F4 TOPICAL REVISION AGRICULTURE

A SERIES OF TOPICAL QUESTIONS IN FORM FOUR AGRICULTURE

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LIVESTOCK PRODUCTION V

(POULTRY)

This topic entails the following:

- Identification of parts of an egg.
- Selection of eggs for incubation
- Identification of suitable sources for chicks.
- Descriptions of broodiness
- Description of condition for incubation
- Description of rearing systems
- Categories of poultry feds according to age-of birds
- Stating causes of stress and vices in poultry and control measures.
- Marketing of eggs and poultry meat.
- Selection, sorting and grading of eggs.

The following relevant questions and their answers in this topic will greatly motivate and help the user to comprehend and understand the required concepts and practices.

- 1. A deep little poultry house measures 9mx3m. Suppose the amount of space allowed for one bird is 0.27m².Calculate the number of birds that can be kept comfortably in the house. Show your working
- 2. Give **two** functions of isthmus in female bird
- 3. Give **four** features of a good laying nest
- 4. State **four** qualities of marketable eggs
- 5. Study the diagram showing the behaviour of chicks in a brooder and answer the questions that follow:-



Brooder guard

Heat source

(a) State the behaviour of chicks in A, B and C

С

(b) Explain why the brooder guard is rounded as shown in the diagram

- 6. Mention **six** characteristics of an egg selected for incubation
- 7. Describe the management of layers in deep litter system
- 8. State **four** reasons for egg breaking and drinking by layers in a deep litter rearing system
- 9. Below are diagram showing condition of eggs seven days after incubation study them and answer the questions



a) Identify the conditions of eggs

b) Identify the egg which suitable for incubation and give a reasons for your answer

- c) Name the practice which used to determine the state of eggs above
- 10. The diagram **U** below illustrates an activity carried by a poultry farmer keeping layers. Study the diagram carefully and answer the questions that follow



- a) Identify the activity carried out using the set up illustrated in diagram U
- b) List down **four** preparations that should be carried out structure **U** before arrival of day old chicks
- c) List down **one** behaviouristic activity which would indicate that the chicks are under stress
- 11. Give **two** reasons for using litter in a poultry house
- 12. Give **two** reasons why it is important to castrate animals when they are still young
- 13. (a) Give two reasons why dehorning is carried out in farm animals(b) State four methods of dehorning livestock
- 14. State **four** abnormalities of eggs that can be detected during egg candling.
- 15. Describe the management of day old chicks in a deep litter system from preparation of

brooder up to eight (8)weeks old

16. a) Describe the management practices of a gilt from weaning to the time of furrowing

b) State **five** factors to consider in selecting a gilt for breeding stock.

17. Study the diagram of an egg below and answer the questions that follow:



i) Name the parts labeled **N**, **O** and **P**

ii) State the functions of the parts ${\bf M}$ and ${\bf L}$

- iii) Why should the egg be turned during incubation
- 18. State three reactions of chicks in a brooder which has higher temperature than normal.

19. Give **three** types of bedding material a poultry farmer may use in deep litter rearing of layers

20. Give **two** properties of good eggs for incubation

LIVESTOCK PRODUCTION III (LIVESTOCK REARING PRACTICES)

This topic entails the following:

- Raising young stock
- Milk and milk components
- Milk secretion and milk let-down
- Correct milking techniques
- Marketing of milk and beef.

The following relevant questions and their answers in this topic will greatly motivate and help the user to comprehend and understand the required concepts and practices:

- 1. What is "**calf crop**" in beef production?
- 2. a) Describe the procedure of hand milking in a dairy cowb) Explain the practices observed in clean milk production
- 3. Give **two** reasons for washing a cow's udder with warm water before milking
- 4. Give **two** roles of uterus in egg formation process
- 5. The diagram below is a structure of part of a cow's udder



- (i) Name the parts labeled **M**, **N**, and **O** on the diagram above
- (ii) State the functional difference between the following hormones which influence milk let-down;
 - (a) (i) Oxytoxin
 - (ii) Adrenalin
 - (b) Mention **three** qualities of clean milk
- 6. Give **four** characteristics of clean milk
- 7. State **three** maintenance practices carried out on a milking machine
- 8. State **four** reasons for feeding Colostrums to calves immediately after calving
- 9. Give three ways of stimulating milk let down in a dairy cow
- 10. a) Describe the operational differences of a disc plough and mould board plough
 - b) Explain six marketing problems affecting dairy farming in Kenya

c) State **four** reasons for culling a boar

- 11. List **three** advantage of artificial method of calf rearing
- 12. State **three** methods that may be used to improve milk production in a breed of indigenous goats
- 13. (a) Outline **ten** physical characteristics between a good layer and a poor layer in a deep litter house
 - (b) Describe **five** factors that influence milk production in a dairy herd
- 14. a) State **two** reasons for washing the udder of a cow with warm water before milking.
 - b) Name the hormone that causes each of the following in dairy cows:.
 - i) milk letdown.
 - ii) lactogenesis
- 15. State **four** methods of increasing the depth of penetration of a disc harrow.
- 16. List **four** farm machines implements that obtain power from P.T.O shaft of a tractor
- 17. List **two** tractor drawn implements used for breaking hardpan in a crop field
- 18. State any **three** machines which are used for harvesting crops
- a) describe the daily maintance and servicing of a tractor before useb) State one function of each of the following parts of a tractor engine.
 - i) Fly wheel
 - ii) Ignition coil
 - iii) Thermostat
 - iv) Injector
 - v) Piston

FARM POWER AND MACHINERY

This topic entails the following:

- Sources of farm power
- Systems of a tractor
- Tractor implements, uses and maintenance
- Animal drawn implements uses and maintenance
- Tractor servicing and maintenance practices

The following relevant questions and their answers in this topic will greatly motivate and help the user to comprehend and understand the required concepts and practices:

- 1. Give **four** farm operations powered by engines
- a) Describe the maintenance practices required on a tractor before it is put to daily useb) Outline the factors that influence the power output by a draught animal
- 3. State **two** uses of gear box in a tractor
- 4. State **two** uses for which wind power is harnessed
- 5. Name **three** implements that are connected to the power take-off shaft
- 6. Below is a farm implement, study it keenly and answer the questions that follow:-



(a) Name the farm implement drawn above

(b) Identify the parts labelled **L** and **M** above

(c) Give the function of the part labeled ${\bf M}$

(d) State the field condition under which the implement can work better than the others $(\frac{1}{2}mk)$

7. (a) Explain the factors that a farmer should consider in ensuring fast and efficient

cultivation by oxen

- (b) Outline the importance of lubrication system in a tractor
- (c) State the daily maintenance and servicing of a tractor
- 8. State the functions of the following parts of power transmission in a tractor:
 (i) Hydraulic system
 (ii) Draw bar
 (iii) Propeller shaft
 (iii) Chat the state of the track is a state of the sta
 - (ii) State **three** sources of tractor hire service
- 9. (i) What are tractor hires services (1mk)
 (ii) State three sources of tractor hire service (1½mks)
- 10. The diagram below represents an assembled differential of a tractor. Use it to answer the questions that follow:-



(a) Name the parts labeled **A**, **B**, **C** and **D**

(b) State two functions of differential system of a tractor

- (c) Give two reasons why wheel skidding of a tractor is not allowed
- 11. State **four** sources of power in the farm
- 12. Give the **four** strokes of a four stroke cycle tractor engine
- 13. State **four** factors which ensure efficient working by oxen in the farm

- 14. Mention **two** sources from which farmers can hire tractors
 - (a) Below is a diagram of a farm implement C
 - (i) State the use of the implement shown above
 - (ii) Name the parts labeled A, B, C, and D
 - (iii) State two methods of increasing the depth of penetration of the implement
- 16. State **four** ways through which a farmer would ensure maximum power output from ploughing animals
- 17. State **three** advantages of a disc plough over mould board plough
- a) Explain the differences between petrol and chisel engineb) Describe components of transmission system of a tractor
- 19. Name **four** systems of a tractor engine
- 20. Give **one** function of the clutch

15.

- 21. State **two** adjustments that should be carried out on a tractor mounted mould board Plough in preparation for ploughing
- 22. State three maintenance practices that are carried out on a disc plough
- a) Describe the operational differences of a disc plough and mould board plough
 b) Explain six marketing problems affecting dairy farming in Kenya
 c) State four reasons for culling a boar
- 24. Name the role of the following parts of a mould board plough a) Share .b) Mould board
 - b) Mould board
 - c) Land side....
- 25. a) State five maintenance practices of a mould board ploughb) Explain five structural and functional differences between the petrol and diesel engines

c) List **five** uses of farm fences

- 26. Give **two** uses of ox-drawn fine harrow
- 27. List **four** care and maintenance of a tractor battery

28. Study the diagram of a farm implement shown below and answer the questions that follow:



- (a) Identify the farm implement illustrated above
- (b) Label parts **A**, **B** and **C**
- (c) Outline the functions of the parts labeled **E** and **F**
- (d) Give **two** care and maintenance of the above implement
- 29. Outline **six** uses of live fences on the farm
- 30. List **two** possible causes of over heating in a tractor engine
- 31. List **two** events occur during induction stroke in a four stroke engine

32. i) the diagram below shows a tractor drawn implement.



- a) Name the implement
- b) Give **two** uses of the implement above
- c) State **three** maintenance practices carried out on the above implement.
- a) Explain the factors that influence the power output of farm animalsb) State the importance of farm fences
- 34. Other than hydro-electricity mention **two** sources of electrical energy which can be available for use in the farm
- 35. a) Describe the maintenance practices required on a tractor before it is put to daily use
 - b) Discuss the factors that influence the power output by a draught animal

AGRICULTURAL ECONOMICS III (PRODUCTION ECONOMICS)

This topic entails the following:

- Parameter of national development
- Factors of production
- Law of diminishing returns
- Farm planning and budgeting
- Agricultural services
- Risks and uncertainities
- How to adjust to risks and uncertainities.

The following relevant questions and their answers in this topic will greatly motivate and help the user to comprehend and understand the required concepts and practices:

- 1. State **four** ways of increasing labour efficiency on the farm
- 2. The table shows egg production from individual birds with varying mounts of layers mash

100 layers (Fixed number)	Layers mash Kgs/week	Total egg production per week	Marginal production per week
100	0	140	0
100	10	155	15
100	20	180	25
100	30	240	60
100	40	340	100
100	50	470	130

- (a) Sketch a graph representing the total egg production per week against amount of feed given
- (b) Identify the type of production function represented by the graph in (a) above
- 3. (a) What are the uses of farm records to a farmer?
 (b) Explain **four** ways in which a farmer may improve Labour productivity in the farm
 (c) Outline the process followed in land adjudication
- 4. Name any **three** types of agricultural services available to the farmer
- 5. Outline **four** management guideline questions which assist a farm manager in making accurate farm decisions
- 6. Give **four** ways of improving labour productivity
- 7. List **four** variable inputs in sorghum production
- 8. List **four** agricultural support services available to a crop farmer in Kenya

- 9. Define the following as used in Agricultural economics:-
 - (a) Gross domestic product (GDP)
 - (b) Per capita income
- 10. Explain the various ways in which farmers may adjust to risks and uncertainties
- 11. (a) The table below represents the yield of maize in 90kg bags in response to application of different quantities of planting fertilizer
 - (i) Fill in the blank spaces

Input 50kg bag	Out put 90kg bag	Average product	Marginal product
fertilizer	maize	(AP)	(MP)
0	6	-	-
1	10	-	-
2	24	-	-
3	31	-	-
4	36	-	-
5	40	-	-
6	43	-	-
7	43	-	-
8	40	-	-

- (ii) Suggest the best level of production in relation to the inputs and output
- (b) A farmer is considering undertaking the production of either maize or beans. Study the following information about the two crops then answer the questions that follow:

(i) Maize

Yield per hectare	5,500 kg
Price	15 per kg
Cost of cultivation / ha	Kshs. 3000
Amount of seeds/ha	25kgs
Cost of DAP fertilizer/bag	Kshs.1,500
Amount of DAP fertilizer/ha	3bags
Cost of seeds/kg	Kshs.100
Labour requirements/ha	50 man days
Cost of labour	Kshs.150 per man day
Amount of CAN fertilizer/bag	3 bags
Cost of CAN fertilizer/bag	Kshs.1000

(ii) Beans

Yield per hectare	5000kg
Price	50per kg
Cost of cultivation / ha	KShs.3600
Labour requirements/ha	75 man days
Cost of labour	Kshs. 200 per man day
Cost of DAP fertilizer/bag	Kshs. 1500

Amount of DAP fertilizer/ha	2bags
Cost of seeds/kg	Kshs.800
Amount of seed/ha	20kg
Amount of CAN fertilizer/bag	1bag
Cost of CAN fertilizer/bag	Kshs.1,000
Cost of sprays	Kshs.3,000

(i) Calculate the gross margins for each crop (14mks)

- (ii) From your calculation, which crop is profitable to grow?
- 12. Below is a graphical representation of the law of diminishing returns.



NPK fertilizer input (in 50kg bags)

- (a) Explain what happens in each of the three zones marked I and III in relation to the output of maize and the NPK fertilizer input
- (b) Which of the three is a rational zone of production
- 13. Give **four** variable costs in maize production
- 14. A farmer has the following yield from a two hectare millet crop enterprise at Oluch irrigation schemes.

Study it and prepare his gross margin. is it profitable to grow millet? He spent the following his operations

Weed800/=Seeds20kg/haIrrigation600/=/haPloughing500/=/haClearing the land1200/=Cost of seeds300/=/10kg bagPlanting400/=/ha

Harvesting	1200/= /ha
Yield	32bags
DAP fertilizer	2 bags at 10 000/= /50kg bags
CAN fertilizer	2 bags at 700/= /50kg bags
Gunny bags	40/= /bag
Transport to marke	t $2000/=$

14. A farmer has the following yield from a two hectare millet crop enterprise at Oluch irrigation schemes. Study it and prepare his gross margin. is it profitable to grow millet? He spent the following in his operations

Weed	800/=	
Seeds	20kg/ha	
Irrigation	600/=/ha	
Ploughing	500/=/ha	
Clearing the land	1200/=	
Cost of seeds	300/= /10kg bag	
Planting	400/= /ha	
Harvesting	1200/= /ha	
Yield	32bags	
DAP fertilizer	2 bags at 10 000/= /50kg bags	
CAN fertilizer	2 bags at 700/= /50kg bags	
Gunny bags	40/= /bag	
Transport to mark	et 2000/=	(20mks)

- 15. What is profit maximization in Agricultural Economics
- 16. a) A farmer is considering undertaking the production of either maize or beans. Study the following information about the two crops and then answer the questions that follow:

Maize	
Yield per hectare	5500kg
Price	Kshs.15 per kg
Cost of cultivation/ ha	Kshs. 3000/=
Amount of DAP fertilizer/ bag	Kshs.1500/=
Amount of DAP fertilizer/ ha	3 bags
Cost of seed/ Kg	Kshs.100
Labour requirements / ha	50 man days
Cost of labour	Kshs.150 per man day
Amount of CAN fertilizer	3 bags
Cost of CAN fertilizer/ bag	Kshs.1000

Beans	
Yield per hectare	Kshs.5000
Price	Kshs.50 per kg
Cost of cultivation/ ha	Kshs.3600
Labour requirements/ ha	75 man- days

Cost of labour	Kshs.200 per man day
Cost of DAP fertilizer/ bag	Kshs.1500
Amount of DAP fertilizer/ ha	2 bags
Cost of seed/ kg	Kshs.80
Amount of seed/ ha	20kg
Amount of CAN fertilizer/	1 bag
Cost of CAN fertilizer/ bag	Kshs.1000
Cost of sprays	Kshs.3000

i) Calculate the gross margin for each crop

ii) From your calculation which crop is profitable to grow

b) Discuss **five** factors considered when planning a farm

17. Using the data provided in the table below, make an interpretation and advice the farmer on which crop to grow ;

Type of crop	Gross margin (Ksh)
Cotton	18,400
Ground nuts	20,050

- 18. Outline **three** advantages of budgeting in farm business
- 19. A farmer has 1 Ha piece of land on which he grows maize. His farm record on maize production for nine years is as shown in the table below:

Year	Fertilizer applied (bags)	Total output of maize (bags)
1995	0	4
1996	2	10
1997	4	28
1998	6	42
1999	8	52
2000	10	60
2001	12	66
2002	14	66
2003	16	64

- (a) i) Using an appropriate scale, with input on the X-axis draw a graph to show the relationship between inputs and total output
 - (ii) From the graph you have drawn, how many bags of maize would the farmer produce if he applied 9bags of fertilizer?
 - Calculate the farmers marginal products and average products for the years
 - (i) From the data given, what rate of fertilizer application would the farmer choose if he wanted to grow maize in 2004?

- (ii) Give an explanation for your choice in (c) (i) above
- (b) Assuming that the average price of fertilizer over the years recorded was shs. 1,200/= per bag and the price of maize was ksh.1000/= per bag :

Calculate the gross income for the years 2002 and 2003

Calculate the net income for the year 1999. (Assume no other costs were incurred)

- 20. Name five types of costs incurred in a farming business
- 22. List any four sources of credit to farmers.
- 23. List three ways in which labour peaks can be overcome in the farm $(1\frac{1}{2} \text{ mks})$
- 24. State **four** ways of improving farm labour productivity
- 25. A farmer had a plot of land measuring 5 hectares in which be intended to plant maize. He was advised to apply 150 kg of P₂0 per hectare at planting and 200kg N per hectare during top dressing. The fertilizer available in the market was Calcium Ammonium Nitrate containing 20% N and Di-ammonium phosphate 46% P₂0₅. Calculate.
 - (a) (i) The amount of Di—ammonium phosphate required(ii) The amount of calcium ammonium nitrate required
 - (c) Baraka farm manager plans to grow Irish potatoes or maize for grains. Study the information below and answer the questions that follow:

Irish potatoes

Cost of fertilizers/ha	Ksbs 10,000.
Labour requirements/ha	Kshs 50 man - days
Yield /ha	10,000kg
Seed potato/ha	Kshs20, 000
Cost of labour	Kshs 200 per man day
Cost of fungicides	Kshs 5000
Cost of ploughing	Kshs 4000
Selling price of potatoes per kg	Kshs 30.

<u>Maize</u>

Yield per hectare	Kshs.7,500kg
Selling price of maize per kg _	Kshs 20.
Cost of ploughing /ha	Kshs.4000
Seed maize/ha	Kshs.3000
Labour requirement /ha	200 man days.
Cost of fertilizers /ha	Kshs 10,000
Cost of top dressing fertilizers	Kshs 4,800
Cost of labour	Kshs 150 per man - day

- (i) What is gross margin?
- (ii) Calculate the gross margin of each of the crops
- (iii) From the calculation above which crop should the farm grow?
- (d) Describe the environmental factors that may lead to poor yields in crop production

AGRICULTURAL ECONOMICS IV FARM ACCOUNTS

This topic entails the following:

- Importance of farm accounts
- Financial documents and their uses
- Analysis of financial statements
- Books of accounts and their uses.

The following relevant questions and their answers in this topic will greatly motivate and help the user to comprehend and understand the required concepts and practices:

- Name three methods of grafting that are used in propagation of plants 1.
- 2 a) The following transactions were extracted from Mr. Tembo's financial books for the year ending 31st Dec 2003.study and answer the questions that follow:

Particulars	cost (ksh)
Milk sale	8 000
Goat sale	500
Purchase of farm tools	1 000
Construction of zero grazing unit	10 000
Depreciation of machinery	800
Closing stock	16 000
Veterinary bills	400
Interest payable	750
Wages	4 800
Sales of cabbages	750
Sales of tea	4 700
Opening stock	12 000
Sales of heifers	9 400
Purchase of pesticides	300

^(a) i) Prepare a profit and loss account for Mr. Tembo's farm for the year ending 31st Dec. 2003

ii) Calculate the percentage profit or loss made by the farm

b) i) Give five functions of farmer's cooperative societies

ii) Outline **five** common risks and uncertainties in farming

- 3. State **four** reasons for using certified seeds for planting
- List any **two** financial statements which may be prepared on a farm 4.
- The following information was obtained from Lang'at's farm records for the year ending 5. December, 2004. Study it and answer the questions that follow:-Goats

4,000

Poultry	15,000
Causal workers	12,000
Opening valuation	150,000

His sales and receipts are as follows:

Mohair	75,000
Rabbits	3,600
Eggs to hotel	15,000
Closing valuat	ion 200,000

(a) Prepare the profit and loss A/C of Lang'at's farm

(b) State the benefit of a profit and loss A/C to Mr. Lang'at

- 6. (a) List any **four** financial documents used in the farm
 - (b) Prepare a profit and loss account for Mr. Rob's farm for the year ending 31st Dec. 2009, given the following information:-

o, given the following	ig mitormation.
Sale of milk	Kshs.10,000
Sold two heifers	kshs.10,000
Cabbage sold	Kshs. 20,000
Debts payable	Ksh.4,200
Sold tomatoes	Kshs. 3,000
Veterinary bills	Kshs.2,500
Bought livestock feed	ls Kshs.2,500
Purchase fertilizers	Kshs.5,000
Bought seeds	Kshs. 4,000
Debts receivable	Kshs.20,000
Opening valuation	Kshs.150,000
Closing valuation	Kshs.200,000

(b) Did the farm make a profit or a loss? Calculate the percentage profit or loss made by the Farm

(d) Explain the various ways in which farmers may adjust to risks and uncertainties

7. a) The following transactions were extracted from Mr. Tembo's financial books for the year ending 31st Dec 2003.study and answer the questions that follow:

Particulars	cost (ksh)
Milk sale	8 000
Goat sale	500
Purchase of farm tools	1 000
Construction of zero grazing unit	10 000
Depreciation of machinery	800
Closing stock	16 000
Veterinary bills	400
Interest payable	750

Wages	4 800
Sales of cabbages	750
Sales of tea	4 700
Opening stock	12 000
Sales of heifers	9 400
Purchase of pesticides	300

- i) Prepare a profit and loss account for Mr. Tembo's farm for the year ending 31st Dec 2003
- ii) Calculate the percentage profit or loss made by the farm
- b) i) Give five functions of farmer's cooperative societies
 - ii) Outline five common risks and uncertainties in farming
- 8. At the end year ended 31/12/2005 Bidii farm recorded the following:

Perennial crops	250,000
Bank loans	30,000
Cash at hand	5,000
Bank overdrafts	15,000
Land	350,000
Unpaid wages	3,000
Debts receivable	20,000
Stocks in store	25,000
Livestock	200,000
Bank balances	100,000

(a) Prepare a balance sheet as at 31/12/2005

- (b) Did Bidii farm qualify for a loan and why?
- 9. State **one** condition in which each of the following documents is used.

i) Invoice

ii) Delivery note

iii) Receipt

10. Below is a transaction showing Mrs.Okello's financial position in her business for the year 2009

-Purchase of pesticides	3,000 00
-Milk sales	8,000 00
-Sales of goats	5,000 00
-Construction of store	10,000 00
-Closing valuation	16,000 00
-Depreciation of machinery	3,000 00
-Interest payable	1,750 00
-Purchase of farm tools	800 00
-Veterinary bills	1,400 00
-Sales of tomatoes	1,750 00

-Wages	10,000 00
-Sales of heifer	10,000 00
-Opening valuation	12,000 00
-Sales of coffee	5,000 00

i) Prepare a profit and loss account for Mrs. Okello's farm

ii) Calculate the percentage profit or loss that Mrs. Okello made during the year 2009

iii) Explain six ways in which farmers adjust to risk and uncertainties in farming

11. Name **two** examples of liabilities in a balance sheet

AGRICULTURAL ECONOMICS (V) [MARKET & MARKETING]

This topic entails the following:

- Market and marketing
- Types of markets
- Supply and demand
- Marketing functions
- Problems of marketing
- Agricultural organizations

The following relevant questions and their answers in this topic will greatly motivate and help the user to comprehend and understand the required concepts and practices.

- a) Explain the principle that govern the operations of farmers' co-operative societies
 b) Explain the role of agricultural cooperatives in Kenya
 - c) Explain various functions of agricultural marketing
- 2. a) Give **four** marketing functions
 - b) Outline four problems associated with marketing of agricultural products
- 3. State **two** roles of agricultural society of Kenya
- 4. (a) What is elasticity of demand for a commodity
 - (b) Given that at a price of shs.1000 per bag, 20 bags of maize are demanded but when the price changes to shs.800 per bag, 22 bags are demanded. Calculate the elasticity of demand. Show your working

(c)Outline **six** problems of marketing maize as an agricultural product

- (d) Determine **nine** principles governing cooperatives in Kenya
- 5. Outline **four** reasons why training is important in some crops
- 6. (a) Explain marketing activities in Agriculture
- (b) Discuss problems experienced in marketing of Agricultural products
- 7. What is elasticity of supply
- 8. How do the governments control prices of essential farm produceb) Explain the roles of Agricultural co-operatives in Kenya
- 9. State the law of demand and supply.
- 10. What do the following initials stand for?
 (i) K.N.F.U Kenya National Farmers Union
 (ii) H.C.D.A Horticultural Crops Development Authority
- 11. (a) What is a co-operative society
 - (b) List **two** functions of co-operatives
 - (c) State and explain the nine principles of governing co-operatives
- 12. Give **four** factors which influenced the demand of tomatoes in the market

AGROFORESTRY

This topic entails the following:

- Definition of agro forestry
- Importance of agro forestry
- Forms of agro forestry
- Importance of trees
- Selection f trees to plant
- Routine management practices on trees
- Methods of tree harvesting.

The following relevant questions and their answers in this topic will greatly motivate and help the user to comprehend and understand the required concepts and practices.

- 1. State **two** reasons for seed treatment of tree species before planting
- 2. State **four** ways by which Re-afforestation help in land reclamation
- 3. List **four** advantages of agro-forestry
- 4. The illustrations below are techniques of harvesting agroforestry trees. Study them carefully and then answer the questions below:-



- (a) Identify the harvesting techniques represented by techniques A and B
- (b) Give an example of a tree species suitable for technique **B** and **C** as a method of harvesting
- 5. State **four** factors considered when choosing trees for Agroforestry
- 6. (a) Five characteristics of trees used in agroforestry are;(b) The benefits of agroforestry are:
- 7. Name **four** forms of agro- forestry
- 8. Give **four** characteristics that good agro-forestry tree should posses