**FORM 1 AGRICULTURE MARKING SCHEME**

**END OF TERM - 2 – 2022 EXAMINATION**

**SECTION A (50 MKS)**

1. Olericulture and pomoculture.

* Olericulture is the growing of vegetables while pomoculture is the growing of fruits while pomoculture is the growing of fruits.

2x1=2mks (mark as a whole)

1. Methods of farming.
   * Mixed farming
   * Nomadic – pastoralism
   * Shifting cultivation
   * Organic farming
   * Agroforestry

4x1=4mks

1. Advantages of organic farming.
   * Products are free from chemical residues.
   * It is environmentally friendly.
   * Livestock and farmer do not risk effects of poisonous chemicals.
   * Ozone layer is preserved.
   * It uses locally available materials/ cheap.4x1=4mks
2. Advantages of intensive farming.

* High level of production.
* Supervision is easy.
* Maximum use of land
* Utilizes technology and increase production.

(4x1=4mks)

1. Physical agents of weathering.

* Wind / moving air.
* Temperature changes.
* Moving ice/glacier.
* Moving water.

(3x1=3mks)

1. Mechanical methods of separating particles.

* Using a sieve /sieve analysis.
* Sedimentation method.

(2x1=2mks)

1. Effects of HIV/AIDS on Agricultural production.

* Shortage of farm labour due to bad health.
* Low supply of farm produce due to loss of market.
* Low purchasing power to buy agricultural input.
* Lack of motivation to invest in Agriculture.

(2x1= 2mks)

1. Soil structure is the physical arrangement of soil particles and how they adhere where to each other to form an aggregate where soil texture is the relative proportion of various sizes of mineral particles in the soil.

(2x1=2mks)

1. Reasons for growing crops under optimum temperature.

* Enhances germination of seeds.
* Promotes soil microbial activities.
* Improves quality of soil products.
* Enhances vigorous growth and development.
* Enhances high yields.

(3x1=3mks)

1. Role for growing crops under optimum temperature.

* Decomposition of organic matter to release plant nutrient.
* Some fix nitrogen in the soil.
* Some produce toxic substances that help to control soil borne diseases.2x1=2mks

1. Biotic factors that influence crop production.

* Pests.
* Pathogens.
* Nitrogen fixing bacteria
* Pollinators.
* Decomposers
* Parasites
* Predators

(4x1=4mks)

1. Effects of properties of rainfall.

* Rainfall certainty/reliabity- determines the timing of land preparation.
* Rainfall amount /quantity- determine the type of crop to grow.
* Rainfall distribution. – influence the type and variety of crop to grow in an area.
* Rainfall intensity – high rainfall intensity damage crops and cause erosion.

(4x1= 4mks)

1. Government’s policy

* Laws to regulate production.
* Producing agricultural inputs.
* Construction of storage facilities for agricultural products.
* Heavy taxation of imports in order to protect local industries.
* Subsidizing the growing locally produced commodities.
* Quality control by enforcing production of high quality goods, for both export and the domestic market.
* Conservation of natural resources to sustain agriculture e.g conservation of forests, water catchment areas, wildlife and soil.
* Stepping up the control of diseases and parasites that affect crops and livestock.

(4x1=4mks)

1. Conditions for land reclamation.

* Very steep land.
* Water logged/ marshy area.
* Forested/ bushy area.
* Rocky area.
* Aridity.
* Tsetse fly infested areas.

(4x1=4mks)

1. Three methods of treating water.

* Chemical treatment/ chlorination
* Filtration.
* Decantation
* Boiling
* Aeration.

(3x1=3mks)

1. Aspects of light.

* Light intensity.
* Light duration.
* Light wave length.

(3x1=3mks)

**SECTION B (20 MARKS).**

1. a) To demonstrate the presence of living organisms in the soil.

(1x1=1mks)

b) State one observation that was made in each of the flasks labeled C and D

C- Lime water turns white precipitate.(1x1 = 1mk)

D- No observation /No change / Lime water remains clear. (2x1=2mks)

c) Reasons for the above.

C- Lime water turns white ppt because living organisms exhaled carbon (iv) oxide which reacted with calcium hydroxide to form a white precipitate.(calcium carbonate)

(1x1=1mk)

D- The heating of the soil killed the soil organisms and no respiration occurred to produce carbon (IV) oxide.

(1x1=1mk)

1. a) Ridging (1x1 = 1mk)

b) Improves drainage

- Allows planting of certain crops eg. Groundnuts, Irish potato

- Allows tuber expansion.

-prevent soil erosion

(2x1=2mks)

1. tools and equipments,

a) J- watering can. (1mk

K- Milking can /churn.(1mk)

M- Masons trowel (1mk)

b) Use of the tools.

K- Temporary storage of milk/ holding milk during transportation.

L- Driving nails into wood/removing nails from wood.

(2x1=2mks)

c) Maintenance practices.

- Cleaning after use.

- Replace broken parts.

- Painting with aluminum paint to prevent rusting.

- Sterilizing in the sun or by hot water.

(2x1= 2mks)

1. a) Drip/ trickle irrigation.

(1x1=1mk

b) -Little amount of water required hence suitable in dirty areas.

-It reduces growth of weeds rows where there is no irrigation.

-Water under pressure can be used so long as it flows along the pipe.

-it reduces the build up of pests and disease pathogens

(4x1=4mks)

**SECTION C (30MKS)**

1. a) Reasons for preparing seedbed.

-To kill weeds

- To incorporate manure and other organic matter into the soil.

- To destroy different stages of crop pest such as eggs larvae, pupae or adults by burying them, exposing them to the heat of the sun and predators and starving them.

- To aerate the soil.

- To encourage the penetration of roots in the soil.

- To make subsequent operations possible.

-To encourage water infiltration into the soil.(5x1=5mks)

b) Methods of achieving primary cultivation

- Hand digging

-Mechanical cultivation

-Use of an ox plough.

(3x1=3mks)

c) Tertrary operations.

* Ridging – is the process of digging soil in a continuous line and heaping it on one side to form A bund.
* Rolling – It refers to compacting of the soil which is loose. It is done to prevent small seeds from being carried away by wind and to prevent soil erosion.
* Leveling – Refers to the practice of making the soil surface flat and uniform so as to promote easy germination of small seeded crops like wheat, grasses, barley etc.

Stating 1x3=3mks)

Explaining 1x3=3mks)

d) Subsoiling

-Refers to the process of cultivating the soil for the purpose of breaking up the hardpans which might have formed as result of continuous use of heavy machinery in land preparation. 1x1=1mk

22,a)Activities of organic farming.

-Mulching

- Cover cropping

- Use of organic manure / organic material.

-Use of medicinal plants.

-Crop rotation.

**b) Reasons for maintaining farm tools.**

**-To increase durability –** Properly maintained and well cared for tools last longer in the farm. They give the farmer a long service.

**-** **To reduce the replacement cost. -**  Tools and equipment are expensive to buy and replace. If well taken care of they last longer and the famer does not spend capital replacing them. This reduces the total cost of production in the farm.

**-Increased efficiency.-** Well maintained tools work better and more efficiently to give a clean, well finished piece of work. Poorly kept tools are often too difficult to work with and require a lot of energy.

**-To avoid injury to the user.-** Using a poorly kept tool might result to injury of the user e.g using a blunt cutting tool which has a broken handle leads to development of blisters on the hand of the user.

**- To avoid damage to the tool.**- A tool that is poorly maintained ends up getting damaged due to the force used in working with it properly maintained tols do not get damaged during the working process.

(5x2=10mks)

**END**