**Term 2 - 2022**

**AGRICULTURE (443/2)**

**PAPER 2**

**FORM FOUR (4)**

**Time: 2 Hours**

**MARKING SCHEME**

1.

* Clean after use
* Straighten bent pongs.
* Tighten loose handle.
* Replace broken handle. 4x ½ =2mks

2.

* Fresian – Holland
* Aberdeen Angus – Scotland.
* Large white – Britain
* Boer Goat – South Africa. 4x ½ =2mks

3.

* Healthy animals grow well and fast.
* Healthy animals have long productive life.
* Healthy animals give maximum production.
* Healthy animals produce high quality products.
* Animals will not spread diseases. Any 4x ½ =2mks

4. Pruning knife is used in pruning tea while pruning saw is used to cut stems and hard branches.

 (mark as a whole)

5.

* Romney mash
* Corriedale
* Hampshire down. Any 2x ½ =1mk

6.

* Species of animals
* Breed of animal
* Age of animal
* Size of animal
* Colour of animal any 4x ½ =2mks

7.

* Breed – is a group of animals having the same characteristics.
* Type indicate the purpose for which the animal is kept. (mark as a whole)

8.

* Level of production/amount of work.
* Type of food eaten by the animal.
* Body size.
* Ambient temperature.
* Species of the animal.
* Breed of animal. 6x ½ =3mks

9.

* Nutritional causes
* Physical causes
* Chemical causes
* Living organisms. 4x ½ =2mks

10.

* Expound inherited potential
* Introduce new genes.
* Overcome production problems caused by environment.
* Satisfy consumers’ taste
* For economic reasons. 4x ½ =2mks

11.

* Cement
* Sand
* Bricks/stones/blocks/mud
* Timber
* Steel bars. Any 4x ½ =2mks

12. Ability of an animal to resist the infection of a disease. 1mk

13.

* Collect eggs regularly and frequently.
* Make nests dark
* Feed balanced diet.
* Debeak perpetual egg eaters.
* Supply green leaves to keep birds busy. Any 4x ½ =2mks

14.

* Restlessness
* Frequent urination.
* Swelling and reddening of vulva.
* Slimy mucus discharge from vulva.
* Responds positively to riding test.
* Frequent mounting others. 6x ½ =3mks

15. Prevent unwanted species of fish from entering the pond/prevent fish from escaping into the river.

16.

* Natural mating
* Artificial Insemination.

17.

* Very effective in controlling movement of animals and trespassers.
* It is durable.
* Improves privacy. Any 2x ½ =1mk

18.

* Cleanliness
* Size
* Candling quality
* Colour any 2x ½ =1mk

**SECTION B.**

19. a) X 1mk

b) hoof trimming 1x1=1mk

c)

* Swollen foot
* Pus and rotten smell from hooves.
* Sheep kneeling while grazing. Any 2x 1 =2mks

20. a) i) V 1x1=1mk

ii) Upper beak is used to fight while lower beak is for eating and taking water.1x1=1mk

b)

* debeaker
* scalpel/knife 2x1=2mks

21. a)

A - low heat

B - too hot brooder condition

C - draught 3x1=3mks

b)

* Reducing the number of heat sources.
* Lowering the wick if interns are used.
* Use low voltage bulbs Any 1x1=1mk

22. a) Castration

b)

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

c)

* Use of a Burdizzo.
* Use of a rubber ring 2x ½ = 1mk

23. a)

* Mowers
* Chain saw
* Water pump 1x1=1mk

b) L - piston rod

M - spark plug

N - exhaust port

24. a)

* 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

b)

* Calves should be sprayed against external parasites using appropriate chemicals.
* Calves should be drenched regularly to control internal parasites.
* Vaccinate calves as recommended to control diseases.
* Male calves not required for breeding should be castrated at two to three months old age.
* Calves should be identified at appropriate age for record keeping.
* Remove extra teats from female calves.
* Dehorning/disbudding be carried out. Any 6x1=6mks

c)

* Age of the animal.
* Physiological condition of the animal.
* Stage of lactation.
* Breed differences.
* Completeness of milking. Any 4x1=4mks

25. a) i)

* Red water/babesiosis.
* Anaplasmosis/gull sickness. 2x1=2mks

ii)

* face
* neck
* base of horns
* tail brush
* dewlap
* ears
* eyes any 3x1=3mks

iii)

* Double fencing
* Hand picking and crushing.
* Controlled grazing/rotational grazing.
* Burning infested pastures.
* Cultivation of infested pastures
* Predator birds. Any 5x1=5mks

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

26. a)

* Foot bath - removing mud from hooves of animals.
* Entrance race – leads animals in a single file to the dip plunge.
* Roof – prevents dilution and evaporation of dip wash.
* Drainage race – animals are held to allow excess dip wash to drip back to the dip tank.
* Jump – facilitates the animal to jump into the dip tank.
* Dip tank – holds the dip wash.
* Exit steps – facilitates the animal to climp out of the dip tank. 7x1=7mks

b) i)

* Tires with time.
* Output is low.
* Animals can destroy crops while working.
* Extra land required for their pastures.
* Requires training.
* Health can be limiting factor. Any 5x1=5mks

ii)

* Produce high power for heavy duties
* Efficient in fuel and oil utilization.
* Perform wide range of farm operations. 3x1=3mks

c)

* The milk production level.
* Nutritive value of the concentrate.
* The returns made from production.
* The quantity of pasture eaten.
* The quality of the pastures eaten.
* Cost of concentrate.
* The size of the animal. Any 5x1=5mks