**VEGETATION**

1. d) (i) Measure distances/estimation of heights of plants

* Collect sample of plants
* Draw sketches/transects
* Record/take notes
* Take photographs of plants/area
* Count plants
* Feeling the leaves
* Conduct interview

(ii) How to identify different types of plants

* By appearance
* Their colour
* By their leave size/patterns/type
* By their age
* By the nature of their bark
* By texture of their leaves
* By their system of the roots
* The type of fruits.

2. a) (i) W- Rainforest

 X- Bamboo

Y-Health and moorland

 (ii)

* Savanna vegetation consists of trees and grass
* Wetter areas/near forests the vegetation consists of tall trees similar to those found in forests and woodlands
* Wetter areas have tall thick grass.
* Gradually away from the forest, the trees become fewer and shorter
* Grass is shorter in drier areas
* In drier areas the trees are short and more scattered.
* Some trees are deciduous type
* Most trees are umbrella shaped
* Most common trees are acacia and other thorny trees.
* Where the rainfall is lowest grass is tufted and coarse/trees scrub
* There are scattered baobab trees and other drought resistant trees.
* Along river valleys there is riverine vegetation and thick bush.

 (iii) Canada-Prairies

 Russia- Steppe

Australia-Downs

b)

* Fire- Often large areas of forests are destroyed by fires and take long to recover.
* Diseases and pests attack mainly the planted forests causing many trees to die.
* Human activities/settlements/charcoal burning/logging have destroyed many forest areas.
* Over exploitation leads to depletion of certain tree species such as Meru oak, Campor and Elgon teak. These trees take long to manure.
* Government policy of degazetting of some forests made people free to clear many forested areas.
* Prolonged drought leads to degeneration of forest some of which take long to recover.

3. a) Natural vegetation is the plant cover which is growing wildly on its own.

b)

* The vegetation is adapted to long, hot dry summers.
* Some plants are evergreen
* Grasses dry up during summer and germinate during winter.
* Woody scrub is common in very dry areas.
* Some plants have small, spiny leaves while others have thick skinned or leathery leaves.
* Some plants have long roots.
* Some plants have thick barks
* Some plants have large and fleshy bulbous roots.
* Some trees are deciduous.

4.

* Campaigns against indiscriminate cutting down of trees/educating people/ reducing overgrazing.
* Establishment of vegetation/forest reserves
* Restriction on cutting down of trees
* Development of energy saving technology to reduce high consumption of wood fuel
* Use of alternative sources of energy
* Encouraging the planting of more trees to reduce reliance on existing ones
* Establish Nyayo tea zones to act as buffer zone.

5. (i) Variation in rainfall

(ii) Variation of temperature

(iii) Variation of altitude/relief.

(iv) Aspect

(v) Soil

(vi) Human activities

**Variation of rainfall**

Areas that receive high rainfall are forested while those receiving low rainfall have grassland vegetation.

**Variation of altitude/relief**

Vegetation varies with height above sea level (e.g. montane in high altitude) as altitude influence climate and soil.

**Aspect**

Areas on leeward slopes of Mountains have different vegetation from thick growth of vegetation in the windward side because they receive different amounts of sunshine and rainfall.

**Soil**

Sandy soil/swamp soil/saline soil influence growth of different types of vegetation. Vegetation on slopes is determined by soil catena.

**Drainage**

Vegetation is as luxuriant along water courses/along coastal flats because surface water supply is reliable/waterlogged areas support swamp vegetation.

**Human activities**

Settlement/mining/ farming interferes with the original vegetation leading to growth of secondary / derived vegetation/desertification.

**Wild animals**

Destroy vegetation leading to secondary type/desertification. They aid in seed dispersal.

6. State two reasons why mountain top have no vegetation.

* Temperatures are too low to support plant growth.
* There is no soil to support plant growth/bare rock.
* Water is in frozen state.

7. Vegetation refers to plant life on earth surface.

8. Areas where coniferous forests are found.

* Cool temperate continental climate/Siberian type.
* Cool temperate eastern margin- Laurentian type.
* West coast of Canada.
* Scandinavian region

9. Characteristics of temperate grasslands

* Trees are scarce except along water courses.
* In moist areas the grass is tall.
* Where it is drier there is short tough grass
* Grass withers in autumn and dries up in winter but sprouts during spring.
* Presence of scattered trees
* Common trees are acacia

10. Secondary vegetation comprises natural processes colony on a place which is in the process of receiving due to interference by man while planted vegetation comprises of plants grown in a place by people e.g. agro forestry.

11. Two significance of vegetation to physical and human environment.

* Vegetation is of aesthetic value as it adds beauty to landscape.
* Vegetations roots binds soil together protecting soil against erosion
* Plant decay to form humus adding fertility to soil.

 a) - Ground close-up

 - Acacia vegetation

 b) - Thorny like leaves to reduce rate of water loss.

 - Have long tap root to tap underground water

- Plant seeds remain dormant awaiting short rains.