

AGRICULTURE

PAPER 1

MARKING SCHEME:

GATUNDU SOUTH SUB COUNTY JOINT EXAMINATION.

SECTION A

1 (a) It does not pollute the air, water and soil with inorganic fertilizers.

-it conserves the bio-diversity since it does not use agro chemicals e.g pesticides, herbicides, acaricides, insecticides which destroy the target organism /plant together with other useful ones. 2* 1/2 marks

b)

-to make furrows for planting seeds

-to hold the running water and control soil erosion

-to earth up roots of crops of potatoes, and encourage maximum production

2.

-scarcity

-test and preference /preference and choice

-opportunity cost

3.

-vegetables crop nurseries

-tree nurseries

-vegetables propagation nurseries

4.

-Out compete pasture crops for growing foetus

-poison livestock e.g thorn apple.

-lower palatability of pastures e.g devil's house whip.

-reduce quality of livestock productions e.g Mexican marigold.

-suppress pasture regrowth after defoliation.

5.

- Pesticides eg insecticides
- fertilizers
- drugs for livestock
- herbicides to control weeds
- farm machinery tools ,equipments and impliments

6.

- size of the seed
- soil type density
- type of machine used for planting
- age of the seed
- environmental temperature

7.

- total nitrogen needs :20 kgs (N₀ *5 hectare = 100 KG (N)
- 100 KG of urea =45 kg (N)
- $100/45 * 100 = 222.22$ KG urea

8.

- cause leaching
- cause soil erosion
- May have water borne disease e.g typhoid.
- cause corrosion of farm machinery by hand water
- cause floods
- Carrying away of farm structures /crops-
- cause land slides

9 (a)

- number of the tittle deeds

- location of the land
- size of the land
- identity of the owner
- type of ownership eg absolute leased hold or free hold
- condition of ownership(if any)
- Seal and signature of the issuing office
- Date of registration

b)

land is owned by an individual who either operates or leases it to another person in form of individual owner operators, landlordship and concession or company.

10.(a)

- invoice
- delivery note
- Receipts
- Purchase order

(b)

Savings

Credit facilities

Grant forms ,NGOS ,government,churches

11.

- Effective means of propagations e.g seeds dispersal ,rhizomes
- production of large number of seeds eg black jacks
- high viability of seeds and for a long period
- excellent adaption to new and unfavourable environment
- short life cycle to evade bad conditions

12.

- step /hill lands

- swampy /marshy fields
- eroded /gulled fields tsetsefly infection areas
- arid/semi arid areas

13.

(a)

- formulation ie liquids ,wetable powder ,gramles ,herbicides
- selectivity non-selective or selective herbicides
- time of application
- mode of action eg translocation or conduct herbicides

(b)

- pinching i.e removal of terminal buds of tomatoes
- anunal pruning i.e removal of branches that have borne two crps eg in coffee
- capping /pollarding i.e cutting branches of trees tops at a specific point in order to archieve a desired shape

SECTION B (20 MARKS)

LIABILITIES			ASSETS		
Particulars	Shs.	cts	particulars	Shs	cts
KGVCU	2500	00	Pigs	7000	00
Sigma feeds	5000	00	Maize in stoke	10000	00
			Potato for sale	3000	00
			Fertilizers in stoke	5000	00
			Feeds in stoke	600	00

			Cash:banks	5000	00
			hands	300	00
			Beef	3000	00
			milk	5000	00
			Dairy cattle	2500	00
			Building	150000	00
			Wool sheep	15000	00
			land	10000	00
			Machinery		
			Office equipment		
Net worth	411800	00			
	419300	300		419300	00

(b)

Yes .the land was solvent as assets were more than liabilities by ksh.411800.00

15.

(a)

T- oxiles/sorrel (oxalis/latifolia)

U-double thorn (oxygonium/sinutum)

(b)

It has underground nuts

(c)

-competes for nutrients ,water,space and light

-harbers pestsand disease

-Increase cost of production.

-reduces quality of farm produce

16

(a)

X- Transverse /diagonal methods

1-12-zig zag methods

(b)

-name of the farmer

-address of the farmer

-field number

-date of sampling

(c)

it has a wide coverage of the whole fields and the samples are quite representative of the whole field i.e they are more reliable.

17

(a)

-the root system is not distributed during transplanting

-they can be transported over long distance /highly portable

-seedlings grow faster

-seedlings take shorter time than in the ground nursery

(b)

-removing the shades

-Reduce the rate of watering

18

(a)

-through denitrification

-through combustion

-through volatilization

-update by plants

(b)

-Nitrates

-Ammonia ion

19

(a)

Least disturbance of the soil when growing crops

(b)

- reduce cost of production
- food produced is relatively free from chemicals
- help to reduce environmental pollution
- help to improve soil structure
- involves less labour

SECTION C

20.

(a)

- altitude 0-2400m above the sea level
- rainfall average 900 mm
- temperature (20-30) c
- Soil ,fertilizer,well drained at ph of 6.8and 8.3

(b)

- deep ploughing with disc /mould board plough
- disc harrowing to break clods
- rotter-vating to get fine tilth
- spring fine harrowing to remove trash stones asget fine drills /ridges for planting seeds

(c)

- Seeds broadcasted or planted in rows at a spacing of 33*5 at the onset of rains .
- seeds covered to a depth of 3 cm with soil mixed with phosphatic fertilizers
- top dressing done with sulphate of ammonia at a height of 15 cm
- pest controlled by scaring , trapping ,poisoning

-disease i.e is controlled through fungal sprays , planting resistant varieties

(d)

- had cutting of individuals heads with sharp knives ,heads drying ,harvesting etc

-

21.

(a)dringing by animals and people in the farm

Cooking for by farm workers

-Washing farm structure , animals etc

-Diluting farm chemicals on the farm

-cooling machines

-media of fish rearing on the farm

-construction so farm buildings and structures

-processing farm produce

-irrigating crops during dry season

-generating hydro electric power

(b)

-timely spacing

-trap crops for trapping fields pests

-planting resistant varieties

-alternating of environmental conditions

-timely harvesting

-closed reason

-Crop rotation

-field hygiene

-Proper crop rotation

22.

(a)

-complete

-detailed

-periodical dated

-true not fiction

-simple to read and interpret not complicated

-Legible /good hard writing /reliable

-Strong /wellbond /not farm /durable

- clean/precise/ straight to the point /summarized

(b)

Number of sellers in the market

Price expectations

Weather condition

Change in price

Production technology

Increase in supply of associated goods

Price of related goods

Government policies /regulation

Cost of production

(c)

-training labour

-farm mechanization

-labour supervision

-proper remuneration according to qualification ,experience and actual performance

End.