

FORM FOUR CLUSTER KCSE MODEL11

AGRICULTURE PAPER 2 ANSWERS

1. Cross breeding is the mating of two animals that are not related and belong to different breed, hence resulting in the formation of different breed. (1×2=2mks) mark as a whole
2. Keep vaccines under freezing conditions
 - sterilize vaccination equipment.
 - adhere to the correct dosage
 - use correct mode of administration. (4×½=2mks)
3. -smoking
 - freezing (4×½=2mks)
 - salting
 - deep frying.
4. -presence of a hump for fat storage which on being metabolized release water and energy hence its ability to stay for long periods without water. -presence of thick coat with short fur.
 - presence of many sweat glands enabling it to tolerate high temperature.
 - long legs enabling it walk for long distance in search of water and pasture.
 - Good conversion of scarce pasture into meat. -ability to tolerate tick borne diseases. (4×½=2mks)
 - tolerant to tropical vector borne diseases.
 - Capable of walking long distance in search of pasture and water. -low food and water required.
5. -White body with one or more of the following parts being black, nostril, tail and paw
 - its body coat is white in colour.
 - it has black ears, paws and nose.
6. -use of caustic potash stick (potassium hydroxide)
 - use of dehorning collodian. (2×½=1mks)
7. -it helps in formation of strong teeth and bone skeletons.
 - it help in milk synthesis.
 - it helps in nerve function /prevents milk fever
8. -hand spraying /hand dressing to control external parasites.
 - drenching /deworming /dosing against internal parasites/administering drugs.
 - vaccinating /injecting /treating animals against diseases.
 - identification, that is branding.

- pregnancy diagnosis.
 - artificial insemination (A.I)
 - milking.
 - Castration.
 - dehorning
 - elimination of sick animals.
 - collection of semen.
 - taking body temperatures.
 - hoof trimming. ($4 \times \frac{1}{2} = 2\text{mks}$)
9. a. -Easy to clean
- they are long lasting.
 - they do not encourage foot rot.
 - They aid in controlling parasites
 - they help prevent water logging.
 - allows easy draining of urine.
- b. -to avoid possible poisoning by chemicals such as lead that may be in paints.
- to discourage insect from inhabiting the shed.
 - to avoid tainting the milk if the shed is used immediately.
10. . -old age. -physical defect e.g lameness ,mono-eyed etc.
- reduced production e.g lower than average for the cattle breed.
 - susceptability to diseases e.g mastitis'
 - infertility.
 - poor quality production e,glower than normal; butter fat content or the cattle breed.
 - wild temperament which makes cow/bull difficult to handle.
 - Ill health and sickness. ($2 \times \frac{1}{2} = 1\text{mks}$)
 - To avoid in breeding.
 - Hereditary defects.
11. -it requires trained personnel.
- there are low chances of conception due to death of sperms.
 - requires more labour than natural mating.

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 -requires more labour than natural mating.
13. -debeaking -making laying boxes or nest dark/provide moderate light to pullets.
 -keeping hens busy by hanging green vegetables.
 -isolating and treating cannibalized birds.
 -controlling pest in poultry.
 -keeping birds according to age groups /avoid introducing new birds in the flock.
 -Providing adequate space.
14. . Bactrian Camel (camelus bactrians) (1×1=1mks)
15. -it makes use of marginal or range areas that cannot support any meaningful crop farming.
 -it generates foreign exchange through sale of livestock products.
 -it creates employment opportunities. (2×½=1mks)
 -animals are reared in an enclosure (fenced areas) this protecting them from predators.
16. -to determine the amount of food to give to the livestock.
 -to determine their growth rate.
 -for selection /culling purposes.
 -to determine the dosage quantity of drugs to give to them when sick.
 -for proper record keeping purposes.
17. . -its well adapted to high temperature.
 -it is more active. (4×½=2mks)
 -has a high flying power/can fly for long distances.
 -it is resistance to most diseases and pest attacks.

SECTION B (20 Marks)

Answer ALL the questions in this section.

18. a. i.M-Tenon saw / back saw (2×1=2mks) each 1mk
 ii.N-Bow saw.
- b. M-tenon saw :-in joinery work to cut tenon joints in Timber. (2×½=1mks)
 -fine sawing of small pieces of timber N-Bow saw
 -cutting thin and irregular curves
 -cutting unwanted stems or branches of tree crops.
- c. -hold the work securely or firmly (2×1=2mks)
 -Ensure the saws are in good working condition e. sharp, well set teeth and straight and firm

handles.

19. a. K-fallopian tubes or oviduct.

L-ovary.

M-uterus or womb.

N-vagina

b. K-Fallopian tube. -

receives mature ovum from the ovary.

-its site for fertilization.

L-ovary

-its where the ova are produced.

-it secretes sex hormones such as progesterone and Oestrogen.

20. a. Round worms(Ascaris spp) (1×1=1mks)

b. Alimentary canal /stomach /intestine/gut (1×1=1mks)

c. -constipation

-general emaciation

-Diarrhoea,loss of appetite /anorexia

-stiff dry coat /staring coat.

-anaemia.

-pot bellies. (3×1=3mks)

Presence of eggs and adult worms in faeces

Dehydrated and pate mucosa.

Reduced yield.

21. a. The process of egg formation Ovary

-ovary produces ovum .

-ovum matures ,follicle rupture to release the ovum into the funnel. Funnel infundbulum

-store sperms .

-receives the ovum.

-fertilization take place if sperms present.

-Chalaza added and egg move to magnum.

-eggs takes ¼hours here. Magnum

- albumen is added
- egg move to isthmus.
- egg stay 3 hours here. Isthmus
- water ,mineral salts and vitamins are added.
- shell membrane are also added.
- addition of albumen is completed.
- egg moves to the uterus.
- egg takes 11/4 hours here. Uterus /shell gland
- shell is added around the egg /it contains calcium deposits.
- shell pigmentation occurs here.
- egg spends about 18-22 hours here. Vagina
- egg temporary stored here.
- egg is inverted so as to be laid with the broad end first.
- egg is lubricated. Cloaca.
- it removes the egg.

b. Measures used to control livestock diseases.

- i. Prophylactic approach: Animal given drugs routinely to avoid infections e.g coccidiostats to control coccidiosis in poultry.
- ii. Proper nutrition /feeding: well balanced diet ,adequate feed to prevent deficiency diseases e.g milk fever, anaemia ,goitre and to give them ability to resist infections.
- iii. Vaccination: provide resistance /immunity against certain disease like anthrax and black quarter.
- iv. Quarantine :during outbreak of serious infectious diseases such as foot and mouth disease ,restrict animal movements and their products to prevent spread to other areas where it has not occurred.
- v. Isolation :done to animal suffering from infectious diseases such as foot and mouth to prevent spread.
- vi. Drenching /deworming: to control internal parasite that cause disease.
- vii. Treatment of sick animals: use of drugs ,antibiotics to treat bacterial diseases e.g mastitis ,pneumonia this help to cure sick animal and prevent spread of diseases.
- ix. Proper housing :houses to meet correct requirement of particular animals avoid exposing them to predisposing factors e.g for diseases like pneumonia foot rot and mastitis.
- x. General farm hygiene :cleaning houses and equipment by disinfecting and atmosphere and proper carcass disposal help to control calf scours and anthrax.

xi. Proper breeding and selection :use healthy breeding stock and AI to prevent breeding diseases e.g brucellosis.

xii. Mass slaughter /culling :done to animal suffering from certain dangerous contagious and zoonotic diseases like anthrax and black quarter the animals be killed and disposed of properly by burning or burying.

xiii. Hoof trimming : this prevent accumulation of pathogens that cause foot rot. (any $10 \times 1 = 10$ mks)

SECTION C (40 Marks)

Answer any TWO questions in this section.

22. a.

i. Feed store :used for storing animals feeds such as concentrates and mineral licks.

ii. Farm produce store: used for storing farm produce e.g grains such as maize ,beans and sorghum this include improved cribs or modern granary traditional granaries silos and cyprus bins.

iii. Chemical stores :used for storing agro-chemicals such as drugs for treating livestock. Chemicals be labeled.

iv. Machinery store: used for storing farm machinery such as tractor ,ploughs, harrows and seeders.

v. Tools store: used for storing farm tools and equipment such as livestock tools and equipment such as livestock tools farm tools an workshop tools. -tools be stored in categories. ($4 \times 2 = 8$ mks) mention 1mk, explanation 1mk

b. -provide securely against wildlife and thieves on the farm.

-keep away other animals hence control disease and parasite spread or attack.

-demarcate boundaries of the farm thus reducing border disputes.

-well trimmed fences provide beauty (aesthetic value to the farm)

-they enable animals to be isolated for treatment or observation.

-solid fence provide privacy.

-hedges provide soil and water conservation means. Live fences acts as shelter belts /wind breakers.

-they increased the value of land /farm. -Control breeding.

-protect water points. ($1 \times 6 = 6$ mks)

c. i. Flushing :refers to extra feeding of the females such as ewes on high quality feeds at least two to three weeks before and after mating to increase the chances of conception.

ii. Steaming up: it's the provision of extra feeds of high nutrients value to an animal during the last weeks of gestation.

iii. Creep feeding :it's the feeding of young animals such as lambs or piglets with high quality feeds from birth to weaning. ($2 \times 3 = 6$ mks) Mention 1mk ,explanation 1mk

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24. a. It's a farm structure made up of glass or translucent walls and roof to enhance and achieve optimum condition for valuable horticulture crop production. (1×1=1mks)

b. -galvanized steel. -aluminium or wooden frame. (4×½=2mks)

-fibre glass or reinforced panel

-Glass or clear polythene sheets.

c. i. Cubicles:units where animal rest .

ii. Roofing area:open area where animals feed from have water and feed trough used for dunging.

iii. Milking stall: its where animals are confined during milking:

iv. Calf pens: used for keeping and feeding the calves.

v. Manure pit /sludge tank :dung is drained here can be used to manufacture biogas.

vi. Food preparation places:it's the place where feed is prepared.

vii. Water and feed trough: used for watering respectively like feed preparation

viii. Stores: used for storing equipments like feed preparation equipments and milking equipments (2 x 7 = 14 marks) (Component 1mk explanation 1mk.)

d. -ensure faster accumulator of manure.

-has high stocking rate per unit area.

-chances of disease spread are low.

-facilitates biogas processing.

-efficient in herbage utilization.

-leads to high production of milk as animal reserve energy for movement.