

FORM FOUR PAPER 1 MARKING SCHEME SECTION A ((30MKS)

1. Seed dressing is the process of coating of seeds with insecticides or fungicides chemical to prevent the seed from soil borne diseases. (lx1=1 mk)

2. advantages of row planting

- Machines can be used easily between the rows.
- Easy to establish crop population.
- Low seed rate is used.
- Easy to carry out other operations like weeding, spraying and harvesting. $(4x \frac{1}{2} = 2mks)$

3. Factors considered when choosing site for tomato nursery.

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

 $(4x \frac{1}{2} = 2mks)$

 $(3x \frac{1}{2} = 1\frac{1}{2} \text{ mks})$

 $(4x \frac{1}{2} = 2mks)$

4. **Reasons for treating water.**

- To kill disease causing micro-organism
- To remove chemical impurities
- To remove dour / bad smell
- To remove foreign particles.

5. Effect of HIV/AIDS to agriculture.

- Loss of skilled labour through death of skilled personnel.
- Wastage of time in caring of patients.
- A lot of money is spent on treating people with HIV/AIDS.
- Government and NGOs' spend a lot of money to control HIV in expense of development of agriculture. $(3x \frac{1}{2} = 1\frac{1}{2} \text{ mks})$

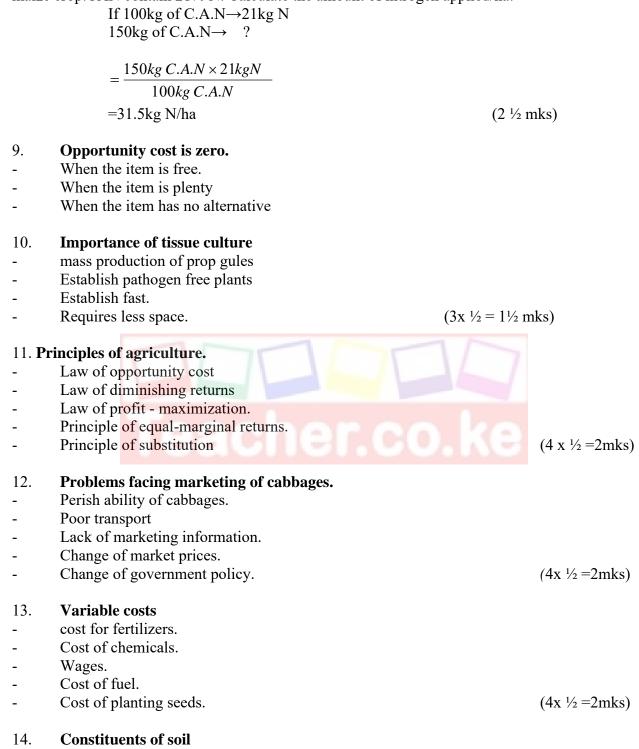
6. Advantages of overhead irrigation.

- Eradicate pests e.g. Aphids.
- Minimizes wastage of water.
- Can be used in sloppy areas.
- Water is evenly distributed.
- Can irrigate a large area by changing the location of pipes.
- Foliar fertilizers can be applied using this method
- 7. Ways of conveying water in the farm.
- piping
- canals
- containers

 $(3x \frac{1}{2} = 1\frac{1}{2} \text{ mks})$



8. A farmer in PREMIER was advised to apply 150kg CAN/ha, while top Dressing the maize crop.CAN contain 21% N. Calculate the amount of nitrogen applied/ha.



- soil air
- soil water
- soil micro-organisms

 $(5x \frac{1}{2} = 2 \frac{1}{2} \text{ mks})$

- soil particles
- Soil organic matter/humus.

15. **Product-product relationship**

- joint products
- competitive products
- complementary products
- Supplementary products.

 $(4x \frac{1}{2} = 2mks)$

(4x ½ =2mks)

16. Topping — is removal of fibrous materials from the pasture after harvesting or grazing pasture while top-dressing is the application of fertilizers at the base of the pastures. (2mks) (mark as whole)

17 factors which influence spacing of crops

- type of soil
- growth habit
- soil fertility
- soil moisture
- number of seeds per hole
- use of the crop
- Occurrence of pests and diseases.

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SECTION B (20MARKS)

18 a)														
А	-	Devil's		horse	whip(<u>Acl</u>	<u>iyranthes</u>	<u>apora</u>)							
(1mk)														
B	-	Datura	stramomi	um		(<u>Thorn</u>	<u>apple</u>)							
(1mk)														
b) -	- Poisonous to livestock													
- Competes with crops for nutrients / light / water or space														
-	Increase	cost of prod	uction											
-	Lower	-	yield	S	/		quality							
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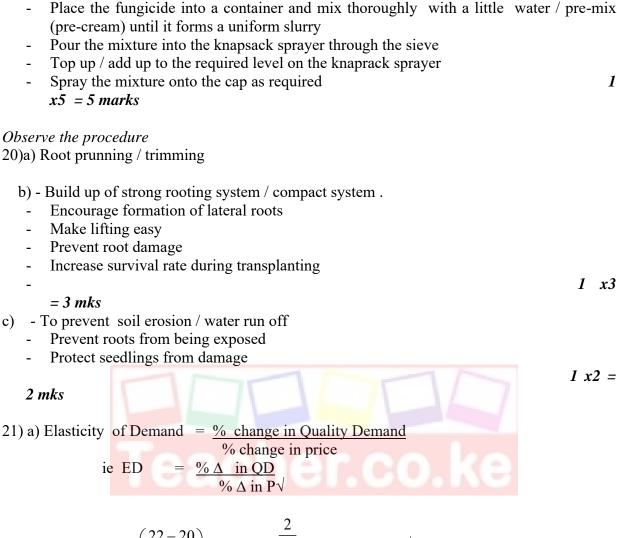
- c) -Enables land owners / landlord to earn income from land
 - Enable people who have no land to have acres to farmers land
 - Idle land put into productive use
 - Enable tenants to increase / decrease acreage of land leased depending on profitability $\frac{1}{2}$

$x \ 4 = (\ 2mks)$

- 19 Read the label / manufacture instructions and follow them
 - Measure the required amount of fungicide



1



% change in QD =
$$\left(\frac{22-20}{20}\right)$$
 x 100 = $\frac{2}{20}$ x 100 = 10 %
% change in price = $\left(\frac{800-100}{20}\right)$ x 100 = $\frac{10}{20}$ = 20% (mod

% change in price =
$$\left(\frac{800-100}{1000}\right) \times 100 = \frac{10}{-20} = -20\%$$
 (mark as a whole)
ED = $\frac{10}{20} = -0.2 \sqrt{(Mark as awhole)}$

b) Inelastic demand (i.e. since ED is less than 1)

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SECTION C (40 marks)

22.a)

- Pick flowers selectively
- Pick flower with horizontal petals / three to two roses of disk florets
- Use fore finger and thumb
- Pick by twisting the lead so that no stem is left attached
- Put the pricked flowers in woven baskets
 = (4mks)
- Picking starts 3 -4 months after planting
- b) Picked flowers are put in woven baskets to allow ventilation and avoid fermentation
 - Wet flowers should not be picked since they heat up and ferment
 - Should not be comp[acted to avoid heating up and fermentation
 - Suitable picking intervals 14 21 days to avoid overgrown or young flowers
 - Break flower stalks to maintain quality 1 x6 = 6 mks

23 a) *Land preparation*

- Clear the land to remove all stumps
- Dig, plough the land to remove perennial weeds / roots
- Harrow the land ; to a fine filth
- Prepare the land during the dry season / before the rains 1 x5 = 5 mks

b) *Pasture establ*ishment

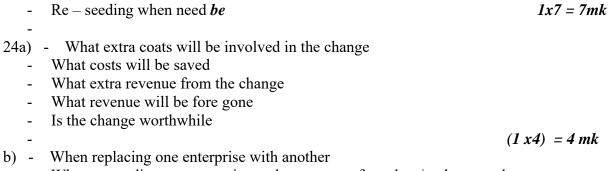
- Select a desirable variety of grass for the ecological condition / select the correct variety for the same zone
- Plant or the onset of rains / plant early
- Use certified seeds
- Drill / broad cast the seeds evenly
- Apply phosphatic fertilizers or appropriate rate
- Use ssp rate of 200- 300 kg/ ha
- Use recommended seed rate for the variety
- Use 1.5-2 kg /ha PGS / 5-10 /ha for any available seed
- Drag a twig / gunny bag to cover the seeds lightly
- Cover seeds 3-5 times the diameter of seeds / depth 1x8 = 8 mks)

c)Maintenance

- Control weeds by uprooting /use herbicides
- Top dress with nitrogenous fertilizers
- Top dress with nitrogenous fertilizers
- Top dress in split application
- Cut / graze in the initial stage when 4- 6 months
- Control pests and diseases when they appear
- Avoid grazing when too young / Early defoliation
- Topping posture using appropriate method when to stemmy
- Carry out controlled grazing
- Irrigate when desirable

1x 4





- When expanding are enterprise to the expense of another / reduce another
- When introducing an enterprise which is subsiding to the existing one
- When replacing one technique of production with another

Debit (-)		ksh	Cts	Credit (+)	ksh	cts
EXTRA COSTS B Fertiliser 2 ½ x 0.3 x1400 Labour 40x0.3x150 Seed 200x10	EANS	1050 1800 2000	00 00 00	EXRA REVENUE BEANS Yield 90x0.3x300	8100	00
SUB-TOTAL REVENUE FOREGONE MAIZE YIELD MAIZE 56X0.3X1200		4850			8100	00
		20160	00	SUB TOTAL COSTS SAVE SEED 1X1350 FERTILISER 2X0.3X1400	1350 840	00 00
TOTAL		25010	00	TOTAL	10290	00

(EXTRA REVENUE +COST SAVE) – (EXTRA COSTS +REVENUE FORGONE) (4850+20160) – (8100+2190)

-14750

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c)

(1x4) = 4 mks



If mzee mkulima replace maize for beans he will experience a lose of 14750 so he should not replace maize with beans.



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