**AA-14**

**FORM ONE AGRICULTURE**

**MARKING SCHEME**

1. - Pathology

* Entomology
* Parasitology
* Genetics
* Soil science
* Agricultural engineering
* Agronomy ( 1 x 2 = 2mks)

2 . - Source of raw materials for industries.

* Source of market for industrial goods
* Capital gained from selling agricultural products can be used to expand industries ( 1 x2 ) = 2mks)

3. - Crop production/ crop husbandry.

* Animal production/animal husbandry
* Agricultural economics
* Agricultural engineering
* Soil science. ( 1 x 4 = 4mks)

4. - Only practiced where land is unlimited

* Soil fertility is not preserved
* Cannot be practiced with perennial crops
* No permanent farm planting and improvements. ( 1 x2 = 2mks)

5. (i) a . Floating organic matter (humus)

 b. Water with fine clay particles and dissolved mineral salts

 c. sand

 d. Gravel.

1. It aids in the dispersion of soil particles ( 1 x 1 = 1mk)
2. To show that soil in made up of different sized particles. ( 1 x 1 = 1mk)

6. - Climate

* Parent material
* Topography
* Parent material
* Time.

7. - Poor transport and communication

* Lack of technical know-how
* Lack of tools of equipment
* Climatic changes
* Diseases, pests and parasites
* Price fluctuation
* Government policy
* Poor land tenure system
* Poor health
* Lack of planting materials. ( 1 x 4 = 4mks)

8. - Light wavelength

* Light duration\
* Light intensity ( 1 x3 = 3mks)

9. L - ring spanner

 M – open ended spanner

 N – wood chisel

 P – cold chisel. (1 x4 = 4mks)

 (ii) - Used to loosen or tighten hidden nuts (1 x1 = 1mk)

(iii) N – Is used for cutting grooves on wood while

 P - Is used for cutting heavy metal sheets ( 2X 1 = 2mks0

1. - to make the last long
* To reduce replacement costs
* To increase efficiency\to avoid injury to user
* To avoid damage to the tool. ( 1 x 4 = 4mks)

10. - Its faster

* Vegetation gets to dry and decompose
* Allows a enough time for other operations. ( 1 x2 = 2mks

11. Ridging – encourage tuber expansion

* Allow easy harvesting of root crops. ( 1 x1 = 1mk)

Rolling – prevent small seeds from being carried away by wind.

* Prevent soil erosion
* Increase seed soil contact ( 1 x1 = 1mk)

 Leveling – facilitate uniform germination of seeds. ( 1 x1 = 1mk)

12. - Size of seed/crop to be planted.

* Slope of the land
* Condition of land after primary cultivation
* Moisture content of the soil
* Type of implements used.
* Type of soil. ( 1 x 4 = 4mks)

13. (i) Moving water from one point to another where it will be used on stored. ( 1 x 1 = 1mk)

 (ii) - Metallic pipes

* Plastic pipes
* Hose pipes ( 1 x 2 = 2mks)

(iii) - Watering animals

* Domestic prepuces
* Irrigating crops
* Diluting decimals
* Processing farm produce
* Construction of building
* For recreation/swimming
* Cooling engines . (1 X 3 = 3mks)

14. - Basin

* Flood
* Furrow. ( 1 x2 = 2mks)

15. - Durability

* Size ( diameter)
* Costs ( 1 x2 = 2mks)

16. - Reaching

* Soil erosion
* Burning vegetation
* Continuous plant uptake
* Accumulation of salts
* Change of soil PH ( 1 x 5 = 5mks)

17. - Direction of prevailing wind

* Size of the farm
* Accessibility
* Well drained place
* Clearness to where it will be used. ( 1 x 3 = 3mks)

18. (i) Earthling up. ( 1 x1 = 1mk)

 (ii) Maize – provide support to prevent lodging.

Irish potatoes – improve tube expansion

* Easy harvesting

Tobacco – improve drainage a round the plant

Groundnuts – promote seed formation ( 1 x 4 = 4mks)

(iii) During the second weeding ( 1 x1 = 1mk)

19. - Saanen

* Toggenburg
* British alphine
* Anglo lubian
* Jamnapari. ( 1 x 3 = 3mks)

20 - Guernzy ( 1 x 1 = 1mk)

21. - Blocky

* Deep well fleshed bodies
* Fast growth
* Efficient consumers of feed into meat ( 1 x 4 = 4mks)
* Good foragers
* Tolerant to high temperatures
* Breed regularly
* More resistant disease
* Have short strong legs ( 1 x 4 = 4mks)

22. - Withstand high temperatures

* High butter fat content
* Consume less food than bruising
* Can survive on pour quality pasture. ( 1 x2 = 2mks)

23. - Ability to vary its body tempteratures

* Thin air reduces heat absoption
* Large to produce concentrated urine
* Have hooves that are adapted for walking in desert sand. ( 1 x2 = 2mks)

24. - Production records

* Breeding records
* Health records
* Inventory records
* Field operation records.
* Markets record. ( 1 x 4 = 4mks)

25. - Products are healthy – without chemical/residue

* Prevent chemical pollution of water
* Organic matter acts as food for soil organisms. ( 1 x2 = 2mks)

26. - Water treatment process.

Stage 1 : Filtration at water intake

At the point of intake, water is made to pass through a series of sieves. This traps large particles of impurities.

Stage 2 : Softening of water

Water is made to circulate in a small tank where it is mixed with soda ash ( sodium bicarbonate)\_ soda ash softness water.

Atum ( aluminuim sulphate) is also added to coagulate solid particles which finally settle down at the bottom.

Stage 3: Coagulation and sedimentation

Solid particles settle down at the bottom of the tank. Water stays here for at least 36 hours to kill bilharzias germs. The tank is left open for aeration and remove bad smell.

Stage 4 Filtration.

Water passes through a filtration tank where all the remaining solid particles are removed.

Stage 5: Chlorination.

Filtered water enter the chlorination tank where small amount of chlorine solution is added to kill germs.

 Stage 6: storage

 Water is stored in large tanks before distribution/usage. The tank should be out of bound to unauthorized persons. The area should be fenced. ( 1mk for correct stage, 1 mk for correct explanation)