

# AGRICULTURE FORM TWO

## MARKING SCHEME

### **1.Name the human related factors that influence farming (5mks)**

*Health , market forces*

*Economic fertilizer / policies*

*Government policy*

*Level of education and technology*

### **2.Give seven reasons why it is advantageous to use farmyard manure (7mks)**

*It increases the water holding capacity*

*It improves soil fertility*

*It provides food and shelter for soil micro organisms*

*It improves soil structure by binding soil together.*

*It buffers soil PH i.e. moderates soil PH*

*It reduces toxicity of plant poisons that may harm built up in the soil due to continuous use of pesticides and fungicides*

*Humus gives soil its dark colour*

*It improves soil structure*

### **3.What is primary tillage (1mk)**

*A series of activities carried out on land to make it ready to receive planting materials*

### **4.Give the disadvantages of flood irrigation (7mks)**

*Canals are subject to siltation*

*Increased incidents of malaria and bilharzia*

*Requires large amounts of water*

*Can cause heavy crop losses during heavy down pour*

*It is limited to flat areas*

*A lot of water goes to waste*

*In the long run it leads to accumulation of salts as the water evaporates*

### **5.Describe the factors that determine spacing in crop production (10mks)**

*The number of seeds per hole in that many seeds are used under wider spacing*

*Size of the crop at maturity i.e. the crops spreading habit*

*Method of planting row planting gives a wider spacing than broadcasting*

*Fertility of the soil. A closer spacing is good for fertile soils*

*Whether operation are to be mechanized and type of machine to be used.*

*Pest and disease incidence wide spacing helps to control pests like aphids*

*The purpose of which the crop is planted*

### **6.Give two reasons why use of certified seeds is recommended (2mks)**

*Provided to have 100% germination*

*Free from pests and diseases*

7. Name the features of a good store (5mks)

*Should facilitate easy control of pests and diseases*

*Should be rodent free*

*Should be water proof*

*Should be easy in cleaning*

*Be well ventilated*

*Be easy to load and off load*

*Should have the necessary security measures*

**8. Describe the procedure followed during soil sampling (6mks)**

*Clear the vegetation from sampling space and make a vertical cut 15-25cm for pasture land and 5cm for pasture land.*

*Vertical slice is made using a soil auger Spade or a panga*

*The soil is put in a clean polythene bag, bucket or any suitable container*

*The above steps are repeated in different parts of the field 15-20 spots depending on the sampling method used*

*Soil from all the spots is thoroughly mixed dried and crushed*

*A sub sample from the mixtures is taken and sent to the laboratory for testing*

**9. Give four factors considered in siting a nursery bed (2mks)**

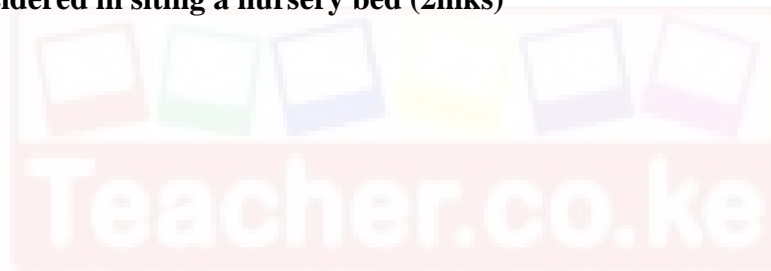
*Water availability*

*Security*

*Drainage*

*Fertility of the soil*

*topography*



**10. Describe five reasons for pruning (5mks)**

*Allow enough light penetration*

*Improve quality produce*

*Reduce pests and diseases*

*Enable effective use of chemicals sprays*

*Train the crop to have the required shape*

**11. Giving examples of each, state six types of vegetables (6mks)**

*Leaf vegetables eg kales, cabbages and spinach*

*Fruit vegetables eg pumpkins pepper*

*Pod vegetables eg beans, peas, French beans*

*Stem vegetables eg spring onions kales*

*Bulb vegetables eg bulbed onions*

12. Name three liming elements in crop production.

(3mks)

*Calcium, sulphur and magnesium*

13. What is chitting.

(1mk)

*It is the sprouting of selected Irish potato tubers (setts) before planting by keeping them in partially darkened rooms.*

14. Given that the spacing of coffee is 2.7m by 2.7m, calculate the plant population in 1 hectare (Ha) of land. (2mks)

*1 hectare = 10,000m<sup>2</sup>*

*Crop spacing given 2.7m x 2.7m*

*Plant population =  $\frac{\text{Area of the land}}{\text{Crop spacing}}$*

*= 10,000*

*$2.7 \times 2.7 = 1,371.7$*

*= 1371 or 1372 plants*

15. Name the conditions that should be met by a good root stock. (4mks)

- *Adapt to a wide range of soil Ph.*
- *Free from pests and diseases.*
- *Resistance to viral diseases.*
- *Compatible with the soil.*
- *Resistant to a diverse soil characteristics e.g:- salinity.*

16. State the difference between tip layering and trench layering. (2mks)

*Tip layering: Involves bending of a shoot that has a terminal bud and pegging it at a single point while layering involves bending a branch that has several axillary buds in an open trench and covering it with moist soil once the buds start to develop.*

17. Differentiate between grafting and layering. (2mks)

*Grafting: Involves joining two separate woody stems.*

*Layering: Involves rotting part of a plant.*

18. Name any two practices carried out during hardening off in seedlings. (2mks)

- *Reducing the rate of watering.*
- *Reducing shading*

19. (a) Differentiate between mixed cropping and inter-cropping. (2mks)

*Mixed cropping: Crop grown in the same field but in different portions.*

*Inter-cropping: Crops grown together in the same portions within the field.*