



‘A’ LEVEL GUIDE

AGRICULTURE

Paper 1

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|----|---|----|---|----|---|
| 1 | D | 11 | C | 21 | C |
| 2 | B | 12 | D | 22 | A |
| 3 | D | 13 | C | 23 | A |
| 4 | A | 14 | A | 24 | D |
| 5 | A | 15 | B | 25 | C |
| 6 | B | 16 | A | 26 | A |
| 7 | C | 17 | A | 27 | A |
| 8 | D | 18 | D | 28 | B |
| 9 | D | 19 | C | 29 | B |
| 10 | C | 20 | A | 30 | A |

SECTION B (70 MARKS)

31. (a) *State the problems that farmers face in the process of marketing their products.* (05 marks)

- *Lack of good storage facilities*
- *Poor transport network*
- *Lack of enough market information*
- *Fluctuating prices of produce*
- *Untrustworthy middlemen*
- *Unorganized scattered producers*
- *Limited processing plants / high costs of processing products*
- *Competition from highly developed foreign farmers*
- *Trade restrictions amongst east African countries*
- *Competition from synthetic products which are cheap*
- *Language barrier*
- *Government should operate stabilisation fund*
- *Fixing quotations / for each farmer to control over production*

Any 5 points 1 mark each 5 x 1 = 5 marks

(b) *How should government enhance effective marketing of agriculture products.* (05 marks)

- *Government should construct agro – processing factories to add value to products*

- Government should improve road network for easy transportation of agricultural produce
 - Government should sign trade agreement with a number of countries to enable farmers sell their produce
 - Government should provide accurate market information to farmers on time.
 - Government should fix prices for agriculture products for easy pricing.
 - Stores should be constructed in various regions of Uganda to store farmers produce
 - Taxes on transportation trucks should be reduced to encourage easy transport
 - Zoning of production should be done by government to control over production
 - Government should educate farmers on marketing through agriculture extension.
- Any 5 points 1 mark @ well explained.

32. (a) Explain the rules of good calf housing. (04 marks)

- Provide enough space in the calf pen to control easy disease spread
- Provide a leak proof house to reduce infections in calves
- Provide clean litter in calf pen to provide warmth absorb moisture from urine and dung
- Provide good ventilation in the house to control respiratory infection
- Lay concrete floor that is easy to clean
- Provide feeders and drinkers to ease feeding of calves
- Ensure that the house is well lit during day allow good activity and observation / windows of calves
- Ensure that the calf pen is divided into individual compartments to reduce spread of diseases and vices
- Construct strong walls to reduce accidents to calves.

Any 4 points 1 mark @ well explained $4 \times 1 = 4$ marks

(b) What makes colostrums a good food for calves? (03 marks)

- It contains a lot of nutrients needed by calves
- It removes sticky materials from the digestive system of the calf
- It contains antibodies that help the calf to fight disease
- It is highly digestible.

Any 3 points 1 mark @ $3 \times 1 = 3$ marks

(c) Give three causes of low calf growth rates.

(03 marks)

- Breed with low growth rate
- Giving less feeds to calves
- Giving less nutritious feeds to calves / balanced diet
- Parasitic attack to calves
- Disease attack to calves

Any 3 points 1 mark @ 3 x 1 = 3 marks

33. (a) What is the significance of soil pH in crop production?

(04 marks)

- It determines or influence the type of crop to be grown
- It will influence the availability of soil living organism
- Influences the availability of plant nutrients
- It can influence the occurrence fungal diseases
- It can determine the rate of nitrogen fixation in soils
- It may influence the type of fertilizers to use
- It can influence the amount of lime to apply on soil

Any 4 points 1 mark @ 4 x 1 = 4 marks

(b) Explain the factors considered before carrying out soil amendment using lime.

(06 marks)

- Soil pH very low pH requires use of a lot of lime
- Soil buffer capacity – soil with high buffer capacity may require more lime to be used.
- Amount of bases in exchange complex – the more the bases, the less lime needed.
- Type of crop to be grown – different crops require different pH levels
- Fineness of lime – fine lime acts quickly on pH changes
- Amount manganese present in soil – manganese increases acidity hence the more , manganese, the higher the acidity hence more lime.

Any 4 points 1 ½ @ well explained

½ mention 1 explanation

34. (a) *Why should a farmer carry out proper maintenance of farm tools and equipment?* (05 marks)

- *To reduce injury to a person using it when its faulty / damaged*
- *To increase the durability of the tools and equipment through proper maintenance*
- *To increase the efficiency of tools and equipment once they in good conditions*
- *To reduce the costs of maintenance due to damage*
- *To increase the resale value once maintained property*
- *To ensure that the tools and equipment work properly and produce high quality work*
- *To avoid loss of some parts of equipment*

Any 5 points 1 mark @ well explained 5 x 1 = 5 marks

(b) *Give the precautions taken while using farm tools and equipment. (05 marks)*

- *Handle tools carefully and correctly to reduce injury*
- *Uses the tool and equipment for designed purpose to reduce damage*
- *Maintain the tools and equipment in a good working condition for effectiveness*
- *Have the right skills before handling any tool or equipment to reduce injury*
- *Put on protective clothes before handling tools and equipment*
- *The tools and equipment should be firmly secured*
- *Ensure that bolts and nuts are tightened*
- *Ensure that moving equipment should operated at recommended speech to avoid accidents.*
- *Store the tools and equipment properly to reduce damage*
- *Do not work with tools and equipment on slippery grounds to reduce injury*

Any 5 points 1 mark @ 5 x 1 = 5 marks

35. (a) *Explain the factors affecting rooting in stem cuttings.* (05 marks)

- *Treatment of setts with IAA, IBA, or NAA encourages rooting*
- *Charring of the materials increases rooting*
- *Adequate soil moisture stimulates rooting*
- *Age of cutting with very young and old having low or rooting*
- *Warm soil temperatures will encourage rooting in cuttings*
- *Presence of active buds on the cutting enhances rooting*
- *Good soil drainage encourage faster rooting in cuttings*

- Adequate soil air for root respiration
 - Good soil structure facilitates easy rooting
- Any 5 points 1 mark @ well explained 5 x 1 = 5 marks

(b) State the advantages of growing grafted oranges. (05 marks)

- Grafted oranges mature early / fast
 - Grafted oranges are easy to harvest due to their being short
 - Grafted orange are easy to spray since they are short
 - Oranges produced are seedless hence easy to consume.
 - They can survive in harsh soil conditions when the root stock is lemon
 - The yield of grafted is higher than that ungrafted oranges
- Any 5 points 1 mark @ 5 x 1 = 5 marks

36. (a) Describe the characteristics of a good cattle dip. (05 marks)

- It has a concrete collecting yard where animals assemble
 - It has a dip tank that holds the dip wash
 - It has foot baths where animals wash their feet
 - It has a dip wash / acaricide that kills ticks
 - It has a drainage race where excess dip wash is collected
 - It has a leak proof roof that protects the dip wash from dilution
 - It has guard rails that keep them from straying
 - Has splash walls to prevent acaricide from splashing out
 - Entrance race to allow one at a time
 - Jump off slanting in wards
 - Has return pipe to return excess acaricide
 - Exit ramp to also animals to move out easily
 - Soak away pit where used acaricide is pumped to.
- Any 5 points 1 mark @ 5 x 1 = 5 marks

(b) State what a farmer may consider while selecting materials for constructing farm structures. (05 marks)

- Cost of the materials
- Availability of materials
- Durability of materials
- Skills needed in using materials

- *Type of farm structure to be built*
 - *Design of farm structure*
37. (a) *Explain the meaning of the following as used in apiculture. (04 marks)*
- (i) *Dearth period.*
 - *Is a period when there is no source of nectar for bees*
 - (ii) *Supercedure*
 - *It is situation when the old queen is killed to give room for a new one to arise.*
 - (iii) *Absconding*
 - *It is a situation when the whole colony leaves a hive*
 - (iv) *Swarming*
 - *It is a situation when part of a colony leaves a hive while leaving the other part*
- (b) *Suggest the measures taken to increase honey yields in a hive. (06 marks)*
- *Providing water to bees*
 - *Providing flowers / nectar sources to bees*
 - *Uniting colonies to increase nectar collection*
 - *Controlling bee predators in an apiary*
 - *Providing enough hives in an apiary*
 - *Harvesting honey use appropriate methods*
 - *Replacing the old queen to strengthen the colonies*
- Any 6 points 1 mark @ 6 x 1 = 6 marks*

END