

**NYANDARUA WEST CLUSTER EXAM 2018  
MARKING SCHEME AGRICULTURE PAPER 2**

**SECTION A (30 marks)**

**Answer all the questions in this section in the spaces provided.**

- 1. Give the functional difference between a rasp and bastard file. (1mark)**

*Rasp file is used for smoothing wooden surface while bastard is used smoothing metallic surface.*

- 2. Name four exotic pig breeds reared in Kenya. (2marks)**

- *Large white/yolk shire.*
- *Landrace.*
- *Saddlebacks.*
- *Berkshire.*
- *Middle white.*
- *Duroc Jersey pig/ Large back.*

- 3. State four predisposing factor of mastitis disease in cattle. (2marks)**

- *Age.*
- *Stage of lactation.*
- *Incomplete milking.*
- *Mechanical injuries.*
- *Poor sanitation.*
- *Poor milking techniques.*

- 4. Give two functions of a carburetor in a petrol engine. (1 mark)**

- *Introduce fuel and air in the cylinder.*
- *Atomises liquid fuel and air into fine spray.*
- *Regulates air and fuel in suitable proportions.*

- 5. State four signs of broodiness in a hen. (2 marks)**

- *Hens stop laying eggs.*
- *Hens sit on eggs for long period.*
- *Hens plucks off feathers to make a nest.*
- *Hens are aggressive when approached.*

- *Hens walks with wings open.*
- *Hens produces a characteristic crackling sound.*

**6. State four methods a farmer can use to control livestock diseases. (2 marks)**

- *Use of prophylactic drugs.*
- *Use of disinfections and antiseptics.*
- *Isolation of sick animals from healthy one.*
- *Imposition of quarantine.*
- *Control of vector.*
- *Vaccination.*
- *Slaughtering of infected animals.*
- *Proper disposal of carcass.*
- *Proper housing.*
- *Proper selection and breeding.*
- *Proper feeding.*
- *Treatment of sick animals.*

**7. Give four features of poultry houses that would help control diseases. ( 2 marks)**

- *Well ventilated.*
- *Free from draught/free from cold winds.*
- *Spacious.*
- *Proper drainage.*
- *Leak – proof.*
- *Well lit.*
- *Easy to clean.*

**8. State the uses of the following tools. ( 2 marks)**

**i) Pipe wrench –**

- *Holding metallic pipe.*
- *Tightening metallic pipes.*
- *Loosening metallic pipes.*

ii) **Steel float-**

- *For spreading screed over floors or wall.*

iii) **Manson's trowel-**

- *For placing mortar between construction stones and bricks.*

iv) **Ball pein hammer.-**

- *Used in riveting.*
- *Used in striking the head of cold-chisel.*

**9. What is hybrid vigor in livestock breeding. (1 mark)**

*Is increased performance resulting from crossing two genetically unrelated superior breeds.*

**10. State four reasons for castrating male goats. ( 2 marks)**

- *To control breeding diseases.*
- *To control breeding.*
- *To prevent inbreeding.*
- *For faster growth rates.*
- *To improve quality of meat produce eg. meat by removing unpleasant smell.*
- *To make them docile.*
- *To steer flattening.*

**11. Give four reasons for flushing in sheep management. (2 marks)**

- *Increases lambing percentage.*
- *Increases chances of multiple births.*
- *Increases conception rate/ increases evolution rate.*
- *Facilitates implantation of the zygote.*

**12. Outline four reasons why calves should be feed on colostrums. ( 2 marks)**

- *It is highly nutritious.*
- *Contain vitamins for growth.*
- *It has antibodies- enable calves to resist infections.*
- *Has laxative effects.*
- *Is highly palatable.*
- *Is highly digestible.*

**13. List four routine management practices carried out on dairy bull calves. (2 marks)**

- *Control internal parasites/ drenching.*
- *Control external parasites/ spraying using acaricides.*
- *Disease control/ vaccination.*
- *Castration at 2 -3 months old.*
- *Identification.*
- *Dehorning/disbudding.*

**14. Give two purposes of a footbath of a plunge dip. (1 mark)**

- *Wash feet of cattle.*
- *Remove mud from hooves.*
- *For controlling foot rot disease.*

**15. Give two reasons why a damp proof course (PVC) sheet is placed on top of foundation of farm buildings. ( 1 mark)**

- *To reduce termites rising up the wall.*
- *To reduce moisture rising up the wall.*

**16. State three reasons for clipping teeth in piglets. (1 ½ marks)**

- *Prevent injury to mother when sucking.*
- *Prevent injury to other piglets.*
- *Prevent injury to farmer when handling.*

**17. Outline three importance of feed additives in livestock production. (1 ½ marks)**

- *To stimulate growth of livestock.*
- *To improve feed efficiency.*
- *To prevent livestock diseases.*
- *To prevent parasites/worms infestation.*

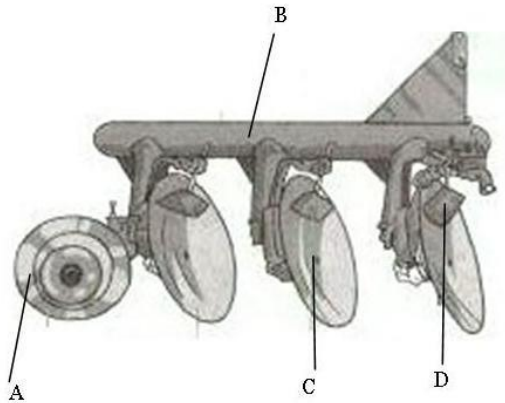
**18. State four disadvantages of using fold/ark structures in poultry rearing. (2 marks)**

- *Labour intensive.*
- *Accommodates few birds.*
- *Results in dirty eggs.*
- *Difficult to keep individual egg records.*
- *Breakage of folds due to frequent movement.*

## **SECTION B: (20MARKS)**

Answer **all** the questions in this section in the spaces provided.

19. Below is a diagram illustrating a farm implement. Study it carefully and answer the question that follow.



a) Name the parts labeled B and D. (1 mark)

*B- Beam.*

*D- Disc scrapper.*

a) State **one** function of part labeled A. (1 mark)

- *Controls the depth of ploughing.*
- *Stabilizes the plough by absorbing side thrust.*

b) State **one** way of increasing the depth of ploughing of the implement. (1 mark)

- *Adding weight of the beam.*
- *Decreasing the cutting angle of discs.*
- *Raising the land wheel/adjusting land wheel upward.*

c) Explain **one** maintenance practice of part labeled C. (1 mark)

- *Cleaning to remove dirt.*
- *Hammering to increase efficiency.*

d) Give **one** advantage of using the above implement over the mould board plough. (1mark)

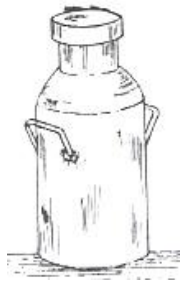
- *Can be used in field with obstacles.*
- *Requires less power to pull when operating.*

20. The diagram below represents farm tools and equipments.

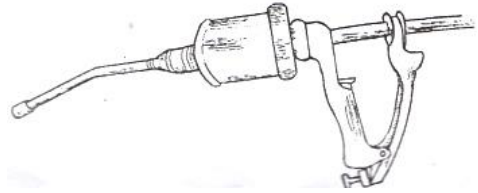
E



F



G



H



a) Identify the tools labeled F and G.

(1 mark)

*F – Milk can/ Churn (reject milking can)*

*G- Drenching gun.*

b) State one use of each of the tools labeled E and F.

(2 marks)

*E – Holding milk during milking.*

*-Hold milk during feeding of calves.*

*F – Holding milk during storage.*

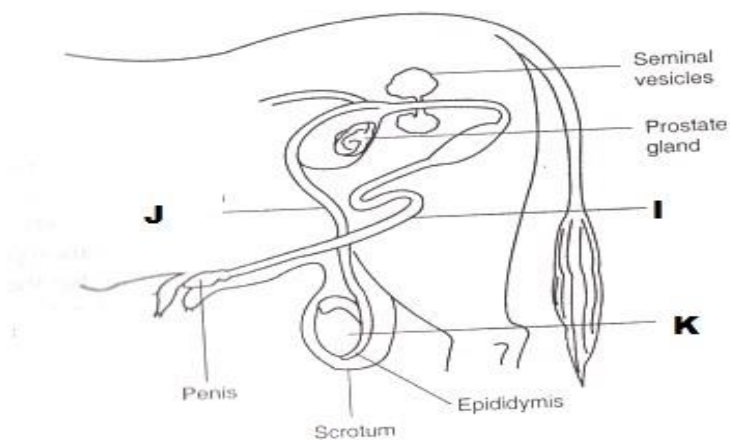
*-Holding milk during transit/ transportation.*

c) State the functional difference between tool labeled G and H.

(1 mark)

- G – Used for administering liquid drugs to livestock orally while H – Is used for shooting solid drugs/tablets orally to livestock*

*(Mark as a whole)*



21. Below is a diagram illustrating the reproductive system of a bull. Study it and answer the questions that follows.

a) Identify the parts labeled I and J.

( 2 marks)

*I – Urethra.*

*J – Uas deferens/sperm duct.*

b) State the functions of the part labeled:

i) **Seminal vesicles** - *Secretes semen.*

ii) **Scrotum** – *Regulate temperature of the testes for synthesis and survival of sperms.*

iii) **Epididymis** – *Stores sperms.*

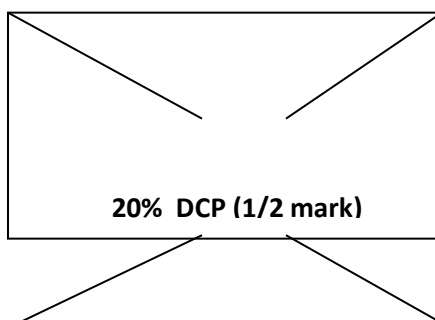
c) Name a defect that affects the part labeled K.

( 1 mark)

- *Chitis*

22. Using the Pearson's square method, compute a 200kg ration with 20% DCP from rice which contains 10% DCP and cotton seed cake containing 60% DCP. ( 5 marks)

Rice 10% DCP (1/2mark)



40 parts of rice (1/2mark)

Cotton seed cake 60%  
(1/2mark)

10 parts of cotton seed  
50 Total parts cake  
(1/2mark)

Amount of rice (1/2mark)  
 $\frac{40}{50} \times 200 = 160\text{kg}$  (1/2mark)

Amount of Cotton Seed Cake (1/2mark)  
 $\frac{10}{50} \times 200 = 40\text{kg}$  (1/2mark)

**SECTION C (40 MARKS)**

Answer any Two questions from this section in the spaces provided after question 26.

**23. A) Describe the management of layers in the deep litter system starting from the point of laying. (15 marks)**

- *Provide adequate space for layers/ 2 – 3 birds per square metre.*
  - *Keep the litter dry through turning it regularly.*
  - *Perches or rooster should be adequate and well spaced.*
  - *Feeder and waterers should be adequate.*
  - *Provide clean water and food.*
  - *Clean feeder and waterers.*
  - *Provide adequate laying nests.*
  - *Collect egg regularly.*
  - *Provide adequate layers march.*
  - *Supply grits to help in digestion.*
  - *Provide oyster shells to supply calcium.*
  - *Supply green vegetables to keep birds busy and provide vitamins.*
  - *Cull poor layers.*
  - *Debeak to prevent cannibalism and egg eating.*
  - *Vaccinate birds regularly to control diseases.*
  - *Dust birds to control external parasites.*
  - *Isolate and treat sick birds.*
  - *Control stress eg noise, strangers.*
  - *Maintain concentration of foot bath.*
  - *Give prophylactic drugs.*
- ( 1 x 15 = 15 marks)**

**B) State Five symptoms of cattle attacked by tape worm( Taenia saginata). (5 marks)**

- *Emaciation.*
  - *Staring coat/rough coat.*
  - *Constipation.*
  - *Pot bellies.*
  - *Oedematous swelling under the jaw.*
  - *Obstruction of intestine.*
  - *Presence of proglottides in feces.*
  - *Anaemia.*
  - *Excessive appetite/ravenous.*
- ( first 5. 1x5 = marks)**

**24. A) Describe Newcastle disease under the following sub-heading.**

- i) Livestock affected. (1 mark)**
- *Poultry (1x1=1mark)*
- ii) Causal organism. (1 mark)**
- *Virus : Revert viral (1x1 = 1mark)*
- iii) Signs of attack. (5 marks)**

- *Difficulties in breathing.*
- *Beaks remain wide open.*
- *Necks are strained.*
- *Dullness/becomes dull.*
- *Birds stand with eyes closed all the time.*
- *Loss of appetite.*
- *Nasal discharge.*
- *Staggering motion.*
- *Produce watery greenish diarrhea.*
- *Paralysis of wings and legs.*
- *Soft shelled eggs laid.*
- *Beaks and wings down.*

*( 1 x 5 = marks)*

**iv) Control measures.**

**(3 marks)**

- *Imposition of quarantine.*
- *Regular vaccination.*
- *Killing and proper disposal of carcasses of entire flock.*
- *Cleaning and disinfecting the house before introducing new flock.*
- *Obtain new flock from a reputable firm.*

*(1x3 = 3 marks)*

**B) Describe how a calf is trained to drink milk from a bucket.**

**(5 marks)**

- Put clean milk in a clean bucket.*
- Hold the calf's neck between one's legs.*
- Place the index finger into the calf's mouth.*
- Lower the finger slowly until it is submerged in milk as the calf sucks.*
- Slowly withdraw the finger while the calf is sucking.*
- Repeat steps (i) to (v) until the calf learns how to drink from the bucket without assistance.*

*(1 X 5marks)*

**C) Outline any five methods of tick control in livestock farming.**

**(5 marks)**

- Dipping/ Spraying with the appropriate acaricide*
- Burning infested pasture*
- Hand picking and killing them*
- Rotational grazing*
- Hand dressing using pyrethrum*
- Fencing to keep off wild animals*
- Ploughing pastures infested with ticks*

*(1 X 5= 5marks)*

**25. A) Explain five factors that influence the power output by draught animals.**

**(10 marks)**

- Age: Mature animals produce more power than young ones.*
- Breed: Indigenous animals are more hardy than exotic ones.*
- Level of Training: Well trained animals have better work out performance.*
- Body weight : The bigger the animal the more the output.*
- Harnessing of the animal: Well harnessed animal is more efficient at work than poorly harnessed one.*

- vi) *Environmental/ambient temperature- cool temperature lead to higher work out than high temperature*
- vii) *Health Status: A health draught animal has a higher work output than sick animals*  
(2X 5= 10marks)

**B) i) Describe animal the procedure of processing honey using crushing and straining method. (4 marks)**

- i. *Crush the honey combs*
- ii. *Strain the crushed honey combs using muslin cloth into an enamel basin.*
- iii. *Remove scum formed using wooden spoon*
- iv. *Put honey in plastic/glass jar.*

**1X 4=4marks**

**ii) State one other method of processing honey.**

**(1 mark)**

- i. *Heat method*
- ii. *Centrifugal extractor*

**(1 X 1= 1mark)**

**C) Describe how a farmer would care and maintain a tractor battery.**

**(5 marks)**

- i. *The level of electrolyte should be kept above the plate by tapping with distilled water.*
- ii. *Corroded terminals should be cleaned and smeared with grease.*
- iii. *Fix the battery tightly in the box to avoid spillage and damage.*
- iv. *Battery terminals should be fitted correctly on the tractor.*
- v. *Charge battery regularly*
- vi. *Generator fan belt should be functional to ensure the battery is charged.*

**(1 X 5= 5marks)**