**AGRICULTURE**

**FORM 3**

1. **Define the following terms as used in livestock breeding (2mks)**
2. **Hybrid Vigour (Heterosis)**

This refers to increased vigour and performance resulting from crossing two unrelated superior breeds.

1. **Epistasis**

This is the combination of genes which could have otherwise been inferior or undesirable

1. **Outbreeding**

Mating of animals which are not related

1. **Close breeding**

Breeding of very closely related animals

1. **Outline four factors to consider when selecting a breeding stock (4mks)**

Age- young animals that have not given birth more than three times

Level of performance- select highly productive animals

Physical fitness- select animals free from physical defect

Health- select only healthy animals

Behavior- cull animals with bad behaviors

Good mothering ability

Well adapted to environment

Highly prolific

Select animals producing high quality products

1. **State any two disadvantages of inbreeding (1mk)**

Loss of hybrid vigour

Decline in fertility

Reduction in performance

High pre-natal mortality

1. **List any four signs of heat in cattle (2mks)**

Mounting on others and standing still when mounted

Slight rise in body temperature

Drop in milk yield

Swelling and reddening of the vulva

Slimy discharge from the vulva

Mooing frequently

1. **Just before birth, a farmer noticed that the hind legs and the tail of a calf were showing at the vulva.**
2. **What name is given to this type of presentation? (1mk)**

Breech Presentation/ malpresentation

1. **Suggest a precaution the farmer should take under such conditions (1mk)**

Assist the cow by repositioning to normal presentation

Consult or seek the services of a qualified veterinary office

1. **State the common signs of parturition in Sows (2mks)**

Restlessness

Vulva turns red and swells

The udder becomes full with milky fluid

Sow builds a nest

1. **Differentiate between the following Livestock management practices (2mks)**
2. Crutching and Ringing

Crutching is the cutting of wool around the reproductive system of the ewe while ringing is the shearing of wool around the sheath of the ram around the service

1. Flushing steaming-up

Flushing – giving animal high nutritive feed before service while steaming up is the practice of giving an animal extra feed of high nutritive value during the last weeks of gestation.

1. **State four methods of identification in livestock production.( 2mks)**

Branding

Tattooing

Neck strap / chain

Ear tagging

Ear notching

**9. a) Name two types of castration (1mk)**

Open

Closed

**b)Name any two kinds of livestock where a rubber ring can be used for castration (1mk)**

Bull, ram, Buck

**9. Highlight any five general methods of disease control (5mks)**

Proper selection and breeding

Proper housing

Parasite control

Proper disposal of carcass

Imposition of quarantine

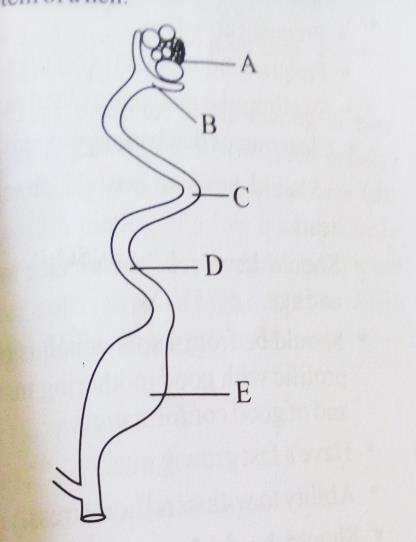
Observing high degree of hygiene

Isolation

Proper feeding and nutrition

Treatment, prophylaxis and vaccination

**10. The diagram below shows the reproductive system of a hen.**



1. **Name the parts labeled B, C , D and E (2mks)**

B-Funnel/ infundibulum

C- Magnum

D- Isthmus

E- Uterus/ shell gland

1. **In which part does fertilization of the ova take place (1mk)**

B

1. **State the roles of C and E in egg formation (2mk)**

C- Addition of thick albumen

E- Addition of the shell and shell pigments and more albumen

**10) State the gestation period for each of the following (2mks)**

**a. Cow**

270-285 days

**b. Sow**

113-117 days

**c. Ewe**

150 days

**d. Rabbit**

28-32 days

**11. state the advantages of using organic mulch in farming( 4mks)**

Reduces loss of moisture

Improves soil fertility after decomposition

Reduces splash erosion

Regulates soil temperature

Improves soil humus

Improves water infiltration

Helps to control pests

Improves soil structure

**12. Give four reasons that would cause swarming of bees (4mks)**

Overcrowding

Sick / infertile queen

Dampness

Lack of adequate ventilation

Shortage of food and water

Outbreak of parasites and diseases

**13. Calculate the amount of K2O that would be contained in 600kg of a compound fertilizer, 30:20:10(N: P2O5: K2O respectively) ( 3mks)**

10kg K2O is contained in 100kg of the fertilizer;

600kg fertilizer=10/100 \*600

=60 Kg K2O

**14. Name two common methods of preserving fish (1mk)**

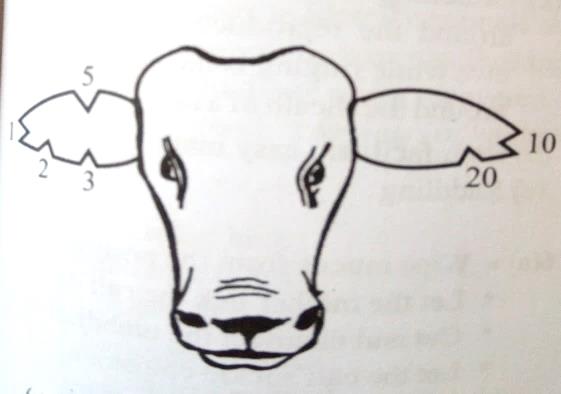
Sun drying

Smoking

Salting

Freezing/ refrigeration

**15. Below is a method of identifying a cow**



**A0 Name the method of identification illustrated above (1mk)**

Ear notching

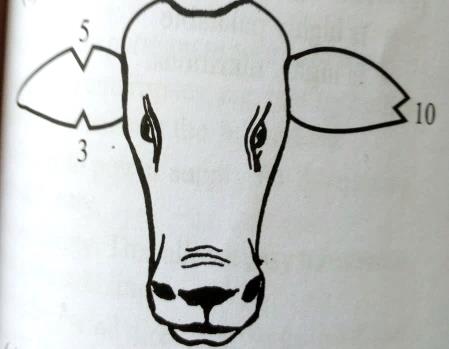
**b. name the tool used to carry out the practice ( 1mk)**

Ear notcher

**c. From the diagram state the number of the animal (1mk)**

41

**d. Using the diagram, illustrate how you would identify an animal number 18**



**e. State any four reasons for carrying out identification of animals. (2mks)**

Allows selection of breeding purposes

Enables culling of low producing animals

Facilitates appropriate treatment of animals

Stolen animals are easily recovered

Enhances good record keeping

Enhance proper feeding

**15.Name four predisposing factors of animal diseases within an animal’s body.( 2mks)**

Age of the animal

Color of the animal

Sex of the animal

Breed of the animal

Presence of wounds

Body conformation

Physiological conditions

**16. Why is the use of manure discouraged in carrot production? (1mk)**

It induces forking of carrots hence reducing the quality of the produce

**17. Name two types of bees kept by the farmers (1mk)**

African bee

European bee