**JOINT EXAMINATION**

**AGRICULTURE FORM ONE TERM THREE 2023**

**MARKING SCHEME.**

1. a) **Arable farming**- this is the growing of crops on a cultivated land

b) **Organic farming**- this is the growing of crops and rearing of livestock without using agricultural chemicals.

1. Pastoralism/mammalian livestock production

 Fish farming/aquaculture

 Bee keeping/apiculture

 Poultry keeping

1. Requires large tracts of land

Low capital investment

Low labour per unit area

Low yield per unit area

1. Rainfall intensity

Rainfall amount

Rainfall distribution

Rainfall reliability

1. Mineral matter

Organic matter

Soil air

Soil water

Soil living organisms.

1. Single grained soil structure

Crumby Soil structure

Granular soil structure

Platy soil structure

Blocky soil structure

Prismatic soils structure

Columnar soil structure

1. Lime application

Application of sulphur

Application of basic fertilizer

Application of acidic fertilizer

1. **Strip cup**- used to check if a cow has mastitis

**Burdizzo** – used to castrate bulls, rams, buck or billy

**Bolus guns** – used to administer solid drugs through the mouth of an animal

**Plumb bob** – used to check if wall is vertically straight

1. Slashing

Burning of vegetation cover

Tree felling

Use of herbicides

1. springs

Wells

Boreholes

1. Plastic pipes

Metal pipes (aluminium and galvanized iron pipes)

Hose pipes

1. Surface irrigation ( flood, furrow, basin)

Overhead irrigation/ sprinkler

Sub-surface irrigation

Drip/ trickle irrigation.

1. Use of open ditches

Use of underground drain pipes

French drains

Cambered beds

Pumping

Planting trees e.g eucalyptus trees.

1. Green manure

Compost manure

Farmyard manure

1. Leaching

Soil erosion

Mono-cropping

Continuous cropping

Change in soil P.H.

Burning vegetation cover

Accumulation of salts

1. Milk

Wool

Meat

Eggs

Honey

Blood.

1. Dromedary

Bactrian

**SECTION B**

1. a. hand saw.

b. A – toe

 B - blade

 C – Handle

c. Teeth setting should be done

 Clean after use

 Straighten blade when bent

 Replace broken handle

 Regular sharpening of teeth if blunt

 Tighten loose nuts and screws

 Oil the blade during long storage to reduce rusting

1. a. Ridging

b. It is done by digging soil in a continuous line and heaping it on one side to form a ridge and furrow.

c. Promotes easy harvesting of tubers

 Promotes expansion of root tubers

 Furrows help to conserve water

 Ridges promote anchorage

 Promotes production of seeds in ground nuts

1. a. Roof water harvesting/ roof catchment.

b. Surface area of the roof

 Amount of rainfall/ Intensity

c. Clean to remove dirt

 Repair broken or leaking points

 Place it on a strong base to resist water pressure

 Paint iron sheet tanks to avoid rusting.

1. a. To compare capillarity action in different soils

b. A- sand soil

 B- Loam soil

 C – Clay soil

c. soil type C

**SECTION C**

1. a. **Filtration at water intake** – it is done by series of sieves to remove large particles

**Softening of water** – in the softening chamber, soda ash is added to soften water and alum (aluminium sulphate) to coagulate solid particles

 **Coagulation and sedimentation** – the tank is open to allow aeration which removes bad smell, water stays for 36 hours to kill bilharzia worms.

 **Filtration** – done using different sizes of gravel and a layer of sand to remove small solids

**Chlorination** – chlorine is added using a doser to kill micro organisms

**Storage** – water is stored awaiting distribution

b. Domestic use e.g cooking

 Washing animal structures

 Construction

 Diluting chemicals

 Watering plants

 Watering animals

 Promotes aquaculture

 Washing farm equipments

 Cooling machines

 Processing of farm produce.

c. To remove chemical impurities

 To remove bad smell and taste

 To kill disease causing micro organisms

 To remove sediments of solid particles

1. a. Good depth

 Proper drainage

 Good water holding capacity

 Correct P.H

 Adequate nutrient supply.

 Free from excessive infestation of soil borne pests and diseases.

b. Control soil erosion

 Crop rotation

 Weed control

 Minimum tillage

 Inter cropping

 Proper drainage

 Control of soil P.H

 Use of organic manure

 Use of inorganic fertilizer

 Avoid practise that reduce soil nutrients e.g burning of vegetation cover

c. Type of animal used

 Type of food eaten

 Type of litter / bedding used

Method of storage

 Age of farm yard manure

1. a. Source of food

Source of income when sold

Provide animal power

Source of raw materials

Cultural uses e.g status symbol, medium of exchange, social ceremonies and recreational purposes.

b. Their bodies are wedge/ triangular shaped

They have a straight topline.

They have prominent milk veins

They are docile with mild temperament

They have visible pin-bone

They have well set apart hind quarters to give room for big udder

They have large stomach capacity therefore eat more and hence high milk production

They have large and well developed udder.

c. It shows the history of the farm

It helps to detect losses or thefts in a farm

Shows whether the farm is making profit or losses

Facilitates easy planning and budgeting

Makes it easy to share profit and losses during partnership

Helps to compare performance of different enterprises within a farm

Helps to settle disputes among heirs to the estate if farmer dies without leaving a will

Helps in assessment of income tax therefore reduced taxation

Helps to determine worth or value of the farm by comparing assets and liabilities

Supports insurance incase of death, theft or fire

Provides labour information e.g NSSF dues