**NAME:……………………………………………………….ADM:………………….CLASS:….**

**FORM 4**

**AGRICULTURE**

**PAPER 2**

**MARKING SCHEME**

1. – Unhygienic conditions

* Overstocking
* Presence of parasites and disease vectors
* Rearing system

1. – to increase ovulation/twinning

* To increase chances of conception
* To enhance implementation

1. – Harvested honey may be contaminated

* To avoid possible bush fire
* Not easy to distinguish honey combs and broad combs

1. - Body coat is white

* Has black ears, paws, tail and nose

1. – Greasing/lubricating moving parts

* Ensure proper harnessing of yoke
* Replace broken parts
* Check tyre pressure before day’s work.

1. – movable call pens

* Permanent calf pens
* Raised pens with slated floors.

1. (a) Trocar and canular

(b) Bull ring and lead stick

1. – Dusting the poultry house and laying nest

* Dusting birds
* Ensure high standards of cleanliness

1. Identify ewes that were not mated.

* Indicates whether services has taken place
* Helps in identifying rams that are functional/not
* Helps in keeping accurate records

1. – lubricate moving parts to reduce power loss

* Cools the engine
* Prevents rusting of the engine
* Cleans the engine off dust and soot.
* Prevents wear and tear.

1. – Clutch

* Gear box
* Differential
* Final drive

1. (i) large white

(ii) Charolais

(iii) Angora

(iv) Corriedale

1. – When inspecting the animal to ascertain abnormally/disease

* When administering any form of treatment
* When spraying/hand dressing
* When milking
* When performing some management practices eg dehorning, castration

1. – anthrax

* Rinderpest
* Foot and mouth
* Lumpy skin disease

1. – udder clothes/towels

* Filtering pads
* Milking jelly
* Warm water
* Milking pails/buckets
* Strip cup
* Milk cans/ churns

1. – Calf is underfed/overfed

* Cows may not let down milk in absence of the calf.
* It is difficult to keep accurate record of milk yield

SECTION B

1. (a) P: Reflector

Q: Plywood/cardboard wall

R: water/water trough

S: Feeder/feed trough

T: Lantern/electric bulb

(b) – Confine chicks within heat source

- To conserve/maintain heat within the brooder

- To prevent crushing of chicks/suffocation

(c) - By raising the wick.

- Using higher watt bulb

- By adding another lantern

- By lowering the reflector

(d) - sawdust

- Wood shavings

- Cereals husks

- Coffee husks

1. (a) A Gutter O : Overflow pipe

(b) Roof catchment

(c) Sieve/ prevent dirt from entering the tank

(d) Cleaning regularly

- Ensure it rests on a flat surface

1. (a) Mature liver fluke

(b) Sheep or cattle in the liver

(c) Fresh water snail.

1. (a) Barbed wire gate

(b) C: gate post/King post

D: Wire loop

E: Dropper

(c) – Support the gate post

- To ensure the barber remains tout

**SECTION C**

1. **(a) Procedure of training a calf. (5mks)**

* Put clean milk in a clean bucket
* Place the index finger into calf’s mouth. The calf starts sucking.
* Lower the finger slowly until it is sub-merged in milk as the calf’s sucks.
* Slowly withdraw the finger while the calf is sucking
* Repeat steps (i-iv) until the calf learns how to drink milk from a bucket without any assistance

**(b) – Advantages of artificial incubation (5mks)**

* Many chicks can be hatched at one time
* Incubator is ready when required
* Possible to plan when to hatch chicks
* With good management, chicks ha e no danger of suffering from parasites or diseases
* Infertile eggs are identified early enough and removed.

**(c) Practices to prevent livestock diseases (10mks)**

* Proper feeding and nutrition: Animals avoid deficiency diseases and become strong hence resist disease attack.
* Proper selection and breeding: Disease free animals are selected for breeding.
* Proper housing and hygiene: High level of farm hygiene should be maintained to control diseases.
* Use of antiseptics and disinfectant: This prevents spreading of diseases from one point to another.
* Imposition of quarantine: Restricting movement of animals from one part to another to prevent spread of diseases.
* Slaughtering the affected animals. This involves killing all sick animals to curb disease spread.
* Dipping and spraying: This helps to kill parasites which act as vectors to livestock diseases.
* Vaccination: Provided the animal with immunity thus resist disease infection.
* Deworming: Helps to control parasites (vectors) and prevent weakening of the animal’s body.
* Hoof trimming: Helps to control foot rot infection in livestock.
* Dusting: Controls parasites which can be vectors to livestock diseases.

1. **(a) Various uses of livestock (10mks)**

* Source of food: Animal products are used by people as food e.g meat, milk, eggs, Roney, blood.
* Income: Animal and their products can be sold to provide income to the farmer.
* Cultural uses. These includes traditional uses of livestock eg status symbol, medium of exchange, in ceremonies etc.
* Provides power in the farm: Livestock can be used as draught animals’ e.g camels, donkeys and oxen.
* Provision of raw materials: These include wool, fur, mohair hides and skins.

**(b) Pre-disposing factors of livestock diseases. (10mks)**

* Species of the animal: Some diseases attack some animals due to their species e.g swine fever only affects pigs.
* Breed of the animal: Cancer of the eye affects only Hereford breed of cattle.
* Age of the animal. Some diseases are only associated with a given age group of the animal e.g. piglet anemia.
* Sex of the animal: These are diseases that affect animals because of their sex. eg orchitis only affects male animals.
* Colour of the animal: Diseases that affect animals because of their colour e.g. heat stress in black animals

1. **(a) Limitations of a tractor. (6mks)**

* Expensive to hire/buy a tractor.
* Skills are required to operate it
* Can’t be used on small pieces of land
* High rate of wear and tear/depreciation
* Cannot work on steep fields
* Cannot work on marshy/wet fields
* Exhaust fumes pollute the air.
* Need for refueling makes it expensive.
* Unavailability to all farmers at the same time.

**(b) Differences between plough and mould board plough (8mks)**

Disc Plough Mouldboard plough

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| --- | --- |
| * Can be used in fields with obstacles. * Doesn’t invert furrow slice completely. * More secondary operations needed. * Cultivate at varying depth * Not easily broken by obstacles * Requires less power to pull * Less skill in operating * Cut by rolling action | * Only used in fields without obstacles. * Completely invert furrow slice. * Less secondary operations needed. * Cultivate at uniform depth * Easily broken by obstacles. * More power needed. * More skill in operating. * Penetrate through pitch. |
| **(c) Advantages of four stroke engine (6mks)**   * Produce more power/can do heavy work. * Efficient in fuel and oil utilization. * Efficiently cooled with water. * Effective in expelling of exhaust gases from the cylinders * Can perform a wide range of farm operations. * Causes less pollution as oil is not burnt together | |
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