MARKER CODE





Student Personal Identification Number

# South Pacific Form Seven Certificate **AGRICULTURE**

# 2022

## **QUESTION and ANSWER BOOKLET**

### Time allowed: Three hours

(An extra 10 minutes is allowed for reading this paper.)

#### INSTRUCTIONS

- 1. Write your **Student Personal Identification Number (SPIN)** in the space provided on the top right-hand corner of this page.
- 2. Answer **ALL QUESTIONS**. Write your answers in the spaces provided in this booklet. For **Multiple Choice Questions**, circle the letter that represents the **BEST** answer.
- 3. If you need more space for answers, ask the Supervisor for extra paper. Write your SPIN on all extra sheets used and clearly number the questions. Attach the extra sheets to the appropriate places in this booklet.

|   | Skil                          | l Level & Num                          | ber of Questi         | ions                            |                 |
|---|-------------------------------|--|-----------------------|---------------------------------|-----------------|
| Major Learning Outcomes<br>(Achievement Standards)  | Level 1<br>Uni-<br>structural | Level 2<br><i>Multi-</i><br>structural | Level 3<br>Relational | Level 4<br>Extended<br>Abstract | Weight/<br>Time |
| <b>Strand 1: Primary Production</b><br>Examine local and export primary production<br>and analyse the influence of market controls.   | 5                             | 2                                      | 2                     | 0                               | 15%<br>38 min   |
| Strand 2: Sustainable Primary Production<br>Analyse primary production practices that<br>ensure sustainable primary production.   | 6                             | 3                                      | 2                     | 1                               | 22%<br>57 min   |
| <b>Strand 3: Production Management</b><br>Demonstrate an understanding of production<br>management of a locally produced animal<br>primary product and a locally produced plant<br>primary product. | 4                             | 4                                      | 3                     | 3                               | 33%<br>85 min   |
| TOTAL   | 15                            | 9                                      | 7                     | 4                               | 70%<br>180 min  |

#### Questions in this examination require you to refer to primary products from your own country.

Check that this booklet contains pages 2–18 in the correct order and that none of these pages are blank.

HAND THIS BOOKLET TO THE SUPERVISOR AT THE END OF THE EXAMINATION.

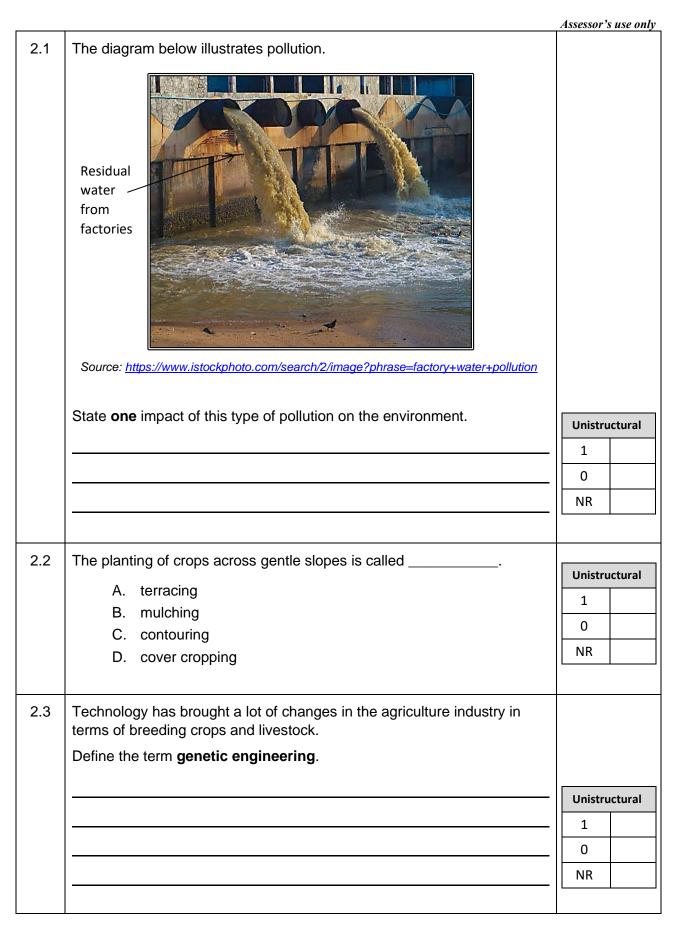
#### STRAND 1: PRIMARY PRODUCTION

|      |   | Assessor's use only           |
|------|---|-------------------------------|
| 1.1  | Plant breeders use different breeding methods to modify <b>seasonal</b> pollinated crops.   |                               |
|      | Define <b>seasonality</b> .   | Unistructural                 |
|      |   | 1                             |
|      |   | 0                             |
|      |   | NR                            |
|      |   |                               |
| 1.2  | Which of the following statements below describes a <b>biosecurity regulation</b> ?   |                               |
|      | A. All plants and animal products are allowed at the port of entry.   |                               |
|      | B. All items brought into the country should have an export permit.   | Unistructural                 |
|      | C. Households bringing their pets into a country shall leave them at the Ministry of Agriculture for fifty days.  | 1                             |
|      | D. All items going out of the country should be accompanied by a  | 0                             |
|      | phytosanitary certificate.  | NR                            |
| 1.3a | Select one primary product (either plant or animal) that is locally produced in your country to answer questions 1.3a and 1.3b.         Name of your country:         Primary product:         Marketing strategies are crucial in ensuring that goods and services reach their intended recipients or customers.         State the importance of having a variety of market channels in the marketing of your primary product. | Unistructural<br>1<br>0<br>NR |
| 1.3b | Local farmers face several challenges in terms of distributing and selling their crops, including marketing.<br>Describe the market opportunities for your selected primary product.  |                               |
|      |   | Multistructural               |
|      |   | 2                             |
|      |   | 1                             |
|      |   | 0                             |
|      |   | NR                            |
| 1    |   |                               |

| 1.4 | State <b>one</b> effect of pests and disease on the supply of primary products to                                |         |         |
|-----|--|---------|---------|
|     | the local markets.   | Unistru | uctural |
|     |  | 1       |         |
|     |  | 0       |         |
|     |  | NR      |         |
|     |  |         |         |
| 1.5 | Bilateral trade agreements are important in International Marketing.   |         |         |
|     | Explain how the Melanesian Spearhead Groups Trade Agreement (MSGTA) affects the export of goods in your country. |         |         |
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| 1.6 | To maintain the future export market of kava in the Pacific Islands, quality standard guideline should be met by farmers for the export market. |               |          |  |
|-----|---|---------------|----------|--|
|     | State the importance of following standard guidelines as an export control  | Unistructural |          |  |
|     | strategy for kava in the Pacific Islands.   | 1             |          |  |
|     |   | 0             |          |  |
|     |   | NR            |          |  |
|     |   |               |          |  |
| 1.7 | Post-harvest handling ensures that primary products preserve their quality to secure their market price.  |               |          |  |
|     | Describe how market quality standards affect primary production.  |               |          |  |
|     |   | Multist       | ructural |  |
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|     | to consider during the harvesting and post-harvest period. Explain how good storage facilities influence a primary product in your country.     |               |          |  |
|     |   | Relat         | tional   |  |
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#### STRAND 2: SUSTAINABLE PRIMARY PRODUCTION

| 2.4 | Climate-smart agriculture is a national and international initiative aimed at addressing agricultural issues that affect farming. |         |          |
|-----|---|---------|----------|
|     | Identify <b>one</b> key issue influencing long-term primary production in your area.  |         |          |
|     |   | Unistru | et une l |
|     |   |         | ictural  |
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| 2.5 | Coconut is a potential crop for the South Pacific. The picture below illustrates a pest of coconut palms.                         |         |          |
|     | Describe how a coconut farmer could control the pest shown in the picture.  |         |          |
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|     | Source: <u>https://www.spc.int/updates/news/2016/10/curbing-the-coconut-rhinoceros-</u><br>beetle-in-the-pacific                  |         |          |
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|     |   | Assessor's use only |
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| 2.6 | The picture below illustrates an example of genetic resource conservation.  |                     |
|     |   |                     |
|     | Source: Google Images   | Unistructural       |
|     | Name the genetic resource conservation method.  | 1                   |
|     |   | 0                   |
|     |   | NR                  |
|     |   |                     |
| 2.7 | The farming system that avoids the use of synthetically compounded fertilisers, pesticides, growth regulators, genetically modified organisms |                     |
|     | and livestock food additives is known as farming.   | Unistructural       |
|     | A. organic  | 1                   |
|     | B. inorganic  | 0                   |
|     | C. integrated<br>D. conventional  | NR                  |
|     |   |                     |
| 2.8 | Crop rotation is regarded as a good farming practice that maintains sustainability.   |                     |
|     | Describe crop rotation as an important practice in ensuring long-term production on a farm.   |                     |
|     |   | Multistructural     |
|     |   | 2                   |
|     |   | 1                   |
|     |   | 0                   |
|     |   | NR                  |
|     |   |                     |
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| 2.9  | Environmental health, economic profitability and socio-economic equity are the goals of sustainable agriculture. |          |         |
|------|--|----------|---------|
|      | Explain, using examples, how farmers practise sustainable agriculture to maintain local primary production.      |          |         |
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|      |  | NR       |         |
| 2.10 | Cover crops are used as a soil management practice.  |          |         |
|      | Describe how cover crops help to maintain a sustainable primary production system.                               |          |         |
|      |  | Multistr | uctural |
|      |  | 2        | ucturai |
|      |  | 1        |         |
|      |  | NR       |         |

| introduction of a new species into a country can be beneficial to the ntry while also posing a threat to local production. |       |      |
|--|-------|------|
| lain, using examples, the disadvantages of introducing a new species of stock or a new variety of crops into your country. |       |      |
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| 2.12 | Global agricultural issues such as poor farming practices and climate change have contributed to food insecurity and affected the food supply chain. |               |      |
|------|--|---------------|------|
|      | Discuss the negative impacts of <b>one</b> global agricultural issue on local  |               |      |
|      | production, and recommend ways to maintain food security and the flow of the   |               |      |
|      | food supply chain. Use examples to support your answer.  |               |      |
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| 3.1 | The picture below shows a post-harvest management practice carried out in a fruit factory.      |                               |
|-----|---|-------------------------------|
|     | <image/>  |                               |
|     | Source: <u>http://www.gmcti.org</u>   |                               |
|     |   |                               |
|     | The management practice carried out in the above picture is called                              |                               |
|     | A. sorting  | Unistructural                 |
|     | B. chilling   | 1                             |
|     | C. grading  | 0                             |
|     | D. washing  | NR                            |
|     |   |                               |
| 3.2 | Meat quality is determined entirely by the technique of slaughter and the time of slaughtering. |                               |
|     | Identify the best <b>slaughter method</b> for livestock.  |                               |
|     |   |                               |
|     |   |                               |
|     |   |                               |
|     |   |                               |
|     | time of slaughtering.   | Unistructural<br>1<br>0<br>NR |

#### STRAND 3: PRODUCTION MANAGEMENT

| 3.3  | Cultivation is the breaking down of soil into smaller pieces and is an important process in the schedule of operations.   |          |          |
|------|---|----------|----------|
|      | Describe a soil preparation method in the schedule of operations.   |          |          |
|      |   | Multist  | ructural |
|      |   | - 2      |          |
|      |   | 1        |          |
|      |   | 0        |          |
|      |   | NR       |          |
| 3.4a | Traditional agriculture has given way to modern agriculture, and the government has assisted farmers by providing new technologies to improve agriculture production. |          |          |
|      | Define <b>technology</b> .  | Unistru  | ictural  |
|      |   | 1        |          |
|      |   | 0        |          |
|      |   | NR       |          |
|      |   |          |          |
| 3.4b | Farming software and online data are modern technologies used in agriculture.<br>Describe how these advanced technologies have assisted farmers in the                |          |          |
|      | production and sale of agricultural products.   |          |          |
|      |   | Multist  | ructural |
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|      |   | 1        |          |
|      |   | 0        |          |
|      |   | NR       |          |
| 3.5  | Breeding is an important management practice used in the production process of primary products.  |          |          |
|      | Describe the importance of a breeding technique in livestock production.  |          |          |
|      |   | Multistr | ructural |
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|      |   | NR       |          |
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|     |   | Assessor's | s use only |
|-----|---|------------|------------|
| 3.6 | Water management and fertiliser application are two management practices in the schedule of operations for crop production. |            |            |
|     | Differentiate between the two management practices in relation to their effectiveness in crop production.                   |            |            |
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|     |   | 1          |            |
|     |   | 0          |            |
|     |   | NR         |            |
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| 3.7 | Capital is the most common factor of production that has an impact on other operations in a schedule of operations. Explain how the availability of capital influences the activities in the schedule of operations of the local primary product. |         |         |
|-----|---|---------|---------|
|     |   | Relat   | ional   |
|     |   | 1       |         |
|     |   | 0<br>NR |         |
|     |   |         |         |
| 3.8 | The act of promoting and selling a product or service is known as   |         |         |
|     | ·   | Unistru | uctural |
|     | A. trading<br>B. bartering  | 1       |         |
|     | C. marketing  | 0       |         |
|     | D. advertising  | NR      |         |
|     |   |         |         |

| 3.9  | Select one primary product (either plant or animal) that is locally produced in your country to answer question 3.9.         Primary product:         Specific market:         List two activities carried out in the processing of your selected primary product for marketing purposes. | Multistr<br>2<br>1<br>0<br>NR                                      | ructural |
|------|---|--|----------|
| 3.10 | Production on a farm depends entirely on the type and availability of labourers. Explain how the availability of labour affects the different activities in the schedule of operations.   |  |          |
|      |   | Relat           3           2           1           0           NR | ional    |

|      | Select <u>one primary product</u> (either plant or animal) that is locally produced in your country to answer question 3.11.   |               |
|------|--|---------------|
|      | Primary product:   |               |
|      | Specific market:   |               |
| 3.11 | Site selection is an important factor to consider before choosing an enterprise.   |               |
|      | For your selected primary product, discuss the significance of site selection as a step in the schedule of operations and recommend ways of improving the selected site. |               |
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|      |  | Assessor's use only |
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| 3.12 | The table below shows the establishment process in a crop or livestock enterprise.                                       |                     |
|      | <ol> <li>Soil preparation</li> <li>Crop preparation</li> <li>Planting of crops</li> <li>Rearing of livestock</li> </ol>  |                     |
|      | Select <b>one</b> establishment process.   |                     |
|      | Discuss and recommend optimal conditions necessary for the selected establishment process in the schedule of operations. |                     |
|      | Establishment Process:   |                     |
|      |  |                     |
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| 3.13 | Kava is a commercial crop in the Pacific Islands and is mostly in demand by the local community.  |       |      |
|------|---|-------|------|
|      | Evaluate the impact of the market demand for kava on the activities in the schedule of operations, and recommended ways on how to constantly meet the demand. |       |      |
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