



**EXAMINATIONS COUNCIL OF SWAZILAND  
SWAZILAND PRIMARY CERTIFICATE**

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**AGRICULTURE**

**616/01**

Paper 1

**October/November 2018  
1 hr 45 minutes**

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***Confidential***

***MARK SCHEME***

***{616/01}***

***MARKS: 100***

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This document consists of 8 printed pages.

**SECTION A**

1. C

2. A

3. C

4. A

5. D

6. C

7. A

8. D

9. D

10.A

11.A

12.B

13.C

14.D

15.A

16.C

17.A

18.B

19.C

20.A

## SECTION B

1. **(a) (i)** Provide nutrients for the body
- (ii)** Nourishes bodies for HIV? AIDS victims to boost the immune system
- (iii)** Provide employment/jobs/work
- (iv)** Cheaper/ easier to produce/grow than other type of food
- (v)** Ensures self-reliance
- (vi)** Source of food [3]
- (b)** A type of farming that makes it possible to produce a large amount of food over a short period [2]
2. **(a) (i)** Swazi Nation Land: land held in trust by the King for the Swazi people.
- (ii)** Title Deed Land: Land owned by individual people and /or private companies. [2]
- (b)** Nomadic life; traditional to modern - Animals and plants needed to grow fast and be stronger; stronger and easy to manage.
- Indigenous seeds to hybrid seed. Indigenous livestock to hybrids; Traditional tools to modern machinery (mainly power driven/operated) [3]
3. **(a)** Dibber [1]
- (b) (i)** Making ridges./hills
- (ii)** Weeding/removing weeds from the garden.
- (iii)** Digging; breaking soil clods; making furrows [3]
- (c) (i)** To do work correctly/well
- (ii)** To avoid hurting yourself /other while working
- (iii)** To last longer [2]

4. (a) (i) Adequate moisture
- (ii) Warmth / sunlight
- (iii) Fertile/ nutritious/good soil
- (iv) Place with enough sunlight
- (v) Good care / management (any three) [3]
- (b) (i) Tilt is the condition of the soil/land ready for planting crops [1]
- (ii) Because carrot seeds are very small; to ensure germination; plant roots to spread easily; to let water sink easily. [1]
5. (a) heap ; pit compost [2]
- (b) - Grass
- Maize stalk
- Kraal manure
- Soil (any three) [3]
6. (a) (i) Root vegetables
- (ii) Legumes
- (iii) Fruit vegetables
- (iv) Leafy vegetables [4]
- (b) - Traps light energy from the sunlight
- Takes in carbon dioxide from the air
- Uses water absorbed from the soil
- Mixes water and carbon dioxide in the presence of chlorophyll and light energy
- Produces carbohydrates and release oxygen into the air [2]

7. - Clean and disinfect the poultry house
- Repair walls if necessary
  - Sweep the floor
  - Wash feeder and waters with soap and water
  - Put fresh / new litter
  - Position feeders and waters
  - Put footbath at the entrance of the poultry house with disinfectant
  - Place feeders on concrete blocks
  - Ensure proper ventilation [6]
8. (a) Removal of extra seedlings in a row/ plot [1]
- (b) At various interval when seedlings are getting crowded; before transplanting; when plants are young. [1]
- (c) Cooling out of plant; quality vegetables; free air movement; reduce competition for (moisture ,light, nutrients, air); make weeding easier; reduce chances of pest and disease infection; provide enough space for growth. [3]
9. (a) Weeding – Prevents insects from hiding in the plant (remove weeds) [1]
- (b) Cultivation – Exposes pests eggs to the sun so that they die [1]
- (c) Hand picking – Remove pests by hand and kill to prevent them from damaging the plant [1]
- (d) Crop rotation – Planting a different type of crop starves the common pests of the given plant [1]
- (e) Early planting – Crop plant escape pest and disease attack [1]
10. (a) Weed – plant growing where it is not wanted. [1]
- (b) Witchweed (*Striga* sp) [1]

**(c) (i)** Wind: seeds that are carried by air

**(ii)** Seeds with hooks can be spread by animals people'

**(iii)** Water may spread weed seeds during floods or rainy season. Seeds can be carried by water [3]

11. **(a) (i)** Leaves- make food for the plant; allow oxygen into the plant and carbon dioxide out of the plant [1]

**(ii)** Stem- support branches of plant; carry water up the plant; carry carbohydrates from leave down the plant; hold the plant upright. [1]

**(b)** Process by which green plants (chlorophyll) make food using light energy. During the process plant make carbohydrates and release oxygen. [3]

12.

Income	E	C	Expenditure	E	C
45 broilers sold @ E60 each	2700	00	4 bags starter crumbles @ E275/bag	1100	00
20 broilers sold @ E50 each	1000	00	65 broilers bought @ E55 each	3575	00
			3 bags grower @ E260/bag	780	00
			2 bottles Newcastle vaccine @ E60/bottle	120	00
<b>Total</b>	<b>3700</b>	<b>00</b>	<b>Total</b>	<b>5575</b>	<b>00</b>
<b>Profit/Loss</b>			<b>Loss</b>	<b>1875</b>	<b>00</b>

[5]

13. (a) (i) Straw

(ii) Logs

(iii) Sawdust

(iv) Compost

(v) Tea leaves

(vi) Paper

(vii) Cardboard

(any three)

[3]

- (b) (i)** Work area
- (ii)** incubation room
- (iii)** Fruiting room
- (iv)** Inoculation room **(any three)** [3]
- 14. (a)** The way soil particles are fitted/held together [1]
- (b)** Sandy; clay; loam [3]
- (c)** Has organic matter/ humus [1]
- 15. (a)** Keeping the soil safe from being destroyed by soil erosion; taking care of soil; protecting the soil. [1]
- (b) -** Removing the top soil
- Opening gullies
  - Washing away nutrients
  - Destroying the soil structure
  - making the land unusable **(any three)** [3]
- (c) (i)** Ploughing across the slope
- (ii)** Practising crop rotation
- (iii)** Contour ploughing
- (iv)** Adding organic matter
- (v)** Provide a vegetable cover
- (vi)** Plant wind breakers
- (vii)** Control grazing
- (viii)** Plant trees in gullies **(any two)** [2]