GEOGRAPHY PP1 MARKING SCHEME

312/1

SECTION A

1a. Relationship between geography and medicine

- Medicine deals with diagnosis, prevention and cure of diseases when geography is concerned with factors influencing spread of diseases and the effects on the utilisation of resources.

b. Characteristics of planet earth.

- It's spherical in shape.
- Has it's own force of gravity.
- Has one natural satellite the moon
- It's the only planet known to support life.
- The surface is covered with 70% water and 30% land.

2a. Trees have long tap roots to tap water beneath

- Trees are umbrella shaped to provide shade that reduce the rate of evaporation around the stem.
- Some plants have waxy needle like leaves to reduce loss of water through evaporation.
- Some plants produce some seeds that are dormant for a long time and germinate when the rain falls.
- Some shed their leaves during dry season to reduce transpiration.

b. - Through the action of plants

- Through the action of animals.

- Through the action of people.

3a. - Seismic focus is the point of origin of earthquake waves in the earth's interior while Epicentre is the point of earth's surface directly and vertically above the seismic focus.

b. Movement of tectonic plates at compression and extension boundaries.

- Gravitate pressure in the rocks of the crust.

- Movement of magma within rocks of the crust.

- Folding and faulting of rocks of the crust.

- Isostatic adjustments in the rocks of the crust.

- Energy release from the mantle due to radio activity.

- Human activities like;

  - Explosion of nuclear bombs
  - Construction of large water reservoirs

- Use of explosives to blast rocks in mining
- Movement of heavy or large machinery on the surface.

4a. Two cold ocean currents in Atlantic Ocean

- The North Atlantic drift
- Labrador

b. Factors that influence ocean water temperature

- Latitudinal position of the ocean.
- Depth – temperature decreases from surface to bottom
- Mixing/upwelling of surface and deep water.

5a. Feature marked P and K.

P – Bay

K – Tombolo

b. Types of ocean tides

- Perigian tides
- Apogean tides
- Spring tides
- Neap tides

SECTION B

6a(i) 1:50000

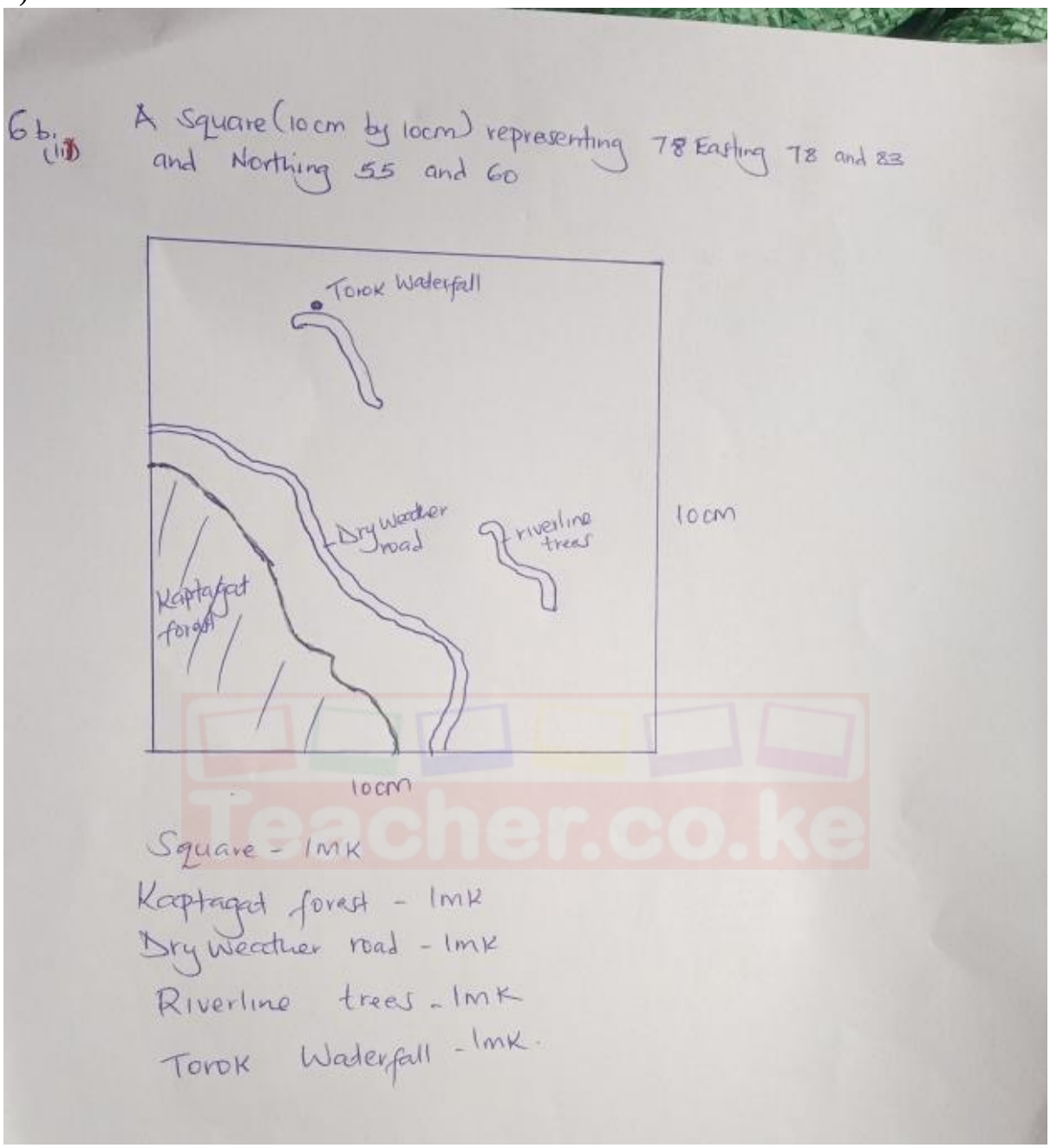
$\frac{50,000}{100,000}$ = 0.5km 1cm represents 0.5km

ii) - Rivers
- Lakes
- Boreholes

iii) - Latitude $0^{o}30'N$
Longitude $35^{o}45'E$

bi) 969692

ii)



c. 3060 – 308o

ii) Complete squares 0
Incomplete squares 9/2 = 4.5km2

d. - Livestock keeping evidenced by cattle dip.
- Farming evidenced by plantation.
- Forestry evidenced by forest plantation e.g. Kaptagat forest.

ei) - Trading centre evidenced by markets
- Recreational centre evidenced by markets
- Educational centre evidenced by school

7 a(i) A rock is a hard solid compact mass made of particles of one or more minerals forming part of the earth's crust. (2mks)

ii. Weathering/erosion takes place previously on existing rocks.

- The sediments are then transported by wind/water moving ice.
- They are then deposited in layers/strata.
- Over time they are compressed in layer by the overlying materials to form a hard compact mass of rocks.

b(i) - They form on the earth's surface.

- Larva cools rapidly.
- Some rocks have air spaces.
- They form no crystals.
- They are fine grained.
- They form from cooling and solidification of lava.

ii) - Some rock formations are tourist attractions e.g Kitmikai hence earn foreign exchange.

- Provide employment opportunities to many people in activities such as quarrying/mining hence a source of income.
- Some rocks are used in building and construction industry.
- Some stones such as Kisii soapstones, marble are used to make beautiful carvings, these are sold to earn income.
- Fine particles form soils which are used for agriculture.

C(i) -A raw material for the manufacture of cement.

- Used by polyps to build exoskeletons which lead to the formation of petroleum underneath.

ii. – Note taking

- Labelling of samples
- Filling in questionnaires
- Taking photographs/photographing.
- Tape video recording/filming.

iii. – Slipping and falling

- Bad weather e.g rain
- Attack by wild animals.
- Inaccessibility due to impassable roads/rocks out crops.
- Tiredness/fatigue due to steepness of the area.

8 (i) - Orogeny is the period of fold mountains formation while orogenesis is the process of fold mountains formation.

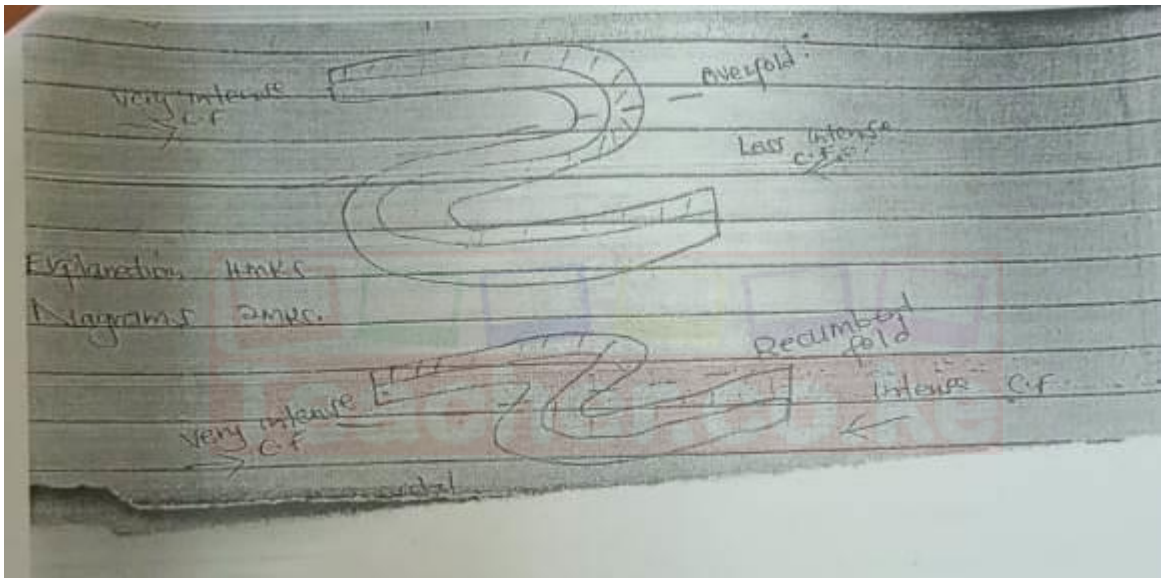
ii. – The rock must be sedimentary rocks/in layers.

- The rocks must be young
- The forces must be compressional.
- The forces must be intense.

Bi) - Simple symmetrical fold.

- Assymmetrical fold
- Overfolds
- Isoclinal folds
- Overthrust folds
- Anticlinorium folds
- Synoclinorium folds.

ii.



- The layers of the crustal rocks are subjected to compressional forces of different intensities.

- Increased compressional forces from either side causes pressure on the over fold resulting to formation of recumbent fold.
- When the compression is very great a line of weakness along the line of axis in the recumbent fold leading to the formation of thrust plane

c. Features formed by folding

- Rolling plains
- Ridge and valley
- Inter-montane plateaus
- Inter-montane basins
- Fold mountains
- Synclinal valley/depression

d. - Fold mountains provide a scenery that attracts tourists and snow covered slopes that encourage sporting activities like skiing which brings income.

- Windward slopes of Fold Mountains receive heavy rainfall which encourages settlements and agriculture.
- High rainfall on the windward slopes support growth of forests which provide building and construction materials, herbal medicines and also serve as wildlife habitats.
- The process of some fold mountains formation exposed valuable mineral deposits which are mined to serve as industrial raw materials.
- Heavy precipitation as well as melting of ice on fold mountains make them catchment areas that serve as source of rivers that provide water for generation of hydro-electricity, domestic use, irrigation and industrial use.

9i) - It is an accumulation of rock particles, minerals, organic matter, water and air found on the surface of the earth.

OR

- It is the superficial layer of loose unconsolidated rock material overlying the crustal rock on which plants grow.

ii) - Soil air

- Soil Water
- Soil humus/soil organic matter
- Soil inorganic matter/minerals.

bi) - Helps to improve soil texture.

- Provides essential minerals to the soil from decomposed plant matter.
- Enables soil to retain moisture.
- Facilitates soil aeration.
- Humus is source of food for micro-organism.

ii) - B – Sub-soil

- C – Partially weathered rock
- D – Parent rock.

iii) - Physical degeneration

- Chemical degeneration
- Biological degeneration.

ci) – It leads to removal of vegetation cover thereby exposing soil to agents of erosion which removes the top fertile soil.

ii) - This weakens the soil structure making it easy for agents of soil erosion to carry it away. It also increases oxidation which results in loss of organic matter.

iii) - It causes leaching of soil nutrients making the top soil deficient of soluble minerals or causes salinity.

d. – The productive top soil is carried away and unproductive soil is left behind.

- Soil washed into water bodies may contain agro-chemicals which can lead to water pollution.
- It causes destruction of buildings/bridges.
- It causes land dereliction.
- Water reservoirs get silted reaching the amount of irrigation water available
- When gullies are deepened to the water table underground water is exposed.

10a(i) – Natural vegetation that has re-established itself overtime such that it becomes well established and reaches a state of equilibrium with exiting environmental conditions.

ii) - Many trees are deciduous.

- Some trees are evergreen.
- Trees grow to medium height
- Trees are widely spaced.
- Some trees are sweet smelling
- Many trees are xerophytes
- Some trees are interlaced with creepers.

b. <u>Altitude</u>

There is no vegetation on mountain tops because there are very low temperature which inhibit plant growth.

<u>Relief</u>

Gentle slopes have deep and well drained soils best suited for plant growth than steep slopes which have thin soils due to severe erosion and less soil water to sustain plant growth due to high run-off.

<u>Living organisms</u>

- Bacteria, earthworms and burrowing animal improve soil fertility resulting into more vegetation.
- Large herds of wild animals/cattle can destroy vegetation through overgrazing and can turn grassland into deserts.

c. - The ground is frozen most of the year

- The area has thin soils
- Area has low precipitation
- Very strong winds which interfere with seed dispersal
- Area has very short growing season/short summer.

d. – East Africa – Savannah

- Canada – Prairies
- Argentian – pampas

e. – Measure/estimate distance/heights

- Collect samples of plants
- Draw sketches
- Take notes
- Take photographs
- Count plants

f. - To save on time

- To cover more areas
- To get a representation of the whole area

g. - Report writing

- Group presentation
- Analysing data
- Displaying collected samples of plants.