AGRICULTURE

MARKING SCHEME

PAPER 2 (443/2)

SECTION A (30 MARKS)

1. Caecum (1x1=1mk)

2. – Quality of concentrate

- Availability of concentrate
- Level of production of the animal
- Cost of concentration
- Physiological status of the animal/animal in calf (3x ½ =1 ½ mks)

3. –Irritation

- Damage wool (due to scratching/bites)
- Retard growth
- Anemic condition
- Bites injuring skin (2x ½ = 1mk)

4. – Spray rate

- Fences
- Crush
- Plunge dip (Any 4x ½ =2mks)

5. Tryponosomiasis (1x1=1mk)

6. - Replace worn out polythene sheet

- Clean dirty polythene sheets
- Tighten loose nuts and bolts
- Replace lost nuts and bolts (2x ½ = 1mk)

7. (a) Ability of the mother to take care of its offspring until weaning (2x ½ = 1mk)

- (b) Ability of the female animal to give birth to many offspring at the same time/large litter size (1x1 = 1mk)

8. - Poor nutrition

- Poor timing of service
- Infertility (2x ½ = 1mk)

9. – Prevents animal injuring others

- Makes animal docile/easy to handle
- Creates more space for feeding/other animals
- Prevents destruction of farm structure by animals. (Any 3x ½ = 1 ½ mks)

10. – Source of income to farmer

- Creates employment to Kenyans
- Source of fish for food (closer to people)
- Source of animal feed materials /feed stuffs. (4 x ½ = 2mks)

11. – Stage of lactation

- Animal's age
- Breed
- Nutrition / feed quality given to animals
- Physiological condition of animal
- Completeness of working
- Animal's health /having mastitis
- Season of the year (Any 4x ½ =2mks)

12. – Uniformly spreads manure /dropping in the field/pasture

- Requires less feeding by farmer
- Reduces parasites/disease build up
- Relatively cheap/ requires less capital to have (Any 4x ½ =2mks)

13. – Solar trapping devices are expensive

- Power supply/trapping fluctuates depending on weather conditions
- Solar trapping is limited to day light
- Requires labour to handle the device (Any 4x ½ =2mks)
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14. – (a) Cut/chop fodder/Napier grass into small pieces for feeding animals (1x1=1mk)

(b) Cut thin sheets of metal (1x1=1mk)

15. (a) Buck/ billy (1x1=1mk)

(b) Kindling (1x1=1mk)

(c) Bullock (1x1=1mk)

16. – For safety of the user

- Ensure efficiency of operation
- To last long/ensure durability
- Reduce /avoid cost of repair of replacement

- Avoid damage to the harrow (Any 4x ½ =2mks)

17. – Presence of broken/soft shelled eggs

- Bright light in laying nests allowing birds to see the eggs.
- Idleness in the poultry house
- Inadequate laying nests forcing some birds to lay eggs in the open
- Lack of mineral salts like calcium in diet
- Irregular egg collection (Any 4x ½ =2mks)

SECTION B (20 MARKS)

18. (a) Controls animal movement (during agricultural shows exhibitions) (1x1 = 1mk)

(b) – Bull ring and head stick (1x1 = 1mk)

- Rope (2x1 = 2mks)

(c) – Clean after use to remove dirt

- Apply oil to prevent rusting (Any 4x ½ =2mks)

19 . (a) Calf pen (1x1=1mk)

(b) –For proper drainage of urine/dung/allow urine and dung to pass through preventing dampness.

Help keep the floor dry by aeration preventing dampness. (2x1 = 2mks)

(c) _ Sited near milking shed (to save time and labour in transporting milk/for milk to be still warm when serving cow)

- Sited on a gentle slope/well drained site
- Sited in service site
- Sited in a well sheltered site against winds
- Sited in an accessible site (2x1 = 2mks)

20 . (a) (i) 2.5 kg + (0.25 x 10)kg = 2.5 + 2.5

= 5.0kg

(ii) Production ratio (1x1 =1mk)

(b) (i) Crushed maize is more digestible than whole maize (Any other relevant example for explanation) (1x1=1mk)

(ii) The higher the ratio the lower the digestibility. (1x1=1mk)

21. (a) Power transmission system (1x1=1mk)

(b) C – gear box

D- clutch pedal

(c) – Transmit power to raw wheels

- Change direction of drive
- Enable one of the wheel to move faster than the other when negotiating a corner
- Allows for speed reduction mechanism/moderation of speed as opposed to engine speed.

22. (a) Claw hammer to drive in nails/fencing staples into wooden posts

- Hand saw to cut posts/ brale posts to required size
- Wood chisel to bore holes and slots on wooden posts
- Pliers to cut wires where necessary
- Drill/ anger bit to bore holes in wooded posts
- Soil anger to dig holes on ground for fixing posts
- Claw bar to remove nails/staples (All dig holes)
- Mallet to hit chisel when making holes/grooves
- Wire strainer to tighten the fence wires
- Tepemeasure to measure distances
- Ramming rods to ram the posts
- Panga to cut pegs for marking points for posts fixing
- Axe to slot posts where necessary (Any 10 x 1 = 10mks)

(Award the 1mk as whole if the tool use is stated)

(b) – Proper harnessing

- Proper feeding
- Maintain proper health of animals
- Proper training
- Proper loading (5x1 = 5mks)

(c) – Rough coat

- Anemic condition
- Put bellied condition
- Edematous swelling under jaw
- Parasite segments presence in fareles
- Excessive appetite
- Blockage of intestines lumen by parasites
- Diarrhea
- Constipation (Any 5x1 = 5mks)

23. (a) (i) Bacteria/ Bacillus anthracis (1x1 = 1mk)

(ii) – Animal feeding on infected pastures/feeds /borne meal

- Bites by insects
- Bacterial entering through open wounds (Any 2x1=2mks)

(iii) –Lack rigor mortis

- Stomach swells/bloats
- Blood does not clot quickly
- Dark red blood oozes out through the natural openings (4x1=4mks0

(v) – Prompt treatment of wounds which can there as entry route for the baltena

- Impose quarantine incase of outbreak to prevent spread
- Regular vaccination of animals with appropriate vaccine
- Deep burying/burning of anthrax carcass/dispose of property (Any 3x1=3mks)

(b) – Wedge shaped

- Straight top line
- Well set apart hind quarters to allow room for the big udder
- Large, well developed udder/large teats that are well shaped
- Prominent milk veins
- Lean bodies/ bodies that carry little flest/visible pin bone
- Large stomach capacity (Any 5x1 = 5mks)

(c) – Egg turning after every 6-8 hours each day around 180^0 (but not done in the first 24 hours and last 3 days)

- Remove broken eggs
- Maintain temperature at the appropriate age always
- Add water if necessary to maintain the appropriate relative humidity always
- Remove infertile eggs on 5^{th} day (5x1 = 5mks)

24. (a) –Easy to keep the egg production record of individual bird

- Controls cannibalism and egg eating
- No contamination of feed and water
- Eggs collected owe clean since birds do not step on them
- Allows for high stocking rate/ many birds kept in a small areas
- Egg losses minimized
- High egg production because there is less energy wastage by bird
- Eliminates /discourages broodiness since birds do not reach the egg
- Birds more secure from predators

(b) – Ensure piglets are breathing properly by removing mucus from mouth and nostrils by use of clean cloth

- Ensure piglets are safe by moving them away from sow as each is born
- Tie, cut and disinfect navel cords piglets
- Weigh each piglet and record birth weight
- Remove and dispose the after-birth and any still born
- Make sure they are kept warm
- Take the piglets to sow for sucking after they gain enough strength. (Any 5x1 = 5mks)

(c) (i) A state in which all the body organs and systems are normal and functioning normally.

(ii) – Proper housing/hygiene – avoid exposure of animals to predisposing factors like cold/dampness

- Isolation – prevents spread of disease to healthy ones
- Quarantine – prevents spread of disease to health ones.
- Vector / parasite control – prevents transmission of diseases from the infected to healthy ones
- Prompt and proper treatment of the skin – vestures health/prevents disease spread to health ones.
- Regular vaccination – provides immunity against new infections.
- Use of properly lactic drugs – prevents infection
- Killing of sick animals – prevents further spread of disease to healthy ones

Use of antiseptics /disinfectants – kill disease causing organisms (Any 8x1 = 8mks)