



EXAMINATIONS COUNCIL OF ESWATINI  
Junior Certificate Examination

CANDIDATE  
NAME

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CENTRE  
NUMBER

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CANDIDATE  
NUMBER

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**AGRICULTURE**

**516/02**

Paper 2

**October/November 2020**

**1 Hour 45 Minutes**

**READ THESE INSTRUCTIONS FIRST**

Write your Centre Number, Candidate Number and Name in the spaces provided above.  
Answer all questions on the question paper by completing each question as instructed.

This paper consists of **two** sections. **Section A and Section B.**

**Section A** consists of simple response questions worth 50 marks.

**Section B** consists of **three** essay questions of which you are expected to answer any **two** essays worth 25 marks each.

Answer on the lines provided.

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

For Examiner's Use	
Section A	
Section B	
Total Marks	

**SECTION A**

Answer **all** questions in this section (50 Marks)

1. (a) State **four** guidelines for preparing a crop rotational programme?

(i) .....

(ii).....

(iii) .....

(iv)..... [4]

**[Total: 4 marks]**

2. (a) Name **one** career in agriculture that involves controlling livestock diseases?

..... [1]

(b) State the purpose of a water policy?

.....

..... [1]

(c) Describe the maintenance of a sprayer.

.....

.....

..... [2]

**[Total: 4 marks]**

3. **Figure 3.1** shows the burning of fossil fuels.



**Fig. 3.1**

**(a) (i)** What type of pollution is shown in **Fig.3.1**?

..... [1]

**(ii)** Explain how the pollution of a river by fertilizers can affect fish.

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

**(b)** Explain the importance of biodiversity.

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

**[Total: 5 marks]**

4. **(a)** Explain the importance of transpiration in plants.

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

(b) Discuss the effect of humidity on plant growth.

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

[Total: 4 marks]

5. (a) State any **two** characteristics of a loamy soil which makes it suitable for vegetable production.

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

(b) Explain why it is important for farmers to know the pH of the soil?

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

[Total: 4 marks]

6. (a) State **three** problems encountered during harvesting which can result in the loss of yield?

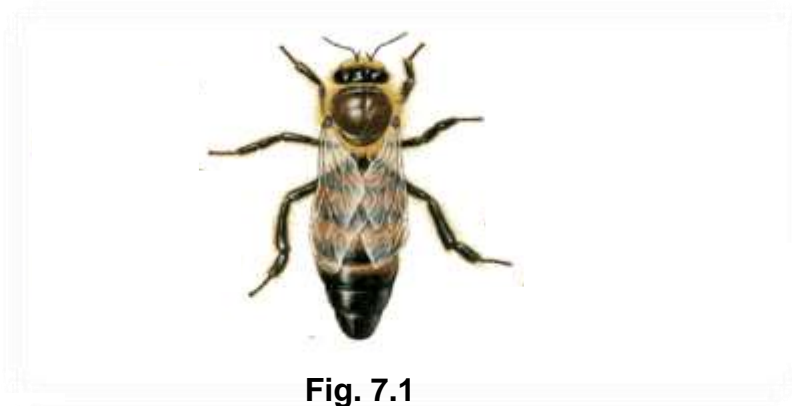
(i).....  
(ii).....  
(iii)..... [3]

(b) Name any **one** chemical used to treat stored grain?

..... [1]

[Total: 4 marks]

7. **Figure 7.1** shows a type of bee.



(a) Name the type of bee indicated in **Fig. 7.1**?

..... [1]

(b) Explain the reproduction process in honey bees.

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

**[Total: 4 marks]**

8. (a) What is supplementary feeding in cattle.

..... [1]

(b) Which external parasite of cattle carry and spread diseases?

..... [1]

(c) Discuss the effect of overstocking in cattle farming.

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

**[Total: 4 marks]**

9. (a) What is sexual reproduction?

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

(b) What are the benefits of planting seeds in trays?

(i) .....  
 .....  
 (ii).....  
 .....  
 (iii).....  
 ..... [3]

[Total: 4 marks]

10. Table 10.1 shows characteristics of a layer.

(a) Fill in the missing characteristics.

Table 10. 1

Characteristics	Good Layer	Poor layer
Body	(i).....	narrow and shallow
Eyes	bright and prominent	(ii).....

[2]

(b) Explain why chickens must be provided with grit?

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

[Total: 4 marks]

11. (a) Give any **two** characteristics of a nursery site.

(i) .....

(ii) ..... [2]

(b) Explain how watering should be done on fruit trees.

.....

.....

.....

..... [2]

**[Total: 4 marks]**

12. (a) Give **five** questions which guides a farmer when taking a decision in farm planning?

(i).....

(ii).....

(iii).....

(iv).....

(v)..... [5]

**[Total: 5 marks]**

**SECTION B**

Answer any **two** questions in this section (50 Marks)

1. Write an essay on vegetable production using the guidelines below.

- Topic of the enterprise [1]
- Introduction (importance of growing vegetables) [1]
- Steps of preparing a seedbed [7]
- Methods of planting seeds [2]
- Management of seedlings on seedbed (thinning, watering, pest and disease control) [6]
- Steps followed when transplanting [8]

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2. Write an essay on harvesting and storing maize using the guidelines below.

- Topic of the enterprise [1]
- Introduction (importance of harvesting) [1]
- Signs of readiness of dry maize [2]
- Effects of harvesting too late [2]
- Modern methods of storing maize grains [4]
- Practices that limit grain damage in storage [6]
- Main enemies of stored crops [3]
- Steps followed when treating maize stored in bags [6]

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**[Total: 25 Marks]**

3. Write an essay on goats' production using the guidelines below.

- Topic of the essay [1]
- Introduction (importance of goats) [1]
- Breeds to keep [2]
- Factors to consider when buying breeding stock [5]
- Features of the goat house [3]
- Signs of heat [5]
- Management during pregnancy [2]
- Feeding goats [4]
- Caring for young immediately after birth [2]

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