

FORM 2 AGRICULTURE MARKING SCHEME  
TERM 2

**SECTION A (30MKS)**

1. Health - a state in which all the body organs or parts and systems are considered normal and are functioning normally. 1mk
2. Symptoms of potassium deficiency
  - leaf curling
  - leaf surface loses chlorophyll and becomes yellowish that is they become chlorotic
  - premature leaf fall
  - stunted growth
  - the edges of the leaf are scorched while the central parts remain green.4x1/2 = 2mks

**3. Information contained in composite samples**

- name and address of the farmer
- field number
- date of sampling 3x1/2 = 1 1/2 mks

**4 Disadvantages of using vegetative propagation**

- Vegetative propagation does not result in new crop varieties
- Keeping the materials free from diseases is difficult
- Materials cannot be stored for long
- The materials are bulky and therefore difficult to transport 4x1/2 = 2mks

**5. calculation**

Plant population – area of land

Spacing of crops

Area of land = 800x 600

75x25

= 256 plants                      3mks

**6. Differences between monocropping and intercropping**

Monocropping is the practice of growing one type of crop in a farm or one piece of land while intercropping is the practice of growing two or more crops in the same field at the same time 1mk

7.,**Rogueing** – uprooting and destroying of infected plant to prevent disease spread 1mk

**Gapping** -filling or replacement of the dead seedling in the farm 1mk

**8 Disadvantages of using non. Capped multiple stem pruning.**

- breaking of stems and branches
- difficulty in gathering the berries from top points
- difficulty in spraying the tall bushes
- rotting of stumps with age 4 x1/2= 2mks

**9.Good grain store**

**-Rat or vermin proof**

- well ventilated
- easy to load and offload
- well secured to minimize theft 4x1/2 =2mks

**10.Intermediate host for**

- a) Taenia Solium .....pork                      1/2**
- b)Taenia sagnata,,,,,,beef                      1/2**
- c)liver fluke.....fresh water snails                      1/2**

**11 control measures of tse tse fly**

- bush clearing in order to destroy the breeding places of the flies

- spraying their breeding places with suitable insecticides
- use of fly traps with impregnated nets
- use of sterilising agents eg radio isotopes on male flies and then releasing them.  
4x1/2 = 2mks

**12. Disadvantages of overhead irrigation**

- it may require the establishment of wind break.
- causes soil erosion if it is not properly controlled
- encourages fungal diseases such as blight, CBD and others due to water accumulation on the leaves
- expensive to install 4x1/2 = 2mks

**13. Dibber** ..... used for making holes for transplanting 1mk

- b) Garden trowel**.....for lifting seedlings from the nursery 1mk
- c) stock and die**.....for cutting thread on pipes 1mk
- d) Pipe wrench**.....for holding tightening and loosening metallic pipes (**1mk**)

**14 functions of.**

- a) Well rotten manure**—provide nutrient to the microorganisms 1mk
- b) Wood ash**---improves the level of phosphorus and potassium 1mk
- c) Top soil**—introduces micro organisms in the soil **1mk**

15 s Essex saddle back has a black body shoulders and all legs white while wessex saddleback has black body with shoulders and only the front legs white 1mk

**SECTION B**

16(a) **Method illustrated** 1mk

-diagonal/transverse method

b) 3 precaution **taken** (3mks)

- avoid contamination/use sterilized container
- avoid sampling soil from unusual sites e.g ant hills
- avoid mixing top soil with sub soil

**c) 4 reasons why soil from the farm is tested (4mks)**

- To determine the nutrients status of the soil
- To determine the soil type/ph of fertilizer to add to the soil / lime to add to the soil
- to determine the type of crop to grow
- may help in diagnosing using low crop yield / mineral deficiency

**17 a ) farm practice represented by B (1mk)**

**earthing up**

**(b) importanc of the above practice .**

- (i) **Maize** .....1mk- provide support to prevent lodging.
- (ii) **irish potato**.....1mk- improves tuber formation

**c) During second weeding (1mk)**

**18.A) identify the pest**

. cut worm 1mk

b) Damage crops by cutting the base of the stem of seedling after transplanting 1mk

c)- Mixing appropriate insecticide powder with soil in each hole during transplanting 1mk

- Proper weeding 1mk

**19.State any 5 general characteristics of indigenous breed of cattle (5mks)**

-They have humps that stores fat which is broken down to energy and water in times of starvation

-They are fairly tolerant to high temperatures due to the presence of dewlap and thick hides

- They have high tolerance to tropical diseases ie trapanosomiasis
- They have low production of both meat and milk due to inheritance of poor characteristics
- They have slow growth rate leading to the late maturity
- They can walk for long distances in search of food and water -
- They can stay for long periods without food and water without seriously affecting their performance and body condition
- They have long calving intervals of more than one year

**20 State any 5 factors considered when selecting a nursery site 5mk**

- nearness to water source
- type of soil
- Topography
- previous cropping
- security
- well sheltered place

**21. state conditions that nececiate land clearing 4mks**

- when opening up virgin land
- where a stalk growing crop was previously planted
- where the interval between primary and secondary cultivation is long such that the land has reverted to the original virgin land
- where land was left fallow for a long time

SECTION C

**22a) State and explain 5 charasteristics of a fertile soil 10mks**

- good depth-deep soils give plant roots greater volume to obtain plant nutrients and provide strong anchorage

- proper drainage- a well drained soil is properly aerated promoting healthy root development
- good water holding capacity\_ this will ensure that enough water is retained for plant use.
- adequate nutrients supply- soil should supply the nutrients needed by the plant in the correct amount and in a form that is available to the crops
- correct soil pH - different crops have different soil pH requirements
- free from excessive infestation of soil borne pests and diseases.

**b) State symptoms of attack by a liverfluke in livestock 5mk**

- loss of weight and emaciation
- pot-bellied condition due to watery swelling on the body of the affected animals
- the animal will suffer indigestion
- damage to the liver tissues and haemorrhage due to the movement of flukes within the liver.
- Anaemic condition due to sucking of blood
- dullness and the animal appearing depressed
- swollen and painful abdomen
- recumbency precedes death

**c) Describe any 5 factors influencing crop rotation 5mks**

- crop root depth-deep rooted crops should be alternated with shallow rooted crops
- crop nutrients requirements -heavy or gross feeders should come first in a newly opened land which is relatively fertile
- weed control- crops which are associated with certain weed should be alternated with those that are not
- pest and disease control -crops from the same family should not follow one another in the rotation programme as they are attacked by the same pests and diseases
- soil fertility-- leguminous crops should be included to improve soil fertility

-soil structure..when the soil is used continuously it should loose and pliable a grass ley should be included to improve soil structure.

**23a) Describe reasons for pruning in crops (5x2)**

- to train the plant so that it can have the required shapes
- to remove the diseased and unwanted parts of a plant such as extra suckers,leaves, brances and flowers or even stems
- to control cropping by removing unproportional ratio of vegetative and productive parts
- to facilitate picking
- to ease the penetration of the spray
- it controls pest and diseases - pruning discourages breeding and spreading of pest and diseases

**b) Effects of hiv/aids and ill health in agriculture**

- shortage of farm labour making farm labour very expensive
- increasing cost of living of AIDS patients and relatives
- low living standard lead to hopelessness and lack of motivation to invest in agriculture
- low food supply and poverty in general has increased criminal activities.
- A lot of time and resources are used in controlling the pandemic 5mks

**c) Problems associated with the use of organic manure**

- bulkiness-- they are used in large quantities because they have low nutrients value per unit volume
- labourious in application and transport
- they spread diseases , pests and weeds
- if used when not fully decomposed they doesn't benefit the plant because they release nutrient which scotch crops

-loss of nutrients if poorly stored 5mks