AGRICULTURE
FORM TWO
END OF YEAR 2025 EXAM (OCTOBER)
MARKING SCHEME

1. State four characteristics of roughage livestock feeds (4mks)

High fibre content

High carbohydrate content

Low protein content

Low in feed value

2. State four signs of infestations by external parasites in goats (4mks)

Presence of sores /wound on the skin

Irritation/scratching on the skin

Loss of hair

Anaemia

Presence of various development stages of the parasite on the animal

3. State four control measures of beef tape worm (4mks)

Use of prophylactic drug eg anti helminthes

Keep animal houses clean and disinfected

Practice rotational grazing and rest pasture to starve larvae to death

Keep the feeding and watering equipment clean

Use of latrine by farm workers

Proper cooking of meat

4. State two functions of the crop in the digestive system (2mks)

Store food temporarily

Moisten food with water

5. A) Define the term health in livestock (1mk)

A state of which all the body organs or parts and systems are considered normal and are functioning normally

b) State four psychological parameters that can be used as indicators of ill health in livestock (2mks)

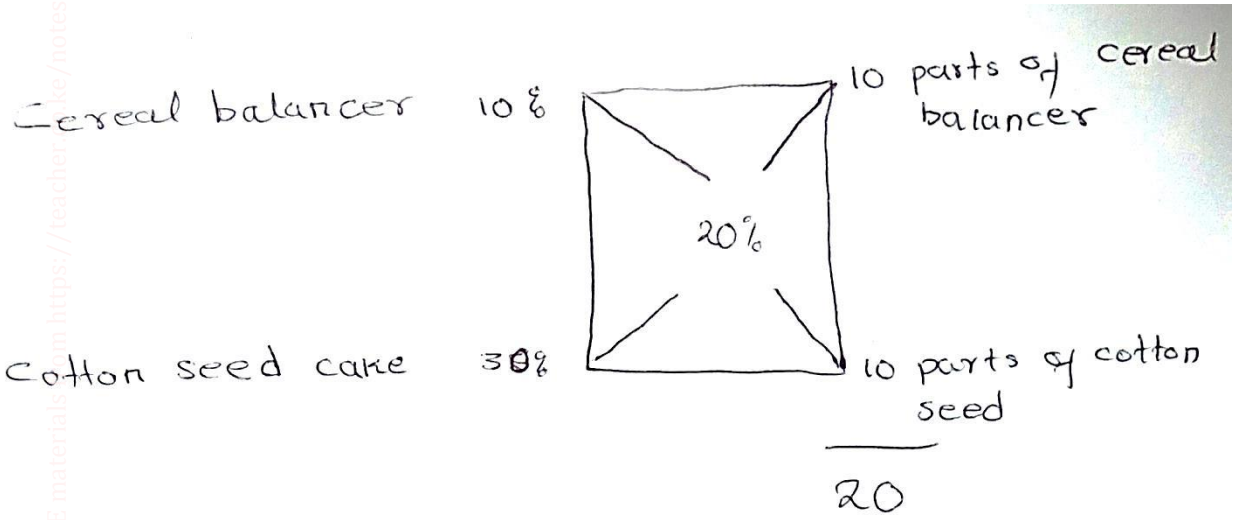
Abnormal pulse rates

Abnormal breathing rates

Abnormal body temperature

Abnormal frequency of urination

6. Prepare a 100 Kg of pig ration containing 20% D.C.P using cereal balancer 10% D.C.P and cotton seeds cake 30% D.C.P show your working (4mks)



Cereal balancer = $\frac{10}{20} \times 100 = 50kg$

Cotton seed cake = $\frac{10}{20} \times 100 = 50kg$

7. State four qualities of an ideal grain store (2mks)

Leak proof

Rodent/vermin proof

Well ventilated

Easy to load and off load

Well secured to minimize theft

Easy to clean

Pest proof

8. State four factors considered in timing planting (2mks)

The rainfall pattern

Type of crop to be planted

Soil type

Market demand

Prevalence of pests and diseases

Weed control

9. State four factors that determine the harvesting stage of a crop (2mks)

Purpose/use of the crop

Market demand

Concentration of the required chemicals

Weather conditions

Prevailing market prices and profit margins

10. What are infectious diseases in livestock? (1mk)

Diseases that can spread from one animal to another

B) Name two causes of infectious diseases in livestock (1mk)

Virus

Bacteria

Protozoa

c) define the term quarantine (1mk)

is the restriction of movement animals and their products from and into the affected areas in the events of an outbreak of a notifiable disease

11. State four factors considered when selecting site for tomato nursery bed (4mks)

Nearness to the source of water

Type of soil

Topography

Previous cropping

Security

Well sheltered place

12. Give two types of labour records (2mks)

Master roll

Labour utilization analysis

13. Define agricultural economics

It is an applied science carried out on maximizing the output and minimizing the cost of production by using scarce resources available

14. State two major methods of carrying out soil sampling (2mks)

Zigzag method

Traverse method

15. State three physical features of a good dairy cow (3mks)

Straight topline

Are wedged to triangular in shape

Have a large stomach

Have prominent milk veins

16. Name two practices carried out during hardening off in seedlings (2mks)

Reducing the rate of watering

Reducing shading

17. Differentiate between grafting and layering (2mks)

Grafting-involves joining of two separate woody stems

Layering-involves rooting parts of the plant

18. State the functions of the following components in a compost heap (4mks)

Ash –improves the level of potassium and phosphorous to raise the soil PH

Garden manure –introduces micro organisms necessary for decomposition of organic matter

Organic manure – provides nutrients to micro organisms

Stick –feeling temperature within the heap

19. List four sites on which a vegetable nursery can be established on the farm (2mks)

Near source of water

Topography

Previous cropping

Security

Well sheltered place

20. A) what is crop rotation (1mk)

Growing of different types of crops on the same piece of land following a definite sequence

B) state three advantages of crop rotation (3mks)

Improves soil structure where grass leys are included in the rotation

Maximum utilization of plant nutrients

Control of crop pests and diseases

Control of weeds

Add nitrogen into the soil where legumes are included in the rotation

Helps control soil erosion where cover crops are included in the rotation

c) state three factors that should be considered when designing a crop rotation programme (3mks)
deep rooted crops alterenated with shallow rooted crops
heavy feeders come first in newly opened land
crops of the same family should not follow each other
fallow/grass ley should be included to give land rest
legume crops to be included for nitrogen fixation
crops difficult to weed alternated with those that are easy to weed

21. Calculate the amount of K20 contained in 400kgs of a compound fertilizer 25:10:5 (2mks)

5kgs of K20 is contained in 100kgs of 25:10:5 therefore 400kgs of fertilizer contains

22. State three methods of breaking dormancy in some crops before planting (3mks)

Soaking in cold or hot water

Physical breaking of the seed coat

Chemical treatment

Heat treatment/light burning

Removal of mucilage /washing

Storage for a given period of time

23. a. Name two species of tapeworms common in livestock (1mk)

Taenia solium (pork tapeworm)

Taenia sainata (beef tapeworm)

b. what is an intermediate host (1mk)

A host other than the main host through which a parasite must pass to complete its life cycle

24. state the two major methods of carrying out soil sampling (1mk)

zigzag method

transverse /diagonal method

25. state the four physical features of a good dairy cow (4mks)

are wedged to triangular in shape

Have a straight top line

Have a large stomach

Have prominent milk veins

Docile with a mild temperament

Have lean bodies

Well developed udder with four well-set teats

26. Name the conditions that should be met by a good root stock (4mks)

Free from pests and diseases

Adapt to a wide range of soil PH

Resistant to viral diseases

Compatible with the soil

Resistant to a diverse soil characteristics

27. Name three liming elements in crop production (3mks)

Calcium

Sulphur

Magnesium

28. What is chitting (1mk)

It is the sprouting of selected irish potato tubers (setts) before planting by keeping them in partially darkened rooms

29. Explain how the following methods can contribute to loss of soil fertility (3mks)

a. Continuous cropping

The soil is not given resting period hence it becomes exhausted

b. Change in the PH of the soil

Decomposition of organic matter may be affected since a given type of micro-organism thrives best within a narrow range of pit

c. Leaching

Nutrients will be moved below the root zone

30. Illustrated below is a method of farming compost. study the method and answer the questions that follows

a. Identify the method

Four heap system

b. Using arrows in the diagram show how the furning is done before manure can be taken to the field (2mks)

c. After about how long should the compost be ready for use (1mk)

Three months

31. A. Name the two categories of vitamins (2mks)

Fat soluble vitamins

Water soluble vitamins

b. explain the following terms as used in expressing feed values (3mks)

I. Dry matter (DM) – **The proportion of all food materials in a feed less water**

II. Digestible crude proteins –**the proportion of proteins in a feed that availed to the body tissues after digestion**

III. Digestibility - **the proportion of food retained in the animals body in relation to the total food intakes**

32. A.State the functions of the following parts in a poultry digestive system (2mks)

Crop –**temporary storage of food**

Softening of food with water

Ventriculus-**crushing and grinding food**

b. What features of the ventriculus enable it crush and grind food (2mks)

Presence of tough muscles that grid against one another

Presence of sand particles (grit)

C. Explain why poultry manure would be best to use for crop production (1mk)

Due to the presence of solid uric acid which is rich in nitrogen

33. State four factors that would determine the amount of water an animal can take (2mk)

Animal species

Environmental temperature

Body size

Level of production

Age of the animal

Animal breed

Health of the animal

Type of food eaten

34. State four factors that would determine the amount of concentrate to a dairy cow (2mks)

Level of production

Health status

Availability of concentrate

Cost of the concentrate