



EXAMINATIONS COUNCIL OF ESWATINI
Eswatini Primary Certificate Examination

AGRICULTURE

616/01

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Confidential

MARK SCHEME

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MARKS: 100

This document consists **8** printed pages.
SECTION A

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SECTION B

1. (a) (i) Maize [1]
(ii) Crop grown for sale/commercial purposes [1]
(b) – Wash after use
- Store in cool dry place
- Use them for proper job
- Oiling/greasing to prevent rust
- Placing on tool rack for easy reach
- Place in correct place for ease of identification [2]
2. (a) (i) Good soil: Has nutrients/allows air to circulate and also provides good drainage
(ii) Water source: For ease of watering; in order for the vegetables to grow well
(iii) Flat land: To prevent/reduce erosion; so that the vegetables can grow well
(iv) Sunlight: In order for the plants to photosynthesise/ manufacture their own food [4]
(b) For proper transplanting (ball of soil); to minimise disturbance of the plants (roots) [2]
3. (a) Compost
Manure (kraal)
Green manure **(any two)** [2]
(b) –Burns/damages plant roots
- High salt concentration - hurt beneficial soil organisms
- Sudden plant growth
- poor root system to supply water and nutrients [2]

- (c) Manufacture of food during the process of photosynthesis/
Provides energy during photosynthesis [2]
4. (a) Any sickness of plants; any deviation from normal health/
alteration from normal health [1]
- (b) – Weeds reduce crop yield because they compete with the crop
plants for growth factors (water, nutrients, light, space to
grow) [2]
- (c) – Remove and destroy plants that are damaged
- Use pesticides such as malathion to kill aphids
- Destroy the aphids by removing them by hand [2]
5. (a) – High humidity
- Have shelves all around the room for storing substrate
- Covering wall with dark plastic or thatch grass to keep it moist
and humid
- Has a window to let in light and air
- Has a footbath **(any three)** [3]
- (b) – Veil underneath mushroom cap tears
- Caps turn from convex to concave [2]
6. (a) –Cultural
- Health/nutrition
- Economic importance **(any two)** [2]
- (b) –Egg eating

- Feather pecking
 - Cannibalism **(any two)** [2]
- (c) – Regular forking
- Moving the waterers; change the position of water
 - Proper ventilation in the house **(any two)** [2]
7. (a) – Rainfall
- Temperature
 - Customer needs
 - Type of soil **(any two)** [2]
- (b) – To provide food for their families (subsistence)
- Commercial purposes [4]
8. (a) 45 cm by 10 cm [1]
- (b) – Pods open and crop yield will be reduced
- Crop will be spoiled (rot)
 - Crop quality will be reduced **(any two)** [2]
- (c) – Test at 3-5 months depending on the purpose
- Sheaths green; seeds/pips fully grown; juicy
 - Pull seed from cob to see whether it has a black patch at the pointed end
 - Bite the seed – see if hard – ready for harvest [2]
9. (a) Layers of the soil [1]

- (b) – Usually dark in colour
- Most fertile (rich in humus)
 - Deep
 - High concentration of organic matter and microorganisms
 - Composed of mineral particles, organic matter and air.
- (any three)** [3]

- (c) – Adding organic matter
- Add lime [2]

10. (a) (i) Tripod for storing harvested groundnuts. [1]
- (ii) So that air can circulate [1]
- (iii) Cover the cap of the stack with grass [1]

- (b) – Underground pits
- Grass baskets
 - Clay pots
 - Mud tanks **(any two)** [2]

11. (a) – Contact
- Systemic
 - Fumigants (gas) **(any two)** [2]

- (b) – Cultivation
- Crop rotation
 - Weeding
 - Hand picking
 - timing (planting at correct time) **(any two)** [2]

- (c) – Long term health problems – headaches, poisoning
- Immediate health hazard – inhale fumes
- Dead of the farmer [2]
12. (a) To assist/help each other with new farming skills [1]
(b) – Farms occupy large areas of land
- Produce food for both consumption and export
- Farmers use machinery
- Use improved varieties of seeds and animal breeds
- The livestock are fed concentrated feed
- Has high input costs **(any four)** [4]
13. (a) Washing away of soil; removal of soil from where it was by water/wind. [1]
(b) – Adding organic matter
- Mulching
- Grow grass
- Mixed farming (grow more crops in the field)
- Planting trees/Windbreakers **(any two)** [2]
(c) - Reduce the amount of soil loss
- To be able to use
- To improve soil fauna and flora
- To improve topsoil
- Improve organic matter content of the soil (organic matter holds and stores water)

- Properly conserved soil is rich in organic matter which prevents/reduces soil erosion. **(any two)** [2]

14. (a) – Minimise disturbance of the root system

- To ensure quick establishment
- Reduce transplanting shock **(any two)** [2]

(b) - Work in fertilizer & maximize effectiveness

- Break clods for ease of seedling emergence
- Create a fine tilth for seeds to be planted in
- Remove weeds (especially shallow rooted)
- Breaking up soil and levelling heavy soils
- Aeration- for better infiltration **(any three)** [3]

15. (a) Any item that make work easier [1]

(b) Combine harvester [1]

(c) (i) Makes work easier

(ii) Improves quality of crops and increase yield (due to use of organic fertilisers)

(iii) Allows for better quality of work in shorter amount of time

(iv) Production work gets done quickly

(v) Reduces input costs; while allowing for maximum output.

(any three) [3]

