SECTION A (30 Marks)

1. - Level of production.

   Body size.

   - Age.

   - Physiological conditions.

   - Health status.

   - Work activities done by the animal.

   - Weather conditions.

2. - Removal of marketable size of fish from a pond.

3. - Concrete floor.

   - Adequate space.

   - Single housing.

   - Proper lighting.

   - Proper drainage.

   - Draught free.

   - Leak proof roof.

4. - Apiculture:-keeping and rearing of bees in a bee hive while Aqua culture:

   -is the rearing of fish in a fish pond.

5. - Provide nutrients for maximum foetal growth.

   - Ensures birth of healthy animal.

   - Promotes good health of the mother.

   - Helps build up energy for parturition.

   - Increases and maintains high milk yield after birth.

6. - To maintain the colony.

   - To encourage multiplication.

   - To supplement what bees get from foraging.

   - To provide food to bees during drought.

7. - Difficult breathing.

   - Watery greenish diarrhea.

   - Drooping wings.

   - Birds, walk with staggering motion.

- Nosal discharge
- Loss of appetite/anorexia.
- Dullness.
- Beaks remain wide open.
- Birds stand with eyes closed.

8. - Crutching:-is the cutting of wool around the reproductive organs of ewe/female, sheep while ringing is the cutting of wool around the sheath/pens of a ram.

9. - Contains grit for grinding food.
   - Has thick tough muscles for crushing food into particles.
   - Has grooves.

10. - Highly digestible.
    - High energy content.
    - Highly palatable.
    - Rich in minerals and vitamins.
    - High digestible crude protein (DCP)

11. - Suitable for spraying pregnant and sick animals.
    - Animals don't swallow the acaricides.
    - Less labour is required.
    - Spraying is very fast.

12. - Painful/infection to the udder/udder injured.
    - Poor feeding during steaming up/malnutrition of ewe.
    - Sick ewe.
    - The ewe has poor mothering ability/instinct.
    - Deformed lamb unable to follow the mother.
    - Lambs born weak, unable to walk and suckle.
    - Lack of milk in the ewe.

13. - Strong.
    - Resistant to weather elements/rotting.
    - Resistant to pest attack/insect damage.
    - Resistant to fire.

- Highly durable/long lasting.

- Can easily be moulded to required shape.

17. - Possible to implant embryo from a high quality female to less valuable female and hence improve performance of offspring.

- Stimulates milk production in a female that was not ready to produce milk.

- Easier to transport embryos in a test tube than the whole animal.

- Highly productive female can be spread over a large area to benefit many farmers.

- Embryos can be stored for long periods awaiting availability of the recipient female.

SECTION B (20 Marks)

18. (a) Identity of farm fence. (1mark)

- Barbed wire fence. (1x1=1 mark)

(b) Parts:

A. –Standard/intermediate post. (½mark)

B. –Droppers. (½mark)

C. –Corner/strainer post / king post. (½mark)

D. –Strut / support. (½mark)

(c) TWO reasons why the fence is not recommended for sheep rearing. (2 marks)

- Scratch/cut/tear off the wool/fleece.

- Cause mechanical injury to the animal. (2x1=2 marks)

19. (a) Parts labelled : (3marks)

A. Magnum. (1mark)

B. Isthmus. (1mark)

C. Uterus/shell gland. (1mark) (1x3=3marks)

(b) TWO substances added to the egg at section C. (2 marks).

- Calcium.

-Shell pigments.

- Addition of albumen/egg white. (2x1=2 marks)

20. (a) Identification of condition (1mark)

- Soft bones/weak borne formation/Oestomalacia. (1x1=1mark)

(b) Vitamin (1mark) Vitamin D deficiency. (1x1=1 mark)

(c) Three functions of vitamins in poultry. (3marks)

- Promote growth. - Help in blood clotting.

- Help in bone formation.
- Help in bone formation.

- Help in muscular activity.

- Prevent disease in animals.

- Act as organic catalysts in various metabolic and physiological reactions

SECTION C (40 Marks)

21. (a) SIX general methods of diseases control(12 marks)

(i) Proper feeding and nutrition; animals should be given balanced rations,

diets which must be adequate in quality and quantity.

(ii) Proper breeding and selection:-healthy animals should be selected for breeding,

should be free from diseases or be resistant to prevalent disease.

(iii) Proper housing and hygiene:-livestock houses should be constructed

such that they meet the essential requirements for particular animals

e.g. scours in young animals, mastitis in diary animals can be controlled through proper housing.

(iv) Isolation of sick animals: - is a preventative measure taken when an animals

is suspected to have contracted a disease or actually sick.

(v) Imposition of quarantine:-aimed at preventing the spread of a notifiable disease to other healthy animals.

(vi) Prophylactic measures and treatment:

- Involves control of disease and parasites using preventive drugs

e.g.coccidiostats, carrying out regular vaccination, control of vectors, and treatment of sick animals.

(vii) Slaughtering the affected animals:-

- Fulvous isolation and slaughtering of infected

animals with highly infectious involves and contagious diseases to prevent any further spread of the diseases.

(viii) Use of antiseptic and disinfectants:

- Farmer must ensure cleanliness in the animal houses and

surroundings using mild antibacterial drugs on animal skins and germicidal chemicals

like phenol on buildings, troughs and pigsty flours to kill bacteria.

(2x6=12 marks)(Well explained points)

(b) Management practice during parturition in a cow. (8 marks)

(i) Separate the cow from the rest and put it in separate paddock.

(ii) Watch the cow closely.

(iii)Assist the cow in case of difficulties.

(iv) Allow the cow to lick the calf.
(v) Assist the calf to breath steadily in case of a problem.

(vi) Tie and cut naval cord with sterilized razor.

(vii) Disinfect the naval cord with suitable antibacterial drugs.

(viii) Ensure the placenta is expelled within 12 hrs.

(ix) Contact the vet. Officer in case the placenta is retained for long.

(x) Assist the calf to suckle colostrum.

(xi) Give the cow plenty and clean water. (8x1=8 marks)

22. (a) Mastitis disease under the following sub-headings:

(i) Causal organism: (1mark)

- Streptococcal mastitis

–streptococcus agalactiae

- Staphylococcal mastitis

–staphylococcus ureus.

- Bacteria.

(ii) Pre- disposing factors:

1) Age –older animals are more likely to be infected compared to young ones.

2) Stage of lactation period –animals likely to suffer from mastitis at the beginning and end of lactation.

3) Udder attachment:-those animals with large and long teats are more prone to mastitis infection.

4) Incomplete milking –milk left in the teat canal act as a culture media for bacteria.

5) Mechanical injuries:-wounds on teats or udder allow micro-organisms entry into the udder.

6) Poor sanitation/hygiene - increases multiplication of bacteria causing mastitis.

7) Poor milking techniques:-may result in mechanical injury of the teats and

weakening of sphincter muscles of the teat.(1x5=5 marks)

(iii) Symptoms (3marks)

- Milk contains pus, blood, thick clots/turns watery.

- Swollen udder/animal rejects suckling or milking and kicks due to pain.

- Death of infected quarter may result.

- Milk has salty taste and there are fine clots/ flakes especially in the fore milk. (1x3=3 marks)

(iv) Control measures and treatment: (5marks)

- Affected quarter of udder is emptied of milk and an antibiotics infused and left for 12 hrs.

- Use teat dip on every quarter after milking. - Use the right milking technique.
- Strict cleanliness and use of disinfectants during milking.

- Dry cow therapy which involves infusion of long acting antibiotics into the

teat canal when drying off the cows.

- A strip cup should be used to detect infection. Infected cows should be milked last.

- Separate udder clothes/towels should be used for each animal/udder towels

should be disinfected after milking each cow.

- Sharp objects should be removed from grazing and milking areas to prevent injuries.

- Open wounds on teats should be treated immediately. (1x5=5 marks)

(b) SIX importance of keeping animals healthy (6 marks)

- To grow well and fast enough to reach maturity quickly.

- To give animals a longer economic and productive life.

- To give maximum production/performance/maintain high productivity.

- To produce good quality products to command high market value.

- To prevent spread of diseases to either animals or human beings.

- Healthy animals are economical and easy to keep as the farmer

spends less money on disease treatment. (1x6=6 marks)

23. (a) FIVE safety precautions when using workshop tools and equipment(5marks)

- Tools should always be left in a safe place after use.

- Use the correct tool for the correct work / job.

- Tools should be handled correctly when in use to avoid damage to the tool and injury to the user.

- Tools should be maintained and serviced to remain in good working condition and last longer.

- Use of safety devices like fire extinguishers and first aid kits in the workshops to reduce accidents

e.g. goggles when welding.

- All tools should be stored properly in tool cabinets/tool racks. (1x5=5 marks)

(b) FIVE reasons why farmers should maintain farm tools and equipment.(10marks)

- To increase durability: - properly maintained and well cared tools last longer on the farm.

- To reduce replacement cost:

-if tools are well taken care of they last longer thus reduces the total cost of production in the farm.

- Increased efficiency:

-well maintained tools work better and more efficiently to give a clean, well finished pieces of work.
- To avoid injury to the user

:-using poorly kept tool might result to injury of the user

e.g. Using a blunt cutting tool which has broken handle leads tool development of blisters on the hand of the user.

- To avoid damage to the tool:

-a tool that is poorly maintained ends up getting damaged due

to the force used in working with it.(2x5=10 marks)(well explained points)

(c) FIVE physical characteristics of a typical dairy cattle. (5marks)

- Wedge/triangular shaped.

- Straight top line.

- Well set a part hind quarters to allow room for the big udder.

- Have large and well developed udders with large teats that are well spaced.

- Have prominent milk veins.

- They have lean bodies with little flesh.

- Large stomach capacity that enables the animal to feed heavily for high milk production.

- Docile with mild temperament.(1x5=5 marks)