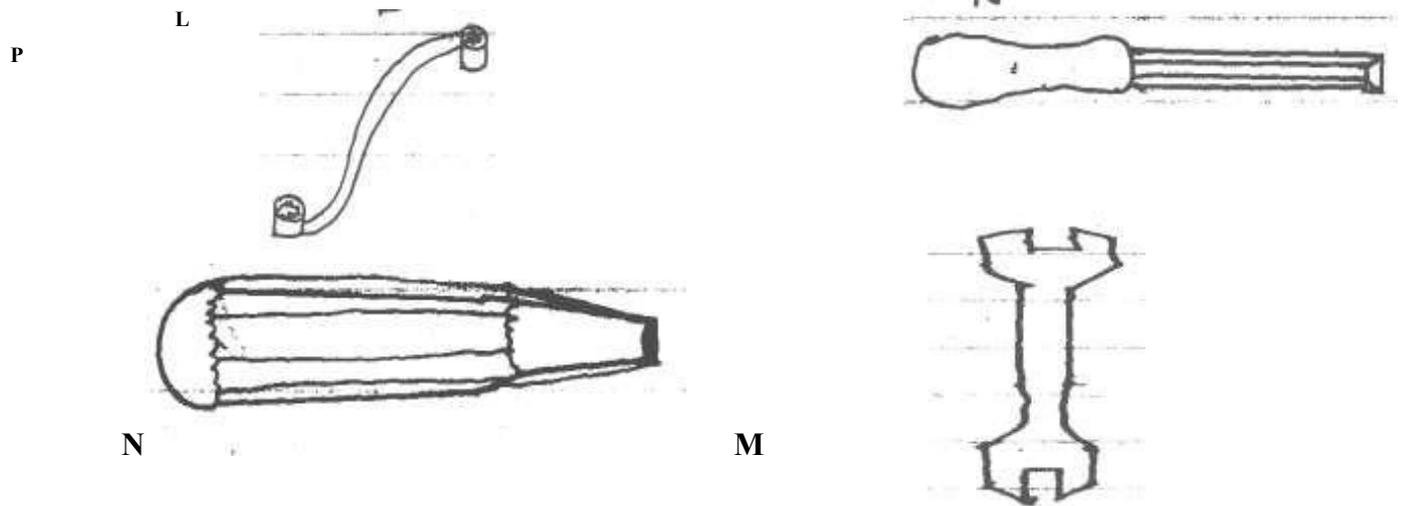


**END TERM II
AGRICULTURE
FORM ONE (1)
MARKING SCHEME**

1. Name **two** areas of scientific study which show that Agriculture is a science (2 marks)
- Crop pathology
 - entomology
 - agricultural engineering
 - soil science
 - genetics
- Mark first 4 x ½ mk =2mks
2. Give **two** reasons why Agriculture is important for the development of industries. (2 marks)
- supply of raw materials to industries
 - market for industrial goods such as fertilizer
- Mark first 2 x ½ mk
=1mk
3. State **four** main branches of agriculture. (4 marks)
- crop production
 - livestock production
 - agricultural economics
 - agricultural economics
 - soil science
- Mark first 4 x ½ mk =2mks
4. List **two** disadvantages of shifting cultivation (2 marks)
- low capital investment
 - no disease and pest build up
 - soil structure is maintained
 - no land disputes since land is not owned individually
- Mark first 2 x ½ mk
=1mk
5. Name **three** soil forming factors. (3 marks)
- physical weathering factors
 - chemical weathering factors
 - biological weathering factors
- Mark first 3 x 1 mk
=3mks
6. State **four** factors farmer face in agricultural production. (4 marks)
- human factors
 - biotic factors
 - edaphic factors
 - climatic factors
- Mark first 4 x 1 mk
=4mks
7. Give **three** aspects of light that influence crop production. (3 marks)
- light intensity
 - light wavelength
 - light duration
- Mark first 3 x 1 mk
=3mks

8. Below are diagrams of farm tools. Use them to answer the question that follow.



- (i) Identify the tools (4 marks)
- L -ring spanner**
M -open ended spanner Mark 1 x 1 mk =4mks
N -cold chisel
P -wood chisel

- (ii) State **one** advantage of toll L over M (1 mark)
- better grip of nuts

- (iii) State **one** functional difference between N and P (2 marks)
- N is used to cut thick sheets of metal while p is used to make grooves and small joinery work in wood

- iv) Give **four** reasons for maintaining farm tools properly. (4 marks)
- to make the last longer
 - to increase their efficiency
 - to reduce the costs by buying and replacement
 - to make the tools more safe to use
- Mark first 4 x 1 mk =4mks

9. State **two** reasons for cultivation during dry period. (2 marks)
- to allow the weeds to dry
 - to allow proper soil aeration
- Mark first 2 x 1 mk =2mks

10. For each of the following Tertiary operations, give one reasons why it is carried out. (2 marks)

- (i) Ridging
- to allow planting of root crops and crops such as sugar cane
 - to control soil erosion
 - allows tuber expansion in root crops
- Mark first 1 x 1 mk =1mks

(ii) Rolling

- to prevent small seeds from being carried away by wind and run-off
- to increase soil seed contact
- compacts the soil to reduce erosion

Mark first 1 x 1 mk
=1mks

(iii) Levelling

- promotes uniform germination of small seeded crops
- reduce incidences of soil erosion by run-off

Mark first 1 x 1 mk
=1mks

11. Give **four** factors that determine the numbers of times a farmer would harrow his land. (4 marks)

- size of planting materials
- slope of land
- moisture content of the soil
- condition of land after primary cultivation

Mark first 4 x 1 mk
=4mks

13. (i) What is water conveyance? (1 mark)

- delivery of water from the source to the farm or point of use

(ii) Name **two** types of pipes used in the farm. (2 marks)

- metal pipes
- plastic pipes
- PVC pipes
- rubber pipes

Mark first 2 x 1 mk
=2mks

(iii) State **three** uses of water on the farm (3 marks)

- watering livestock
- irrigation
- cleaning dirty farm tools
- mixing chemicals
- building of farm structures by mixing with soil and concrete mixtures
- cleaning livestock

Mark first 3 x 1 mk
=3mks

14. State **two** surface irrigation methods. (2 marks)

- flood irrigation
- basin irrigation
- furrow irrigation

Mark first 2 x 1 mk
=2mks

15. List **two** feature of plastic pipes a farmer should consider before buying the pipes. (2 marks)

- cost
- flexibility
- colour
- size/diameter
- thickness
- durability

Mark first 2 x 1 mk
=2mks

16. State **five** ways by which soil loses its fertility. (5 marks)

- leaching
- monocropping
- soil erosion
- continuous cropping

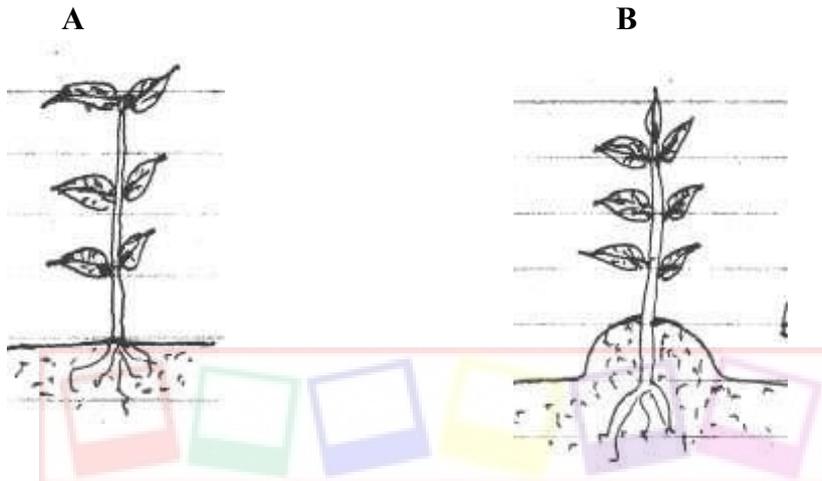
Mark first 5 x 1 mk
=5mks

- change in soil pH
- burning of vegetation cover
- accumulation of salts

17. Give **three** factors considered when siting compost manure on the farm. (3 marks)
- should be in a well-drained place
 - direction of prevailing wind to avoid direct drift to the home
 - should be centrally placed in the farm
 - should be accessible

Mark first 3 x 1 mk
=3mks

18. The diagram below shows a practice carried out on various crops on the farm. Study them carefully and answer the questions that follow.



- (i) Identify the practice represented by B. (1 mark)
- earthing up
- (ii) State the importance of the above practice in the following crops. (4 marks)
- (a) Maize - to offer firm support that minimises lodging,
- (b) Irish potatoes - - to allow formation of many potato tubers
- (c) Tobacco-- increase fertility for growth of bigger leaves
- (d) Groundnuts-- to increase the production of groundnuts

Mark first 1 x 1 mk
=1mks

- iii) At what stage of growth should the above practice be carried out in maize? (1mark)
- after topdressing

19. List **three** dairy goat breeds. (3 marks)
- saanen
 - toggenburg
 - angora
 - jamnapuri
 - British alpine

Mark first 3 x 1 mk
=3mks

20. Name a breed of dairy cattle having the following characteristics: red coat with white marking on the legs, face, tail/switch and girth. (1mark)
- ayrshire

21. State **four** characteristics of beef calf that makes it suitable for beef production. (4 marks)
- early maturing
 - good converters of food to meat and fats

Mark first 4 x 1 mk
=4mks

- tolerant to high temperature
- more resistant to diseases

22. Give **two** advantages of keeping a Jersey cow instead of a Friesian cow for milk production. (2marks)

- milk has a high butter fat content
- has little pasture requirements/ use poor pastures
- reaches service age earlier at 15- 18 months

Mark first 2 x 1 mk
=2mks

23. State **two** adaptations of dromedary camel to its environment. (2marks)

- has hump for storage of fats that is used to make metabolic water
- hoof is leathery to prevent sinking in sand
- long legs which is used in temperature regulation
- short fur to regulate temperature

Mark first 2 x 1 mk
=2mks

24. Name **four** types of farm record. (4 marks)

- production record
- inventory record
- field operation record
- breeding record
- feeding record
- health record
- marketing record
- labour record

Mark first 4 x 1 mk
=4mks

25. Give **two** advantages of organic farming in relation to environmental conservation. (2 marks)

- improves soil structure
- improves infiltration of water and air in soil
- provides food for soil microorganisms
- provides various nutrients for crops
- environmentally friendly/ does not pollute the environment and farm produce

Mark first 2 x 1 mk
=2mks

26 Describe the process involved in water treatment using chemical treatment system. (12 marks)

- filtration of water at the source using mesh filters of different sizes
- add sodium bicarbonate/ soda ash to soften the water
- add alum/ aluminium sulphate to coagulate suspended solid particles
- to allow the water to settle in a tank to let coagulated particles to sink to the bottom of the tank and when left in the tank for 36 hours kills bilharzia worms
- filtration using different sizes of gravel and sand to remove all solid particles
- add chlorine to kill microorganisms in the water
- store in a tank before conveyance

Correct order should be observed

Mark each point x 2 mk
=2mks