**AGRICULTURE PAPER 2 MARKING SCHEME**

**SECTION A (30MARKS )**

1. Rinder pest
* Foot and Mouth disease
* Rabbies
* Mad cow disease (½ x 3 = 1½ marks)
1. a) Spoke shave is used to finish or smoothen curved surfaces (½ mark)

b) Plumb bob-used for checking the verticalness of a wall. (½ mark)

1. White in colour ,with black ears , nose, paws or tail. (1mark)
2. – poor health
* Old age
* Physical deformities
* Hereditary defects
* Infertility/loss of libido (½ x4 = 2marks)
1. Brings loss of hybrid vigour
* May lead to decline in fertility which lead to species extinction
* Brings about reduction in performance
* Leads to high rate of pre-natal mortality

-abortions (½ x2 = 1mark)

1. Make it resistance to redant attack and weather elements
* Make it resistance to damage
* Prevent warping (½ x2 = 1mark)
1. a) a roughage is a feed stuff with a high fibre and carbohydrates content and low in protein while a concentrate is a feed with high amount of protein or energy (carbohydrates) and crude fibre.

(award 1 mk and mark as a whole )

b) –it must be balanced /rich in nutrients required

 - Must be enough for the animal to produce at an economical level.

- Must palatable

- digestible

- free from contaminants (4x ½ = 2mks)

1. – Depend on
* species of the animal
* the breed animal
* age of animal
* physiological status of animal
* temperatures of the environment
* type of feed eaten
* weight of animal/body size ( 3x ½ = 1½ mks)
1. To produce high quality milk
* To have a long lifespan and breed regularly
* To make it fetch high market values.
* To reduce managements cost/make it economical to keep/reduce veterinary bills
* Prevent spread of disease such as these which are zoonotic (½ x 3 = 1 ½ mks)
1. To prevent fighting and inflicting injuries on each other
* To make the animal docile and easy to handle
* Make it easy during transportation and feeding because it reduce space the animal occupies .
* Prevent destruction of farm structure

(½ x3 = 1½ mks)

1. Heat method
* Crushing and straining
* Use of centrifugal extractor

(½ x2 = 1mk)

1. a) -To check fertility of the egg

-To check egg abnormalities

-To determine condition of the embryo

-To check quality of the shell

-To determine the size of air space (2 x1 = 2mks)

 b) Clean plough after days work use

* tighten loose nuts and bolts
* lubricate moving parts
* replace broken or worn out parts
* repair broken parts
* sharpen the sharee when necessary
* paint the metallic points to avoid rust
* Apply old engine oil on the plough for long storage

(4 x ½ = 2mks)

1. a) Retard growth of animals
* leads to malnutrition /emaciation
* lower production
* diarrhea/constipation
* damages to the organs/blindness
* blockage or organs/blindness
* irritation coughing
* cause anaemia
* lead to death

(4 x ½ = 2mks)

b) (i) – to remove dirt /kill bacteria

 - To stimulate milk let down =

( ½ x 2 = 1mk)

ii) Saanen

* toggenberg
* british alpine/ German Alphine
* Anglo –nubian

(3 x ½ = 1½ mk)

1. Mastitis

Milk fever (½ x 2 = 1mk)

1. A channel used to allow excess water back to the river/ it prevents water from overflowing on the dykes. ½ mk
2. – splash feed type
* Force feed type
* Oil mist type

(½ x 3 = 1 ½ mks)

1. a) land side-presses against the wall of the furrow hence prevent the plough from swaying sideways during/provide stability to the plough during ploughing. (½ mk)

b) Draft rod

- used for adjusting the depth and width of ploughing. ( ½ mk)

1. should have properly constructed roof to protect the grains crop from the sun and rain.
* Wall should be plastered with mortar or mud to make them smooth and air light.
* Should be completely sealed t avoid entry of rodents.
* An inlet and outlets be made of tight covers and should be easy to lock.

(½ x3 = ½ mks)

19.Advantages of natural feeding in calf rearing.

•Calf takes milk at body temperature,

•Milk is free from contamination

• it prevents scouring in calves.

•Milk is provided ad libitum. (3 x ½ = 1 ½ marks)

**SECTION B**

20. (a) N - abomasum

 P - Rumen

 Q - Gall bladder (3 x ½ = 1 /2marks)

 (b. ) S — Digestion/absorption of food

T-— Absorption of water. (2 x 1 = 2 marks)

(c) R— Lipase/Trypsin/amyIase

S — Peptidase/maltase/sacrase (invertase)/lactase. (2 x ½ = 1 mark)

21. a)

E- Foot bath

G- Dip tank

b) Functions of:

E-Contain disinfectant to control foot rot

F- Assist the animals jump into the dip tank

H- Hold animals to enable excess acaricide in animals body to drain to tank

22. State the nutrients lacking in the diet of each animal shown

Animal G - Calcium 1x1 = (1mark)

Animal H - Manganese 1x1=(1mark)

 (b) Name the diseases whose symptoms are shown by the animal labeled G above. 1x1 = (1 mk)

* Milk fever

 (c) Give **two** reasons why the disease named in (b) above should not be controlled by giving medicine through the month

* The animal is not able to swallow the medicine
* The medicine may get into the lungs ( 1 x2 = 2mks)

23.(a) E…Hardcore (1mk) F….Damp proof material /PVC (polyvinyl chloride) (1mk)

(b)-Prevents water rising beyond the floor or wall.

-Prevents insects beyond the floor or wall. (2mk)

(c) -sand; - cement (1mk)

 **SECTION C (40MKRS)**

24 . (a) Use of fences in the farm:

 • Mark boundaries.

 •Help to avoid boundary disputes

 • Keep off wild animals and intruders from outside the farm.

 • Enable the fanner to practice mixed farming.

 • Facilitates rotational grazing

 • Controls movement of animals and people preventing formation of unnecessary
 paths in the farm.

 • Control the spread of parasites and diseases by keeping off wild and stray animals the farm.

 • Help the farmer to isolate or confine animals requiring special attention.

 • Enable the farmer to control breeding by rearing different animals in different paddocks.

 • Hedges act as windbreakers.

 • Adds beauty to the farm,

 • Add value

 • For privacy. ( 10 x 1 = 10 marks)

 (b) Newcastle disease. \

 (i) • Casual organisms

 • virus. (1 x 1 =1 mark)

 (ii) Signs of attack:

 • Difficult in breathing.

 • Beaks remain wide open and necks are strained

 • Dullness.

 • Birds stand with eyes closed all the time.

 • Loss of appetite.

 • Nasal discharge which force the birds to shake their heads to clear it.

 • Birds walk in a staggering motion since the nervous system is affected.

• Often the bird have their heads and wings drooping,

• Birds produce watery greenish diarrhoea.

 • Eggs laid have soft shells. ( 1 x 7 = 7 marks)

 (iii) Control Measures:

• Vaccination during the first six weeks and then two to three months later.

• Quarantine.

• Kill the infected birds and burn them.

• Obtain stock from reputable source. (1 x 2 = 2 marks)

25a). Rearing of lambs from lambing to weaning time

-Ensure lamb is breathing

-Ensure lamb is warm

-Ensure mother licks lamb to keep warm & remove mucus 10x1=10mks

-Ensure lamb suckles within 6 hours

-Deworming

- introduce lamb to soft pasture

- provide water

- foot trimming

-Dusting/dipping to control external parasites

-identification

-Docking

b). Causes of livestock diseases

-Bacteria

-Protozoa

-Virus

-Nutritional diseases

-Amount of food eaten

22) c)

|  |  |
| --- | --- |
| Ruminants | Non-ruminants |
| -Chew cud-Regurgitate food-Polygastric-Do not have salivary amylase-Saliva is alkaline-Water mainly absorbed in the omasum-Able to digest cellulose in rumen  | -Do not chew cud-Do not regurgitate - monogastric--Have salivary amylase-Saliva is neutral-Water is absorbed in the large intestines -Do not digest cellulose  |

 5 x 1 = marks

26. a. Preventive measures of livestock diseases:

* Isolation of the sick. It’s a preventive measure taken when an animal is suspected to have contracted a disease.
* Imposition of quarantine. This is based on the principle of enclosure in which the affected animals are isolated and their movement restricted, to prevent spread of the disease.
* Use of prophylactic drugs. Include use of coccidiostats in water or food for poultry to control coccidiosis.
* Carrying out regular vaccinations. This is an artificial way of giving an animal immunity against a particular disease.
* Control of vectors. Vectors known to transmit diseases in livestock e.g. tsetse fly and ticks are controlled using appropriate methods.
* Treatment of sick animals. This is done to control spread of diseases.
* Slaughtering the affected animals. Incase of attack by highly infectious and contagious disease, it’s advisable to isolate and slaughter the infected animal.
* Use of antiseptic and dis-infectants. The farmer must ensure cleanliness in animal houses and surroundings. This can be achieved using dis-infectants.

**(5 x 2 = 10 Marks)**

 b. Long term tractor service and maintenance:

* Engine oil should be drained completely from the pump and new oil added.
* The steering gear box should be inspected and refiled if the level is low.
* The oil in the differential should be replaced as recommended.
* The linkage and pully attachment should be greased.
* Pully oil level should be checked and added if necessary.
* Oil filters and fuel filters should be replaced regularly.

**(6 x 1 = 6 Marks)**

 c. Functions of the gear box:

* Helps the driver to select any forward or reverse gear.
* Adjust the speed of the drive from the engine crank shaft to the drive shaft.
* Help to alter the speed ratio.
* Enable the driver to stop the tractor movement without stopping the engine.
* Enable the power from the engine to be more easily applied to the work done by the tractor.

**(Any 4 x 1 = 4 Marks)**