4. three materials that may be used for constructing a gabion.

- Wires.

- Stones.

- Concrete/ sand/ cement/ water/ ballast.

- Wood/ poles/ metal pegs/ rods

6. (a) - Reducing the speed of surface run-off – hence reducing the runoffs water erosive power.

- Trap soil from surface run-off/ filter out soil.

- Reduce the impact of rain drops on the soil thus reducing splash erosion.

- Grass holds soil particles together hence reducing soil erosion.

- Soil structure is improved by organic matter from grass thus rate of water infiltration increases.

* Water stays for 36 hours thus solid particles settle and bilharzias causing organisms killed.
* Alum added to coagulated solid particles which settle at the bottom.

Stage IV: Filtration

* Water is passed through filtration tank with layers of sand and gravel to filter it.
* Water leaving the filtration tank is clean.

Stage V: Chlorination

* Water is passed through chlorination tank where chlorine is added.
* Micro-organisms in the water are killed by chlorine.

Stage VI: Storage

- The treated water is stored in large overhead tanks before distribution and use.

13. a) Bund

b) It is constructed along the contours

* A channel is dug with the upper width (y) 1.5cm and bottom width (x) 90cm
* Excavated soil is put on the lower part of the channel leaving the part (W) the ledge

The steeper the slope the closer the bunds

1. Oxalis (sorrel)

-(oxalis latifolia)

b)- The weed contain builbs i.e Elaborate & extensive root system that support the plant.

- Because it has rhizomes.

c) State the economic importance of the weed shown.

- Reduces yields of crops.

- Increases cost of production.

- It’s a livestock feed.

- Fixation of nitrogen.

3. i)- A-Double thorn (oxygonium sinuatum)

- B- Coach grass (Digiteria scalarum)

ii) - Lower the quality of produce

* Lower yields
* Compete with intended plants for nutrients and water

iii) Weed B is difficult to control as it has underground rhizomes

iv) Can be effectively controlled by use of chemicals

4. Four methods of propagation which make weeds to have a high competitive ability over crops

* Availability to produce many viable seeds
* Ability to propagate vegetative –with bulbs, rhizomes
* Ability to regenerate woody stems-quickly
* Efficient means of propagation

Ability to remain viable in the soil for a long period of time

6. a) - Thorn apple

* Sodom apple
* Oxalis
* Tick berry ( ½ x4=2 mks)

b) - Before flowering to avoid spread through seeds

- Early stage before spreading underground organs

7.

* Requires skilled labour
* Have long residual effect which interferes with future crops

It is not environmental friendly/ pollutes the environment

8. a)

* MCPA
* 2 - 4 – D
* Bentazon
* Bromoxynil
* Linuron
* Loxyyril
* Atrazine
* Metrubuzin

b) - 10 – 15cm high

- 2 – 4 weeks after emergence

1.

* Steel is expensive
* Require high skilled labour
* Heavy and difficult to transport
* Rusts easily

Low workability

5. Uses of footbath in cattle dip.

- To wash the foot off mud;

- Contains chemicals for controlling foot rot; CUSO4 (blue vitriol/ formalin solution;)

3. A group of calves kept according to age

9. (a)Stille ( ½ mk x 1pt = ½ mk)

(b) A pass allows only human passage while gate allows for both human and livestock in and

out of the farm ( ½mk mark as a whole)

(c) One type of live fence

* Electric

- Hedges