**EXAMINATIONS COUNCIL OF SWAZILAND**

**JUNIOR CERTIFICATE EXAMINATION**

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CANDIDATE

NAME

CENTRE CANDIDATE

NUMBER NUMBER

**Agriculture 516** **/01**

Paper 1 **October/November 2011**

**1 hour 30 Minutes**

**READ THESE INSTRUCTIONS FIRST**

1. Answer **ON THE QUESTION PAPER** by completing each question as instructed.

2. Work quickly. If a question seems hard, skip it and come to it later.

3. You can make your answers quite short and clear. A correct answer will score

marks, even if it is short.

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| ***For official use*** | |
| ***Marks obtained*** |  |

This question paper consists of **11** printed pages and **1** blank page.

1. (a) What is agriculture?

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.................................................................................................................... [1]

(b) Giveany **three** reasons why agriculture is important to Swaziland.

(i) ........................................................................................................

(ii) ........................................................................................................

iii) ....................................................................................................... [3]

(c) Why is sugar called “**Swazi Gold**”?

.................................................................................................................. [1]

1. (a) Where in Swaziland would you find the following:

(i) A cotton ginnery..............................................................................

1. A fruit canning factory...................................................................
2. Most seed cane fields ........................................................
3. A tobacco cooperative .................................................................... [4]
4. Why are most forest plantations found in the highveld in Swaziland?

Give one reason.

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................................................................................................................... [1]

1. (a) What is cultivation?

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................................................................................................................. [1]

(b) Why would farmers fail to produce a high yield in vegetable production

under very acidic soils? Give any **two** reasons.

(i) ........................................................................................................

(ii) ........................................................................................................ [2]

(c) Why would you choose to use a spade other than a hoe when preparing

the soil for planting?

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................................................................................................................. [1]

(d) How deep should be the fine tilth in vegetable production?

………………………………………………………………………… [1]

4. (a) Why is monoculture an ideal condition for the spread of pests and

diseases? Give **one** reason.

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................................................................................................................. [1]

(b) What factors would a farmer consider when controlling pets and diseases?

Give any **four** things.

(i) ........................................................................................................

(ii) ........................................................................................................

iii) .......................................................................................................

(iv) ....................................................................................................... [4]

1. How can the following help to control soil erosion?
2. Mulching .................................................................................................................

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1. Tie ridging .................................................................................................................

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1. Grass strips ......................................................................................................

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1. Planting trees ......................................................................................................

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1. Storm drains ......................................................................................................

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1. Figure 1 below shows two broomsticks joined by a string which is level to the ground and the distance between broomstick A and broomstic B is 5 metres..

Broomstick B

Broomstick A

30cm

5m

1. Calculate the percentage slope of the land. Show your working.

[3]

1. Give any **two** things a farmer would use to determine how a particular

piece of land could be used.

(i) ......................................................................................................

(ii) ...................................................................................................... [2]

1. Define the following terms used in agriculture.
2. Dryland crop.................................................................................................................

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1. Intercropping ..............................................................................................................

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1. Topping ..................................................................................................................

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1. Interval Planting .......................................................................................................

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1. Legumes ..................................................................................................................

.................................................................................................................. [5]

1. (a) Name the **three** main enemies of crops in storage.

(i) ........................................................................................................

(ii) ........................................................................................................

iii) ....................................................................................................... [3]

(b) How would you correct a problem of grain weevil in a grain tank?

.................................................................................................................. [1]

1. How long is the grain tank kept closed when using the fumigant before

the maize is used?

................................................................................................................... [1]

1. (a) Thembekile has 120 layers. In the past 30 days her birds have produced

3060 eggs. Calculate the laying percentage of the birds. Show your working.

........................................................ [3]

(b) How can one tell if the eggs are fresh or bad?

................................................................................................................. [1]

(c) Why should you avoid eating cracked eggs?

................................................................................................................. [1]

1. (a) What is candling of an egg? .............................................................................

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................................................................................................................................. [1]

(b) How does a brooding hen avoid a developing chick from sticking on the side on the shell?

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(c) (i) What does a farmer use to warm chicks if the hen dies?

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(ii) The process of providing heat to chicks is known as

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(iii) How long is the process of providing heat to chicks?

.......................................................................................................................... [3]

1. (a) Mention any **three** rules or practices you would follow when harvesting fruits to reduce

damage or losses.

1. ...........................................................................................................................
2. ..........................................................................................................................
3. ......................................................................................................................... [3]

(b) Why would it be important to grade your fruits after harvesting? Give **two** reasons.

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1. Why is each of the following activities important in managing fruit trees?
2. Weeding ..................................................................................................................

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1. Watering ..................................................................................................................

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1. Fertilising ..................................................................................................................

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1. Pruning ..................................................................................................................

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1. Pests and disease control ...........................................................................................

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13. (a) How does HIV/AIDS affect agriculture production in Swaziland? Giveany **two** ways.

(i) ................................................................................................................................

(ii) .............................................................................................................................. [2]

(b) How does agriculture contribute towards HIV/AIDS infected and affected people?

Give any **two**.

1. .....................................................................................................................
2. ..................................................................................................................... [2]
3. What is the best way for preventing HIV/AIDS for school going pupils?

................................................................................................................................... [1]

14. (a) Name the **two** life-threating deficiency diseases, in children caused by malnutrition.

(i) ...................................................................................................................

(ii) ................................................................................................................... [2]

1. What is dietary fibre?

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1. Give **one** function of dietary fibre.

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1. Give an example of a waterborne disease.

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1. (a) (i) Complete the chemical equation for photosynthesis below.

...........................+H2O sunlight C6H12o6  + 602(g) [1]

Chlorophyll

1. What happens to the rate of photosynthesis when you increase the amount of light?

..................................................................................................................................................................................................................................................... [1]

(b) Complete the chemical equation for respiration below.

C6H1206 + ...................... Energy + ...................... + ......................... [3]

1. (a) What are the **three** advantages of keeping rabbits over other types of livestock?
2. .........................................................................................................................
3. .........................................................................................................................
4. ........................................................................................................................ [3]

(b) How would you solve the following problems in rabbit production?

(i) A doe die immediately after kindling and leaving the litter.

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..................................................................................................................... [1]

1. Early mating in a litter. ..............................................................................

..................................................................................................................... [1]

1. (a) How could the following measures help to improve the quality of

cattle on Swazi Nation Land.

1. Improved breeding.......................................................................................

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1. Reduced overstocking............................................................................

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iii) Improved pasture..................................................................................

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(b) State any **two** signs of “ true heat” in cows.

(i) .........................................................................................................

(ii) ......................................................................................................... [2]

1. (a) Give **one** agricultural use of the following types of loan

(i) Short –term loan...............................................................................

(ii) Medium-term loan...........................................................................

iii) Long –term loan............................................................................... [3]

(b) State **two** factors which determine the market price of a product.

1. ........................................................................................................

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1. ........................................................................................................

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1. (a) State **two** bad management practices that can cause damage to pasture.

(i) ........................................................................................................

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(ii) ........................................................................................................

........................................................................................................ [2]

(b) Describe **three** ways in which you can improve the pasture.

1. ........................................................................................................

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1. ........................................................................................................

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iii) .......................................................................................................

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1. (a) What is agricultural extension?

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(b) State **four** ways in which agricultural extension service provide

information to farmers.

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1. ........................................................................................................

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iii) ........................................................................................................

(iv) ........................................................................................................

………………………………………………………………… [4]

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