

MARKER CODE


 Pacific
Community
Communauté
du Pacifique


Student Personal Identification Number

South Pacific Form Seven Certificate

AGRICULTURE

2018

QUESTION and ANSWER BOOKLET

Time allowed: Three hours

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

INSTRUCTIONS

Write your **Student Personal Identification Number (SPIN)** in the space provided on the top right-hand corner of this page.

Answer **ALL QUESTIONS**. Write your answers in the spaces provided in this booklet.

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 at the appropriate places in this booklet.

Major Learning Outcomes (Achievement Standards)	Skill Level & Number of Questions				Weight/ Time
	Level 1 <i>Uni- structural</i>	Level 2 <i>Multi- structural</i>	Level 3 <i>Relational</i>	Level 4 <i>Extended Abstract</i>	
Strand 1: Primary Production Examine local and export primary production and analyse the influence of market controls.	5	2	2	-	15% 44 min
Strand 2: Sustainable Primary Production Analyse primary production practices that ensure sustainable primary production.	6	3	2	1	22% 61 min
Strand 3: Production Management Demonstrate understanding of production management of a locally produced animal primary product and of a locally produced plant primary product.	6	3	3	3	33% 75 min
TOTAL	17	8	7	4	70% 180 min

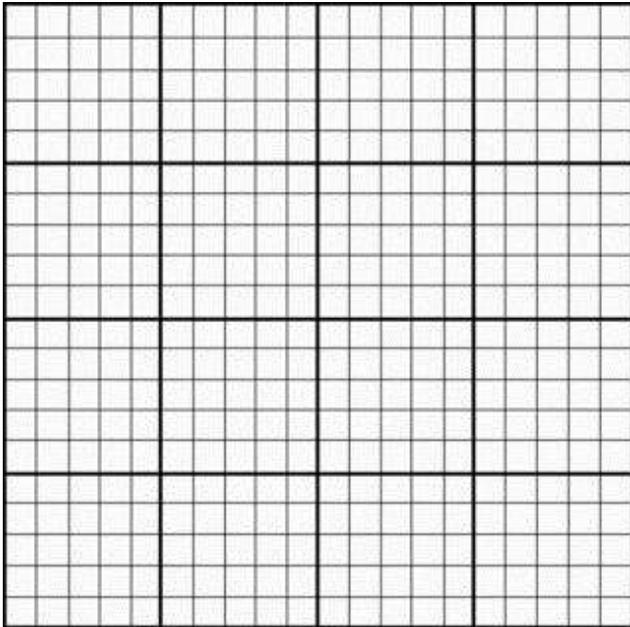
Questions in this examination require you to refer to primary products from your own country.

Check that this booklet contains pages 2-16 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

1.0	<p>Select one local primary product produced for an export market and use that product to answer questions 1.1a - 1.1b below.</p> <p>Name of selected primary product: _____</p>													
1.1a	<p>Seasonality influences the supply of primary products.</p> <p>Draw a graph on the grid below, to show how the production (volume/numbers) of your primary product changes during the year.</p> <p>Label the vertical axis and specify the production (volume/numbers) of your selected product produced during the year. On the horizontal axis, specify the time of the year (in weeks/months) to suit your selected product.</p> <div style="text-align: center; margin: 10px 0;">  </div> <p style="text-align: center;">Time of the year</p>	<table border="1" style="width: 100%; border-collapse: collapse; margin-top: 20px;"> <thead> <tr style="background-color: #cccccc;"> <th colspan="2" style="text-align: left; padding: 2px;">Multistructural</th> </tr> </thead> <tbody> <tr><td style="text-align: center; padding: 2px;">2</td><td style="width: 20px;"></td></tr> <tr><td style="text-align: center; padding: 2px;">1</td><td></td></tr> <tr><td style="text-align: center; padding: 2px;">0</td><td></td></tr> <tr><td style="text-align: center; padding: 2px;">NR</td><td></td></tr> </tbody> </table>	Multistructural		2		1		0		NR			
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1.1b	<p>From your graph in question 1.1a, explain how the time of the year influences the supply of your primary product and how it affects consumer demand.</p> <hr/>	<table border="1" style="width: 100%; border-collapse: collapse; margin-top: 20px;"> <thead> <tr style="background-color: #cccccc;"> <th colspan="2" style="text-align: left; padding: 2px;">Relational</th> </tr> </thead> <tbody> <tr><td style="text-align: center; padding: 2px;">3</td><td style="width: 20px;"></td></tr> <tr><td style="text-align: center; padding: 2px;">2</td><td></td></tr> <tr><td style="text-align: center; padding: 2px;">1</td><td></td></tr> <tr><td style="text-align: center; padding: 2px;">0</td><td></td></tr> <tr><td style="text-align: center; padding: 2px;">NR</td><td></td></tr> </tbody> </table>	Relational		3		2		1		0		NR	
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	<p>Select one primary product that is exported from your country.</p> <p>Your Country: _____</p> <p>Export Primary Product: _____</p> <p>Country Exported to: _____</p>											
1.2	<p>Use the information below to answer question 1.2.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>Disease outbreaks among farm animals cause significant economic damage to a country. However, you can limit the impact through control or preventative measures. For example, bird flu outbreak in other countries and the taro beetle outbreak in Western Samoa resulted in putting stringent measures/biosecurity regulations in all Pacific Island Countries on exporting and importing of animal and plant products.</p> </div> <p>Describe one effect of biosecurity regulations on export of the chosen primary product from your country.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="background-color: #cccccc;">Multistructural</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">2</td> <td style="width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td></td> </tr> <tr> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">NR</td> <td></td> </tr> </tbody> </table>	Multistructural		2		1		0		NR	
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1.3a	<p>Use the information below to answer questions 1.3a - 1.3b.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>Markets provide the opportunity to generate income, contributing to a reduction in poverty and hunger in developing countries. Access to market is crucial for producers.</p> </div> <p>Define market access in terms of primary production.</p> <p>_____</p> <p>_____</p> <p>_____</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="background-color: #cccccc;">Unistructural</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="width: 20px;"></td> </tr> <tr> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">NR</td> <td></td> </tr> </tbody> </table>	Unistructural		1		0		NR			
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1.3b	<p>State one effect of market access on your selected primary product.</p> <hr/> <hr/> <hr/> <hr/> <hr/>	<table border="1"> <thead> <tr> <th colspan="2">Unistructural</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </tbody> </table>	Unistructural		1		0		NR	
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1.4	<p>Countries boost export through trade agreements.</p> <p>Name one international trade agreement between your country and other Pacific Island countries that has been signed by your country and was intended to progressively reduce tariffs of developing members to zero.</p> <hr/> <hr/> <hr/>	<table border="1"> <thead> <tr> <th colspan="2">Unistructural</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </tbody> </table>	Unistructural		1		0		NR	
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1.5	<p>Use the information below to answer question 1.5.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px 0;"> <p>Grower organisations are established for farmers and other rural people to provide social networks, opportunities for sharing knowledge, and help in hard times. Some groups are for farmers of particular animals or crops, and there are others for rural women and young farmers.</p> </div> <p>Name one grower organisation in your country that is responsible for export of primary products.</p> <hr/> <hr/> <hr/>	<table border="1"> <thead> <tr> <th colspan="2">Unistructural</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </tbody> </table>	Unistructural		1		0		NR	
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STRAND 2: SUSTAINABLE PRIMARY PRODUCTION

Assessor's use only

	<p>Use the following information to answer questions 2.1a – 2.1c.</p> <p>Select a nationally significant primary product (in unprocessed form):</p> <p>.....</p> <p>Select a specific market for this product:</p> <p>.....</p>																					
2.1a	<p>In the table below, write one management practice that is carried out during the production of your product named above.</p> <p>The selected management practice must be from at least one of the following phases:</p> <p style="padding-left: 40px;">establishment growth harvesting.</p> <p>Two examples have been provided to assist you.</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 60%;">Management practice</th> <th style="width: 30%;">Phase of production</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">e.g.</td> <td>Drenching for parasites</td> <td>Growth</td> </tr> <tr> <td style="text-align: center;">e.g.</td> <td>Watering of Chinese cabbage seedlings</td> <td>Establishment</td> </tr> <tr> <td style="text-align: center;">1.</td> <td></td> <td></td> </tr> </tbody> </table>		Management practice	Phase of production	e.g.	Drenching for parasites	Growth	e.g.	Watering of Chinese cabbage seedlings	Establishment	1.			<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #cccccc;"> <th colspan="2">Unistructural</th> </tr> </thead> <tbody> <tr> <td style="width: 20px; text-align: center;">1</td> <td style="width: 20px;"></td> </tr> <tr> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">NR</td> <td></td> </tr> </tbody> </table>	Unistructural		1		0		NR	
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2.1b	<p>Describe the key feature of the management practice in question 2.1a that contributes to maintaining sustainable production.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr style="background-color: #cccccc;"> <th colspan="2">Multistructural</th> </tr> </thead> <tbody> <tr> <td style="width: 20px; text-align: center;">2</td> <td style="width: 20px;"></td> </tr> <tr> <td style="text-align: center;">1</td> <td></td> </tr> <tr> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">NR</td> <td></td> </tr> </tbody> </table>	Multistructural		2		1		0		NR											
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2.1c	<p>Explain how the management practice you have selected could contribute to maintaining quality production.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<table border="1"> <thead> <tr> <th colspan="2">Relational</th> </tr> </thead> <tbody> <tr> <td>3</td> <td></td> </tr> <tr> <td>2</td> <td></td> </tr> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </tbody> </table>	Relational		3		2		1		0		NR	
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2.2	<p>Identify one invasive species that affects the production of a local primary product.</p> <p>Name of local primary product:</p> <p>Name of the invasive species: _____</p>	<table border="1"> <thead> <tr> <th colspan="2">Unistructural</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </tbody> </table>	Unistructural		1		0		NR					
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2.3	<p>Fill in the blank.</p> <p>The modification of an organism's genetic composition by artificial means, often involving the transfer of specific traits or genes from one organism into a plant or animal of an entirely different species, is known as _____.</p> <hr/>	<table border="1"> <thead> <tr> <th colspan="2">Unistructural</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </tbody> </table>	Unistructural		1		0		NR					
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2.4	<p>Organic farming is supported by many people today due to its benefits.</p> <p>State the key feature of organic farming in local production.</p> <hr/> <hr/> <hr/>	<table border="1"> <thead> <tr> <th colspan="2">Unistructural</th> </tr> </thead> <tbody> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </tbody> </table>	Unistructural		1		0		NR					
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Use the picture below to answer question 2.5.



Source: <https://www.bing.com/images/search?q=environmental+pollution>

2.5 Name the type of pollution shown in the picture above.

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Use the information below to answer questions 2.6a - 2.6b.

Select a farm animal that you have studied this year.

Name of farm animal:

2.6a Name a disease that affects production of your selected farm animal.

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2.6b Describe the nature of the disease named in **question 2.6a** that needs to be controlled.

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	<p>Use the information below to answer questions 2.7a - 2.7b.</p> <p>Select a plant produce that is grown in your country for local sales or for export. For your selected plant produce, choose one management practice from the list.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px auto; width: 60%; text-align: center;"> <p>Management practices</p> <ol style="list-style-type: none"> 1. Soil management practice 2. Water management practice 3. Waste management practice </div> <p>Country.....</p> <p>Plant produce.....</p> <p>Selected management practice 1.....</p> <p>2.7a Describe the features of the selected management practice used in maintaining sustainable production of your named plant produce.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	
	<p>Select another management practice from the list above.</p> <p>Selected management practice 2.....</p> <p>2.7b From the two management practices you have selected in questions 2.7a and 2.7b, explain which one has a better influence on your named plant. Justify your answer using units and values where appropriate.</p> <hr/>	

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STRAND 3: PRODUCTION MANAGEMENT

Assessor's use only

	<p>Use the information below to answer questions 3.1a - 3.1d.</p> <p>Select a locally produced farm animal product and its specific market.</p> <p>Locally produced farm animal product:</p> <p>Specific market for the farm animal product:</p> <p>Farmers follow a sequence of steps of management practices in order to produce a farm animal product that meets the requirements of different markets. Listed in the box below are eleven management practices carried out in a calendar of operations in the production of an animal product.</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%;"> <ul style="list-style-type: none"> • supplementary feeding • mating • disease control • culling • post harvesting grading • post harvesting packing • breed selection • marketing • slaughtering • rearing young • pest control </div>									
<p>3.1a</p>	<p>From the list above, identify a management practice in the production of your chosen farm animal product, which occurs right at the beginning.</p> <p>_____</p> <p>_____</p> <p>_____</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Unistructural</th> </tr> <tr> <td style="text-align: center;">1</td> <td style="width: 40px;"></td> </tr> <tr> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">NR</td> <td></td> </tr> </table>	Unistructural		1		0		NR	
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<p>3.1b</p>	<p>Select one management practice from the list above that must be carried out throughout the management period.</p> <p>Management Practice 1: _____</p> <p>_____</p> <p>_____</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Unistructural</th> </tr> <tr> <td style="text-align: center;">1</td> <td style="width: 40px;"></td> </tr> <tr> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">NR</td> <td></td> </tr> </table>	Unistructural		1		0		NR	
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<p>3.1c</p>	<p>Select another management practice and state the key difference from the management practice you selected in question 3.1b.</p> <p>Management Practice 2: _____</p> <p>Key Difference: _____</p> <p>_____</p> <p>_____</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="text-align: center;">Unistructural</th> </tr> <tr> <td style="text-align: center;">1</td> <td style="width: 40px;"></td> </tr> <tr> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">NR</td> <td></td> </tr> </table>	Unistructural		1		0		NR	
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	<p>Use the information below to answer questions 3.5a – 3.9.</p> <p>Select a locally produced plant product and its specific market.</p> <p>Locally produced plant product:</p> <p>Specific market for the plant product:</p>													
3.5a	<p>Name one factor that influences the schedule of operations in the production of your locally produced plant product.</p> <p>_____</p> <p>_____</p> <p>_____</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="background-color: #cccccc;">Unistructural</th> </tr> <tr> <td style="text-align: center;">1</td> <td style="width: 20px;"></td> </tr> <tr> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">NR</td> <td></td> </tr> </table>	Unistructural		1		0		NR					
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3.5b	<p>Name one example of a primary product that you have studied.</p> <p>_____</p> <p>_____</p> <p>_____</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="background-color: #cccccc;">Unistructural</th> </tr> <tr> <td style="text-align: center;">1</td> <td style="width: 20px;"></td> </tr> <tr> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">NR</td> <td></td> </tr> </table>	Unistructural		1		0		NR					
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3.5c	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <p>Food security is determined by food availability, food access, food stability and food utilization. The world is challenged to produce about 70% more food by 2050 for a growing and increasingly affluent world population.</p> </div> <p>To ensure that your country contributes towards food security by 2050, assess the effect that a particular land availability issue has on the schedule of operations on your chosen plant product.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="background-color: #cccccc;">Relational</th> </tr> <tr> <td style="text-align: center;">3</td> <td style="width: 20px;"></td> </tr> <tr> <td style="text-align: center;">2</td> <td></td> </tr> <tr> <td style="text-align: center;">1</td> <td></td> </tr> <tr> <td style="text-align: center;">0</td> <td></td> </tr> <tr> <td style="text-align: center;">NR</td> <td></td> </tr> </table>	Relational		3		2		1		0		NR	
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<p>3.6a</p>	<p>Name one example of a secondary product that derives from the plant product that you studied.</p> <hr/> <hr/> <hr/>	<table border="1"> <tr> <th colspan="2">Unistructural</th> </tr> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	Unistructural		1		0		NR			
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<p>3.6b</p>	<p>List two advantages of increasing international market opportunities to a Pacific agricultural producer.</p> <hr/> <hr/> <hr/> <hr/>	<table border="1"> <tr> <th colspan="2">Multistructural</th> </tr> <tr> <td>2</td> <td></td> </tr> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	Multistructural		2		1		0		NR	
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<p>3.7</p>	<p>Describe the influence of market demand on the harvesting of your selected plant product.</p> <hr/> <hr/> <hr/> <hr/>	<table border="1"> <tr> <th colspan="2">Multistructural</th> </tr> <tr> <td>2</td> <td></td> </tr> <tr> <td>1</td> <td></td> </tr> <tr> <td>0</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	Multistructural		2		1		0		NR	
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<p>3.8</p>	<p>Evaluate how land preparation and weed control influences the yield of your selected plant product and recommend ways of improving the yield.</p> <p>Evaluation: _____</p> <hr/>											

