

MARKER CODE



Student Personal Identification Number

# Solomon Islands National Form Six School Certificate

## AGRICULTURE

2017

### QUESTION AND ANSWER BOOKLET

**Time allowed: 3 hours plus 10 minutes**

#### INSTRUCTIONS

1. This Examination has TWO Sections. Both Sections are **COMPULSORY**.

Recommended time allowances for each section:

|   |             |                  |
|---|-------------|------------------|
| <b>Section A:</b> Multiple Choice Questions | 40 minutes  | 20 marks         |
| <b>Section B:</b> Short Answer Questions    | 140 minutes | 100 marks        |
|   | 3 hours     | <b>120 marks</b> |

2. Write all the answers to the Multiple Choice questions in the answer sheet on the **FOLD-OUT FLAP** on the last page.
3. Answer all questions in Section B in the spaces provided.
4. Write your **Student Personal Identification Number (SPIN)** in the box at the top right hand corner of this page and on the fold-out flap at the end of this booklet.
5. Check that the booklet contains pages 1-17 in the correct order and that none of these pages is blank. Page 16 has been left blank deliberately.

**YOU MUST HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.**

**TOTAL MARKS**

**120**

**SECTION A: MULTIPLE CHOICE QUESTIONS**

**(20 MARKS)**

**THIS SECTION CONSISTS OF 20 MULTIPLE CHOICE QUESTIONS WORTH ONE (1) MARK EACH. CIRCLE THE LETTER OF THE BEST ANSWER A B C or D.**

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1. In Agriculture farming system, which of the following is an example of **traditional farming**?
  - A. A small garden for consumption use only
  - B. Cocoa planted under coconuts
  - C. A coconut plantation with some cattle grazing
  - D. A vegetable farm sold to local market
  
2. **Over cultivation** can damage the ecosystem through;
  - A. Burning all the plant remains.
  - B. Using mixed cropping
  - C. Killing the microbes in the soil
  - D. Increasing the farm yield
  
3. Which statement below best describes the definition of **Soil texture**?
  - A. A section dug through the ground to show layers
  - B. The amount of sand, silt and clay particles in the soil
  - C. The amount of available water and nutrient
  - D. The amount of air and humus in the soil
  
4. The **use of organic materials in farming** to cover the top soil is best done using:
  - A. Manuring
  - B. Thinning
  - C. Transplanting
  - D. Mulching
  
5. Which of the following **farming practices** can help increase soil nutrient?
  - A. Crop rotation
  - B. Burning of rubbish
  - C. Using herbicides
  - D. Overgrazing

6. Which of the following are **environmental factors** required for seed germination?
- A. Carbon dioxide, water and temperature
  - B. Oxygen, water and temperature
  - C. Nursery, oxygen and water
  - D. Carbon dioxide, nursery and water
7. Which of the following are **micro- nutrients** in soil required for plant growth and development?
- A. Zinc, Iron, Copper and Boron
  - B. Zinc, Iron, Copper and Nitrogen
  - C. Zinc, Iron, Copper and Phosphorus
  - D. Zinc, Iron, Copper and Potassium
8. The main aim of **asexual reproduction** in plant production is to maintain \_\_\_\_\_ of line and increase productivity.
- A. breeding
  - B. quality
  - C. purity
  - D. quantity
9. The following are the main **cultural measures used for controlling pests and diseases** on the farm:
- A. Time of planting, drainage, burning and mixed cropping
  - B. Manual killing, pesticides, crop rotation and burning
  - C. Crop rotation, manual killing, burning and drainage
  - D. Integrated pest management, pesticides and burning
10. The most **serious effect** of pest and disease on crop in farming is:
- A. High sales
  - B. High production
  - C. Low turnover
  - D. Low quality
11. Which of the following **husbandry practices** are carried out in **piglet management**?
- A. Castration, water, light and temperature
  - B. Castration, tail cutting and clipping eye- teeth
  - C. Castration, water, light and tail cutting
  - D. Castration, water, clipping eye- teeth and genetics

12. Ventilation is an environmental factor useful for growth and development in poultry farming. In this context, **Ventilation** can be defined as:
- A. A crowded animal farm building with less flow of air
  - B. Adequate spacious and free flow of air in the farm building
  - C. An organ of the animal
  - D. High chances of pest and diseases.
13. **Commercial breeds** of animals for farming are more recommended than local breeds because they:
- A. have poor food conversion ratio (FCR)
  - B. can easily catch diseases
  - C. grow and develop faster
  - D. need more food and water to reproduce.
14. Which of the following is an example of a **disease in animals**?
- A. Mastitis
  - B. Internal parasites
  - C. Lameness
  - D. Prolapse
15. **Dehydration** is an example of \_\_\_\_\_ in animals.
- A. Pest
  - B. Diseases
  - C. Disorder
  - D. Parasite
16. An example of a **local market opportunity** for a vegetable farmer would be:
- A. Development banks
  - B. Export to Fiji
  - C. Use for consumption
  - D. A boarding school
17. Which of the following is an important **safety procedure** when using agricultural chemicals?
- A. Check for their prices
  - B. Use only once a year
  - C. Proper storage
  - D. Environmental laws

18. One of the important export market **requirements** is;
- A. Harvesting
  - B. Cheap prices
  - C. Quality control
  - D. Primary product
19. **Adding value** to a local primary product can have higher market value and can be done through:
- A. Pricing
  - B. Processing
  - C. Product
  - D. Grading
20. Damaging vegetables before they reach the markets is one common problem with our local farmers. Farmers need to take precautions during;
- A. Sowing
  - B. Planting
  - C. Harvesting
  - D. Post-harvesting

Total mark for Section A.

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| 20 |
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**SECTION B: SHORT ANSWERS QUESTIONS**

**(100 MARKS)**

**WRITE YOUR ANSWERS IN THE APPROPRIATE SPACES PROVIDED.**

**QUESTION 1. AGRICULTURAL ECOSYSTEMS**

**(10 Marks)**

**Part One: (4 marks)**

1. Using appropriate examples, describe the two **farming systems** listed below;

i. Mono-cropping farming system;

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(2 marks)

ii. Mixed farming/cropping;

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(2 marks)

**Part Two: (6 marks)**

1. Discuss the **impacts** of the two agricultural practices on the ecosystem listed below. Use specific examples in your discussion.

i. Pesticides;

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(3 marks)

ii. Deforestation;

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(3 marks)

Total mark for Section B. Q.1.

**10**

**QUESTION 2:      SOILS**

***( 18 Marks)***

**Part One:            (8 marks)**

1. Explain how the following practices and activities in (i), (ii), (iii) and (iv) help to **improve soil structure**.

i. Earthworm;

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(2 marks)

ii. Mulching;

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(2 marks)

iii. Crop rotation;

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(2 marks)

iv. Proper Drainage system

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(2 marks)

**Part Two:            (10 marks)**

1. Use the diagram below to answer questions (i) and (ii).



- i. Explain one **major consequence** that this farming practice can cause to the soil.

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(3 marks)

- ii. Explain how **"Cover cropping"** can help to improve the effects of this farming practice in question (i) above.

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(3 marks)

2. Discuss why **"Soil conservation"** is an important practice in Agriculture farming in the Solomon Islands.

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(4 marks)

Total mark for Section B. Q.2.

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|  | <b>18</b> |
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**QUESTION 3: PLANT PRODUCTION**

**(17 marks)**

**Part One: (8 marks)**

1. Describe how the following conditions and managements in (i), (ii), (iii) and (iv) **influence growth and development in plants;**

i. Watering

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(2 marks)

ii. Sunlight

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(2 marks)

iii. Pruning

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(2 marks)

iv. Weed control

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(2 marks)

**Part Two (9 marks)**

1. Explain with examples, how do the following plant production strategies in (i), (ii) and (iii) help to **increase farm productivity.**

i. Grafting;

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(3 marks)

ii. Scarification;

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(3 marks)

iii. Use of best planting materials/cultivars

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(3 marks)

Total mark for Section B. Q.3.

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| <div><p><b>17</b></p></div> |
|---|

**QUESTION 4:**      **PLANT PROTECTION**

***(10 marks)***

**Part One**              **(4 marks)**

1. Study the picture below and answer the questions that follow.



- i. Describe the **effect** this pest can cause to this crop.

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(2 marks)

- ii. Describe one **cultural method** that can be used to control this pest above.

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(2 marks)

**Part Two (6 marks)**

1. Explain any TWO **economic reasons** why controlling pest and disease are important in any country.

i. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (3 marks)

ii. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ (3 marks)

Total mark for Section B. Q.4.

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| 10 |
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**QUESTION 5: ANIMAL PRODUCTION**

**(15 marks)**

**Part One (6 marks)**

1. Describe with examples how the factors (i), (ii) and (iii) help to **influence growth and development** of animals.

i. Proper housing;

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(2 marks)

ii. Proper feeding,

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(2 marks)

iii. Right temperature,

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(2 marks)

**Part Two (9 marks)**

1. Explain how these animal **farm reproduction strategies** listed below help to increase animal productivity.

i. Selection of breeding stock

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(3 marks)

ii. Artificial Insemination;

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(3 marks)

iii. Cross Breeding;

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(3 marks)

Total mark for Section B. Q.5.

**15**

**QUESTION 6:****ANIMAL PROTECTION****(10 marks)****Part One (4 marks)**

1. Describe the **effects** of the two pests on animals.

i. External parasites;

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(2 marks)

ii. Intestinal worms;

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(2 marks)

**Part Two (6 marks)**

1. Explain how these TWO (2) control measures listed below help to **minimise** the impacts of pests and diseases on farm animals

i. Stock rotation grazing

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(3 marks)

ii. Culling

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(3 marks)

Total mark for Section B. Q.6.

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| 10 |
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**QUESTION 7: AGRICULTURAL MANAGEMENT (10 marks)**

**Part One (4 marks)**

1. Describe how the two resources factors listed below influence the **management decisions** of any farming enterprises.

i. Human resources;

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(2 marks)

ii. Physical resources;

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(2 marks)

**Part Two (6 marks)**

1. The exportation and importation of all agricultural products demands strict bio-security procedures. Discuss why it is important to carry out **bio-security or Quarantine procedures**.

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(3 marks)

2. **Market opportunities** are important factors for consideration in the management decisions of a farmer. Discuss how does it affects or influences the management decision of the farmer.

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(3 marks)

Total mark for Section B. Q.7.

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| 10 |
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**QUESTION 8: AGRICULTURAL MARKETING**

**(10 marks)**

**Part One (4 marks)**

1. Post-harvest handling steps are very important factors to consider before marketing of products in order to meet the local market requirement. Describe how the TWO (2) **situations** listed below will affect the product when it reaches the market?

i. Consumer demands

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(2 marks)

ii. Market prices

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(2 marks)

**Part Two (6 marks)**

1. Discuss how does **economics of production** influence the farmer's decision to sell at the local market.

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(3 marks)

2. Discuss ways in which the frequently experienced **bad weather** affect the farmer's income

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(3 marks)

Total mark for Section B. Q.8.

**10**



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# SINF6SC – AGRICULTURE 2017

Student Personal Identification Number

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## SECTION A

### MULTIPLE CHOICE (20 MARKS)

Write clearly the letter of the correct answer in the box provided. Make sure your answer is put alongside the right question number.

#### EXAMPLE:

If you consider B is the correct answer, write it like this:

|   |
|---|
| B |
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To change your answer from B to C, cross out B and write the new answer by the box, like this:

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| <del>B</del> |
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C

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## FOR MARKER USE ONLY

| QUESTION               | MARKS      |  |
|------------------------|------------|--|
| M/C                    | 20         |  |
| B.1                    | 10         |  |
| B.2                    | 18         |  |
| B.3                    | 17         |  |
| B.4                    | 10         |  |
| B.5                    | 15         |  |
| B.6                    | 10         |  |
| B.7                    | 10         |  |
| B.8                    | 10         |  |
| <b>TOTAL</b>           | <b>120</b> |  |
| <b>Markers Initial</b> |            |  |