2018
443/2
AGRICULTURE
PAPER 2
MARKING SCHEME

1 drenching,
Mastitis control,
Injection
Inspection' of certain signs of diseases and external parasites 4 x ½ =2 mrks

2 Propeller shaft
Powers take off (PTO)
Hydraulic system
Draw bar 4 x ½ =2 mrks

3 -type of flowers
-Method of harvesting
-Maturity stage at harvesting
-Method of processing
4 x ½ =2 mrks

4 - It leads to loss of blood
-The would may serve as entry of pathogens
-The animals experiences a lot of pain 2 x ½ =1 mrk

5 connects /disconnects he drive shaft to or from the engine respectively
Enables tractor drive to take off gradually and smoothly
Transport power from engine to (PTO) SHAFT 2x ½ =1 mrk

6 trial and error method
Pearsons square method 2 x ½ =1 mrk

7 bright in the laying boxes/ nest
Presence of broken or soft shelled eggs
Inadequate laying boxes
Lack of minerals like calcium 2x ½ =1 mrks

8 -highly digestible
-High energy content
-Highly palatable
-High digestible protein
-Rich in minerals like iron calcium 4 x ½ =2 mrks

9 -growth rate / body weight/ size
-Health
-Productivity/litter size/ regular breeders
-Temperament/mother4ing ability
-Age 4 x ½ =2 mrks

-Breed appropriateness
10 -.cut furrow slice vertically separating it fr4om the unploughed land
-Cut trash /vegetation 2 x ½ =1 mrk

11 to avoid transmission of diseases
Lower productivity
Avoid discomfort by parasite through irritation
Avoid anemia
Some causes damage to organs such as liver, skin, and intestine 4 x ½ =2 mrks

12 -overgrown hooves
-Wet/muddy conditions
-Physical injuries of the foot 2 x ½ =1 mrk

13 oxytocin
Adrenarine 2 x ½ =1 mrk

14 clutch
Gear box
Differential
Final drive 4 x ½ =2 mrks

15 fermentation of foot
Synthesis of vitamin B
Act as a temporary store of food
Action of microbial organism of the food 4 x ½ =2 mrks

16 injections
Orally through the mouth
Through eye drops
Through the nose by inhalation
Through cloaca in poultry 4 x ½ =2 mrks

17 they maintain weight gain even in dry season
Feed on variety of shrubs
Adaptable to high temperatures
Have thin hair to reduces heat stress
Walk for long distance s
Feed on low quality grasses
Have small body/low feed requirements 4 x ½ =2 mrks

18—highly digestible
Highly nutritious
High antibodies
Has a laxative effect 4 x ½ =2 mrks

19 collecting nectars/pollen/resin
Feed the queen
Protect the hive
Build combs
Clean the hive
Make honey
Make wax 4 x ½ =2 mrks

20. a)
(i) Kenya Top Bar Hive (K.T.B.H) 1 x 1 =1mrk
(ii) A- Top bars
B- Entrance hole
C- Wire loop 3 x ½ =1 ½ mrks
(iii) Advantages of Kenya Top Bar Hive.
- Easy to inspect the hive for honey.
- Easy to harvest the honey.
- No destruction to the brood during harvesting.
- Easy to construct and repair the hive. 3 x1=3 mrks

21. a) Castration 1mk

b) Improve quality of meat.
– To make bulls docile.
– Improves growth rate. Any 2x1=2mks

c)
– Use of a burddizo.
– Use of a rubber ring 2x ½ = 1mk

22. a)
– Mowers
– Chain saw
– Water pump
1x1=1mk

b) L -piston rod
M- Spark plug
N -Exhaust port 3 mks

23 (i) - Cattle plunge dip /Cattle dip. 1 x 1 =1mrk
(ii) D- Entrance race
E- Foot bash
F- Dip tank / wash
G- Draining race.
H- Roof / dip tank shelter. 5 x ½ = 2 ½ mrks
(iii) Functions of part E and G
-Part E

- To wash off mud from animal feet.
- To remove mud from animal hooves hence avoid contamination of dip-wash.

1 x 1 =1mrk

Part G

-To allow excess dip wash drain back to the dip tank.
- To hold the animals so that excess dip-wash drains back to the dip tank.
-To avoid contamination of dip wash to the pastures.

1 x 1 =mrk.

(iv) Uses of part H

- Avoid evaporation of the dip wash.
- Avoid dilution of dip wash by rain water.
- A roof catchments for collecting rain water into the water tank.

2 x 1 =2mrks

24a)

- From one day old to four weeks feed on broiler starter mash or crumbs.
- From four weeks feed on broiler follow on mash or pellets.
- From 8 weeks to slaughter feed on finisher pellets.
- Provide enough feed.
- Provide plenty of clean water.
- Newspapers should be spread on the floor of brooder to prevent chicks feeding on litter.
- Some feed should be placed on newspapers and others on feeders.
- When chicks learn where to feed from newspapers should be removed.
- The feed should be kept as clean and fresh as possible.
- Grit should be introduced in to help in digestion.
- Provide glucose/agricultural trickle to weak chicks at arrival. Any

10x1=10mks

24 b i Age

- Stage of lactation period.
- Udder attachment.
- Incomplete milking.
- Mechanical injury.
- Poor sanitation.
- Poor milking technique. Any

5x1=5mks

ii)

- Empty affected quarter of udder and instill antibiotics.
- After milking, use teat dip on every quarter.
- Use right milking technique

– Observe strict cleanliness.
– Use dry cow therapy
– Use strip cup to detect infection.
– Use separate udder cloths for each animal. Any **5x1=5mks**

25 a) Artificial rearing of day old chicks up to end of Brooding.
- Ensure brooder corners are rounded
- Provide enough brooding space
- Clean and disinfect brooder and equipments
- Provide guard around heat source
- Provide proper litter on floor/wood shaving
- Maintain appropriate temperature according to age of chick
- Temperature during first week should be 32 – 35 ^{o}c, then reduce accordingly.
- Maintain proper ventilation by adjusting the openings.
- Provide adequate fresh quality feeds/chick mash.
- Provide dim light in the brooder
- Remove dead chicks.
- Provide adequate and appropriate waterers
- Control parasites by applying appropriate pesticides.
- Control diseases using appropriate method e.g. vaccination
- Treat sick chicks
- Provide adequate water
- Keep proper records
- Debeak 8 – 10 days towards end of brooding
- Gradual change of chick mash to growers mash during last one week.
- Spread newspapers on top of litter for the first few days and scatter feed on them.
- Isolate the sick chicks.
-

Any 10 x 1 = (10 marks)

DISC PLOUGH	MOULD BOARD PLOUGH
-Used on field with many obstacles. -Does not plough at constant depth. -Require less power to pull. -Has less serviceable parts. -More secondary operations are required to produce suitable tilth. -Not easily broken because it rolls over hidden obstacles.	-Used on field free from obstacles -Ploughs at constant depth. -Require more power to pull. -Has more serviceable parts. -Fewer secondary operation are required to Produce suitable tilth. -Its rigid hence easily broken when it comes to hidden obstacles

Mark as whole any five comparison made **5 x 2 =10mrks**

26. Management of sheep from preparation of mating up-to weaning.
-Flush the Ewe three weeks (3 weeks) before mating.
- Continue flushing the Ewe three weeks after mating.
- Clip / cut the wool around the vulva to facilitate easy mating (crutching).

-Raddle the ram before tupping
- Clip the wool around the sheath of the ram
-One Ram should be used for every 35-60 Ewes per year.
- Time the mating to concede with lamping when there are plenty of pastures.
-Remove the rams from the ewes after mating seasons.
-Feed the ewes on good pastures.
-Steaming up the ewes by giving extra feeding / concentrate 3-4 weeks before lambing.
-Move the ewe as clean pastures 3 weeks before lambing.
-Vaccinate the ewes 2-3 weeks before lambing to control common diseases eg lamb dysentery, pulpy kidney etc.
-Provide clean water to the sheep.
-Provide shelter for the lambing.
-Observe sign of lambing and supervise lambing.
-Disinfect the navel cord immediately after lambing.
-Ensure lambs suckle for colostrums within the first 1-2 hours after lambing.
- Ewes that give work than one lamb should be given extra feeding.
-Weak lambs should be artificially reared.
-Rejected / disowned lambs should be given milk from foster mothers.
-Keep lambs and ewes on good pastures.
-Dock lambs within the first two weeks.
- Castrate male lambs. Not required for breeding within two weeks.
-Introduce creep feed to lambs from six weeks.
-Dip / spray the sheep against external parasites.
-Wean lambs at 4-5 months. Any 12 explained factors. 12 x 1 =12mrks.

b) Factors considered when siting farm structure.

1. Topography
   -Most structure requires level or gentle sloping ground.
2. Direction of prevailing wind.
   -Located to leeward side.
   -Wind breaker should be erected to protect farm structures.
3. Soil type.
   -Structures should be sited on unproductive soil which is well drained.
   -Stony or murrum soils is the best.
4. Accessibility.
   -Farm structure should be easy to reach to make it easy to transport to and from the farm.
5. Security.
   -The structures should be safe and secure from predators, thieves, trespass and external disturbances.
6. Farmers tests and preferences.
   -Farmers preferences to scenery and panoramic view must be considered.
7. Future expansion.
   -There should be space for future expansion.
8. Relationship between the structures.

-Structures with related uses should be close to each other.

8 explained factors. 8 x 1 =8mrks.