**SET 8**

**443/2**

**AGRICULTURE PAPER 2**

**MARKING SCHEME**

**SECTION A (30 MARKS)**

* Rhode Island
* Light Sussex
* New Hampshire red
* Black Australops (4x½ =2mks)
* Lose vitality
* Lose weight
* Have retarded growth
* Possible to compare animals of different age groups since heifer locations are known
* Possible to make direct comparison of bulls at different AI centres.
* It’s accurate
* Eliminates differences brought out by the environment since average performance of herd is used.
* Facilitate tupping/mating
* Prevents blowfly infestation
* Gives good fat distribution throughout the body. (Any 2x½ =1mk)
* Speed reduction mechanism
* Enables one of the wheels to move faster than the other when negotiating corners. (2x½ =1mk)
* Retarded growth
* Lowered productivity
* Lowered reproductivity due to reduced animal vigour
* Lowered resistance to diseases or infections. (any 4x ½ =2mks)
* Poor ventilation
* Overcrowding
* Age-young animals
* Effects of diarrhoea/other illnesses (4x ½ =2mks)
* Taking the cow into the milking shade
* Rattling sound of buckets
* Sight of a milk man/milk woman
* Sight or smell of food in the feed trough
* Massaging or washing of the udder with warm water.
* Suckling by the calf
* Sight of the calf for cows inclined to suckling calves (any 4x½ =2mks)
* Where land is not accessible by tractors
* Where the land is steep/very steep slopes
* Small pieces of land
* Lands that are irregularly shaped
* Cost of hiring tractors is high
* Other sources of power unavailable. (any 4x½ =2mks)
* During confinement in sick yard/confined grazing units.
* Stall feeding/watering
* When transporting animals to markets/agricultural shows/slaughter houses.
* During service of the animal e.g. AI
* During land spraying against external parasites.
* During removal or harvesting of livestock products e.g. honey/milk
* When carrying out routine management operations e.g. deworming/castration/dehorning/hoof trimming/debeaking/injection of drugs. (any 4x½ =2mks)
* Availability of capital
* Security
* Market availability
* Labour availability
* Knowledge of the farmer
* Availability of land for rearing
* Topography of the land.
* Availability of appropriate equipment. (any 4x ½ =2mks)
* Cost of feedstuff
* Availability
* Nutritional composition
* Physical/processing nature of feedstuff. (4x½ =2mks)
* Cleaning the fish to remove mud/any worms
* Cleaning abdominal cavity thoroughly
* Keep fish in open containers
* Removing scales and slime
* Opening the fish on the side to remove gut and the intestines/ gutting. (any 4x½ =2mks)
* Take many years to grow and make an effective fence.
* Cannot be used for paddocking because they occupy a wide space
* Hedges can be used as hiding places for rodents and thieves.
* Thorny species cause injuries to livestock
* Their growth may be irregular thus allowing gaps for animals and thieves to pass through.

 (any 4x½ =2mks)

1. a)
* Use of prophylactic drugs
* Carrying out regular vaccinations
* Control of vectors
* Treatment of sick animals. (4x½ =2mks)

 b)

* Burning the infested pastures
* Interfering with or altering the ticks environment.
* Fencing off the pasture land and farm
* Starving ticks to death
* Handpicking ticks from livestock and killing them. (any 4x½ =2mks)
* Have microorganisms to digest cellulose
* Absorb water and the byproducts of microbial digestion. (2x½ =1mk)

**SECTION B (20 MARKS)**

1. a) Boom sprayers (1x1=1)

 b) Used for applying pesticides/herbicides/foliar feeds. (1x1=1)

 c)

* Tank of sprayer should be drained before and after use.
* Tank and all parts should be washed thoroughly with clean water and dried.
* All parts prone to rusting and painted. (any 1x3=3mks)
1. a) A-Ring spanner

 B-Open ended spanner

 b) Has an adjusting nut which is used to close/open the jaws depending on the size of the nut to be opened or tightened. (1x1=1mk)

 c)

* Apply grease to rotating part
* Store properly in a tool rack
1. a) Calf pen

 b) Have slatted floor (1x1=1)

 c)

* Should be clean.
* Leaking roof repaired
* Walls to be white washed to prevent lead poisoning
* Keep dry and warm by placing dry litter. (any 3x1=3mks)
1. a)
* I-Inner shell membrane
* J-Outer shell membrane
* K-Albumen
* M-Challazae

 b)

* Smoothness of the shell
* Cleanliness
* Oval in shape
* Absence of cracks on the shell (4x½ =2mks)

 c) Provide nutrients for the developing chick (1x1=1)

**SECTION C (40 MARKS)**

1. **a)**
* Provide energy/ maintenance of body temperature
* For growth and repair of body tissues
* For maintenance of good health
* Production of various products
* Enhance reproduction. (5x1=5mks)

b)

* Should be of age/mature 5-7 months old/90-100kg live weight
* Good mothering ability
* Able to grow fast
* Good conformation
* With no physical defects
* Healthy
* Has 12-14 teats
* Highly prolific
* Able to withstand heat stress during mating. (any 8x1=8mks)

c)

* Proper feeding
* Control of internal parasites
* Control of external parasites
* Vaccination
* Hoof trimming
* Provision of adequate clean water
* Treat in case of infection (7x1=7mks)
1. a)
* Repair/replace broken parts
* Regular cleaning to remove dirt
* Dust/fumigate/spray to control parasites and diseases
* Apply old engine oil on timber parts.
* Ensure good drainage around the house
* Maintain a footbath at the entrance. (6x1=6mks)

b)

* The milkman should be clean
* Test for mastitis before milking
* Milk person should be healthy
* Ensure utensils/equipment are clean
* Ensure milking parlour is clean
* Ensure milking herd is free from zoonotic diseases e.g. TB
* Cows with mastitis should be milked last
* Clean the udder
* Cover the milk
* Avoid feeds/weeds that would taint milk just before milking.
* Proper storage of milk/cool dry place. (any 8x1=8mks)

c)

* Ox-draw plough mould board is lighter hence does not compact the soil as much as the tractor drawn mould board plough.
* Ox-plough can be used for more farm operations e.g. weeding, ploughing, harvesting root crop than tractor mould board.
* Ox plough requires less skills to operate compared to the tractor plough.
* Tractor plough is faster than ox plough hence can plough a large area within a short time.
* Source of power for ox plough is not as reliable as the source of power for tractor plough.
* Ox plough relatively shallow compared to tractor drawn plough that plough deeper.
* Ox plough can be used in steeper slopes where tractor plough cannot plough.
* Ox plough requires more people to operate than tractor plough.
* Ox plough is cheaper to buy than tractor plough.
* Ox plough is cheaper to maintain than tractor plough. (10 x1=10mks)
1. a)
* Makes farm operations timely/faster
* Economizes on labour
* Work is done more efficiently
* Reduces drudgery/can accomplish heavy task
* Cheaper per unit work done. (6x1=6mks)

 b)

 i) Theirelia parva (1x1=1)

 ii)

* Swollen lymph nodes especially at base of ears, shoulders and stifle joints
* High temperature/fever
* Produce a lot of saliva/profuse salivation
* A lot of tears production/lachrimation
* Difficulty in breathing
* Haemorrhages in the vulva and mouth
* Coughing
* Sight impairment (any 5x1=5mks)

 iii)

* Ticks controlled through regular dipping, spraying or hand dressing using appropriate acaricides.
* Fence to keep out strange animals away
* Treatment using appropriate drugs. (3x1=3mks)

 c)

* Sudden change in routine
* Diseases and pest infestation.
* Lack of food and water
* Strangers and predators in the house.
* Sudden noise such as that of tractor, plane
* Poor handling of birds
* Overcrowding
* Climate weather change
* Poor lighting in the house
* Introduction of new birds
* Unbalanced diet. (any 5x1=5mks)