

# LAIKIPIA EAST TERM 2 2022 FORM 4 EVALUATION EXAM

*Kenya Certificate of Secondary Education – K.C.S.E*

## **PAPER 2**

1. Rabies

Anthrax

Brucellosis

Tuberculosis

(½ x2 marks)

2. subject to damages by

Fire

Insects

Weather elements

Lacks durability

Not easily available

(½ x2 marks)

3. easy to keep accurate records of milk yield

Cow continues to produce milk even in the absence of the cow

Easy to maintain the standards

Likelihood of the farmer to sell more milk

The calf survives even with the death of the cow

(½ x2 marks)

4. digestion of cellulose

Absorbs water

Absorbs products of microbial digestion

(½ x1 mark)

5. lamb

Kindling

Cow

Nanny

(½ x2 marks)

6. Boils/raptures

Presence of parasites on the skin

Starring coat/dry hair

Excessive sweating  
Loss of hair  
Abnormal growths  
Swellings on the skin

(½ x2 marks)

7. Romney mash  
Corriadale

½ x2 marks

8. i) Addition of thick albumen  
ii) Addition of shell membranes  
Water, mineral salts and vitamins

1x1 marks

9. For selection and breeding  
Disease control and treatment  
Feeding  
For record keeping  
For culling

(½ x2 marks)

10. Wet faecal matter  
Crowding near heat source  
Cuddling  
Dullness

(½ x2 marks)

11. lack of vitamin B 2  
Calcium

½ x 1 marks

12. many birders can be kept in a small area  
Fast accumulation of manure  
Low labour requirements  
Used in rearing breeding stock  
Birds are safe from the predators  
No egg loss

(½ x2 marks)

13. Cross breeding is mating of animals of different breeds while out crossing is mating animals of the same breed but not related.

(Mark as a whole)

14. chemical composition of the feed

Form in which feed is offered to the animals

spp of the animal

Ratio of energy to proteins

Quantity of feed already present in the digestive system of an animal

(½ x2 marks)

15. increase durability

Prevent injury to the user

Increase efficiency

Reduce replacement cost

(½ x2 marks)

16. cloaca

Eyes

Nose

Injection

Orally

(½ x2 marks)

17. yellow shanks and beaks

Shiny glossy plumage

Dull shrunken wattles and combs

Often moulting

Dull eyes

Less active

Round less active vent

Pelvic bone can accommodate only 1 finger

Hard less pliable abdomen

(½ x2 marks)

## **A**

18. i) disc harrow

ii) E Main beam

F Notched disc

iii) Store under a shade when not in use

Paint for long storage Replace  
broken parts Tighten loose nuts  
and bolts

Clean after use

Oil the moving parts

19. **E.** foot bath

**F** jump

**G** dip tank

**F** - Removing the mud

Control foot rot and other diseases

**D** - Holds the dip wash and facilitates complete immersion

21. i. Egg candling

### **Reasons for candling**

- ✓ Cracks
- ✓ Unfertilized eggs
- ✓ Double yolks
- ✓ Meat spots
- ✓ Blood spots
- ✓ Lack of air space

iii. Check fertility of the eggs

b) Check the presence of the embryo

**K** Liver fluke

**J** Tape worm

**J** Small intestines/ muscles of pigs / cattle

**K** Liver

- d) Burning infested pastures
- ✓ Routine drenching
  - ✓ Avoid grazing animals in marshy areas
  - ✓ Drain swampy areas
  - ✓ Killing the snails physically
  - ✓ use of molluscicides to control snails
  - ✓ use of traps to control snails

## **22. COCCIDIOSIS**

**Causal organism:** coccidia of Eimeria spp (1 mark)

**Animals attacked:** poultry, young rabbits, kids, combs (2 marks)

### **Symptoms (3 marks)**

- ✓ Diarrhea
- ✓ Dysentery/ blood in the dung
- ✓ Animals become emaciated
- ✓ Ruffled feathers
- ✓ Dullness
- ✓ Drooping wings
- ✓ Sudden death

### **Control (4 marks)**

Use of coccidiostats

Isolation

Avoid wet, filthy surroundings

Avoid common watering points

Avoid overcrowding on poultry houses

### **ESSENTIALS FOR CLEAN MILK PRODUCTION**

- ✓ healthy milking herd free from diseases that can be transmitted to man and other animals
- ✓ clean milking cows whose udder is washed and dried thoroughly before Milking
- ✓ milkman should be free from communicable diseases , fingernails should be short and the head should be covered
- ✓ cleaning milk par lour after milking and having proper drainage will avoid bad odour
- ✓ cleaning the milking utensils and disinfecting them to avoid contamination
- ✓ avoid feeds that will taint milk before milking, avoiding direct sunlight and utensils with traces of iron and copper

(5 x2 marks)

### **23. ADVANTAGES OF ARTIFICIAL INSEMINATION**

- ✓ Control breeding diseases
- ✓ Control breeding
- ✓ A useful research tool
- ✓ Prevent injury by heavy bulls
- ✓ Semen is not wasted
- ✓ Reduces the expenses of keeping a bull
- ✓ Semen can be kept for a long time
- ✓ Eliminates dangerous bulls
- ✓ easy to transport

(1x 5 ma rks)

### **b) FACTORS TO CONSIDER WHEN SITING FARM STRUCTURES**

- ✓ Homestead should be located where it would be possible to have a good view of the farm
- ✓ Located where it's easy to reach from all parts

- ✓ Structures should be secure from predator's thieves and trespasser
- ✓ The area should have good drainage from damp conditions
- ✓ Structures with foul smell should be sited on the lee ward side of the homestead
- ✓ Structures that are related should be sited close to each other
- ✓ Farmers taste and preference should be considered
- ✓ Structures should be sited near to the social amenities
- ✓ The area should have a gentle slope to avoid flooding.

(1x6)

### **c) CAUSES OF STRESS**

- ✓ Sudden change in feeding
- ✓ Presence of strangers and predators
- ✓ Handling birds during routine management practices
- ✓ Sudden noise
- ✓ Sudden change in weather
- ✓ Disease and parasite infection
- ✓ Lack of food and water

(1x5  
marks)

#### **d) MICROBIAL ACTIVITIES IN THE RUMEN**

- Fermentation of food
  - Synthesis of vitamin b complex
  - Synthesis of amino acids from ammonia gas
  - Breakdown of proteins into peptides amino acids and ammonia
  - breakdown of carbohydrate and cellulose carbon iv oxide and volatile fatty acids
- 1 x4mks

#### **24. FOUR STROKE CYCLE ENGINE**

##### **Induction/intak**

**e** Piston moves  
downwards Intake  
valve is opened  
Air fuel mixture gets in/ air

##### **Compression**

**stroke** Piston  
moves upwards  
Both valves are  
closed  
Air fuel mixture/ air is compressed

##### **Power stroke**

Both valves still closed  
Piston moves  
downwards Ignition of  
the air fuel mixture

##### **Exhaust stroke**

Exhaust valve opens while inlet is closed  
Piston moves upwards  
Exhaust gases are eliminated

1 mark for the stroke



1 mark for piston movement

1 mark for the major event

**b) LIFE CYCLE OF A THREE HOST TICK**

- ✓ Egg hatches on the ground larvae emerges
- ✓ Emerging larvae attach to the first host
- ✓ Feed and becomes engorged
- ✓ Drops to the ground and moults to nymph
- ✓ Nymph climbs on the second host feed on blood becomes engorged
- ✓ Drops to the ground and moults into the adult
- ✓ Adult find 3<sup>rd</sup> host climbs feed on blood becomes engorged
- ✓ Mate and falls to the ground to lay eggs

(1 x 8 marks)

**c) FACTORS DETERMINING QUALITY OF HONEY**

- ✓ Types of plants from which nectar was obtained
- ✓ Maturity stage of honey at the time of harvesting
- ✓ Method of processing honey
- ✓ Method of harvesting

(1X3 marks)