

Name _____ Index No. _____

Candidate's signature _____

Date _____

**443/1
AGRICULTURE
PAPER 1
JULY 2011
2 HOURS**

**KIBWEZI SECONDARY SCHOOL EXAMINATION
Kenya Certificate of Secondary Education
AGRICULTURE
PAPER 1**

INSTRUCTIONS TO CANDIDATES

- (a) Write your name and index number in spaces provided.
- (b) Sign and write date of Exam in space provided
- (c) Paper consists of three sections A, B and C.
- (d) Answer all questions in section A and B.
- (e) Answer any TWO questions in section C.
- (f) Answers should be written in the spaces provided.
- (g) This paper consists of 11 printed pages
- (h) Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.

FOR EXAMINER'S USE ONLY

SECTION	QUESTION	MAXIMUM	CANDIDATE'S SCORE
A	1 – 16	30	
B	17 – 20	20	
C	21 – 23	40	
TOTAL SCORE		90	

This paper consists of 11 printed pages

Turn Over

SECTION A

Answer all questions in this section in the spaces provided (30 marks)

1. What do you understand by agriculture economics ? (1 mark)

2. State three importance of subsoiling. (1½ mks)

3. State four reasons for minimum tillage. (2 marks)

4. List four different problems brought about by water in the farm. (2 marks)

5. State four advantages of a good crop rotational program. (2 marks)

6. Why should legume seeds be inoculated. (1 mark)

2.

7. State four factors considered when choosing pipes for use in the farm. (2 marks)

8. List 3 forms in which water exists in the soil. (1½ mks)

9. Give two factors that affect the efficiency of pest-cides. (1 mark)

10. State four effects of H.I.V / AIDs on agricultural production. (2 marks)

11. What is the importance of soil pH to crop production. (2 marks)

12. Why would you advice a farmer to use compound fertilizer. (1½ mks)

13. Give three reasons why a farmer in Makueni may decide to use Serena variety of sorghum instead of Dobbs for planting . (1½ mks)

3.

14. State two methods to control dumping off in a nursery bed. (1 mark)

15. (a) Give four factors affecting rooting of cuttings. (2 marks)

(b) Why is the nursery recommended to be 1m wide. (½ mark)

16. (a) State three precautions a farmer should take to minimize risks in crop production. (1½ mks)

(b) Give four indicators of a country economic development. (2 marks)

(c) Give the four main questions that a farm manager must ask himself in the process of production. (2 marks)

4.

SECTION B

Answer all questions in this section (20 marks)

17. The information below is a 10 year record from sorghum growing in KARI using variable quantities of N.P.K fertilizers. Study the information and answer the questions below.

Year	Fertilizer applied in unit (bags)	Total (90kg) bags of sorghum yield
2001	0	4
2002	4	12
2003	8	28
2004	12	44
2005	16	56
2006	20	60
2007	24	66

2008	28	66
2009	32	64
2010	36	60

- (a) Using appropriate scale draw a graph to show relationship between the fertilizer applied and yield obtained. (2 marks)
- (b) From the graph determine the sorghum yield obtained when 10 bags of fertilizer were used. (½ mark)
- (c) Calculate the marginal product for year 2004. (1 mark)
- (d) Calculate the average product for the year 2006. (½ mark)
- 5.
- (e) If the price of sorghum is 1200 per bag and cost of fertilizer is 2000/= per bag.
- (i) Calculate the gross income for the year 2003. (½ mark)
- (ii) Calculate the net income for the year 2006 (assume no other cost). (1 mark)
18. (a) Give three advantages of co-operative land tenure system. (3 marks)

(b) State four effects of land fragmentation. (2 marks)

19. (a) State two uses of pig breeding records. (2 marks)

(b) Name four types of information in a feeding record. (2 marks)

7.

(c) When is opportunity cost zero in Agriculture production. (1 ½ mks)

20. The following materials are used for propagation in farms
X Y Z

(a) Identify each of the materials illustrated above. (1 ½ mks)

X _____
Y _____
Z _____

(b) How can a farmer increase the growth rate of the planting material label X. (1 mark)

JULY 2011

KIBWEZI SECONDARY SCHOOL EXAMINATION
Kenya Certificate of Secondary Education
AGRICULTURE

MARKING SCHEME

SECTION A

1. Agricultural economics (1 mk)

Branch of Agriculture which deals with the utilization of scarce resources, aiming at maximizing output while minimizing cost. (1 mark)

2. Importance of subsoiling (1 ½ mks)

- Breaking hard pan
- Increase water infiltration
- Facilitate adequate gaseous exchange in the soil.
- Bringing minerals leached to upper surface.
- Assist in ensuring deep root penetration

Any 3 x ½ = 1 ½ mks

3. Four reasons for minimum tillage. (2 mks)

- Reduce cost of cultivation
- Control soil erosion
- Maintain soil structure
- Conserve moisture
- Prevent disturbance of roots and underground structures e.g tubers / bulbs etc.
- Prevent exposure of humus to sunlight to avoid volatilization.

Any 4 x ½ = 2 marks

4. Problem brought by water in the farm. (2 marks)

- Water borne diseases and pests.
- Landslides
- Carrying away farm structures
- Corrosion of farm machinery
- Erosion
- Leaching
- Breeding sites for mosquitoes

Any 4 x ½ = 2 mks

5. Four advantages of a good crop rotational program (2 marks)

- Maximum utilization of nutrients.
- Control soil borne pests and diseases
- Improve soil structure
- Improve soil fertility
- Control soil erosion
- Control weeds

Any 4 x ½ = 2 mks

This paper consists of 8 printed pages

Turn Over

6. Why inoculate legumes. (1 mk)

- Improve nitrogen fixation in the soil by legume crops

1 x 1 = 1mk

7. Four factor to consider in pipes for use in farm. (2 mks)

- Durability
- Strength
- Availability
- Costs

4 x ½ = 2 mks

8. List the three form in which water exist in the soil (1 ½ mks)

- Superfluous
 - Capillary
 - Hygroscopic
- (3 x ½ = 1 ½ mks)

9. Two factors affecting efficiency of pesticide in the farm. (1 mark)

- Concentration
- Timing in relation to life cycle
- Weather condition
- Mode of action
- Rate of application
- Persistency

Any 2 x ½ = 1 mark

10. Four effects of HIV/AIDS on Agriculture production (2 mks)

- Shortage of farm labour
- Increase cost of living of patients and relatives
- Low living standard lead to despondency
- Low food supply and poverty
- Money and other resources, time used which could have been used in agriculture production.

Any 4 x ½ = 2 mks

11. Importance of pH to crops (2 mks)

- Determine crop grown
- Affect micro-organism activities
- Affects nutrient balance in the soil
- Determine presence of particular pest and diseases.

Any 2 x 1 = 2 mks

12. Advantages of using compound fertilizer (1 ½ mks)

- Convenient as they do not cake
- Supply more than one nutrient
- Convenient to apply

3 x ½ = 1 ½ mks

13. Why Serena sorghum not Dobbs (1 ½ mks)

- Fast maturing
- High yielding
- Resistant to leaf diseases and shoot fly (pest)
- Better taste

3 points @ ½ = total 1 ½
3 x ½ = 1 ½ mks

2.

14. (a) State two methods to control damping off in a nursery bed. (mk)

- Remove shade
- Use less water to irrigate
- Thinning and use copper fungicide
- Airing the soil

Any 2 x ½ = 1 mk

(b) Why nursery is 1 metre wide

- For easy facilitation of nursery management practices

1 x 1 = 1 mk

15. (a) Factors affecting rooting (2 mks)

- Temperature
- Relative humidity
- Light intensity
- Oxygen supply
- Chemical treatment
- Leaf area

Any 4 x ½ = 2 mks

- (b) WHY nursery recommended to be 1 metre wide.
For easy facilitation of nursery management practices.

16. (a) State three precautions a farmer should take to minimize risks in crop production (1 ½ mks)

- Flexibility
- Produce under contract
- Crop insurance
- Use modern technology
- Rationing / control amount of input
- Appropriate allocation of resource input.

(b) Four indicators of a country economic development (2 mks)

- Per capita development
- G.D.P
- G.N.P
- Ratio of teacher to students
- Ratio of doctor to patient
- Number of family having car /TV etc.

Any 4 x ½ = 2 mks

(c) Give the four main questions that a farm manager must ask himself in the process of production. (2mks)

- What to produce?
 - How to produce?
 - When to produce ?
 - Where to produce ?
- 4 x ½ = 2 mks

3.

TITLE: GRAPH SHOWING RELATIONSHIP BETWEEN FERTILIZER AND YIELDS OBTAINED

100 90 80 70 60 50 40 30 20 10 0 4 8 10 16 20 24 28 32 36

Scale y axis 1cm rep 5 bags of maize

X axis 1cm rep

Yield obtained √ ½ √ ½ √ ½ √ ½ Fertilizer applied

L.A ½

Scale 1

Plotting ½

Smooth curve ½

4.

17. (a) Graph drawn on a graph paper. (2 mks)

(b) 38 bags of sorghum (½ mk)

1 x ½ = ½ mk

(c) Marginal product for year 2004 (1mk)

$$44 - 28 = 16 \text{ bags of sorghum}$$

2 x ½ = 1mk

(d) Average product for year 2006 (½ mk)

$$\text{A.V} = \frac{\text{T.P}}{\text{Units of input}} = \frac{60}{5} = 12 \text{ bags per unit}$$

1 x ½ = ½ mk

(c) Gross income for year 2003 (½ mk)

$$\text{G.I} = \text{T.P} \times \text{price per unit}$$

$$28 \times 1200 = \text{sh. } 33,600$$

1 x 1 = ½ mk

(d) Net income (1 mk) year 2006

$$\text{N.I} = \text{T.I} - \text{T.C.P}$$

$$= \text{sh. } (60 \times 1200) - (20 \times 2000)$$

$$72,000 - 40,000 = 30,000/=$$

2 x ½ = 1 mk

18. (a) No land disputes

- Labour is well utilized
- Profit is distributed according to shares
- Large membership increases resources
- If well managed give out good results

Any 3 x 1 = 3 mks

- (b) - Time wasted while travelling
- Weeds and pest control not effectively done
- Farm planning made difficult
- Difficult in supervision of scattered plots
- Control of parasites and diseases difficult due to movement of animals.
- Soil conservation difficult due to failure by other farmers to do the same
- Due to size of land communal grazing might arise resulting to overgrazing, soil erosion and denudation.

- Difficult to offer extension services
- Leads to low production and therefore low standard of living

Any 4 x ½ = 2 mks

- 19 (a) - Culling purposes
 - Selection of breeding stock (2 marks)
 2 x 1 = 2 marks

- (b) -No.of animals being fed
 - Amount of feed received
 - Amount of feed used
 - Amount of feed in store / balance

4 x ½ = 2 mks

5.

- (c) - There is no alternative
 - Items are given free
 - Items are unlimited (e.g Air)

3 x ½ = 1 ½ mks

20. (a) X – Stem tuber 1 x ½ = ½ mk
 Y – Vine 1 x ½ = ½ mk
 Z – Stem cutting 1 x ½ = ½ mk

- (b) Chitting 1 x 1 = 1 mk

- (c) Cassava 1 x ½ = ½ mk
 Sugar cane 1 x ½ = ½ mk
 Napier grass 1 x ½ = ½ mk

SECTION C

21. (a) Economic importance of crop pest to farmers world wide
- Lower market value of products in store
 - Lower quality and quantity of fruits and flowers
 - Lower photosynthetic area and therefore yield
 - Cause stunted growth
 - Transmit diseases
 - Lower germination percentage
 - Cause wilting due to damage on roots may also cause death
 - Retarded growth due to sucking of sap
 - Open up plants for secondary infection

Any five = 5 marks

- (b) Mechanical / physical measures to control pests
- Physical destruction, pick kill and trap kill.
 - Electromagnetic radiation, to deactivate enzymes
 - Lethal temp. – to discourage reproduction of pests
 - Physical barriers ; to keep off pests
 - Flooding – drowning pests and underground one
 - Proper drying – make them too hard to penetrate
 - Suffocation - CO2 to suffocate pests
 - Scare crows – scare large animals and birds

State 1mk explanation 1 mk

(c) Give the three most important aspect of pests that must be understood for their effective control (3 marks)

- Pest live cycle
- Feeding habits
- Damage on crops
- Their natural enemies

Any three = 3 marks

22. (a) Factors which determine quality of hay. (10 marks)

- Forage species used - High in protein
 - Other high in crude proteins and CHO
- Storage conditions leak proof to avoid rotting or leaching.
- Weather conditions during drying / No rain that time to avoid leaching

6.

- Length of dry period – controlled to avoid breakdown of carotene and leaching of nutrients.
- Storage towards harvesting – harvested when 50% crop have flowered as decay lead

to loss of proteins.

- Amount of foreign material – may interfere with quality
- Additives like salts and molasses improves palatability.

Stating 1 mk expl. 1 total 10 mks

(b) Reasons as to why its necessary to prune field crops. (10 mks)

- Train – forming required shape
- Create way for farm machinery
- Remove undesirable parts / leaves / suckers / branches
- Stop vertical growth and encourage lateral growth
- Easy picking and harvesting
- Control diseases and pests
- Control cropping especially in fruit crops
- For easy penetration of chemicals / sprays
- Increase airing of plant avoiding micro-climate

State 1 mk and explanation 1mk

Any 5 x 2 = 10 mks

23. (a) Agricultural services offered (10 mks)

- Training and extension services in meeting / barazas by chiefs and NGO's
- Banking services
 - * Saving and credit scheme loans
 - * Over service on credit and investment
- Credit services (loans)
 - * Borrow money and pay with interest offering assets as security
- A.I (Artificial Insemination)
 - * Offered by government and private NGO's
- Agricultural research
 - * On better techniques of farming / crop and animals
 - * New techniques passed through extension officers
- Marketing
 - * Facilitated to move things from production point to sale by organizations

e.g KCC, K.T.D.A, K.P.C.U marketing the produce

- Veterinary services
 - * For health and treatment and parasites control

State 1mk explanation 1mk

Any 5 x 2 = 10 mks

(b) Way to increase labour efficiency (5 marks)

- Proper supervision
- Proper tools and equipment to labour force
- Educating and training labourers
- Providing incentives

- Mechanization of farm
- Specialization
- Reasonable working period
- Promoting individual qualities
- Provide good working conditions
- Provide competitive salaries

Any 5 x 1 = 5 mks

7.

(c) Marketing function done by co-operative societies (5 mks)

- Collecting farmers produce
- Transporting
- Grading and standardization
- Processing
- Storage
- Selling and buying
- Packaging
- Collecting market information
- Bearing risks
- Advertisement for existing good
- Financing
- For marketing process

Stating ½ mk

Explanation ½ mk

Any 5 x 1 = 5 mks

Name _____ Index No. _____

Candidate's signature _____

Date _____

443/2
AGRICULTURE
PAPER 2
JULY 2011
2 HOURS

KIBWEZI SECONDARY SCHOOL EXAMINATION
Kenya Certificate of Secondary Education
AGRICULTURE
PAPER 2

INSTRUCTIONS TO CANDIDATES

- (a) Write your name and index number in spaces provided.
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A	1 – 17	30	
B	18 – 22	20	
C	23	20	
	24/25	20	
TOTAL SCORE		90	

This paper consists of 11 printed pages

Turn Over

SECTION A (30 MARKS)

1. State four services offered by Kenya Agricultural Research Institute (KARI) to livestock farmers.

(2 marks)

2. Assume you're extension officer in Kibwezi District and there's an outbreak of foot and mouth disease at Athi Kamunyuni Location. Mention four methods you will use to avert its spread. (1½ mks)

3. List four effects caused by elephant menace to livestock farmers in Kibwezi location (2 marks)

4. Identify two harmful effects of sand harvesting in Makueni county to livestock production. (1 mark)

5. State two advantages of burning overgrown pasture. (1 mark)

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

2.

7. State four factors considered when siting beehive. (2 marks)

8. List two mineral Imbalance observed in livestock. (2 marks)

9. Mention four milk products. (2 marks)

10. State three differences between two stroke and four stroke engines. (3 marks)

Two stroke

Four stroke

<hr/>	<hr/>
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11. Which poultry disease is characterized by greenish yellow diarrhoea. (1 mark)

12. Highlight three limitations of wood fuel as a source of farm power. (1 ½ mks)

13. Give four examples of commercial poultry feed. (2 marks)

3.

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

15. Give function of the following tools
(i) Pipe wrench (1 mark)

(ii) Milk churn (1mark)

(iii) Secateurs (1 mark)

16. Differentiate between crutching and ringing. (1 mark)

17. State two adjustment that should be carried on tractor mounted mould board plough in preparation for ploughing. (1 mark)

4.

SECTION B (20 MARKS

18. A farmer in Makueni county owns 16 milking cows. In addition to feeding these animals with nappier grass, the farmer prepares home mixed ratio in them. During this dry season, the farmer has decided to mix 600kg of the ratio using oats DCP 40% and sim sim cake DCP 60%. Using the Rearsos square method

(a) Determine the quantities of each feed the farmer will need to make a ratio containing 20% DCP for the animals. (4 marks)

(b) State two factors affecting feed digestibility.

(1 mark)

19. The diagram below illustrates a routine practice carried out in livestock production. Study it carefully and then answer the questions that follow.

(a) Identify the routine practice.

(1 mark)

5.

(b) Identify three limitations that the practice illustrated may have.

(3 marks)

20. Below are illustrations of animal hooves and activity being done.

(a) What activity is going on in diagram F. (1 mark)

(b) Which of the above hooves is likely to predispose foot rot infection? (1 mark)

(c) Name an appropriate tool for carrying out the above activity. (1 mark)

(d) Other than protecting animals from foot rot give another one reason for carrying out the above activity. (1 mark)

6.

21. Below is an illustration of a farm implement

(a) Identify the above implement. (½ mark)

(b) Name the parts labelled A, B and C. (1 ½ mks)

A _____

B _____

C _____

(c) Give one maintenance practice for the above implement. (1 mark)

22. Outline the procedure of surgical castration of piglets. (4 marks)

7.

SECTION C

Answer any two questions only.

23. The table below show a record of milk from lactating cow A and B. The cows are under the same management and calved down on the same day.

Month	MILK YIELD IN KG	
	COW A	COW B
May	290	240
June	440	360
July	610	390
August	550	350
September	900	310
October	450	280
November	380	250
December	190	100
January	90	250
TOTAL	3780	2530

(a) Using the same axis and same scale on the graph paper provided draw the lactation curves for both cow A and cow B. (6 marks)

(b) Suppose each cow was given 1kg of dairy meal, on the average as supplementary feed for every 3kg of milk produced. The cost of a 70kg bag of dairy meal is Ksh. 1,200/=.

Calculate the cost of supplementary feed for cow A during the whole lactation period. (5 marks)

(c) Calculate the total returns for cow B at a price of Ksh. 20/= per kg of milk. (5marks)

(d) Suggest four reasons that could have brought the differences in milk production between cow A and B. (4 marks)

24. (a) Differentiate between stress and vice in chicken. (2 marks)

(b) Describe the causes of stress in poultry production. (9 marks)

(c) Describe management practices that should be employed by a farmer to improve his low yielding dairy cattle. (9 marks)

25. (a) Describe the functions of a gear box in a tractor. (8 marks)

(b) Discuss the condition of ideal calf pen. (12 mks)

8.

- Animal nutrition
- Animal breeding
- Pasture management.

4 x ½ = (2 marks)

2. - Posters
 - Chief barazas
 - Local radio station

3 x ½ = 1 ½ marks

3. - Death / destruction of livestock
 - Destruction of farm structures
 - Destruction of pasture
 - Reduction of labour force

4 x ½ = (2 marks)

4. - Lowering water table
 - Destruction of pasture

2 x ½ = 1 mark

5. - Killing parasite
 - Regrowth of pasture

2 x ½ = 1 mark

6. - Prevent spread of parasite and diseases
 - Maintains high production
 - Increase growth rate
 - Increase production span
 - Increase products quality
 - Reduces production cost

Any 4 x ½ = 2 marks

7. - Water proximity
 - Flower proximity
 - Wind direction and direct sun shelter
 - Distance from noise and disturbance
 - Safety of humans and livestock.

Any 4 x ½ = 2 marks

This paper consists of 7 printed pages

Turn Over

8. - Piglet anaemia
 - Osteomalacia
 - Milk fever
 - Goitre

- Lack of iron
- Lack of phosphorus
- Lack of calcium
- Lack of iodine

Any 2 x 1 = 2 marks

9. - Ghee
 - Skin milk
 - Curd
 - Cheese
 - Powdered milk
 - Cream
 - Butter

Any 4 x ½ = 2 marks

10. Two stroke engine
 - Power generated with every two strokes
 - Produce less power
 - Has parts for valves

- Four stroke engine
 - Power generated with every four strokes
 - Produce more power
 - Has valves for parts

3 x 1 = 3 marks

NB: Mark as whole

11. Fowl typhoid

1 x 1 = 1 mark

12. - Environmental degradation

- Smoke results into air pollution
- Limited to few operations

3 x 1/2 = 1 1/2 marks

13. Chick mash
 Broiler starter mash pellets
 Growers mash
 Layers mash
 Broiler finisher meal

Any 4 x 1/2 = 2 marks

14. - Improve work efficiency
 - Minimise students injury
 - Increase durability / congevity
 - Reduce replacement / repair cost
 - Avoid damage to the tool

Any 4 x 1/2 = 2 marks

15. (i) Holding, tightening / loosening metallic pipes
 (ii) Holding milk in transit and storage
 (iii) Pruning soft branches

1 x 1 = 1 mark

1 x 1 = 1 mark

1 x 1 = 1 mark

16. - Crutching – practice of cutting wool around the external genitalia of ewe
 - Ringing – practice of trimming wool around the penis sheath of rams

1 x 1 = 1 mark

NB: Mark as whole

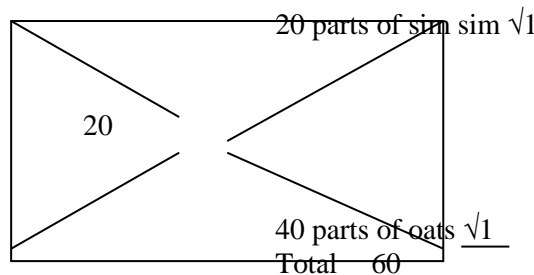
2.

17. State two adjustments that should be carried on tractor mounted mould board plough in preparation for ploughing.
 - Adjust plough depth
 - Adjust front furrow depth
 - Adjust front furrow width
 - Lower / Raise ploughing pitch

Any 2 x 1/2 = 1 mark

SECTION B

18. (a) Sim sim 60%



Oats 40%

Sim sim cake $\frac{20}{60} \times 600\text{kg}$
 $= 200\text{kg} \checkmark 1$

Oats $\frac{40}{60} \times 600\text{kg}$
 $= 400\text{kg} \checkmark 1$

(4 marks)

- (b) - Feed chemical composition
 - Feed formulation
 - Animal species
 - Protein energy ratio
 - Feed quantity previously fed.

Any 2 x 1/2 = 1 mark

19. (a) Hand spraying 1 x 1 = 1 mark

- (b) - Chemical wastage
- Less body coverage
- Not suitable for large herd
- Animal movement prevent complete wetting

Any 3 x 1 = 3 marks

20. (a) Hoof trimming 1 x 1 = 1 mark

(b) D 1 x 1 = 1 mark

- (c) - Hoof cutter
- Hoof trimming knife

Any 1 x 1 = 1 mark

- (d) Proper walking
- Easy mating

Any 1 x 1 = 1 mark

21. (a) Stirup pump / bucket pump

1 x ½ = ½ mark

- (b) A – Trigger
- B – Foot support
- C- Acaricide solution

3.
1 x 1 = 1 mark
1 x 1 = 1 mark
1 x 1 = 1 mark

- (c) - Replace worn out parts
- Grease moving parts
- Check / repair leakages
- Flush pump with a lot of water after spraying
- Dismantle the parts and wash thoroughly after use.

Any 1 x 1 = 1 mark

22. - Restrain the piglet

- Using one hand, pull testicles slightly
- Make cut / incision at base of scrotum
- Squeeze out testicles to expose spermatic cord
- Cut the spermatic cord and remove testicles
- Disinfect the cut part
- Release the piglet

4 x 1 = 4 marks

NB: Mark only when the procedure is correct.

5.

23. (a) On graph paper

(b) Amount of dairy meal $\sqrt{1}$

$$\frac{3780}{3} = \underline{1260\text{kg}}$$

$$70\text{kg} - 1200 = \sqrt{\frac{1}{2}}$$

$$1260\text{kg}$$

$$\frac{1260 \times 1200}{70} = 21,600 = \sqrt{\frac{1}{2}}$$

(c) Return for cow B at price of 20/= per kg of milk

$$(2530 \times 20) - 2530 \times \frac{12000}{3 \times 70} \sqrt{1}$$

$$50,600 - 14,331 \sqrt{\frac{1}{2}} = 36,269 = \sqrt{1}$$

(d) - Breed

- Age

- Health

- Parasites

4 x 1 = 4 marks

24. (a) Stress – Condition makes birds uncomfortable

Vice – Bad habit developed by birds

2 x 1 = 2 marks

NB: Mark as whole

(b) Cause of stress in poultry

- Sudden change in routine.

- Sudden loud sound

- Sudden weather change

- Presence of strangers

- Presence of external parasites

- Over crowding

- Unbalanced diet

- Introduction of New birds

- Presence of predators

9 x 1 = 9 marks

(c) Management practices to improve low yielding dairy cattle. (9 marks)

- Proper selection

- Select animal of good health

- Select animal with high fertility

- Select good animal conformation

- Cull poor producer

- Use superior bulls

- Mate mature heifers

- Use calving interval effectively

(serve the right time)

- Keep animal healthy

- Control external and internal parasites

- Treat sick animals

- Avoid physical injuries to animals

- Feed adequately / balanced diet

- Provide minerals and vitamins

6.

- Proper housing / space / leak proof
- Milking procedure should be observed

9 x 1 = 9 marks

25. (a) Function of gear box in tractor (8 marks)

- Help driver select forward / reverse gear
- Help to alter speed ratio
- Enable power from the engine to be more easily applied to the work done by the tractor.
- Adjust speed of the drive from the engine crownshaft to the drive shaft.
- Enable the driver to stop the tractor movement without stopping the engine or without foot pressing on the clutch all the time.

Any 4 x 2 = 8 marks

(b) Conditions of ideal calf pen

- Concrete / raised slatted floor for easy cleaning
- Leak proof for dryness
- Litter on floor
- Adequate space – for exercise / feeding / watering
- Single housing – prevent spread of skin infection / prevent licking each other.
- Proper lighting – vitamin D
- Proper drainage – prevent dampness
- Draught free -stop strong wind
- Proper ventilation – Air circulation assured
- Security – keep away intruders

Any 6 x 2 = 12 marks