FORM ONE AGRICULTURE TERM THREE MWAKICAN MARKING SCHEME

**SECTION A 4O MARKS**

1. Shortage of farm labour.

Increase cost of living of Aids patients and their relatives.

Low food supply and poverty in general

Resources that could be used in agriculture are used in treatment. ( 3mks)

2a. Little amount water used.

* Water under low pressure can be used.
* Discourages fungal diseases such as blight
* Discourages the growth of weeds between the rows ( 1 x 3=3mks)

b. Surface sources of water

- Rivers

-Dams

-Weirs (1mk

3.Soil texture is the relative prortion and distribution of various sizes of soil particles in the soil while soil structure is the arrangement of soil particles. (1mk

4.Centrifugal/Rotor dynamic pump.

Reciprocation/piston/Displacement pump

Rotary and semi\_\_rotary pumps.

Hydraulic ram/hydram pump. (2mks

5. Difference between olericulture andpomoculture

- Olericulture –Growing of flowers

- Pomoculture –growing of fruits (1mk

6 .M aintains the rate of water loss through evaporation.

It improves the quality of final crops products like pineapples

It regulates the incidents of pests such as aphids and diseases such as leaf rust

It hastens growth rates /maturity rate

It favours survival of soil micro-organism

7.Control weeds

Control pest and diseases

Done to obtain a suitable tilt by breaking soil clods

Facilitates subsequent tertiary operation

Done to incorporate organic matter in the soil

8.**Factors influencing soil formation.**

- Topography

 - Time

 - Climate factors

 - Biotic factors

 - Parent rock material

9.Physical weathering agent

* Wind
* Water
* Temperature changes (1 ½ mrks)
* Moving ice /glacieir

1O.Drainage is a method of removing excess water from a marshy water logged land.

Drainage the practice of lowering water table from a marshy water logged land. (1 x 1 = 1 mk)

11. **Tertiary operations**

- Ridging

 - Levelling

 - Rolling Check spellings (3 mks

12. **Two conditions under which shifting cultivation is favourable**.

 - Communal land ownership

 - Large piece of land

 - Sparse population.

 -No. of livestock per unit area

 (2 x 1/2 mk= lmk

13. **In farming under what condition opportunity.**

- When there are no alternatives

 -where goods are freely given

 -when capital is not a limiting factor. (1 x 1 = 1mks

14. **Reasons for treating water.**
- To kill disease causing micro-organism
- To remove chemical impurities
- To remove odour / bad smell
- To remove foreign particles. (4x ½ = 2mks)

15. **Advantages of overhead irrigation.**
- Eradicate pests e.g. Aphids.
- Minimizes wastage of water.
- Can be used in slopy areas.
- Water is evenly distributed.
- Can irrigate a large area by changing the location of pipes.
- Foliar fertilizers can be applied using this method (4x ½ =2mks)

16. **Ways of conveying water in the farm**.
- piping
- canals
- containers (3x 1=3mks)

17.Methods of farming

-mixed farming

-Nomadic pastoralism

-shifting farming

-Organic farming

-agro-forestry (2mks

18.Reasons why agriculture is a science

it involves –Croppathology

-Entomology

-Agriculture engineering

-Soil science

-Genetics

19. four dairy cattle breeds reared in Kenya.

• Ayrshire

• Friesian

• Guernsey

• Jersey (4x ½ =2mks)

SECTION B ( 2OMKS

2O. a) Beef breed (1mks

b) Aberdeen Angus/ Galloway / Hereford/ Beef shorthorns/ charolais (1mks

c) - Blocky in shape / rectangular

 - Deep well fleshed bodies

 - Short strong legs to support their heavy bodies

 - Compacted bodies (3mks

21. Soil capillarity

G\_\_\_sandy

H\_\_\_Loamy

J\_\_\_\_Clay (3mks

(c )Clay soil has the highest capillarity followed by loam soil.Sandy soil has the lowest capillarity

22. (a) Bacterian (1mk

 (b) Can stand long periods without water

 Covered with wool like hair for it to resists cold temperature

 Can walk for long distance in search of food and water

 Padded feet enables them walk on sand without sinking

 Store fats in hump that are oxidized to produce water (any 3x1=3mks)

23a) A-Ring spanner

 C-Open ended spanner

b) Has an adjusting nut which is used to close/open the jaws depending on the size of the nut to be opened or tightened. (1x1=1mk)

 c)

* Apply grease to rotating part
* Store properly in a tool rack

SECTION C 4Omks

24 (a) **Benefits of minimum tillage.**

 - Reduce cost of ploughing.

 - Control soil erosion.

 - To maintain soil structure.

 - To conserve soil structure.

 - To prevent the disturbance of roots.

 - Prevent exposure of humus to adverse conditions e.g. sun’s heat hence volatilization of nitrogen. 5 x 1 = 5mks

 (b) **Benefits of primary cultivation.**

 - Makes subsequent operations easier.

 - Facilitate aeration and water infiltration in the soil.

 - It controls weeds by burying or uprooting them.

 - It buries crop residues to decompose and add nutrients into the soil.

 - It eases the penetration of crop roots.

 - It controls pests and diseases this is achieved when one exposes them to the

scorching sun or to predators e.g. earthworms can be eaten by birds. (1 x 4 =4mks

c) Eighty ways in which soil fertility can be maintained. (8mrk)

-adding manure to the soil to enrich it with nutrients.

-using inorganic fertilizers which releases nutrients in forms that are readily available to plants.

-practicing crop rotational to ensure balanced nutrients use.

-using appropriate tillage, for instance minimum tillage.

-regulating soil ph though liming

-controlling soil erosion

-practicing a forestation and reforestation

-By irrigation which increases availability and uptake of plant nutrients and reclaims saline soil

-through mulching

-By weeding to reduce competition for nutrients.

-By practicing inter cropping preferably with legume to enhance nitrogen fixation.

d. **Advantages of shifting cultivation.**

- Lower capital investment.

 - No disease and pest build up.

 - Maintains soil structure.

 - No land disputes as land is not individualized.

25.a.Characteristics of Green manure crops

-Are highly vegetative/leafy

-Have fast growth rate

-High in nitrogenous content/leguminous

-Rots quickly

-Hardy/can grow in Poor conditions (4mks

b.why Green manure crops are not commonly used

-Most of the crops grown are food crops and is hard for people to use them as green manure

-Might use most of the moisture and leave little for the next crop

-Most of the nutrients are used u by microorganisms in the process of decomposition

-It takes time for green manure crop to decompose and therefore planting is delayed (4mks

c.Uses of farm records

-To compare the performance of different enterprises within a farm or other farms

-Show the history of the farm

-Guide farmer in planning and budgeting

-Help detect losses or theft

-Help in assessing income tax to avoid over or under payment

-Make it easy to share profits or losses in partnership

-Help settle disputes pamong heirs

-Help to show whether the farm is making profits or losses

-Help to support insurance claims (5mks

d. Reasons for maintaining farm tools and equipment

-To increase durability

-To increase efficiency

-To avoid injury to the user

-To avoid damage to the tool

To reduce replacement cost

e.Has high H2O retention

* Cracks when dry
* Sticky when wet
* Poorly drained
* Poorly aerated