CONFIDENTIAL

GATUNDU SOUTH TRIAL

EXAMINATION

JULY 2018

AGRICULTURE PAPER 2

443/2

MARKING SCHEME

MARKING SCHEME PAPER 2

SECTION A

1. – Burdizzo
   - Rubber ring and elastrator
   - Csapel/sharp knife

   2 x ½ Reject Rubber ring or elector alone

2. – Using crush
   - Rope
   - Bull ring and leadstick/Nose ring & Lead stick (Reject bull ring or lead stick alone)
   - Yoke
   - Halters
   - Casting

   4x ½

3. – Use tools for the correct purpose
   - Keep tools safely after use
   - Handle tools correctly during use
   - Use of safety devices/protective clothes
   - Maintain them in good working conditions

   4 x ½

4. – Kenya white is white all over the body while California white is white with black nose and ears.
   - Kenya white has pink eyes while California white has black/brown eyes.

   (mark any as a whole) 1x1

5. – British Alpine
   - Saanen
   - Toggen burg
   - Anglo Nubian
   - Jaruna pari

   4x ½

6. – Milk synthesis
   - Formation of strong bones
   - Improves vision
   - Disease resistance/ immunity
   - Improves vigour/proper growth

   2 x ½

7. – Proper hygiene
   - Dusting using appropriate pesticide

- Covering affected parts with petroleum jelly to suffocate stick fast fleas.
  2 x ½

8. Rumen/pauch
   1x1

9. – Steaming up of ewes to have sufficient milk for the lamb
   - Use of lambing pens
   - Ewes to be made to recognize lambs after lambing down
   - Blind folding ewes to activate maternal instinct
   - Treat mastitis/inflamed udder
     4x ½

10.

	ion period
	35 days
	118 days/ 3 months, 3weeks, 3days
	ys
	days

11. In drift lambing all pregnant ewes are put together in one paddock and then separated as they lamb down whereas pen lambing is where ewes are only separated from one another after showing signs of lambing.

(Mark as whole) 2x ½

12. – Make the animal docice
    - Improve meat quality
    - Control breeding diseases
    - Control breeding/inbreeding/hereditary defects
    - Improve growth rate
      4 x ½

13. – Control deficiency diseases
    - Impart resistance to diseases
    - Good physical appearance
      2 x ½

14. – Clean water – free from pollutants
    - Slope of the land /topography – Gentle slope to ensure water flows by gravity
    - Type of soil – clay soil which has high water holding capacity
    - Reliable source of water – water available the year round

- Security – secure from thieves & predayors

4 x ½

15. – Anthrax
    - Rinder pest
    - Foot & mouth
    - Rift valley fever
    - New castle
    - Fowl pox
    - Fowl typhoid
    - Gumboro

4x ½

16. – obstructing of oesophagus due to bulky food
    - Abnormal pressure exerted on oesophagus by swelling in the wall of chest
    - Indigestion due to eating poisonous subtances or soft young grain forage/lush pasture

2 x ½

17. – smooth textured
    - Oval shaped
    - Clean
    - Fresh
    - Light shell hardness
    - Right colour
    - Right weight
    - Right size

4 x ½

18. Oxytocin controls muscle fibres of the alveolar region to allow milk letdown/secretion while adrenaline makes the udder muscles to relax leading to withholding of milk.

1x1

19. – Government tractor hire/ministry of agriculture
    - Private contraction/ companies
    - Individual farmers
    - Cooperative societies

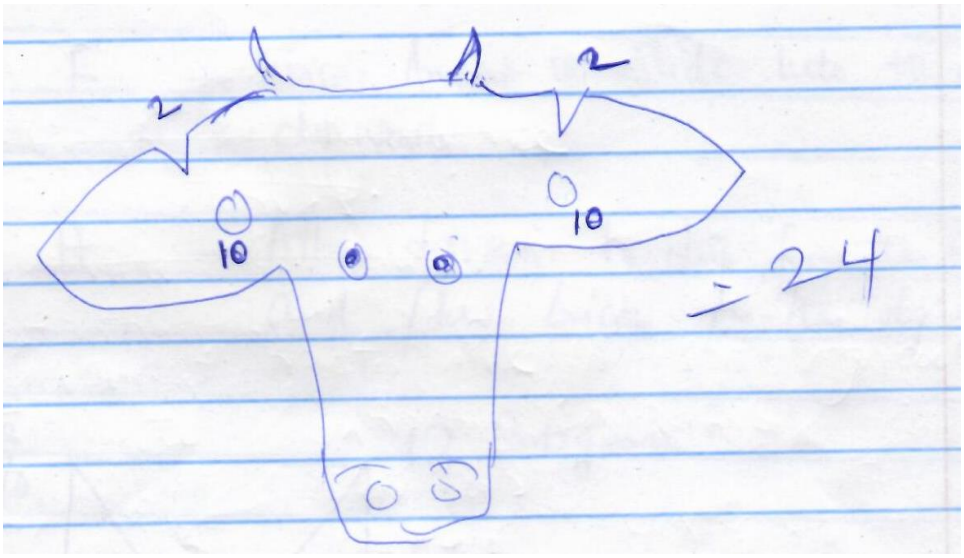
4x ½

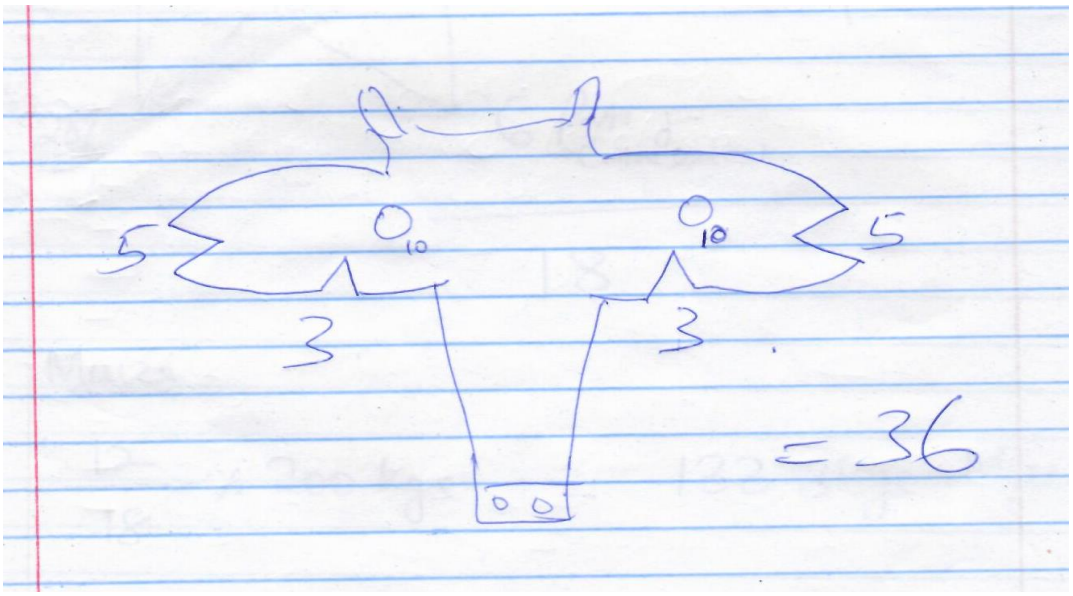
20. – Remove dirt
    - Stimulate milk letdown

SECTION B

21. (i) Ear notching
    (ii) 40

(iii)

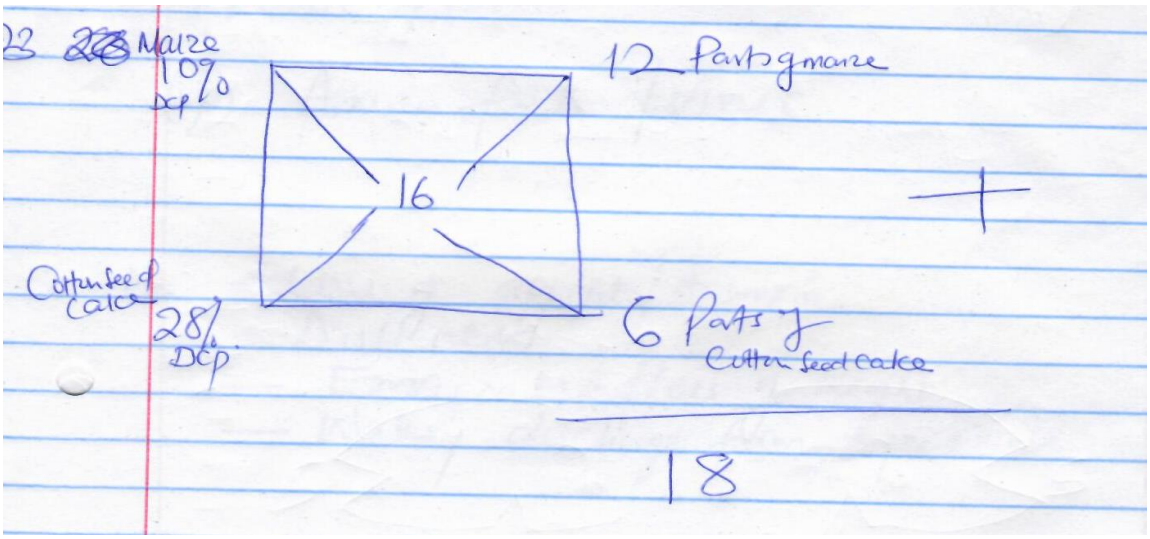




22. (a) E- Foot path
G- Dip tank

(b) E - Clean hooves/control footrot
F - Forces animal to slide into the dip wash
H - Allow dipwash to drip from the animal and flow back to the dip tank

23.



Maize
12 x 200kgs = 133.3kgs Maize
18

Cotton seedcake
6x 200kgs = 66.7kgs cotton seed cake
18

24. (a) Hoof trimming
(b) – Control foot rot
- Prevent ram from injury ewe during tupping
- Allow proper movement
- Prevent sheep from injuring themselves

25. (a)(i) Fowl pox
(ii) Avian fox/virus

(b) Loss of appetite/anorexia
Dullness
Emaciation/loss of weight
Water discharge from eyes and nose

© Vaccination
Removing and killing affected birds

SECTION C

26. (a) (i) Brucella abortus/suis/maliceasis/Bacterium
(ii) Cattle, pigs, goats, sheep
(iii) - Spontaneous abortion/premature birth

-Retained after birth/placenta
-Inflammed testis/orchitis in bulls
-Low libido in bulls
-Yellow, brown, slimmy, odourless discharge from vulva
-Infertility in female cattle/cows

(iv) -Artificial insemination/embryo transplant
-Cutting and slaughtering and disposing affected animals
-Vaccination
-Avoid contact with aborted foetus
-Blood test to detect infected animals
-Cleanliness

(b) Concrete floor/slatted raised floor – easy cleaning
Proper drainage – Avoid dampness
Single housing – Avoid hair ball formation and diseases and parasite transmission
Proper lighting – sunlight to allow get vitamin D
Draught free – Diseases e.g Pneumonia
Leak proof- Avoid wet ness
Adequate space – Allow room for exercise feeding and watering equipment

27. (a) -Cooking
-Lighting
-Internal combustion engines
-Environmental friendly
-Renewable source of energy
- It is cheap

(b)
- Soil aeration
- Water infiltration
- Break hardpans
- Proper root penetration
- Bring leached nutrients to the surface

©
-Availability of water
-Availability of flowers
-Sheltered place
-Free from noise and other disturbances
-Away from human beings and livestock

28. (a)
- Calf born in the local surrounding hence minimizing effects of climatic change
- Embryos can be stored for a long time awaiting a recipient female
- Allows faster multiplication of a superior animal/breed

- Stimulate production of milk in females which were not ready or able to produce milk
- Saves cost of production in rearing bulls
- Embryos are cheaper than animals of equal value
- Easy and cheap to transport in test tubes compound to live animals
- High yielding embryo can be implanted into less valuable females to improve production
- Easy to plan
- Prevent injury of cows by heavy bulls

(b)

- Carbohydrates – main source of energy e.g Root crops, tubers, molasses, grass pastures
- Lipids (fats & Oils) – Source of energy e.g oil seed, animal by-product pasture forage
- Proteins – Growth and repair
  - Source of energy
  - Production of antibodies enzymes and hormones e.g Seed cakes, leguminous forage, animal by-product, young green grass
- Vitamins – Protection against disease injection
  - Promote growth
  - Bone formation
  - Muscular activity

  e.g roughages
- Minerals – Strong bone formation
  - Milk synthesis
  - Formation of hard shelled eggs
  - Prevent mineral deficiency diseases
  - Promote growth

  e.g Mineral licks

Water – Transport food substance

-Absorption of food substances

- Regulate body temperature