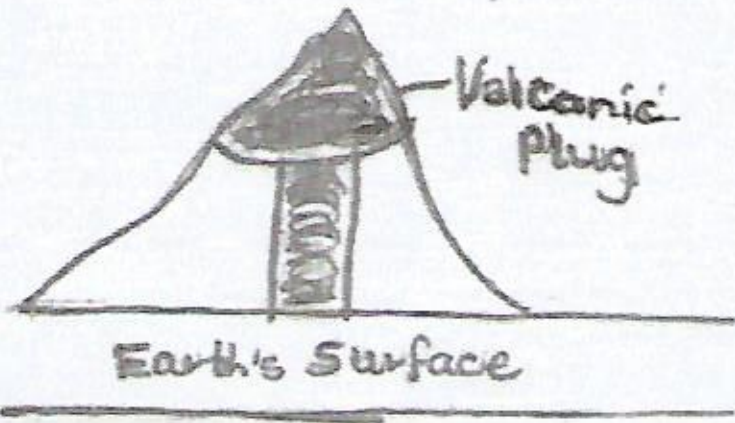
 (a)	Give three factors that influence the way a river transports its load. - The volume of water. - The gradient of the slope. - The nature of the load. - The velocity of the river. - The amount of the load.	Any 3x1= 3 marks
(b)	Name the features marked X, Y and Z. X – Bluff Y – Levees Z – Alluvium	3x1=3 marks
 (a)	State the two causes of vertical movement of the ocean water. - The differences in the density. - The convergence of ocean currents.	Any 2x1=2 marks
(b)	List three types of ocean tides - Spring tides - Neap tides - Perigian tides - Apogean tides.	Any 3x1= 3 marks

SECTION B

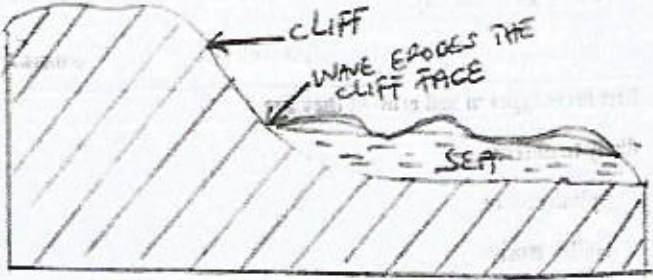
Answer question 6 and any other two questions from this section.

 (a)(i) (ii)	Study the map of Yimbo 1:50,000 (Sheet 115/1) provided and answer the following questions. What is the magnetic variation of the map? - 2°28' Identify two natural features found at the grid square 3597. -Scrub -River -Meanders -papyrus swamp -Scattered trees -Thicket -Papyrus Vegetation -Gentle Slope -River Valley	1x2=2 marks Any 2x1=2 marks
(iii)	Identify two countries represented in the area covered by the map. - Kenya - Uganda	1x2=2 marks

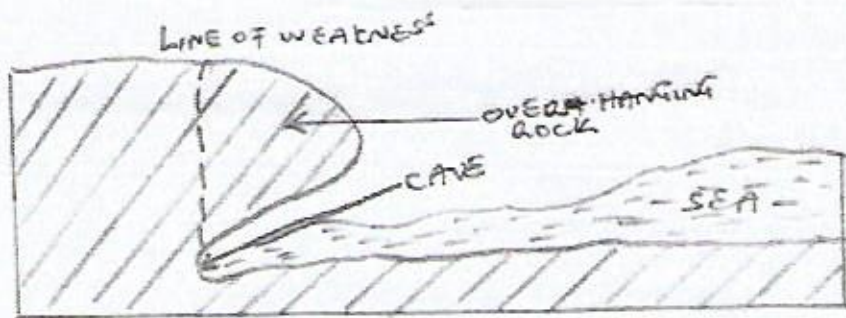
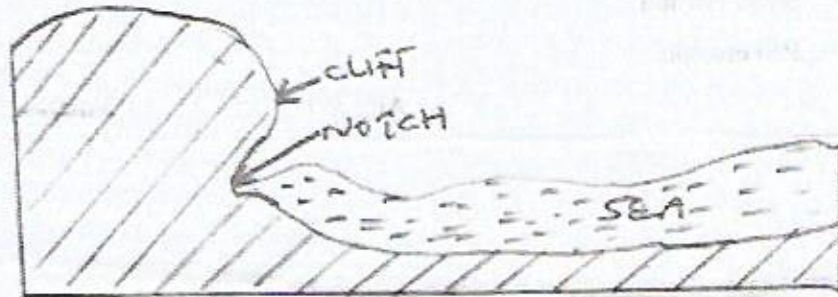
(b) i)	<p>Give the direction of the trigonometrical station at the grid square 2789 from the Air photo principal point at Nyangoma mission school</p> <ul style="list-style-type: none"> - North West. 	<p>1x2= 2 marks</p>
(ii)	<p>Measure the length of the provincial boundary to the North West of the area covered by the map. Give your answer in kilometres.</p> <ul style="list-style-type: none"> - 6.1km ± 0.1 	<p>1x2= 2 marks</p>
(c)(i)	<p>Give evidence that show the area covered by the map receives low rainfall.</p> <ul style="list-style-type: none"> - Presence of scattered trees. - Presence scrub vegetation. - Presence of seasonal rivers/seasonal swamps. - Presence of reservoir dams/water holes. 	<p>Any 3x1= 3 marks</p>
(ii)	<p>Explain how the following factors have influenced the distribution of settlements in the area covered by the map.</p> <ul style="list-style-type: none"> - Transport - Along the roads/motorable tracks/footpaths, there is linear settlement. - At road junctions there are clustered/nucleated settlements. <p>Vegetation</p> <ul style="list-style-type: none"> - There are no settlements within the woodland/thickets/areas where there are papyrus swamp/vegetation. - Most of the areas covered by scrub/scattered trees have clustered/nucleated settlement. <p style="text-align: center;">Any 1x2=</p> <p>Relief</p> <ul style="list-style-type: none"> - There are no/few settlements on the hills/isolated islands in the lake. - There are clustered/nucleated settlements on the undulating land. <p style="text-align: center;">Any 1x2=</p>	<p>Any 1x2= 2 marks</p> <p>2 marks</p> <p>2 marks</p>
(d)	<p>Describe the drainage of the area covered by the map.</p> <ul style="list-style-type: none"> -The area has many permanent rivers. - There are seasonal rivers. /Indefinite. - There are lakes – Lake Sare, Lake Victoria. - The main drainage pattern is Lake Victoria - There are papyrus swamps/seasonal swamps. - There are man-made reservoirs/dams. - Some rivers form dendritic drainage pattern along River Yala. - Most of the rivers are draining into Lake Victoria. - There are disappearing/vanishing rivers. - There is a pond (3891). - There is a water hole (2882). - The main River is Yala. <p style="text-align: center;">Any 6x1=</p>	<p>6 marks</p>

<p>(ii)</p>	<p>Volcanic plug</p> <ul style="list-style-type: none"> - A volcano is exposed to agents of erosion and weathering over a prolonged period of time. - This exposes a remnant of lava which had solidified inside the vent of the volcano because it is more resistant. - Continued erosion of surrounding rocks leads to formation of a steep sided neck of solid lava on top of a volcano. - The steep sided neck is called a volcanic plug. <p>Explanation - 3 marks</p>  <p>Diagram -1 mark.</p>	<p>4 marks</p>
<p>(c)</p>	<p>Explain four negative effects of vulcanicity.</p> <ul style="list-style-type: none"> - Volcanic eruptions cause loss of life/livestock. - Some volcanic eruptions may cause great damage to property/infrastructure/buildings. - It may lead to emission of dangerous/poisonous gases that result to death/affect environment./pollution. - It causes powerful sea waves/tsunami that can drown coastal islands. - Volcanic mountains create rain shadow on the leeward side causing dryness and this discourages agriculture. - Volcanic mountains may be barriers to construction of infrastructure, making it expensive. - The rugged nature of volcanic landscape make settlement/agriculture difficult. - Volcanic lava flows over agricultural land - Eruption of volcanic ash & dust may hinder air transport. <p>Any 4x2 =</p>	<p>8marks</p>

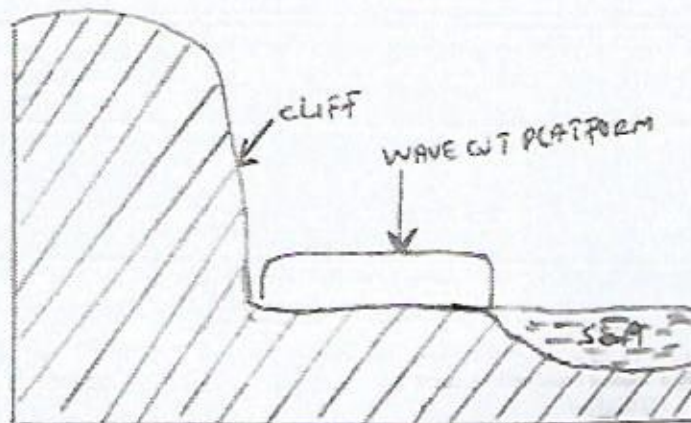
8. (a) (i)	Apart from inter tropical convergence zone (ITCZ), list four physical factors that influence climate. <ul style="list-style-type: none"> - Latitude - Altitude - Distance from the sea/continentality - Aspect - Ocean currents - Winds/air masses - Configuration/alignment of the coastline <p style="text-align: right;">Any 4x1=</p>	4 marks
(ii)	Give four characteristics of inter-tropical convergence zone (ITCZ) <ul style="list-style-type: none"> - It is found within $23\frac{1}{2}^{\circ}$ North and $23\frac{1}{2}^{\circ}$ south of the Equator/within the tropics - It experiences high temperature. - It has low pressure/Doldrums. - It is a zone where South East and North East trade wind converge. - The zone migrates North and South of the equator with the apparent movement of the overhead sun. - It is associated with convectional rainfall, high rainfall (1000-2000mm) - It's is associated with high humidity <p style="text-align: right;">Any 4x1=</p>	4 marks
(b) (i)	Name the three equatorial climatic regions of Kenya. <ul style="list-style-type: none"> - Modified equatorial climate of the Coast. - Modified equatorial climate of North Western margin/border. - Modified equatorial climate of Lake the region. 	3x1=3 marks
(ii)	Describe the Tundra climate. <ul style="list-style-type: none"> - It is found above $66\frac{1}{2}^{\circ}$ north/artic circle and above $66\frac{1}{2}^{\circ}$ south of the equator/Antarctic circle. - It has cold winters /with temperatures varying between -29°C to -40°C. - It has very long winters/ lasting 8 months. - It has cool summers/ with temperatures of about 10°C - 15°C. - It has short summers lasting 3 months. - It has a very large annual range/ of temperature going up to 73°C. - There is permanent cover of snow and ice/permafrost. - The area is generally dry/ with low annual precipitation/ of 100 – 250mm. - During the long cold winters, polar winds are dominant. - Snow storms/blizzards are common in this region. - High pressure zone - Low humidity <p style="text-align: right;">Any 6x1=</p>	6 marks

(c)	<p>Explain four human causes of desertification.</p> <ul style="list-style-type: none"> - Deforestation which interferes with the hydrological cycle leading to low rainfall. - Poor cultivation practices which has led to soil degeneration and reduction of vegetation. - Poor irrigation practices which lead to excessive accumulation of salts in the top soil hindering growth of vegetation/lowering of the water table leading to aridity. - Industrialization which has led to depletion of ozone layer thus leading to increased temperature and high rates of evaporation. - Overgrazing/overstocking which leads to destruction of vegetation interfering with the hydrological cycle. - Overdrawing of ground water leads to lowering the water table. <p style="text-align: right;">Any 4x2=</p>	8 marks
9. (a)	<p>Define an ocean.</p> <ul style="list-style-type: none"> - An ocean is an extensive body of saline water occupying a large basin between continents. 	2 marks
(ii)	<p>Explain the three causes of variation in the amount of salt in ocean water.</p> <ul style="list-style-type: none"> - High temperature in ocean water results to high evaporation which leaves behind higher salt concentration. - Fresh water added to the oceans through rainfall and melt ice reduces concentration of salts in the ocean. - Upwelling of water and ocean currents leads to mixing of ocean water causing variation in concentration of salts. 	3 x 2 = 6 marks
(b) (i)	<p>Identify three processes involved in wave erosion.</p> <ul style="list-style-type: none"> - Corrasion/abrasion - Hydraulic action/quarrying action - Attrition - Solution/corrosion <p style="text-align: right;">Any 3x1=</p>	3 marks
(ii)	<p>With the aid of well labelled diagrams, describe the processes through which a wave cut platform is formed.</p> <ul style="list-style-type: none"> - During high tides, there is undercutting at the base of the cliff by wave erosion/ forming a notch. - Continued wave erosion enlarges the notch to form a cave. - The hanging rocks above the cave will wither and collapse. <div style="text-align: center;">  </div>	

When this process is repeated over long time, the cliff will eventually weather and collapse.



When the process is repeated over a long time, the cliff will retreat to form a fairly flat surface of the shore called a wave cut platform.



Diagrams-4 marks 8 marks
Text-4 marks

(c) **You intend to carry out a field study on types of features resulting from wave deposition along the coast.**

Identify three methods you would use to record data.

- (i)
- Photographing /videos.
 - Field sketching/drawing diagrams.
 - Note taking.
 - Filling in questionnaires.
 - Tape recording.

Any 3x1=

3 marks

(ii)	<p>Give three wave depositional features you are likely to observe during the field study.</p> <ul style="list-style-type: none"> - Mud flats/salt marshes - Tombolo/Bay bar/offshore bar - Beaches/beach cusps/beach ridges - Cuspate forelands - Dune belts - Spit. <p style="text-align: right;">Any 3x1=</p>	3 marks
10. (a)	<p>List three components of soil</p> <ul style="list-style-type: none"> - Mineral particles/inorganic matter - Humus /organic matter - Water - Air <p style="text-align: right;">Any 3x1=</p>	3 marks
(b) (i)	<p>Explain each of the following in relation to the classification of soil.</p> <p>Zonal</p> <ul style="list-style-type: none"> - These are mature soils that have undergone long time soil formation/have a well developed soil profile/mature soils. 	2 marks
(ii)	<p>Intrazonal</p> <ul style="list-style-type: none"> - These are soils that are formed under poor drainage conditions/ waterlogged areas. 	2 marks
(iii)	<p>Azonal</p> <ul style="list-style-type: none"> - These are young soils that have not been affected by soil forming processes/they do not have a well developed soil profile/they are immature and skeletal. 	2 marks
(c)	<p>Explain three causes of soil degeneration.</p> <ul style="list-style-type: none"> - Poor agricultural practices such as burning of land/over cultivation/ monoculture/over cropping cause soil to be deficient in some mineral nutrients leading to loss of soil fertility. - Excessive/wrong application of fertilizer may affect the soil pH making it too acidic interfering with soil micro-organisms. - Leaching due heavy rainfall can lead to percolation of soil nutrients to the lower horizons leading to deficiency of the top soil. - Excessive drought leads to accumulation of salts in the top soil making it saline. - Soil erosion interferes with soil structure leading to loss of top fertile soil. - Other human activities such as quarrying/construction of roads interfere with soil structure leading soil degeneration. <p style="text-align: right;">Any 6x1=</p>	6 marks

(a) (i)	Students from Mwema School visited a nearby ranch to study types of soil. Explain why they carried the following tools. <ul style="list-style-type: none">• Hoes<ul style="list-style-type: none">- To enable them dig up the soil samples.• Polythene bags<ul style="list-style-type: none">- To help them carry soil samples.	2 marks 2 marks
(ii)	Give three reasons why they would need to seek permission from relevant authorities. <ul style="list-style-type: none">- To be permitted to enter the ranch.- To enable the ranch administration to organize for a guide to take them around.- To be allowed by the Principal to be away from the school.- To alert other teachers that their learners will be away that day. Any 3x1=	3 marks
(iii)	List three types of soil erosion they are likely to observe. <ul style="list-style-type: none">- Splash erosion- Gulley erosion- Sheet erosion- Rill erosion. Any 3x1=	3 marks

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