AGRICULTURE PAPER 2
SECTION A (30 MARKS)

Answer all questions in this section in the spaces provided.

1. State four reasons why farmers should keep livestock healthy. (2marks)

- To produce high quality products
- Healthy animals grow very fast and reach maturity early
- To enable them have a long life span and breed regularly
- To reduce the spread of diseases

2. State four reasons for maintaining a panga in good working condition. (2marks)

- To increase its durability
- To reduce the replacement cost
- To avoid injury to the user
- To avoid damage to the tool

3. Give one function of each of the following tools

(a) Pipe wrench - for holding tightening and loosening metallic pipe
(b) Milk churn - for holding milk in transit and storage
(c) secateurs - for pruning soft branches
(d) Bolus gun - for shooting solid drugs through the mouth of a animals

4. State four advantages of deep litter system of rearing poultry. (2marks)

- Many birds can be kept in a small area
- No loss of eggs
- Low labour requirements
- The system can be to rear breeding stock
- Fast accumulation of manure

5. Distinguish between carrying capacity and stocking rate as used in livestock production. (1mark)

Carrying capacity - is the ability of forage stand to maintain a particular number of livestock unit per unit area
Stocking rate - number of animals maintained per unit area.

6. Give two reasons for carrying out tooth clipping in piglets. (1mark)

- To avoid causing injury to sour during suckling
- To minimise the incidence of piglets hurting each other

7. Name the intermediate hosts in following parasites. (1mark)

(a) Tapeworm - cattle / pigs
(b) Liver fluke. - water snail / mud snail.

8. State four factors that determine amount of food given to an animal per day. (2marks)

- The body size
- Physiological conditions
- Age of the animal
- Level of production
- The form in which the feed is taken.

State four qualities of good wool (2marks)
- Physically clean
- Should be Long
- Should be strong
- Should be elastic
- Fine/soft/high wool cont
- Should be white in colour
- Should have a high fleece weight.

10. Give two advantages of using spray race over plunge dips. (1mark)
- Animals cannot swallow the acaricide wash
- Suitable for pregnant and sick animals
- Spraying is faster.
- Acaricide wash is not wasted

11. State four characteristics of light breeds of poultry (2marks)
- Hardly go broody
- Poor meat producers
- Good layers
- Light body weight.

12. Define the term prepotency as used in livestock production. (2marks)
This is the ability of parents to pass good qualities to their offspring.

13. State four properties of a good vaccine. (2marks)
- Have a long keeping life
- Easy to administer
- Should have no side effect
- Compatible with other vaccines
- Single dose to produce life long immunity

14. Highlight four qualities of eggs for incubation. (3marks)
- Shd be fertilised.
- Should be of medium size
- Shall have smooth shells
- Should be oval in shape
- Should be clean.
- Shd not have any abnormalities
- Shd not be stored for more than 8-10 days.

15. State four post milking practices. (2marks)
- Weighing
- Recording
- Straining the milk.
- Cooling, storage
- Cleaning utensils
- Cleaning the parlour.

16. State two predisposing factors of foot rot disease in sheep. (1mark)
Filthy surrounding
Cracking of the hooves.

17. State four factors that influence the composition of milk. (2marks)
- Age of animal
- Condition of the animal
- Breed differences
- Season of the year.
- Type of food eaten by animal
- Completeness of milking
- Stage of lactation and Pregnancy.

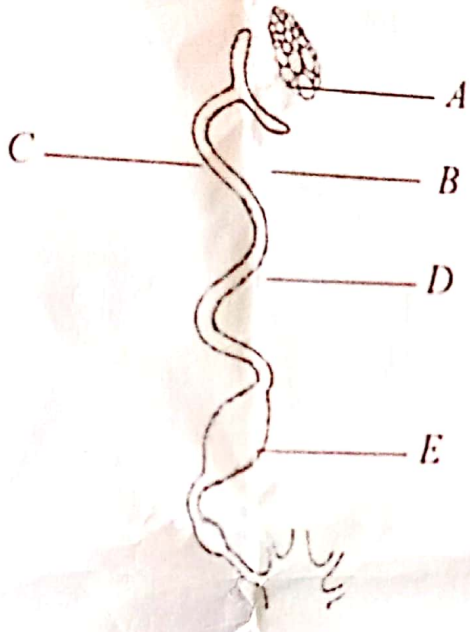
cate four control measures of ~~feats~~ Pleas in poultry. (2marks)

- Applying petroleum jelly on combs
- Proper housing hygiene
- Dusting birds with appropriate insecticides
- Dust the house with insecticides

SECTION B (20MARKS)

Answer all questions in this section in the spaces provided.

19. The following diagram shows the productive system of a hen. Study it and answer the questions that follow.



(a) Name the parts labelled A, C, D and E (2marks)

A Ovary

C Magnum

D Isthmus

E Uterus/shell gland

(b) State the function of the part labelled C and E (2marks)

C Addition of thick albumen

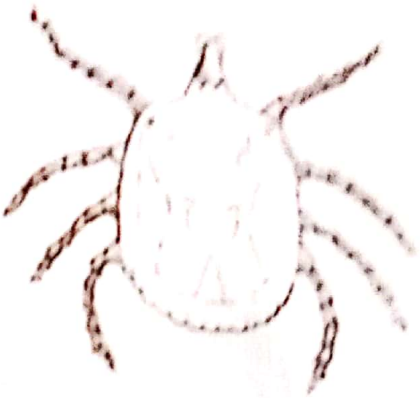
E Addition of the shell, shell pigments
- Completion of addition of albumen.

What is the role of the part labelled A (1mark)

Releases mature ovum.

20. The following illustrations shows parasites which transmit diseases in livestock. Study them and answer the questions that follow.

K



L

(a) Identify the parasites labelled K and L (2marks)

K Tsetse fly

L TICK

(B) In each case, name one disease transmitted by the parasites K and L in cattle. (2marks)

K Trypanosomiasis / Nagana

L E.C.F / Anaplasmosis (gall sickness)

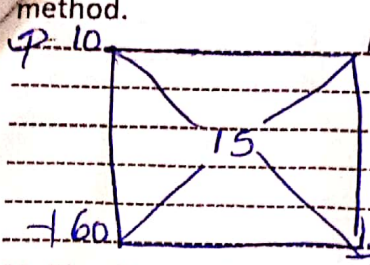
(c) State two control measures of parasite labelled K. (2marks)

Bush clearing
spraying their breeding places with suitable insecticides
Use of fly traps with impregnated nets
Use of sterilising agents.

21. Use the information to answer the questions that follow.

Feed stuff	Protein
Q	10%
Y	60%

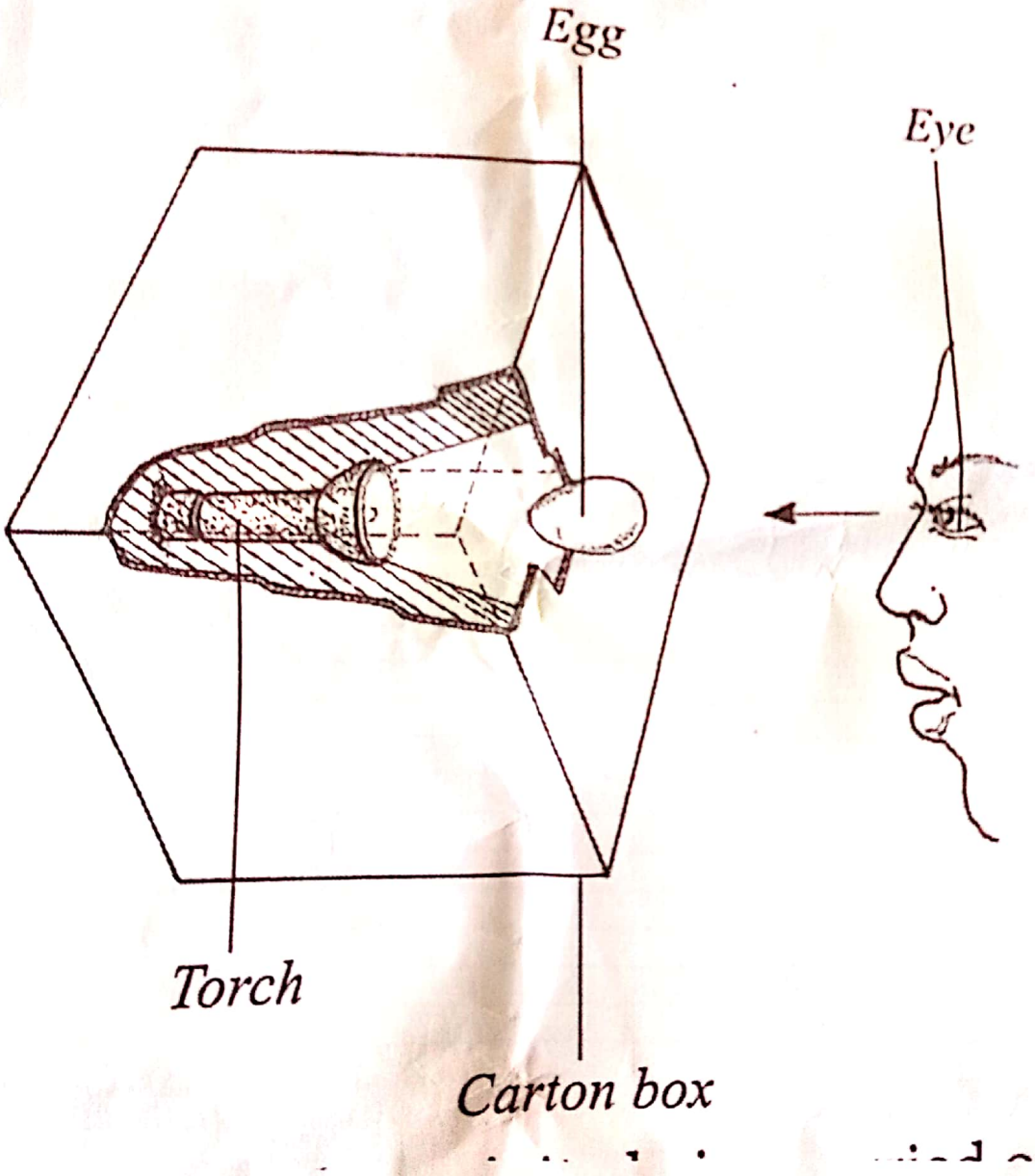
) Formulate a ration of 200kg containing 15% protein using Q and Y as ingredients using the persons square method. (4marks)



Amount of Q $\frac{45}{50} \times 200 = 180kg$

Amount of Y $\frac{5}{50} \times 200 = 20kg$

22. The diagram below shows activity carried out by a poultry farmer keeping layers. Study the diagram carefully and answer the questions that follow.



(a) Identify the activity being carried out (1mark)

Egg candling

ve four abnormalities in the eggs that can be detected during the above activity. (4marks)

Tiny cracks on egg shells
Presence of double yolks / broken yolk / spread yolk
Presence of blood spots in an egg / meat spots
Air space in wrong position
Excessively large air space.

SECTION C (40 marks)

ANSWER ANY TWO QUESTIONS IN THIS SECTION IN THE PACES PROVIDED.

23(A) Describe the outline management practices carried out on calves up to wearing (12marks)

(b) Explain the practices observed in clean milk production. (8marks)

24. (a) Describe the procedure of harvesting fish in a fish pond. (7marks)
(b)Give five practices carried out on fish before preservation (5marks)
(c) Describe the feeding of fish in a fish pond. (4marks)
(d) Explain the stocking of fish in fish pond (4marks)

25.a) Discuss the fowl typhoid disease under the following sub headings.
(i) Causal organism (1mark)
(ii) Animal attacked (1mark)
(iii) Symptoms (6marks)
(iv)Control measures (2marks)
(b) (i) Explain six precautions observed when handling bees. (6marks)
(ii) Explain four factors considered when siting an apiary. (4marks)

22a) Egg candling (1mk)

b). Tiny cracks on egg shells.
- Presence of double yolks / broken yolk / spread yolk.
- Presence of blood spots in an egg / meat spots
- Air space in wrong position
- Excessively large air space.

4 X 1 = (4mks)

SECTION C 40MRKS

23(a) Identification
- Calves are identified by either use of ear tatoo, ear tagging, branding, ear notching or use of neck straps
- Done to make recording of an animals performance easier.

b) Disbudding - Using caustic Potash stick, hot iron or even dehorning colloidon.
- To make them easy to handle
- To reduce chances of causing injury to the others and the farmer.

c) Disease control - Vaccination against diseases eg brucellosis.
- Using right vaccines and use correct route of administration.

d) Removal of extra teats.
- Should be done within the first month.
- Treat the wound with an antiseptic.

e) Parasite control - spraying against external parasites.
- Drenching to control internal parasites.

f) Castration - Male calves not required for breeding should be

Castrated.
- To make them docile
- To control breeding and inbreeding.

6 X 2 = 12 MRKS

b) Keep cows healthy / free from diseases
- Wash the cows udder, flanks using clean water, then dry using milking towels
- Milkman should be clean He/She should have short finger nails and hairs covered.
- Ensure the Milking shed is clean at all times. Wash it after every milking and disinfect regularly.
- Clean and sterilise the milking utensils and equipment
- Do not feed cows on feeds which may taint milk a few hours to milking.
- Cover the milk and keep it in a cool dry place.
- After milking, filter and cool the milk to 4°C.

8 X 1 = 8 MRKS.

24 a) Stop the inflow of water from the river
Normal cropping is done to remove all the large fish by use of a seine net.
The outlet is then opened to allow water to flow out
A scoop net is used to catch the fingerlings.
Fingerlings are kept in a holding pond
Water is completely drained
Pond is left to dry before restocking is done.

7 X 1 = 7 MKS

b) Cleaning the fish
Removing scales and slime.

- Opening the fish on the side to remove the gut and the intestines.
- Cleaning the abdominal cavity thoroughly
- Keeping fish in open containers

5X1=5mks

c) Fish food in ponds include kitchen waste, rice bran, ground nut cakes
- Feed fish at regular intervals
- Feed adequate amounts which do not allow remnants in the pond.
- Place feed in the shallow part of the pond.
- Change feeds from time to time
- Feeding should be done at specific times of the day.

Any 4X1 =4mks

d - Obtain fingerlings from reknown hatcheries
- Transport fingerlings in oxygenated bags, milk cans or drums.
- Use clean water at 10°c in transporting the fingerlings
- Take care to avoid injuring the fingerlings during transit.
- Introduce the fingerlings into the pond by lowering the container into the water and tilting it to allow them to swim away.

(Any 4X1=4marks)

2. Causal organism – Bacteria | Salmonella gallinarum

ii) Animals attacked.
- Chicken, Turkey and ducks (1x1) = 1mk

iii) Symptoms
- Birds show signs of depression
- Respiratory distress and are dull
- Drooping wings and sleepy eyes.
- The combs and wattles becomes pale and shrunken because of anemia
- Greenish yellow diarrhoea
- Bird dies within a few days.

6 x 1 = 6mks

Control measures :-
- All affected birds should be killed and properly disposed off
- Poultry house should be clean, dry and well ventilated

b. i) Do not frighten bees
Bee hives should not be approached from the front.
Bees should not be crushed during handling.
move quietly towards the beehives.
If stung, the bee keeper should not run or throw the combs down.
Always wear protective clothing.
Scrape off a bee sting with a nail or a razor blade.

ii) Availability of water.
Availability of flowers.
A sheltered place
Should be sited away from noise