

. 2020 FORM 4 TERM 1 ENTRY EXAMS

FORM 4 PP1 MS

1. Conditions under which shifting cultivation is carried out

- Abundant land
- sparse population
- low number of livestock per unit area
- Where land is communally owned. 2x½=1mks

2. Difference between apiculture and aquaculture

- Apiculture-rearing of bees in hives
- Aquaculture-rearing of fish in a fish pond 1mks mark as a whole

3. Government policies influencing agricultural production

- heavy taxation
- subsidies
- quality control
- conservation of natural resources
- stepping up the control of pest, diseases and parasites. 4x½=2mks

4. Methods of clearing land.

- tree felling
- burning
- slashing
- uses of chemicals 4x½=2mks

5. Reasons for treating water.

- to kill germs
- to soften it
- to remove foreign materials
- to remove chemical impurities
- To remove bad taste and colours 4x½=2mks

6. Qualities of fertile soil

- should have good soil depth
- free from soil borne and diseases.
- proper drainage.
- proper drainage
- good water holding capacity
- adequate supply of nutrient
- correct soil pH 4x½=2mks

7. Type of farm records.

- production record
- inventory record
- field operations records
- health records
- marketing record
- labour record
- breeding record 4x½=2mks

8. Role on Nitrogen in plant

- play important role in protein formation
- it forms part of chlorophyll
- regulate the availability of phosphorous to plant.
- increases the size of grains in cereals -4x½=2mks

9. Factors influencing the rooting of a cutting.

- Leaf area
- light intensity
- relative humidity
- oxygen supply
- chemical treatment
- temperature 4x½=2mks

10. Reasons for growing seedling in a nursery.

- ensure transplanting of health and vigous seedlings only.
- Facilitates production of many seedlings in a small area.
- easy to carry out root management practices.
- make it possible to provide best conditions for growth.
- facilitate the planting of small seeds to grow strong before transplanting.
- reduce the period of the crop in the field
- Excess seedling can be sold. 4x½=2mks

11. Methods of pruning

- pinching out
- annual pruning
- coppicing/polarding 2x1=2mks

12. Causes of blossom end rot.

- lack of calcium in the soil
- irregular watering
- excess Nitrogen 2x1=2mks

13. (i) Land sub-division-Dividing of land into small pieces. 1x1=1mk
ii) Land consolidation-Gathering together of small scattered pieces of land under one holding.
1x1=1mk

14. Harmful effects of weeds.

- compete with crops for nutrients
- some weeds are parasitic
- some weeds lowers the quality of produce
- some weeds are poisonous
- some weeds acts as alternative host for pest and diseases.
- some weeds block irrigation channels
- some weeds are irritating
- some lower the quality of pasture
- some have allelopathic effect 4x1/2=2mks

15. Classification of pest

- Piercing and sucking
- biting and chewing 2x1=2mks

16. Causes of crop diseases

- fungal
- bacterial
- viral
- bad weather conditions
- deficiency of some elements in the soil 4x1/2=2mks

SECTION B

17. (a) Ridging 1mk
(b) encourage tuber expansion
-easy harvesting of tuber crops
-Control soil erosion
-conserve moisture in the soil 4x1/2=2mks

- (c) Rolling
-Levelling 2x1/2=1mk

18. (a) Breeding record
(b) A- Bull number and breed
B- Pregnancy diagnosis Date

C-Actual date of calving

3x1=3mks

19. 21kg of N if in 100kg of CAN 1mk
 (21x150) kg- 150 kg of CAN. 1mk
 100
 =31.5kg of N/ha 1mk

20. (a)A-Individual peg ½mk
 B-Ring and pegs ½mk
 C-Parallel sticks and pegs ½mk
 (b) Formative 1mk
 (c) Promote a wide plucking table 1mk
 (d) Take long to bring tea to bearing . ½mk

21. a)A-thorn apple (Double thorn)

B-Datura stramonium
 C- Pigweed

D-Sow thistle
 E-Couch grass
 F-Oxalis

b)Produces a lot of seed

-it has a short life cycle 1x1=1mk

(c)They have an underground storage structures. 1mk

SECTION C

22.(a)Advantages of practicing organic farming

- It is environmental friendly
- products have no traces of inorganic chemicals residues
- improves soil structure

- enhances water infiltration and retention
- provide food for microbes.
- organic manure improve soil fertility

(b) Effects of HIV /AID and ill health

- Shortage of labour making labour to be very expensive
- Increase the cost of living of AIDS patients and their relatives.
- Leads to low income and poor purchasing power.
- Low living standards which lead to hopelessness and lack of motivation to invest
- low food supply and poverty in general, increasing criminal activities.
- the government and NGOs uses a lot of resources in controlling the pandemics.

(c) Reasons for carrying out minimum tillage.

- to reduce cost of production.
- To control soil erosion e.g through mulching and cover cropping
- to maintain soil structure .continuous cultivation destroys soil structure and should be avoided.
- conserve soil moisture ie.soil is not exposed to strong sun heat there reducing evaporation
- Prevent the distribution of the roots underground structures
- Prevent exposure of humus to adverse conditions eg strong sun heat which can cause volatilization. 5x1=5mks

d) uses of water in a farm

- for domestic purposes
- for watering livestock
- Diluting chemicals used in the farm.
- during processing for farm produce
- during construction of building

-used for irrigation-

-For cooling machines

-as a source of power. $5 \times 1 = 5 \text{mks}$

23(a) Ways of maintain soil fertility

-Control of soil erosion which aim at promoting good rain water retention and reducing the surface runoff.

-Crop rotation: help to control crop pest and diseases and maximum utilization of soil nutrients.

-Control of soil pH: Most soil organisms do well at a certain soil Ph.

-Proper drainage :Done by breaking the hard layers.

-Weed control: weed compete with crops for nutrients, space sunlight and moisture

Intercropping: when different species of crops yields are normally high.

-Minimum tillage: overcultivation destroys the soil structure leading to soil erosion.

-Use of manures-add nutrients to the soil and moderate soil pH

-use of inorganic fertilizers: add nutrients to the soil $5 \times 1 = 5 \text{mks}$

(b) Factors affecting the spacing of any crop

-Type of machinery used :Space should allow free passage of machinery.

-Soil fertility :crops in fertile soil are planted at closer spacing as it is able to support the crops.

-Size of the plant: Plant which grow big at maturity should be planted at a wider spacing.

-Moisture availability: In areas where there is high rainfall crops are planted at close spacing .

Use of crops: If grown for supply of forage crops are planted at closer spacing.

Pest and diseases: When properly spaced it is not easy for the pest and diseases to spread.

Growth habitat of the crop spreading crops are widely spaced.

$5 \times 1 = 5 \text{mks}$

(c)Nursery management practices

- Mulching –Prevent excessive evaporation and also moderates the soil temperature.
- Watering-done in the morning and evening
- weed control-nursery should be kept free from weed by uprooting weed using hands.
- Pricking out-excess seedlings should be uprooted and planted in an adjacent seedling bed
- Shading :Should be elected over the nursery bed avoiding dark conditions.
- Pest and diseases control-pest and diseases should be controlled throughout
- Hardening off-before the transplanting the seedling are hardened frequently and reducing the amount of shaded

d)Field management practices in a tomato field

Pruning for the tall varieties

Staking for the tall varieties

Tomato pest and diseases control ;should be carried out.

Gapping to replace the dry one and those eaten by pests

Weeding –should be free from weed

Regular watering when dry

Top dressing –should be topdressed with the right amount of fertilizers.

24.(a)Effect of land consolidation

- Proper supervision
 - Saves on time and transportation cost
 - Easy to provide agricultural advice by extension officer.
 - Possible to carryout sound planning
 - Facilitates carrying out of soil conservation practice.
 - One can construct permanent structures in the farm.
 - It is economical to carryout farming operations.
 - If registered it gives farmers legal ownership and title deed which can be used to obtain loans.
- Control of weed, pests and diseases in enhanced. 6x1=6mks

(b)Cultural methods of controlling pest.

- Timely planting make the plant to escape pest

- Timely harvesting –so that the crop is not attacked when in field by storage pest.
- Proper tillage-Expose the pest to predators and strong sun heat.
- Close season-you stop growing of suspected crop for some period.
- Trap cropping-A top crop is planted before or with the main crop and it is more preferred by pest.
- crop rotation-crops which are more preferred are alternated with crops which are not attacked by the particular pest.
- Plant resistant crop varieties-new varieties of crops have been develop which are not attacked by pests.
- Filed hygiene-keeping the field free from any plant materials habouring pest.
- Alteration of environment-creating of certain micro-climate is sprung
- crop nutrition-application of fertilizer and organic manure boost the growth of the crop escaping the attack.
- Destruction of alternative host. Weeds remove plants which are alternative host of pest.
- Use of clean planting materials :Materials which are free from present to prevent introduction or spread of pest and diseases.
- Proper spacing :It makes if difficult for pest to crawl from one crop to another
- Irrigation :used to control pest like mole and aphids.7x2=14mks