

AGRICULTURE

FORM 3

1. Define the following terms as used in livestock breeding (2mks)

a) Hybrid Vigour (Heterosis)

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

b) Epistasis

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

c) Outbreeding

Mating of animals which are not related

d) Close breeding

Breeding of very closely related animals

2. 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

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

Loss of hybrid vigour

Decline in fertility

Reduction in performance

High pre-natal mortality

4. 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

5. Just before birth, a farmer noticed that the hind legs and the tail of a calf were showing at the vulva.

a) What name is given to this type of presentation? (1mk)

Breech Presentation/ malpresentation

b) 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

6. 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

7. Differentiate between the following Livestock management practices (2mks)

a) 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

b) 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.

8. 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

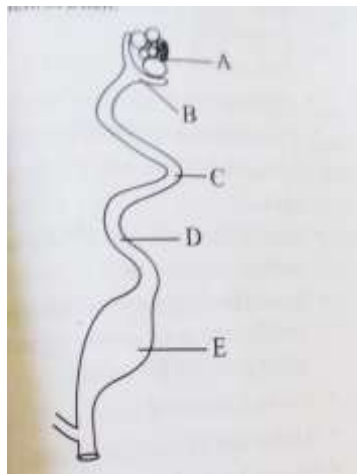
Observing high degree of hygiene

Isolation

Proper feeding and nutrition

Treatment, prophylaxis and vaccination

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



a) Name the parts labeled B, C, D and E (2mks)

B-Funnel/ infundibulum

C- Magnum

D- Isthmus

E- Uterus/ shell gland

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

B

c) 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 K_2O that would be contained in 600kg of a compound fertilizer, 30:20:10(N: P_2O_5 : K_2O respectively) (3mks)

10kg K_2O is contained in 100kg of the fertilizer;

600kg fertilizer = $10/100 \times 600$

=60 Kg K_2O

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

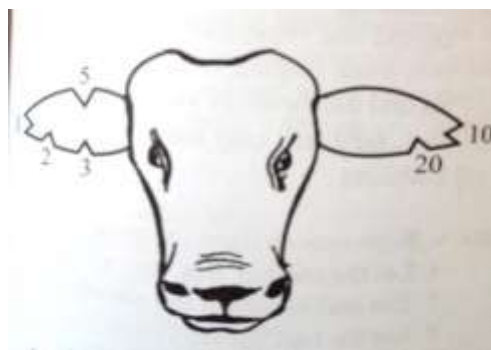
Sun drying

Smoking

Salting

Freezing/ refrigeration

15. Below is a method of identifying a cow



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

Ear notching

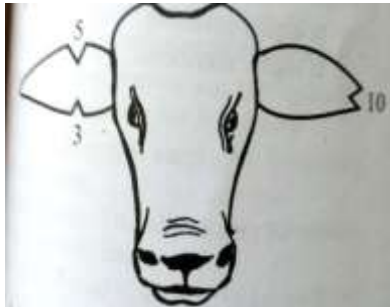
b. name the tool used to carry out the practice (1mk)

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