

## AGRICULTURE PAPER TWO

### ANSWER ALL THE QUESTIONS IN THE SPACES PROVIDED

1. Outline four procedures of using a rip-cut saw (2 marks)

- ✓ Rip-cut saw is used in cutting along the grains of woods
- ✓ The front teeth are set perpendicularly to the blade
- ✓ The top teeth of the teeth are shaped as chisel
- ✓ The rip saw is held at 60 to the work when cutting

2. State four features of a large white breed of pigs. (2 marks)

- ✓ A long body
- ✓ White with blue body spots
- ✓ Broad and slight dished snout
- ✓ Upright ears

3. Give four reasons which may necessitate restraining of a cow on the farm (2 marks)

- ✓ During milking
- ✓ When carrying out routine management practices
- ✓ During artificial insemination
- ✓ When carrying out pregnancy test

4. Name four stage of liver flukes which occurs in fresh water snail

- ✓ Sporocysts
- ✓ Cercariae
- ✓ Redia
- ✓ Metacercariae

4. Name four biotic factors which determine the maintenance requirement of an animal

- ✓ Weather conditions
- ✓ Age of the animal
- ✓ Level of activity
- ✓ Body size of an animal
- ✓ Physiological conditions

6. Distinguish between the following pair of terms as used in livestock production

(a) Ringing and crutching (1 mark)

- ✓ Ringing: cutting of short wool from around the penile sheath of ram for easy mating
- ✓ Crutching: cutting of wool from around the ewe's external reproductive organ to allow easy mating ( mark as whole )

(b) steaming up and flushing (1 mark)

- ✓ Steaming up is the provision of food of high nutritive value to pregnant animal a few weeks before parturition
- ✓ Flushing is providing female sheep with extra food of high nutritive value three weeks before and after mating

7. State four signs of heat in rabbits (2 marks)

- ✓ Throwing herself on its sides
- ✓ Rubbing against the wall
- ✓ Swollen vulva
- ✓ Restlessness
- ✓ Trying to contact other rabbits in the neighboring cages

8. State four constructive features necessary in a fish pond. (2 marks)

- ✓ Outlet to drain out water
- ✓ Inlet to allow in fresh water
- ✓ Spillway to allow overflow of excess water
- ✓ Screens to prevent escape of fish or entry of predators
- ✓ Fence to keep of predators

9. State four symptoms of Newcastle disease in poultry (2 marks)

- ✓ Difficulties in breathing
- ✓ Coughing and sneezing
- ✓ Head and neck twisted backwards
- ✓ Decreased egg production
- ✓ Drooping wings
- ✓ Walking in staggering manner
- ✓ Profuse nasal discharge
- ✓ High mortality rate

10. State four management practices carried out to prevent occurrence of parasites in pasture lands (2 marks)

- ✓ Dressing the pasture land with an acaricide
- ✓ Burning the infested pasture land
- ✓ Carrying out rational grazing
- ✓ Dipping/spraying the animals

11. Name four pre-milking practices (2 marks)

- ✓ Cleaning the teats and teat dipping
- ✓ Applying milk salve on the teats

- ✓ Releasing the cow
- ✓ Weighing and recording the milk produced
- ✓ Sieving the milk
- ✓ Washing the milk equipment and the milking parlour
- ✓ Cooling the milk

12. State four sources of power in the farm (2 marks)

- ✓ Human power
- ✓ Fossils fuels
- ✓ Electric power
- ✓ Biogas
- ✓ Solar radiation
- ✓ Wind
- ✓ Water power

13. (a) Name two products obtained from a dual purpose sheep (1 mark)

- ✓ Wool
- ✓ Mutton

(b) Give an appropriate term that refers to each of the following

(i) Castrated chicken ( $\frac{1}{2}$ mark)

- ✓ Capon

(ii) Young one of a rabbit ( $\frac{1}{2}$ mark)

- ✓ Kindle

14. State four hygiene practices in livestock feeding (2 marks)

- ✓ Feeding the animal with clean water
- ✓ Watering the animal with clean water
- ✓ Using clean feeders and water troughs
- ✓ Disinfecting the feeders and waterers

15. State one use of each of the following farm tools

(a) Stock and die ( $\frac{1}{2}$ mark)

- ✓ Cutting threads on the PVC pipes

(b) Elastrator ( $\frac{1}{2}$ mark)

- ✓ Enlarging the rubbering during castration, dehorning, docking

(c) Garden line ( $\frac{1}{2}$ mark)

- ✓ Marking straight lines on the land during planting

(d) Monkey strainer (1/2 mark)

- ✓ Stretching fencing wires until they are straight

## SECTION B (20 MARKS)

ANSWER ALL THE QUESTIONS IN THE SPACES PROVIDED

16. A farmer is required to prepare 200kg of dairy meal containing 18% digestible crude protein (DCP). Using Pearson's square method, calculate the quantity of sunflower seed cake (34% DCP) and maize germ (7%DCP) the farmer require for daily meal. (5 marks)

17. The picture below shows a calf rearing system

(a) Identify the rearing system illustrated above (1 mark)

- ✓ Artificial calf rearing

(b) State two ways in which the methods illustrated above can help prevent calf scours (2 marks)

- ✓ Providing the calf with milk at body temperature
- ✓ Observing hygiene during feeding
- ✓ Providing the calf with amount of milk

(c) State two conditions which may make a farmer use the rearing system illustrated above (2 marks)

- ✓ In case the cow dies after parturition
- ✓ If the cow is not able to produce sufficient amount of milk to the calf

18. Below is an illustration of an activity carried out by a poultry farmer keeping layer

(a) Give one reason for carrying out the practice in poultry rearing

- ✓ To detect abnormality in eggs

(b) State two faults which can be detected using the method illustrated above (2 marks)

- ✓ Presence of milk spot inside the eggs
- ✓ Presence of blood spot inside egg
- ✓ A double yolk egg

(c) How can a farmer improve the following production in poultry production?

(i) Hardness of egg shells (1 mark)

- ✓ Providing the hen with calcium

(ii) Yellowness of egg yolk (1 mark)

19. The diagram below shows a livestock production.

(a) Identify the parasite (1 mark)

- ✓ Beef/pork

(b) Explain how the parasite can be passed from;

(i) Livestock to human beings. (1 mark)

- ✓ Eating meat which is not properly cooked

(ii) Human being to animals (1 mark)

- ✓ When an infected person defecates in a pasture land

(c) State two control measures for parasite in a zero grazing unit. (2 mark)

- ✓ Regular deworming of the animal
- ✓ Observing hygiene in the grazing unit

### SECTION C (40 MARKS)

ANSWER ANY TWO QUESTIONS FROM THIS SECTION IN THE SPACES PROVIDED AFTER QUESTION 22

20. (a) Outline five advantages of artificial insemination in cattle management. (5 marks)

- ✓ There is economical use of semen
- ✓ Control transmission of breeding diseases
- ✓ Sire that are unable to serve cows due to heavy weight can produce semen to serve cows
- ✓ Prevent large bulls from injuring small cows
- ✓ Reduce the expenses of keeping male animal in the farm
- ✓ Small scale farmers who cannot afford to buy a superior bull can have the cow served at low cost
- ✓ Semen can be stored for a long time even in the death of the bull
- ✓ Help to control in breeding
- ✓ Makes research work easier

(b) Describe five steps taken to maintain hygiene in a deep litter poultry house (5 marks)

- ✓ Regular cleaning and disinfecting the feeders and waterers
- ✓ Replace old and wet litter
- ✓ Control vectors in the poultry house
- ✓ Use of foot bath at the entrance
- ✓ Avoid dampness in the house
- ✓ Cull the sick birds

(c) Explain five precautions taken by a dairy farmer to ensure clean milk production. (10 marks)

- ✓ Maintain healthy milking herd to prevent transmission of the disease agent to milk and milk man
- ✓ Clean milking cow to prevent contamination of milk with dirt
- ✓ Maintain healthy clean milk man to prevent transmission of zoonotic disease
- ✓ Maintain clean milking shed to prevent accumulation of dirt and disease agent
- ✓ Maintain clean milk equipment to prevent contamination of milk
- ✓ Ensure milk is filtered to remove sand impurities
- ✓ Ensure milk is cooled properly to give it a long shelf life
- ✓ Strong flavored food should be fed to the cow

21. (a) Explain the functions of any five parts of a zero grazing unit in dairy farm. (5 marks)

- ✓ Milking stall; restrain the cow during milking
- ✓ Calf pen; rearing calves up to weaning
- ✓ Sleeping cubicles; provide shelter and warmth
- ✓ Loafing area; for dunging, feeding, exercise and sunning
- ✓ Milk recording room; for weighing and recording milk
- ✓ Feed preparation room; for preparing feeds rations and chopping fodder
- ✓ Store; for keeping dairy equipment

(b) Outline five indicators that can be observed on a goat to confirm sickness (5 marks)

- ✓ By checking the appetite and feeding
- ✓ Defecation inconsistency in texture, colour, smell, frequency and posture
- ✓ Change in temperature above or below normal
- ✓ Abnormal posture
- ✓ Abnormal pulse rate
- ✓ Loss of weight/emaciation
- ✓ Behavior; excitement, aggressiveness abnormal sound
- ✓ Appearance; dullness, restlessness, pot belly bloated stomach
- ✓ Mucous membrane; pale bright or yellowish
- ✓ Skin coat; rough skin, swelling on the skin
- ✓ Describe the characteristics of a good layer. (10 marks)
- ✓ Large wattle and combs
- ✓ Bright and alert eyes

- ✓ Pale beak
- ✓ Soft abdomen
- ✓ Oval vent which is active
- ✓ Space between the keel and pelvic can fit three fingers
- ✓ Rough plumage
- ✓ Late moulting
- ✓ Pale shanks
- ✓ Broodiness is rear

22. (a) Describe the Brucellosis disease in cattle under the following sub-headings

(i) Causal organism (1 mark)

- ✓ Bacteria

(ii) Sign of attack (4 marks)

- ✓ Spontaneous abortion or premature birth
- ✓ Retained placenta if abortion occurs during the later stages of pregnancy
- ✓ Infertility in cows while bulls have low libido and inflamed testes
- ✓ Yellow brown, slimy odourless discharge from the vulva may occur after abortion

(iii) Control measures (5 marks)

- ✓ Use of artificial insemination
- ✓ Avoid contact with aborted foetus with bare hands
- ✓ Proper disposal of aborted foetus
- ✓ Observe hygiene in the animal's houses
- ✓ Blood test should be carried out for all breeding animals to detect the infected animals

(b) Describe causes of low egg production in layers. (10 marks)

- ✓ Inadequate feeding
- ✓ Parasite infestation
- ✓ Disease infection
- ✓ Old age
- ✓ Broodiness
- ✓ Inadequate waterers and feeders
- ✓ Inadequate laying nests/ boxes
- ✓ Presence of predators in layers' house
- ✓ Sudden change of feeds
- ✓ Sudden noise
- ✓ Sudden change of weather to cold conditions

