

MOKASA AGRICULTURE MARKING SCHEME

443/2 – PAPER 2 - 2020

SECTION A (30 Marks)

1 – *Spraying with appropriate insecticides at the breeding places;*

- Clearing the vegetation/ breeding grounds
- Use of impregnated nets
- Sterilizing the male tsetse flies.

(4 x ½ = 2mks)

2 *Dairy goats*

- Toggenburg
- British alpine
- Saanen
- Anglo – Nubian
- Jamnapari

(4 x ½ = 2mks)

3 *Characteristics of a good vaccine;*

- Easy to administer
- Do not react with other vaccines administered to the animal
- Do not have side effects on the animal
- Produce long lifelong immunity
- Have a long self life.

(4 x ½ = 2mks)

4 *Advantages of outbreeding;*

- The offspring acquire hybrid vigour or heterosis, which helps to improve the performance of less productive breeds
- Characteristics of the pure breeds are maintained
- The system can be used to upgrade native breeds for increased milk and meat production.
- It is cheaper compared to buying pure breeds

(4 x ½ = 2mks)

5 Factors that affect the quality of honey;

- The presence of impurities
- Source of nectar/food type/ the type of plants from which nectar was collected
- Stage of ripening
- The method of extraction
- The season of the year

(4 x ½ = 2mks)

6 Functions of calcium;

- A component of milk
- Formation of the skeleton and teeth
- Blood clotting
- Nerve functioning/ control milk fever.

(3 x ½ = 1 ½ mks)

7 Four cattle diseases caused by virus;

- Rinderpest
- Foot and mouth disease
- Mad cow disease.

(4 x ½ = 2mks)

8 Functions of the following farm tools and equipment;

- (a) Used for checking the verticalness of the building. (½ mk)
- (b) Used to administer liquate drugs in to the back mouth of an animal. (½ mk)
- (c) Used for scooping or lifting seedlings; loosening soil in the nursery bed. (½ mk)
- (d) Pipe wrench is used in holding, tightening and loosening metal pipes and fittings. (½ mk)

9 Reasons for seasoning timber;

- To make it resistant to insect attack
- To avoid warping
- To make resistant to weather conditions
- To avoid fungal attack

(2 x ½ = 1mk)

10 Reasons for culling a breeding boar;

- To control inbreeding
- To prevent/ control diseases
- Due to old age
- Due to deformities
- Because of injury
- Due to bad temperament
- Loss of libido

(4 x ½ = 2 mks)

11 Uses of lubrication system in a tractor;

- Reduce friction between moving parts
- Reduces heat produced by rubbing surfaces/cooling effect
- Acts as cleaning agent
- Prevents rust

(3 x ½ = 1 ½ mks)

12 Behaviour of chicks which would indicate the temperature of brooder is too high;

- Chicks move away from the source of heat
- Parting/ opening beaks
- Opening wings/spreading wings
- Making abnormal noise drinking water excessively
- Chicks may lie flat on their bellies.

(4 x ½ = 2mks)

13 Ways of stimulating milk – let down in a dairy cow;

- Washing the udder with warm water
- Allow the calf to suck for a while
- Feeding the cow with dairy meal during milking
- Production of sound associated with milking
- Regular milking time
- Massaging the udder when washing it.

(4 x ½ = 2mks)

14 Preventive measures of brucellosis in cattle;

- Use of artificial insemination
- Cull infected animals
- Vaccinate all young animals
- Avoid direct contact with aborted foetus/after birth

- Observe hygiene/proper disposal of aborted foetus.

(4 x ½ = 2mks)

15 *conditions that would encourage hens to eat eggs;*

- Calcium deficiency in the birds' body
- Bright light in the laying nests
- Birds laying on the floor
- Presence of broken, soft shelled eggs
- Prolonged stay of eggs in the laying boxes
- Idleness of birds
- Inadequate feeding

(4 x ½ = 2mks)

16 *Advantages of hedge fence;*

- Source of firewood
- Source of fodder/mulch
- Act as wind breaker
- Control soil erosion
- Adds beauty to the farm
- Provides security/ privacy/block intruders
- Mark farm boundaries

(4 x ½ = 2mks)

SECTION B (20 Marks)

17 (a) Liver fluke (1mk)

b) Cattle/Sheep (1mk)

c) Fresh water snail (1mk)

d) Control the intermediate host/fresh water snail

- Draining swampy areas/leveling any depression that may hold water in the pasture
- Burning of the pastures during the dry season.
- Not grazing animals near marshy/water – logged areas.

- Routine drenching of the animals.

(2 x 1 = 2mks)

18 (a) The parts labeled **E** , **F** , and **G**.

E – Crop (1mk)

F – Proventriculous (1mk)

G – Gizzard (1mk)

(b) Ways in which the part labeled **G** is adapted to its function;

- It is equipped with tough muscles on each side. The sliding movements of these muscles cause the crushing and grinding of food particles.

- Presence of grit/ sand stones aid in crushing and grinding of food.

(2 x 1 = 2mks)

19 a) Implement;

- (a) Reciprocating mower (1mk)
- b) The power take off shaft (PTO shaft) (1mk)
- c) For harvesting forage crop , Cutting vegetation when clearing the field. (1mk)
- d) – Check loose nuts and bolts and tighten where necessary.
 - Keep knife section sharp
 - Lubricate the knife parts
 - Check knife to ledger plate cups for best cutting
 - Keep all the parts tight.

(2 x 1 = 2mks)

20 (a) How the materials for constructing part **Q** and **S** be treated;

- **Q** – Painted to avoid rust. (1mk)
- **S** - Smearing with old engine oil, applying insecticide, Charing,

SECTION C (40 Marks)

21 (a) The strokes of a four stroke cycle engine;

- **Induction stroke;**

The piston is moved down the cylinder causing the inlet valve to open drawing in fresh supply of petrol vapour and air into the cylinder. (3mks)

- **Compression stroke**

Both the inlet valve and outlet valve are closed, piston moves up the cylinder and the fuel – air mixture is compressed. (3mks)

- **Power stroke**

- A spark is produced at a spark plug, igniting the fuel –air mixture.
- The increased pressure forces the piston down the cylinder.

(3 mks)

- **Exhaust stroke**

- Exhaust valve opens
- Piston moves up the cylinder
- Burned fuel – air mixture expelled.

(3 mks)

b) Physical characteristics of poor layers'

- the comb and wattles are small or shrunken, dry, scaly, pale and cold
- Eyes are dull and pale yellow
- the beak is yellowish in colour
- it has a dry and round vent
- the abdomen is hard and sometimes full
- it is lazy and dull
- it moults early
- the shanks are yellowish
- they go broody or broodiness is common
- it has a small space between the keel and pelvic bones that can only fit 1 – 2 fingers

(8 Marks)

22(a) Milk fever

(i) Animals affected ; Dairy cattle, Goats, (2mks)

(ii) Symptoms,

- Newly affected animal become nervous
- Animal staggers when walking
- Animal lies down or collapses and cannot stand thereafter
- The muscles twitch
- The animal lies with the head twisted towards the body
- If not treated, the animal gets weaker with the vital body organs failing to work and this leads to death.

(1 x 5 = 5mks)

(iii) Control measures'

- Feed heavy yielding cows with minerals before and after calving
- Inject the attacked animal with soluble calcium salt solution i.e. calcium borogluconate

(1 x 2 = 2 mks)

(b) Calf management practices carried out immediately after birth;

- Ensure the calf is breathing by removing mucus from nostrils
- Cut the umbilical cord and disinfect it to avoid infection
- Clean the calf of mucus if the mother doesn't lick it
- If the calf is not breathing perform artificial respiration.
- Move the calf to a warm clean pen
- Ensure the calf gets colostrum from the mother, weak calf is supported to suckle the mother.

(1 x 6 = 6mks)

C) Qualities of eggs for marketing;

- they should be clean
- should be large in size or arranged according to sizes
- should have high candling qualities
- the colour of the eggs should be brown

(1 x 4 = 4 mks)

23 (a) Harmful effects of parasites in livestock;

- They transmit diseases eg tickborne diseases

- They lower production in livestock
- They damage body organs or tissues
- They lower quality of livestock products
- They cause irritation and discomfort to the host
- They cause anaemia by sucking blood from host
- Increase cost of production when the farmer is trying to control them.
- They feed on their host causing loss of weight and slowing growth rate
- Internal parasites cause blockage of internal organs.

(1 x 10 = 10 mrks)

b) Functions of five parts of a zero grazing unit;

- Milking area- this the part for milking the animal
- Calf pen – part for keeping the calf
- Food and water area – used for feeding and watering the animals
- Fodder chopping area – part for chopping fodder
- Store – For storing food
- Walking area
- Milk recording room
- A cubicle for the calf
- Manure storage

(1 mrk for any correct stated part and 1 mrk for well described function of the part named.

(5 x 2 = 10 mrks)

