SAMIA SUB COUNTY JOINT EXAMINATION

443/2MARKING SCHEME

AGRICULTURE PP2 2021

SECTION A

1. **Reasons for docking in sheep**
   - Facilitate easy mating
   - Control accumulation of faeces which attract blow flies.
   - For uniform distribution of fats.
   - To achieve uniformity in appearance

(1/2 x2= 1mk)

2. **Qualities of a good calf pen**.
   - Easy to clean
   - should be dry and warm.
   - Have good ventilation and not affected by draught.
   - Should house one calf.
   - Should be spacious
   - Have good drainage
   - Have feed and water troughs.

   (1/2x4=2mks)

3. **Outline four characteristics of the Romney marsh sheep breed**
   - Wide head with poll covered with wool
   - It has a straight back
   - It has black hooves
   - It has short legs

   (1 x2=2mks)

4. **(a) Disadvantages of using metals frames for construction**;
   - It is heavy to transport
   - It is expensive.
   - Requires skill to construct/fit.

   (1/2 x4=2mks)

   (b) **Reasons for seasoning timber**

- to prevent insect damage.

- to avoid fungal infestation and rotting.

- to prevent warping

- make it easy to work on.

- to improve its durability

(1/2 x3=1 ½)

5. **Reasons for swarming of bees**
   - Shortages of food and water.
   - Due to outbreak of diseases and parasites.
   - Death of queen.
   - Unfavorablesmell/bad or ad our smell.
   - Too much noise.
   - Death of brood.

   (½ x2 =1mk)
6. **Methods used to preserve fish**
   - Salting
   - Sun-drying
   - Smoking
   - Freezing

   (1/2 x 4)=2mks)
7. a) **A notifiable disease** an infectious disease which once noticed must be reported to the authorities/government authorities for the purpose of taking action. (1mk)

   (b) Examples of notifiable diseases
   - Foot and mouth disease
   - Rinder pest
   - Anthrax
   - Rift valley fever
   - New Castle
   - Avianflue in poultry
   - Rabies

   (1/2 x3 = 1 ½ mks)

8. **name two major physical differences between Bactrian and dromedary breeds of camel**

   -Bactrian has two humps while dromedary has single hump

Bactrian has long hair while dromedary has short hair (2x ½=1mk)

9. **State two characteristics of heavy poultry breeds**
   - Heavy in weight
   - Fast growing
   - Lay fewer eggs
   - Become broody faster

   (2x0.5mk=1mk
10. **List two maintenance practices of a wood chisel**
   - Sharpening the cutting edge when blunt
   - Replacing the broken handle

   (2x0.5mk=1mk)

11. **State four ways of controlling tsetse flies**

(i) bush clearing to control breeding places
(ii) spraying their hiding places with suitable insecticides
(iii) use of flytraps with impregnated nets
(iv) use of sterilizing agents for example, radio isotopes on male flies
(4x 0.5mk = 2mks)

12.chacteristics of livestock roughage feedstuff

– High fibre content
- High moisture content
- Low protein content
- High carbohydrate content
(4x 0.5mk= 2mks)

13. Equipment used in handling cattle during agricultural exhibition

(i) Halter
(ii) Bull ring and land stick

14. State the gestation period of the livestock animals given below

Rabbit -28-32 days
Goat – 143-153 days
(2x½ = 1mk)

15. state four disadvantages of natural mating

(a) inbreeding is very difficult to be controlled
(b) transmission of breeding diseases for example brucellosis
(c) males animals used in breeding require extra feed
(d) large males animals may injure small female animals
(e) a lot of semen is wasted
(f) it is expensive and cumbersome to transport bull
(any four correct x0.5mk = 2mks)

16. Give one egg content added to it at magnum during egg formation
-Albumen (1x1 = 1mk)

17. (i) control of external parasites
(ii) Supply of balance feeds to the chicken
(iii) Regular collection of eggs
(iv) Avoiding overcrowding of chicken
(4x 0.5mk = 2mks)

18. (a) -used for cooking
-used lighting
-internal combustion of engine

(b) – provides power to light jobs
- Its effectiveness depends on speed and size of wind mill
- Its unreliable in terms of directions strength and availability

19. (a) (i) artificial egg incubator
(ii) C – thermometer
D – Warm water
E- Damp cloth
(iii) C- checking the temperature
D- maintains the humidity
E – assists in maintaining the relative humidity
(3x1mk each = 3mks)
(b)(i)**J** – uterine wall
F – cervix
H – fallopian tube/oviduct
(3x0.5 =1.5mks)
(ii) J – where implantation of the zygote occurs
H – fertilization takes place there.

(1x2=2mks)

(iii) - oestrogen
-progesterone
-oxytocin
-prolactin

(3x1 =3mks)

20. (a) (i) **V**

(ii) – uses the lower pick to pick food anddrink water
-1/3 of the upper beak is cut

(b) -Debeaker
- Scissor
- Hot iron blade

21. (a) cross breeding

(b) -to develop a dual purpose breed
- improve hybrid vigour/heterosis

(c)- to improve the production of meat
-To increase milk yield

22. (a)ouline ten differences between a tractor drawn mouldboard plough and an ox-drawn mouldboard plough(1x10=10mks)

– tractor drawn plough are expensive to buy while ox-drawn plough are cheap to buy
- tractor drawn plough can be used on hard soils while ox-drawn plough can only be used on soft soils
- tractor drawn plough are heavy hence require more power to pull while ox-drawn plough are light hence require less power to pull
- tractor drawn plough is expensive to maintain while ox-drawn plough are cheaper to maintain
- tractor drawn plough can only be used for few operations while ox-drawn plough can be used for more operations such as weed control and ploughing
- tractor drawn plough require high technical know how to operate while ox-drawn plough require low technical know how to operate.
- tractor drawn plough is operated by one person while ox-drawn plough is operated by more than one person
- tractor drawn plough is faster and works on a bigger area per given time while ox-drawn is slower and works on a small area per given time.
- tractor drawn plough can only be used on a flat or gently sloppy land while ox-drawn plough can be used on steep slope
-tractor drawn plough ploughs the land deeply while ox-drawn plough ploughs the land

shallowly

(b) **describe management of growers to a point of lay**(1x10=10mks)

-provide the birds with adequate floor space
-provide them with adequate feeders and waterers
-provide enough roosts for perching
-provide them with oyster shells as a source of calcium
-provide them with clean water all the time
-scatter the grains on the floor to keep the birds busy
-hang green leaves in the house to keep them busy and provide them with vitamins
-feed the birds with growers mash up to the 16th week
-gradually introduce layers mash from the 16th week
-carry out vaccination against fowl typhoid and Newcastle
-control internal parasites
-dust to control external parasites
-change the litter regularly

23 (a) (i) Factors considered in siting the farm structure

- availability of water
- drainage of the area/ slope of the land
- central location/ accessibility
- firm ground
- type of soil (1x3 = 3mks)

(ii)Foot bath– To wash the feet of the animal

- to control the foot rot

Entrance race – it allows the animals to enter the dip tank

Roof - it prevents the rain water from diluting the acaricides solution

-it prevents the sun rays from reaching the acaricides solution causing evaporation**Drainage race**- it allows the dip wash from the animals body to drip off and drains back to the dip tank

Jump – it allows the animals to jump singly into the dip tank

Dip tank – it contains the acaricides solution where the animals are immersed to control the external parasites

Exit step – it allows the animals to come out of the dip wash slowly

(each part x 1mk each = 7mks)

(b)-clear the fence line

-measure and mark the points on the fence line where holes are to be dug determining the positions of the gates

-dig holes to a depth of 60cm for the main fence and 75-90cm for the corner and the gates posts

-place treated posts in the holes in the upright position

-mix concrete of 1:3:5 ratio and place it in the hole.

-put soil and stones in the holes

-ram to make the pole firm at the base

-stretching the wire using the wire strainer

-nail the barbed wire onto the posts with fencing staples

-fix the lower strand of wire first, and use it as a guide to fix the next strands up to the required number**(mark procedurally, 1 mk for each step correctly written)**

24 (a) (i) – the level of production

-the health status of the animal

-the age of the animal

-the type of feed content eg protein or energy giving feeds

(3x1mk= 3mks)

(ii) (a) healthy milking herd- prevents spread of diseases to other animals or herdsman

(b) clean milking cows- to prevent contamination of milk with dirt

(c) healthy and clean milkman- to prevent contamination of milk

(d) clean milking shed- to prevent contamination of milk by dirt

(e)clean milking utensils- for high quality milk

(f)milk filtration, cooling and storage- to get rid of dirt and for longer keeping quality

(g)avoid flavours in milk- for high quality milk

(0.5 mk for stating and 0.5mk for explanation= 7mks)

(b) digestion of grass in the rumen

- Grass(coarse grass) is stored temporary in the rumen
-Coarse grass is regurgitated from the rumen for further chewing in the mouth
- Saliva that mixes with the feed creates alkaline/medium suitable for micro-organisms
- Feed undergoes microbial fermentation
- Carbohdrates are broken down into volatile fatty acids (VFAs) which include Acetic, butyric and propionic acids
- Gases like methane, CO_2 and H_2 are released
-Proteins are broken down to amino acids/peptides and ammonia gas is released.
- Amino acids/non essential amino acids are synthesised from ammonia gas and other non-protein nitrogen by micro-organisms
- Synthesis of vitamin B complex and vitamin K by micro-organisms
- Volatile fatty acids are absorbed through the rumen wall into the bloodstream
-Gases are expelled through belching

(Each x1 = 10mks)