

MARKING SCHEME AGRICULTURE PAPER 2 443/2

1. Aberdeen Angus ($\frac{1}{2} \times 4$)
Galloway
Beef short horns
Charolais
Boran.
2. Hampshire down ($\frac{1}{2} \times 1$)
3. Reduce replacement cost. ($\frac{1}{2} \times 4$)
Increase efficiency
Increase durability
Avoid injury to the user
Avoid damage to the tool.
4. Adjustable spanner tightens and loosens different sizes of nuts and bolts while ring spanner tightens or loosens a specific size of nut or bolt. (1X1) - mark as a whole.
5. Bolus gun ($\frac{1}{2} \times 2$)
Drenching gun
Narrow necked bottle
Dosing syringe
6. Bactrian ($\frac{1}{2} \times 1$)
7. KMC – (Kenya meat commission) ($\frac{1}{2} \times 2$)
LMD – (Livestock marketing division)
Local butcheries
8. Body size of the animal ($\frac{1}{2} \times 4$)
Amount of exercise done by the animal
Degree of excitement
Ambient/environmental temperature
9. Milk fever/parturient paresis ($\frac{1}{2} \times 4$)
Anaemia
Curled toe paralysis
Goitre
Swayback
Acetonemia/bovine ketosis
Osteomalacia
10. Vaccination ($\frac{1}{2} \times 4$)

Deworming
Identification
Milking
Castration
Dehorning

11. General emaciation/loss of weight – excessive appetite ($\frac{1}{2}$ X 4)

Staring coat/rough coat
Pot bellies
Oedematous swelling under the jaw
Excessive appetite
Scouring
Presence of segments in faeces
Anaemia

12. High moisture content ($\frac{1}{2}$ X 4)

High fibre content
Low protein content
High carbohydrate content

13. Restlessness ($\frac{1}{2}$ X 2)

Frequent urination
Doe throws itself on its side
Doe rubs herself against the wall/hard/solid object
Doe try to contact rabbits in the next cages by peeping

14. Kidding down is the act of giving birth in goat while kindling down is the act of giving birth in rabbits. ($\frac{1}{2}$ X 1) – marks as a whole.

15. Increase conception rate ($\frac{1}{2}$ X 2)

Facilitate implantation of zygote
Increases lambing percentage

16. Artificial insemination ($\frac{1}{2}$ X 2)

Deworming
Milking

17. Control – Damage by weather elements ($1\frac{1}{2}$ X 3)

- Insect attack
- Fungal attack

18. Foundation ($\frac{1}{2}$ X 3)

Wall

Roof

19. Cleanliness ($\frac{1}{2} \times 4$)
High candling quality
Preferred colour
Oval shaped
Large size
Smooth textured/ right shell hardness
20. Strange surrounding and people ($\frac{1}{2} \times 1$)
Change of milkman
Fear
Anxiety
Pain
Change of routine
21. Dehorning is cutting of overgrown horns while disbudding is the removal of horn bud (1x1)
- mark as a whole.
22. Induction stroke ($\frac{1}{2} \times 4$)
Compression stroke
Power stroke
Exhaust stroke

SECTION B

23. A. K – cross tie (1x4)
L – Purlin
N – Gutter
J – Strut
B. Collect harvested water from the roof and direct it to the reservoir/tank. (1X1)
24. a. docking/tailling (1x1)

b. Prevent blow fly infestation (1x3)
Facilitate tugging/mating
Good fat distribution in the body

c. Elastrator and rubber ring (1x1)
25. a. Brooder (1x1)
b. Avoid overcrowding in one corner which leads to suffocation (1x1)

- c. Too hot/high temperature
 - d. Chicks may feed on it leading to death because it is indigestible.
26. a. Dry cow therapy (1x1)
- b. Control mastitis (1x1)
 - c. Dry period (1x1)
 - d. Complete milking is done after which antibiotics are infused into the teat (1x2) - mark as a whole.

SECTION C

27. a. - Eggs on the ground hatch into larvae. (1x10)
- Larvae climb onto the first host.
 - On the first host larvae suck/feed on blood, become engorged and drop down.
 - Engorged larvae moult into nymph which climb onto the second host where they suck blood and become engorged and fall down.
 - Engorged nymph on the ground moults into adult.
 - Adult climb onto the third host where it sucks blood and become engorged.
 - Engorged adult tick mates on the host.
 - Female adult drop down.
 - Female adult lay eggs and the cycle continues.
- b. – Poor health (1x5)
- Age/old
 - Poor production
 - Physical deformities
 - Hereditary defects
 - Infertility
 - Avoid inbreeding
 - Poor mothering ability
 - Poor temperament
- (deny a mark if no explanation)
- c. Ambient temperature – Animal need more water when it is hot due to sweating. (1x5)
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- Type of feed eaten by the animal – after taking dry feeds. Animal needs more water than when it has taken succulent feeds.
 - Level of production/amount of work. Animals that produce eggs and milk require more water because water is a constituent of product. Drought animals lose a lot of water hence need to drink more.

- Weight of animal or body size. Fat and heavy animals require more water than lean and light animals.
- Species of animal – under same environmental condition, cattle need more water than camels.

(deny if no explanation)

28. a. i) Chicken ($\frac{1}{2}$ x4)

Turkeys

Pigeons

Ducks

- ii) Birna virus (1x1)
- iii) Glands above bursa (vent) swells
 - Decrease in eggs production
 - Respiratory distress.
 - Loss of appetite
 - Low water intake
 - Severe immune – suppression creating more vulnerability to diseases.
 - In hot – humid weather, mortality rate increases.
- iv. Vaccination (1x2)
 - Use of vitamins especially Vitamin B₁₂

- b. - Location of homestead.
 - Accessibility
 - Security
 - Drainage
 - Direction of prevailing wind
 - Relationship between structures
 - Farmers tastes and preferences.
 - Proximity of amenities
 - Topography of the area.

(deny a mark if no explanation)

- c - It is possible to implant embryo from a high quality female to less valuable female improving performance of offspring.
 - Stimulates milk production in female that was not ready to produce milk.
 - Embryo can be stored for long periods awaiting availability of recipient female.
 - It is easier to transport embryos in test tubes than whole animal.
 - A highly productive female can be spread over a large area to benefit many farmers.

29. a. – makes operation timely and faster. (5x1)

- makes work easier and enjoyable.
- Higher quality work is done than human labour.

- Increased efficiency.
 - Farmers benefit from economies of scale.
 - Economical in times of high labour demand.
 - High yields are achieved due to timely operations.
 - Pests and diseases outbreak can be controlled relatively in a shorter time.
 - Healthy milking herd
 - Clean milking cows.
- b. - Healthy and clean milkman. (5x2)
- Clean milking shed.
 - Clean milking utensils.
 - Milk filtration, cooling and storage.
 - Avoid flavours in milk.
- c. - They are more tedious in operation than tractor drawn implements. (5x1)
- More than one person is required to guide the plough whereas only one person is required to plough using a tractor.
 - Are slower than tractor drawn implements.
 - Animals get tired slowing down the work.
 - Diseases affect animals making it difficult for them to work in some areas.
 - Extra land is required to provide fodder to the animals.