

## BUKAKA CLUSTER EXAMINATIONS

### 443/2 AGRICULTURE PAPER 2

END OF TERM 1 – 2025

FORM 4

MARKING SCHEME:

#### SECTION A (30 MARKS)

1. Give **four** disadvantages of using thatch when constructing a farm building. (2mks)
  - ✓ **It can easily catch fire.**
  - ✓ **It is not durable.**
  - ✓ **Not locally available in most places.**
  - ✓ **Susceptible to insect damage.**
2. (a) List **four** predisposing factors of livestock disease. (2mks)
  - ✓ **Age of the animal**
  - ✓ **Weather change.**
  - ✓ **Genetic status.**
  - ✓ **Sex.**
  - ✓ **Animal species**
  - ✓ **Physical injuries**
  - ✓ **Poor housing**

(b) Distinguish between **isolation** and **quarantine** in livestock health. (2mks)

**Isolation is the separation of sick animals from the healthy ones while quarantine is restriction of livestock movement and their products.**

(c) Name the intermediate and final host of the tapeworm.

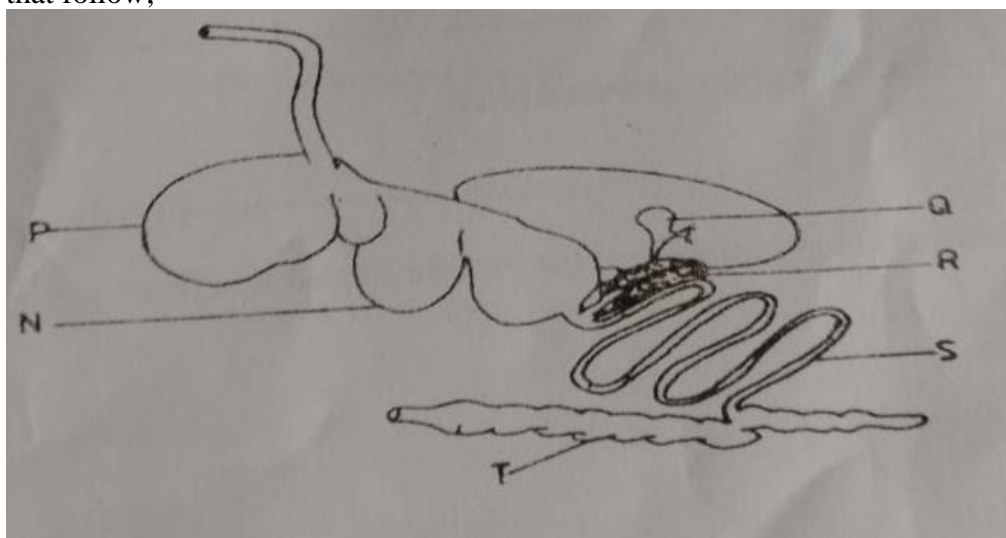
  - i) Intermediate ( ½ mk)  
**goat/sheep**
  - ii) Final (½ mk)  
**human being**
3. State **two** sources of water to livestock body. (1mk)
  - ✓ **Metabolic water**
  - ✓ **Bound water**
  - ✓ **Free water**
4. List **three** tick borne diseases. (1 ½ mks)
  - ✓ **Red water**
  - ✓ **Heart water**
  - ✓ **anaplasmosis**
5. Give **four** uses of protein in an animal's body. (2mks)
  - ✓ **Production of hormones.**
  - ✓ **Protein of body inform of antibodies.**
  - ✓ **Components of livestock products.**
  - ✓ **Growth and repair of worn out body tissue**
6. State **four** observation that are likely to be made during egg candling. (2mks)
  - ✓ **A fertilized egg.**

- ✓ **Presence of hair cracks.**
  - ✓ **Size of the air space.**
  - ✓ **Presence of air space.**
  - ✓ **Meat or blood spots.**
  - ✓ **(rej cracks, double yolk.**
7. State **three** reasons for proper care and maintenance of farm tools and equipment. (1½ mks)
- ✓ **For efficiency.**
  - ✓ **To last long/increase durability.**
  - ✓ **To reduce injury the user.**
  - ✓ **To reduce damage to the tool.**
  - ✓ **To make them work faster.**
  - ✓ **To reduce the cost of replacement.**
8. Give the functional difference between a rip saw and a tenon saw. (1mk)
- ✓ **A rip saw is for cutting along wood grains while tenon saw is for fine sawing.**
9. State **two** sources of carbohydrates for animal use. (1mk)
- ✓ **Molasses.**
  - ✓ **Stem tubers**
  - ✓ **Grass and legume pastures.**
  - ✓ **Root tubers**
  - ✓ **Cereals**
10. List **two** poultry diseases caused by viruses. (1mk)
- ✓ **Fowlpox**
  - ✓ **Newcastle**
  - ✓ **Gumboro**
11. Give the role of the following hormones in milk production. (1mk)
- i) Oxytocin
    - ✓ **Stimulates milk let down**
  - ii) Adrenalin
    - ✓ **Suppresses milk let down**
12. List **two** distinguishing external characteristics of California breed of rabbit. (1mk)
- ✓ **White body with a black nose, ears, tail and paws.**
13. What is dry matter as used in livestock nutrition. (1mk)
- ✓ **Proportion of all food material in a feed less water.**
14. (a) Differentiate between a roughage and a concentrate feed in animal nutrition. (1mk)
- ✓ **A roughage is a feed with high fibre content, less energy/protein content while concentrate has high energy, high protein content and low fire content.**
- (b) State **four** desirable qualities of a good livestock ration. (2mks)
- ✓ **Digestible**
  - ✓ **Enough**
  - ✓ **Palatable**
  - ✓ **Free from disease causing organism and foreign material.**
15. Name **three** types of poultry rearing systems. (1 ½ mks)
- ✓ **Free range/extensive**
  - ✓ **Fold/ark/semi intensive**

- ✓ **Intensive**
16. Give **two** importance of hoof trimming as a management practice in livestock rearing. (1mk)
- ✓ **Control foot rot**
  - ✓ **Enables proper walking**
  - ✓ **Ease mounting during mating**
17. List **four** harmful effect of external parasites in livestock. (2mks)
- ✓ **Anaemia/pale skin**
  - ✓ **Irritation**
  - ✓ **Presence of wounds on the skin.**
  - ✓ **Retarded growth (rej. Stunted growth)**
18. Name **three** dairy goats kept in Kenya. (1 ½ mks)
- ✓ **Saanen**
  - ✓ **Torgenberg**
  - ✓ **Anglo-nubian**
  - ✓ **German/british alpine**
  - ✓ **Jamnapari**
19. Give **three** structural requirements for a good grain store. (1 ½ mks)
- ✓ **Ventilated**
  - ✓ **Raised**
  - ✓ **Leak proof**
  - ✓ **Easy to load and of load**

**SECTION B: (20 MARKS) -Answer all the questions in this section in the spaces provided:**

20. The diagram below shows the digestive system. Study it and answer the questions that follow;



- a) Name the parts labelled N and P. (2mks)

N- **Rumen**

P – **Omasum**

- b) State **one** function of the part labeled S. (1mk)

- ✓ **Secretion of enzymes to complete digestion.**
- ✓ **Absorption of end products of digestion.**

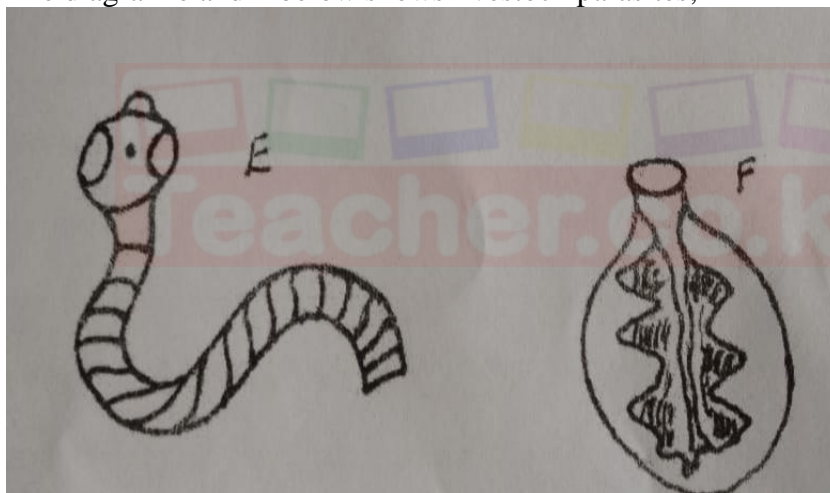
- c) Give **one** enzyme produced by each of the parts labeled R and S. (½ mk)

- ✓ **Pancreatic amylase, lipase**
- ✓ **Sucrase, peptidase**

- d) Name the type of livestock that have such a digestive system. (½ mk)

- ✓ **Ruminants**

21. The diagram e and F below shows livestock parasites;



- a) Identify parasite labeled F (1mk)

- ✓ **Liver fluke**

- b) Name the organ in which each parasite is commonly found. (2mks)

- ✓ **Intestines**
- ✓ **Liver**

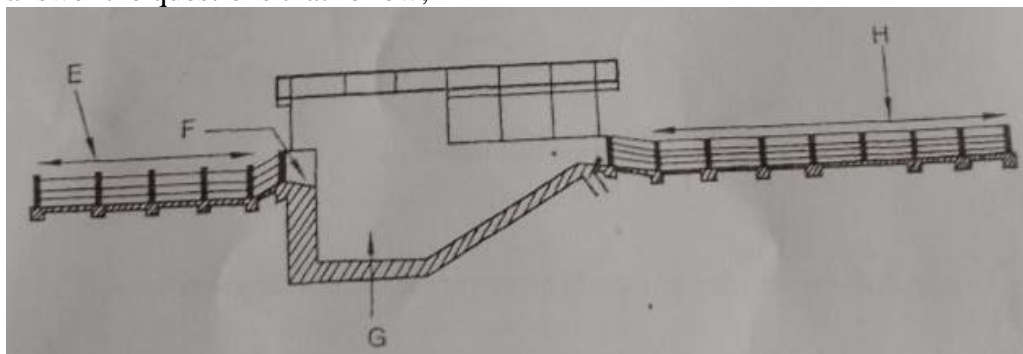
- c) Name the intermediate host of the parasite labeled F (1mk)

- ✓ **Mud/water snail**

- d) Give a non-chemical control measure of the parasite labeled F in livestock production. (1mk)

- ✓ **Draining swampy areas.**
- ✓ **Killing mud snails physically**
- ✓ **Fencing off marshy areas.**
- ✓ **Burning infected pastures during the dry seasons**

22. (a) The following farm structure is used in livestock management practice. Use it to answer the questions that follow;



- a) Identify the structure (1mk)

✓ **Plunge dip**

- b) Label the parts named E to H. (2mks)

E - **Footbath**

F- **jump**

G- **dip tank**

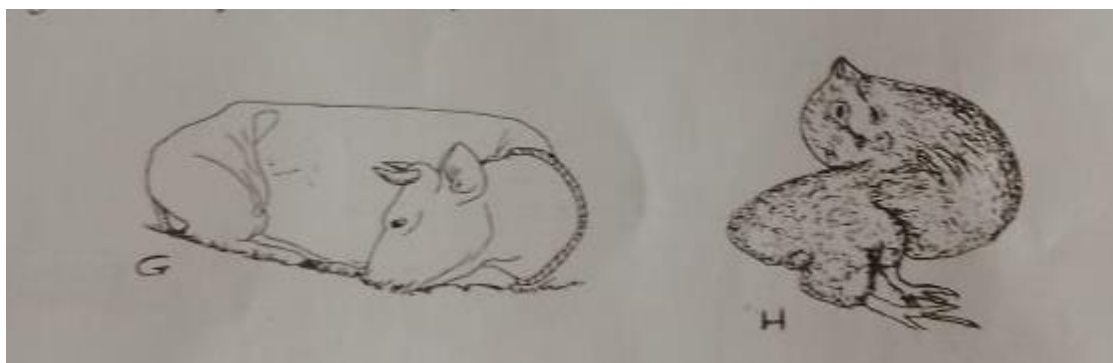
H- **draining race**

- c) What is the use of the parts labeled E and H. (1mk)

E- **Clean the hooves.**

H- **Drain the excess acaricide back to the dip tank.**

23. The following diagrams show animals with deficiency symptoms of some minerals. Study the diagrams carefully and answer the questions that follow;



- a) State the nutrients deficient in the diet of each animal shown above. (2mks)

G - **Calcium**

H - **Manganese**

- b) Name the disorder whose symptoms are shown by the animal labeled G above. (1mk)  
 ✓ **Milk fever/Parturient paresis**
- c) Other than the diseases named in (b) above give other nutritional disorders. (2mks)  
 ✓ **Goitre**  
 ✓ **Paraketosis**  
 ✓ **Sway back**  
 ✓ **Grass tetany**  
 ✓ **Anaemia**

**SECTION c (40 MARKS): -**

**Answer any TWO questions in the spaces provided after questions 26.**

24. (a) Give **three** reasons why natural method of calf rearing is not common in dairy production. (5mks)  
 ✓ **It is easy to keep accurate records.**  
 ✓ **Easy to regulate the amount of milk taken by the calf.**  
 ✓ **Cows continue to produce milk even in absence of the calf.**  
 ✓ **It is easy to maintain high standards of hygiene.**  
 ✓ **Surplus milk is sold making more profits.**
- (b) Mention **five** causes of stress in poultry. (5mks)  
 ✓ **Sudden change in weather condition.**  
 ✓ **Excessive handling of birds.**  
 ✓ **Introduction of new bird to the flock.**  
 ✓ **Overcrowding.**  
 ✓ **Poor feeding practices.**  
 ✓ **Attack by parasites.**  
 ✓ **Inadequate feeds and water.**
- (c) Give importance of keeping livestock healthy. (5mks)  
 ✓ **To produce high quality products**  
 ✓ **Increase production life.**  
 ✓ **Reduce medication cost.**  
 ✓ **To promote high production.**  
 ✓ **To enhance fast growth.**  
 ✓ **For healthy and strong young ones to be produced.**  
 ✓ **Prevent transmission of diseases.**
- (d) Give **four** signs of parturition in cow. (5mks)  
 ✓ **Restlessness**  
 ✓ **Distended udder.**  
 ✓ **Protruding pelvic bones.**  
 ✓ **Swollen vulva.**  
 ✓ **Thick mucus discharge from the vulva.**  
 ✓ **Appearance of water bag.**  
 ✓ **Isolation from the others.**

25. (a) Explain **five** causes of livestock disease. (5mks)
- ✓ **Physical causes** – open skin subjects an animal to secondary infection.
  - ✓ **Nutritional causes** – chemical containing poisons when swallowed by animals may cause metabolic disorders.
  - ✓ **Pathogenic causes** – they cause disease by invading the tissues of an animal.
  - ✓ **Nature and amount of food eaten by animal** – lush leguminous pastures when eaten in excess by ruminants may cause bloat.
- (b) State **five** methods of controlling egg eating in flock of layers. (5mks)
- ✓ **Provide dim light in laying nests.**
  - ✓ **Scatter grains on the floor or hung greens to make them busy.**
  - ✓ **Provide enough netting boxes.**
  - ✓ **Regular collection of eggs.**
  - ✓ **Provide a balanced diet rich in calcium.**
  - ✓ **Debeak perpetual egg eaters.**
- (c) Give reasons why indigenous cattle are well adapted to arid areas. (5mks)
- ✓ **Resistance to tropical diseases and parasites.**
  - ✓ **Tolerant to high temperatures.**
  - ✓ **Have a hump that stores fat that is oxidized to release energy and water.**
- (d) State the factors that affect milk composition (5mks)
- ✓ **Breed**
  - ✓ **Age**
  - ✓ **Nutrition/feed eaten by animals**
  - ✓ **Time of milking.**
  - ✓ **Season of the year.**
  - ✓ **Stage of the year.**
  - ✓ **Stage of lactation and Gestation.**
26. (a) Describe the structural qualities of good calf pen. (8mks)
- ✓ **Well ventilated** – for free air circulation.
  - ✓ **Free from draught** – to prevent wind that might predispose it to pneumonia.
  - ✓ **Wee lit** – to allow light to get into the pen for synthesis of vitamin D.
  - ✓ **Properly drained** – prevent dampness in the pen.
  - ✓ **Spacious** – to allow for exercise.
  - ✓ **Should be enough for single calf** – to prevent licking each other that might lead to formation of hair balls in the rumen.
- (b) Explain the essential of clean milk production. (12mks)
- ✓ **Avoid strange flavours to avoid tainting the milk.**
  - ✓ **Clean milk shed to prevent harboring disease causing organism.**
  - ✓ **Clean milking cows to prevent contamination of zoonotic diseases.**
  - ✓ **Healthy herd to prevent transmission of zoonotic diseases.**
  - ✓ **Milking utensil and equipment's should be clean to prevent contamination of milk.**
  - ✓ **Clean milkman to prevent spread of contagious diseases.**
  - ✓ **Filtration to remove contamination by foreign materials.**
  - ✓ **Cooling to slow down bacterial multiplication.**
  - ✓ **Proper storage to prevent contamination from dusts**

(6x2 marks)

