



# EXAMINATIONS COUNCIL OF SWAZILAND JUNIOR CERTIFICATE EXAMINATION

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**Agriculture**  
Paper 2

**516/02**  
**October/November 2012**  
**1 hour 30 Minutes**

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## READ THESE INSTRUCTIONS FIRST

1. Write your **Name**, **Centre Number** and **Candidate Number** on the answer sheets provided.
2. This paper consists of 2 sections. **Section I** and **Section II**.
3. Section I consists of 50 multiple choice questions worth 50 marks.
4. Section II consists of 3 essay questions of which you are expected to answer any **two** essays worth 25 marks each.

This question paper consists of **17** printed pages, **1** answer sheet and **3** blank pages.

**SECTION I****MULTIPLE CHOICE : 50 MARKS****INSTRUCTIONS:**

1. Answer **all** questions in this section.
2. Use a soft pencil ( type **B** or **HB** is recommended )

Four possible answers are given for each question. Choose the best answer by making a cross mark on the correct letter opposite the question number on the answer sheet.

**Example:**

51. How many legs does an average pig have?

- A. one
- B. two
- C. three
- D. four

If you think the correct answer is **D**, mark with a cross.

51.	A	B	C	<input checked="" type="checkbox"/>
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Make sure you make the mark next to the correct question number.

## **SECTION I**

1. Which of the following best describes subsistence farming? It is growing ....
  - A. crops just enough to feed the family
  - B. crops on Swazi Nation Land
  - C. crops for sale
  - D. of maize and other crops
  
2. Why is sugar cane mostly grown in the Lowveld?
  - A. It is because it is called 'Swazi gold'
  - B. People in the Lowveld prefer sugar cane
  - C. Sugar cane grows best in dry places
  - D. The soils are fertile and climate is warm
  
3. Which of the following is produced from bagasse?
  - A. Alcohol and fuel
  - B. Sugar and paper
  - C. Cattle feed and alcohol
  - D. Paper and plastics
  
4. Which of the following is an example of a citrus fruit?
  - A. Grapes
  - B. Mangoes
  - C. Limes
  - D. Granadillas

5. Which garden tool is best for digging the soil?
- A. Hand fork
  - B. Hoe
  - C. Spade
  - D. Trowel
6. Which fruit contains the highest vitamin C?
- A. Guava
  - B. Orange
  - C. Paw paw
  - D. Pineapple
7. Peas belong to which vegetable group?
- A. Fruit
  - B. Leaf
  - C. Legume
  - D. Root
8. What would you do to make the soil less acidic?
- A. Add lime at the same time as you add fertiliser
  - B. Add lime at the same time as you add manure
  - C. Add lime in the soil about two months before planting
  - D. Test the soil pH only

9. Which of the following are three major plant nutrients?
- A. Nitrogen, phosphorus, potassium
  - B. Nitrogen, phosphorus, molybdenum
  - C. Nitrogen, phosphorus, sodium
  - D. Nitrogen, potassium, sodium
10. Which of the following is an example of an organic fertiliser?
- A. 2.3.2(22)
  - B. Kraal manure
  - C. Muriate of potash
  - D. Urea
11. Which of the following is a characteristic of clay soils?
- A. Dries out quickly
  - B. Large particles
  - C. Little air
  - D. Plenty of air
12. Why should mulch be removed as the seeds start to germinate?
- A. To prevent soil erosion
  - B. To avoid weak seedlings
  - C. To keep down weeds
  - D. To keep the soil moist

13. Which of the following is a beetroot variety?
- A. Cape spitz
  - B. Crimson globe
  - C. Wintercrisp
  - D. Winter green
14. Which insecticide is used to treat aphids in cabbages?
- A. Actelic 2% dust
  - B. Dipterex 2.5% WP
  - C. Gardon 50% WP
  - D. Malathion 25% WP
15. What name is given to the method where beetles are picked off and stamped from plants?
- A. Biological control
  - B. Chemical control
  - C. Cultural control
  - D. Integrated control
16. What is a soil profile? It is ....
- A. a layer of soil seen by digging a hole
  - B. how soil particles fit together
  - C. the amount of sand, silt and clay in the soil
  - D. the condition of the soil surface.

17. What is the best way of improving the soil structure? It is ....
- A. adding inorganic fertiliser
  - b. adding organic matter
  - c. digging the soil to allow air to enter
  - d. working with soil when it is too wet or too dry
18. Which land class includes swamps and wet lands?
- A. Class I
  - B. Class III
  - C. Class V
  - D. Class VII
19. What causes greening in potatoes?
- A. Exposure of developing tubers to light for a long period
  - B. Harvesting too early
  - C. Ridging the developing tubers
  - D. Treating the developing tubers with Berelex
20. Where is one likely to find a tobacco cooperative in Swaziland?
- A. Big Bend
  - B. Malkerns
  - C. Nhlangano
  - D. Simunye

21. Moulds belong to which group of plants?
- A. Bacteria
  - B. Fungi
  - C. Legumes
  - D. Virus
22. Why must the width of a maize crib not be more than two metres?
- A. So that air can flow between the cobs
  - B. Prevent moist from getting into the maize crib
  - C. So that rats cannot climb up into the crib
  - D. To prevent insects from flying into the grain
23. Where is one likely to find a sugar-mill in Swaziland?
- A. Bhunya
  - B. Big Bend
  - C. Malkerns
  - D. Nhlangano
24. Which of the following is a cause of soil erosion?
- A. Litter dams
  - B. Plants with uncovered roots
  - C. Soil stains on walls
  - D. Overgrazing



25. What name is given to the removal of unproductive hens from the flock?
- A. Pecking
  - B. Culling
  - C. Isolation
  - D. Moulting
26. What is the ideal day-length for egg production in chickens?
- A. 6 – 9 hours
  - B. 8 – 10 hours
  - C. 12 – 16 hours
  - D. 18 – 24 hours
27. In which part of a digestive system do digestive juices mix with food and start to break down?
- A. Caecum
  - B. Crop
  - C. Gizzard
  - D. Proventriculus
28. Birds become paralysed and die. These are signs for which disease?
- A. Coccidiosis
  - B. Coryza
  - C. Merek's
  - D. New castle

29. What term is given to the loss of a natural forest?
- A. Agroforestation
  - B. Deforestation
  - C. Aforestation
  - D. Forestation
30. What causes anaemia?
- A. Lack of vitamins
  - B. Lack of iodine
  - C. Lack of iron
  - D. Lack of calcium
31. Which of the following is a balanced meal?
- A. Beef, chicken, lettuce salad
  - B. Porridge, chicken, rice
  - C. Rice, fish, lettuce salad
  - D. Rice, fish and chips
32. Which of the following are necessary for seeds to germinate?
- A. Air, warmth, moisture
  - B. Light, warmth, moisture
  - C. Nutrients, light, warmth
  - D. Soil, moisture, air

33. What name is given to the part of a tree trunk that carries water and minerals up from the roots to the leaves?
- A. Cuticle
  - B. Phloem
  - C. Plumule
  - D. Xylem
34. In grafting a fruit tree, what do you call the tree supplying the top part?
- A. Bud
  - B. Scion
  - C. Rootstock
  - D. Clone
35. Which of the following word equation represents the process of respiration in plants?
- A. Carbon dioxide + water  $\longrightarrow$  glucose + oxygen + energy
  - B. Carbon dioxide + water  $\longrightarrow$  carbon dioxide + oxygen + energy
  - C. Carbohydrates + oxygen  $\longrightarrow$  carbon dioxide + water + energy
  - D. Carbohydrates + oxygen  $\longrightarrow$  carbon dioxide + water
36. Which of the following is an exotic breed of goats from South Africa?
- A. Boer
  - B. Angora
  - C. Saanen
  - D. Toggenburg

37. How much rabbit pellets per day should be given to a doe after mating?
- A. 100 g
  - B. 120 g
  - C. 140 g
  - D. 225 g
38. A goat has a killing-out percentage of 75%, If its live weight is 96kg, how much does the carcass weigh?
- A. 1.28 kg
  - B. 128 kg
  - C. 72 kg
  - D. 7200 kg
39. How long is the heat period of goats?
- A. 6 – 12 hours
  - B. 12 – 48 hours
  - C. 21 days
  - D. 6 months
40. Which of the following are tickborne diseases?
- A. Redwater, heart water, gall sickness
  - B. Heartwater, gall sickness, brucellosis
  - C. Redwater, brucellosis, anthrax
  - D. Heartwater, blackquarter, anthrax

41. Why are stocking rates low in the Lowveld?
- A. The grass cover is dense
  - B. The grass cover is low
  - C. The number of livestock is low
  - D. The number of livestock is high
42. Where do you put the thermometer when taking the temperature of cattle?
- A. Ear
  - B. Eye
  - C. Mouth
  - D. Rectum
43. What is the common name of Cynodon dactylon?
- A. Couch grass
  - B. Spear grass
  - C. Star grass
  - D. Rats tail grass
44. What is an aboricide? It is a chemical used to ....
- A. kill pests attacking maize in storage
  - B. kill bushes and trees
  - C. kill weeds in maize fields
  - D. Treat diseases in cattle

45. What name is given to the animal feed where plant material is cut into small pieces when it is green and preserved in that state?
- A. Foggage
  - B. Hay
  - C. Silage
  - D. Forage
46. Which of the following are factors of production in any farming enterprise?
- A. Budgeting, depreciation, valuation
  - B. Farm credit, assets, liabilities
  - C. Land, labour, capital
  - D. Supply, demand, price
47. Which type of loan would be suitable for the buying of a farm tractor?
- A. Short term
  - B. Medium term
  - C. Long term
  - D. Seasonal term
48. Suppose you build a poultry house which costs E50 000, and you expect it to have a useful life of 10 years. What would be the yearly depreciation on the poultry house?
- A. E500
  - B. E5000
  - C. E50000
  - D. E500000

49. Which of the following is an aim for the department of research and planning in the Ministry of Agriculture in Swaziland?
- A. Improve production while reducing the costs
  - B. Provide financial support to extension workers
  - C. Provide financial training in small business management
  - D. Protects the prices that Swazi farmers receive for their produce
50. Which of the following is a parastatal organisation?
- A. Aid Agencies
  - B. Central Cooperative Union
  - C. Namboard
  - D. World Food Programme

## SECTION II

**ESSAY QUESTIONS = 50 Marks**

### INSTRUCTIONS

1. Answer on the lined paper provided.
2. Number your work clearly.
3. There are **three** questions in this section. Answer any **two** questions in the form of an essay.
4. Each question is worth 25 marks.
5. Begin each question on a new page.



1. You want to grow some vegetables in your garden at home. Use the knowledge and skill you gained from school when you grew vegetables, to describe how you would do the following:
- Seedbed preparation (9)
  - Taking care of seedlings in your seedbed (4)
  - Transplanting the seedlings (9)
- Presentation (topic, introduction, flow)* (3)
- Total [ 25 ]**
2. There are signs of erosion in your community. Bad farming practices make this worse. Write an essay on how you would help the community identify the signs and advice them on how to control and prevent soil erosion. In your essay describe the following:
- Signs of soil erosion (7)
  - How the people make soil erosion worse (8)
  - How to control and prevent soil erosion (7)
- Presentation (topic, introduction, flow)* (3)
- Total [ 25 ]**
3. Your neighbour is raising layers in a deep litter system, but egg production is low. Describe how you would help her. Guide her / him on the following:
- Preparation for arrival of birds (6)
  - Feeding (2)
  - General disease control practices (6)
  - Factors affecting laying (6)
  - Records to be kept daily (2)
- Presentation (topic, introduction, flow)* (3)
- Total [ 25 ]**
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