

MARKER CODE



Student Personal Identification Number

South Pacific Form Seven Certificate

GEOGRAPHY

2016

QUESTION and ANSWER BOOKLET

Time allowed: Two and a half hours

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			Weight /Time
	1 <i>Basic</i>	2 <i>Proficient</i>	3 <i>Advanced</i>	
GeoA: Demonstrate understanding of a geographic environment in the Pacific, focusing on interacting natural processes	9 items	3 items	1 item	18% 45 min
GeoB: Demonstrate understanding of a cultural process operating within geographic environments at the local, national or global level	9 items	3 items	1 item	18% 45 min
GeoC: Demonstrate the application of geographic skills, concepts and ideas	15 items	3 items	1 item	24% 60 min
TOTAL	33 items	9 items	3 items	60% 150 min

Check that this booklet contains pages 2-23 in the correct order and that none of these pages is blank.

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

SECTION A: Natural Processes

Demonstrate understanding of a geographic environment in the Pacific, focusing on interacting natural processes

During your Form Seven Certificate course, you have studied a geographic environment in the Pacific, focusing on interacting natural processes within it.

In the frames below, name the overall natural process studied (e.g. coastal, fluvial, volcanic, geomorphological, biogeographical), the type of geographic environment, and the interacting natural processes operating within this geographic environment.

Natural Process studied

--

Name of the Pacific geographic environment studied

Country:
Area:

Names of the interacting natural processes operating within this geographic environment

--

A1a Draw an annotated **sketch map** of your chosen Pacific geographic environment to show at least TWO elements of **each** of TWO interacting natural processes that operate in that environment. Provide a title, key and approximate scale for your map.

A1ai Names of the TWO interacting natural processes you have chosen:
 1. _____ 2. _____

Title:

A1aii

Key

A1aiii

Skill Level 1	
Basic	
Weak	
NR	

Skill Level 1	
Basic	
Weak	
NR	

Skill Level 1	
Basic	
Weak	
NR	

A2a	<p>For <u>ANY ONE</u> of the natural processes operating in your chosen environment (including those named in A1a), describe its temporal variations, mentioning how it operates differently at different times - for example from day to day, week to week, season to season, or year to year. You may describe the differences in terms of size/scale and frequency. Refer to specific case study evidence.</p> <p>Name of the natural process: _____</p> <p>Description of its temporal variations: _____</p> <p>_____</p> <p>_____</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 style="background-color: #cccccc;"> <th colspan="2" style="text-align: center; padding: 2px;">Skill Level 1</th> </tr> <tr> <td style="width: 80%; padding: 2px;">Basic</td> <td style="width: 20%; text-align: center; padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;">Weak</td> <td style="text-align: center; padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;">NR</td> <td style="text-align: center; padding: 2px;"> </td> </tr> </table>	Skill Level 1		Basic		Weak		NR			
Skill Level 1												
Basic												
Weak												
NR												
A2b	<p>For the same natural process chosen in A2a above, explain why these temporal variations occur. Refer to specific case study evidence.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</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 style="background-color: #cccccc;"> <th colspan="2" style="text-align: center; padding: 2px;">Skill Level 2</th> </tr> <tr> <td style="width: 80%; padding: 2px;">Proficient</td> <td style="width: 20%; text-align: center; padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;">Basic</td> <td style="text-align: center; padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;">Weak</td> <td style="text-align: center; padding: 2px;"> </td> </tr> <tr> <td style="padding: 2px;">NR</td> <td style="text-align: center; padding: 2px;"> </td> </tr> </table>	Skill Level 2		Proficient		Basic		Weak		NR	
Skill Level 2												
Proficient												
Basic												
Weak												
NR												

A3a

Draw an annotated **sketch map** to show the distribution of FOUR different **natural features** / phenomena that result from the interacting natural processes in your chosen geographic environment. Such natural features might include beaches, lagoons, coral reefs, cliffs, stacks, caves, flood plains, deflected rivers, waterfalls, raised reefs, plateaux, etc. Add a title, key and approximate scale.

Title

A3ai

A3aii

A3aiii

Key

Skill Level 1

Basic	
Weak	
NR	

Skill Level 1

Basic	
Weak	
NR	

Skill Level 1

Basic	
Weak	
NR	

A3b	<p>For <u>ONE</u> of the natural features shown in your map for A3a, explain how the interacting natural processes have affected its distribution in the area. Support your explanation with detailed case study evidence.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="background-color: #cccccc;">Skill Level 2</th> </tr> <tr> <td style="width: 80%;">Proficient</td> <td style="width: 20%;"></td> </tr> <tr> <td>Basic</td> <td></td> </tr> <tr> <td>Weak</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	Skill Level 2		Proficient		Basic		Weak		NR	
Skill Level 2												
Proficient												
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A4a	<p>Describe <u>ONE</u> way in which human actions have modified <u>ONE</u> natural process in your chosen geographic environment. Refer to specific case study evidence.</p> <p>The natural process: _____</p> <p>Description of how human actions have modified this natural process:</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="2" style="background-color: #cccccc;">Skill Level 1</th> </tr> <tr> <td style="width: 80%;">Basic</td> <td style="width: 20%;"></td> </tr> <tr> <td>Weak</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	Skill Level 1		Basic		Weak		NR	
Skill Level 1										
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Weak										
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SECTION B: Cultural Processes

Demonstrate understanding of a cultural process operating within geographic environments at the local, national or global level

During your Form Seven Certificate course, you have studied a cultural process using illustrative examples from two settings: one from a Pacific Island nation, the other from the rest of the world (overseas).

In the frames below, name the cultural process that you have studied, the Pacific Island nation setting, and the rest of the world (overseas) setting.

Cultural Process studied

--

Name of the Pacific Island nation setting

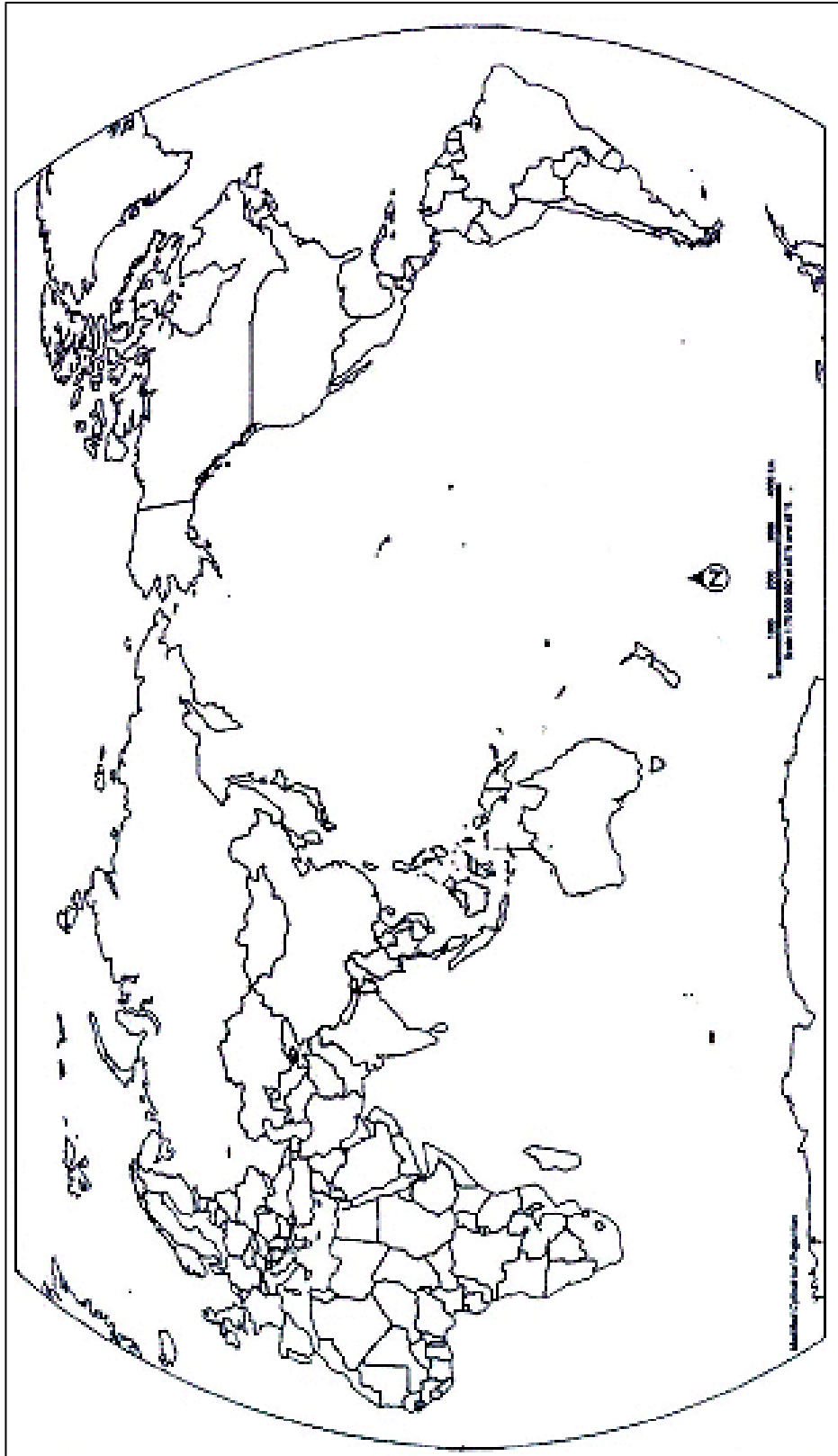
--

Name of the rest of the world (overseas) setting - for example, New Zealand, Australia, China, Brazil, Kenya, UK.

--

B1a

On the map below, **locate** and **name** your Pacific island nation setting and your overseas setting.



B1ai

B1aai

Skill Level 1

Basic	
Weak	
NR	

Skill Level 1

Basic	
Weak	
NR	

B2	<p>For your Pacific island nation setting, name and describe any <u>TWO</u> elements of your chosen cultural process (e.g. natural, cultural, economic, political). Support your description with case study evidence.</p>											
B2ai	<p>Element 1 _____</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;">Skill Level 1</th> </tr> <tr> <td style="width: 80%;">Basic</td> <td style="width: 20%;"></td> </tr> <tr> <td>Weak</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	Skill Level 1		Basic		Weak		NR			
Skill Level 1												
Basic												
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B2aii	<p>Element 2 _____</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;">Skill Level 1</th> </tr> <tr> <td style="width: 80%;">Basic</td> <td style="width: 20%;"></td> </tr> <tr> <td>Weak</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	Skill Level 1		Basic		Weak		NR			
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B3	<p>Explain how your chosen cultural process operates in your chosen overseas setting. You can explain the sequence of events that happen <u>and/or</u> the rate and scale at which the cultural process happens. Provide case study evidence.</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</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;">Skill Level 2</th> </tr> <tr> <td style="width: 80%;">Proficient</td> <td style="width: 20%;"></td> </tr> <tr> <td>Basic</td> <td></td> </tr> <tr> <td>Weak</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	Skill Level 2		Proficient		Basic		Weak		NR	
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Proficient												
Basic												
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B4a

Draw a **sketch map** to show how your chosen cultural process varies within different parts of your **overseas setting**, showing how the process is more concentrated or developed in some places than in others. Add a title, key and approximate scale to your map.

Title:

B4ai

B4aii

B4aiii

Key

Skill Level 1

Basic	
Weak	
NR	

Skill Level 1

Basic	
Weak	
NR	

Skill Level 1

Basic	
Weak	
NR	

SECTION C: Geographic Skills, Concepts and Ideas

Complete all tasks in this section. These tasks are based on the information provided in the separate Resource Booklet (No.106/2) to test your ability to apply geographical skills, concepts and ideas.

The tasks in this Section have been designed so that you can analyse the resources provided and gather information on the issue of **Floods and Climate Change**

Task 1: Application of geographic concepts and ideas: Introduction

Read the text and study the map and photograph of the Nadi River catchment area in Fiji. Use **Resource 1 on pages 2 and 3** to answer questions C1a, C1b and C1c.

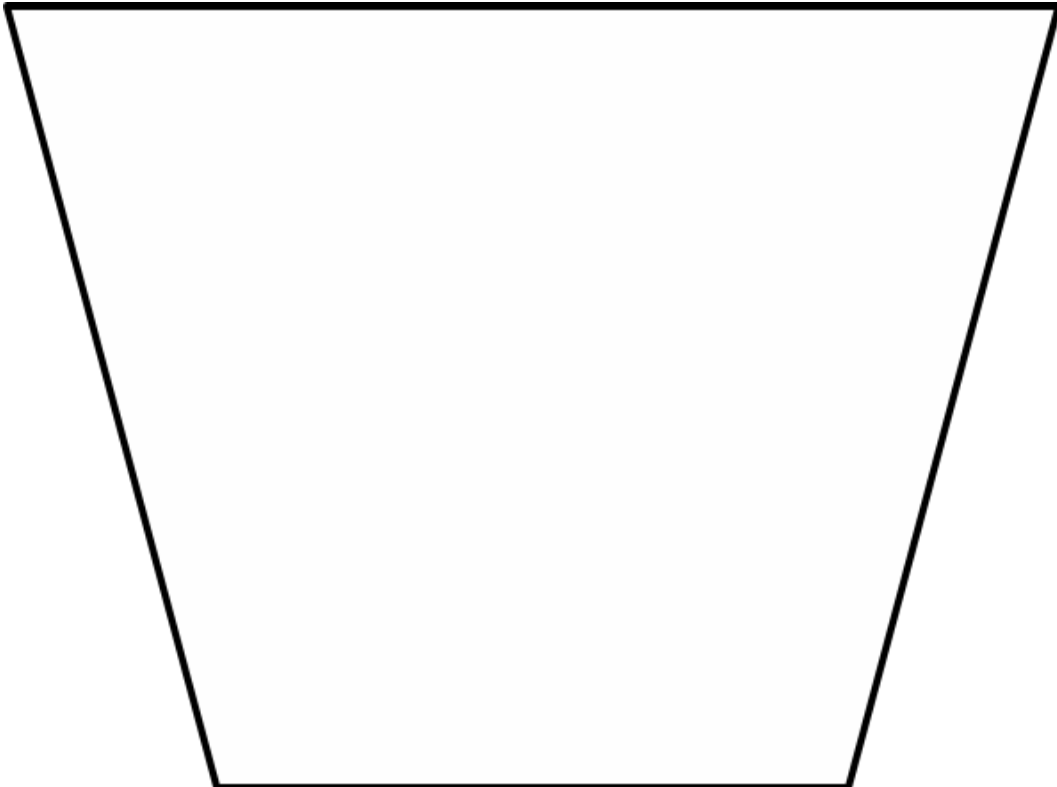
Assessor's use only

C1a	<p>A region is a spatial unit defined by selected phenomena. Give <u>ONE</u> reason to explain why the Nadi River catchment area can be considered as a region.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<table border="1"> <thead> <tr> <th colspan="2">Skill Level 1</th> </tr> </thead> <tbody> <tr> <td>Basic</td> <td></td> </tr> <tr> <td>Weak</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </tbody> </table>	Skill Level 1		Basic		Weak		NR	
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C1b	<p>Use text on page 2 and the Sketch map of the catchment area of the Nadi River (Fig. 2 on page 2) to describe how the location of Nadi Town makes it very vulnerable to flooding.</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<table border="1"> <thead> <tr> <th colspan="2">Skill Level 1</th> </tr> </thead> <tbody> <tr> <td>Basic</td> <td></td> </tr> <tr> <td>Weak</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </tbody> </table>	Skill Level 1		Basic		Weak		NR	
Skill Level 1										
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C1c	<p>Suggest <u>ONE</u> cause of flooding that is indicated in the text on page 3 and shown in the Oblique aerial photograph of part of the Nadi River catchment area (Fig. 3 on page 3).</p> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>	<table border="1"> <thead> <tr> <th colspan="2">Skill Level 1</th> </tr> </thead> <tbody> <tr> <td>Basic</td> <td></td> </tr> <tr> <td>Weak</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </tbody> </table>	Skill Level 1		Basic		Weak		NR	
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NR										

Task 2: Interpretation of a topographic map and aerial photograph

Study **Resources 2 and 3** on **pages 4 and 5**, which are the **Topographic map extract of Nadi Town** (Fig. 5) and the **Oblique aerial photograph of part of Nadi Town** (Fig. 6). Then answer questions C2a and C2b

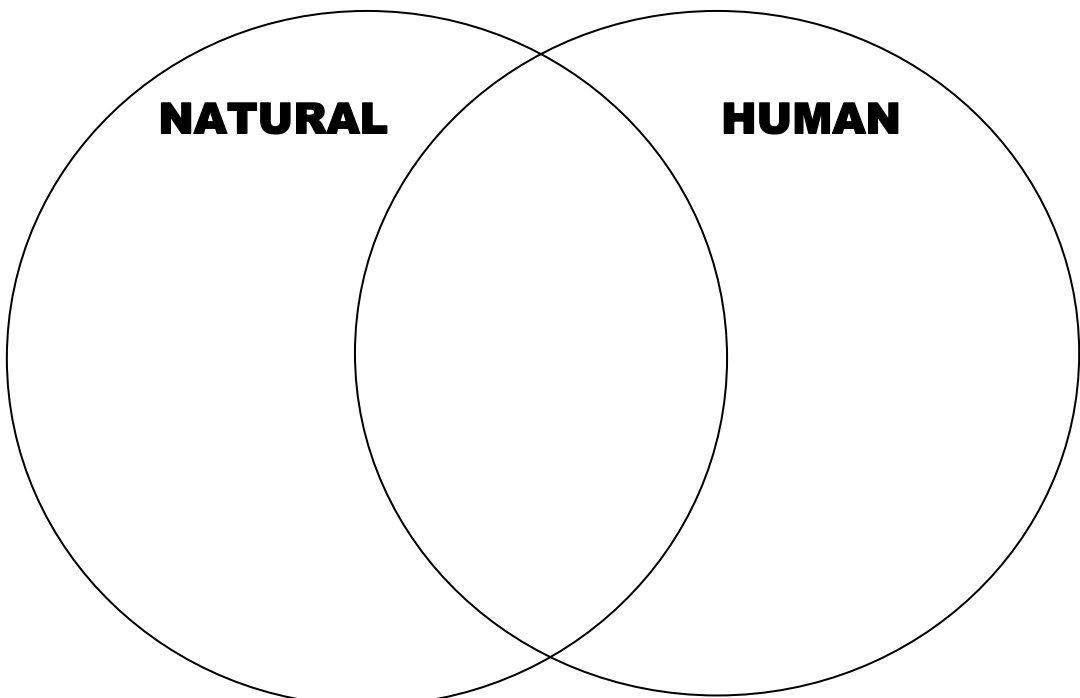
Assessor's use only

<p>C2a</p>	<p>State the feature found at this six-figure grid reference on the Topographic map extract of Nadi Town (Fig. 5):</p> <p style="text-align: center;">593 115</p> <hr/> <p>What is the straight line distance between the bridge over the Nadi River at 586111 and the bridge over the Nadi River at 579098 on the Topographic map extract of Nadi Town (Fig. 5)? Give your answer to the nearest whole kilometre.</p> <p style="text-align: right;">_____ km</p>	<table border="1"> <tr> <th colspan="2">Skill Level 1</th> </tr> <tr> <td>Basic</td> <td></td> </tr> <tr> <td>Weak</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	Skill Level 1		Basic		Weak		NR			
Skill Level 1												
Basic												
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NR												
<p>C2b</p>	<p>The bridge on the extreme right of the Oblique aerial photograph of part of Nadi Town (Fig. 6) is the one at 579098 on the Topographic map extract of Nadi Town (Fig. 5). In the frame below, draw a sketch of the area indicated in the Oblique aerial photograph of part of Nadi Town (Fig. 6) to show and label the following <u>FOUR</u> features: (i) Nadi River; (ii) Malakua River; (iii) Nadi Town; (iv) Suva-Nadi Highway - Nadi Back Road.</p> <p>Use the topographic map to help you.</p> <div style="text-align: center;">  </div>	<table border="1"> <tr> <th colspan="2">Skill Level 2</th> </tr> <tr> <td>Proficient</td> <td></td> </tr> <tr> <td>Basic</td> <td></td> </tr> <tr> <td>Weak</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	Skill Level 2		Proficient		Basic		Weak		NR	
Skill Level 2												
Proficient												
Basic												
Weak												
NR												

Task 3: Identification of problems and construction of a diagram

Study **Resource 4, Why is Nadi vulnerable to flooding** (Fig. 7) on **page 6**, which suggests possible causes of the regular floods in Nadi Town. Then answer questions C3a and C3b.

Assessor's use only

C3a	<p>Read through causes A to L. Decide which of the causes are purely natural, which of them are directly due to human activity in the Nadi River catchment area, and which of them are caused by a combination of both natural and human-made factors. Then write the code letters A to L in the appropriate place in the Venn diagram below:</p> <div style="text-align: center; margin: 20px 0;">  </div>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr style="background-color: #cccccc;"> <th colspan="2">Skill Level 2</th> </tr> <tr> <td style="width: 80%;">Proficient</td> <td style="width: 20%;"></td> </tr> <tr> <td>Basic</td> <td></td> </tr> <tr> <td>Weak</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	Skill Level 2		Proficient		Basic		Weak		NR	
Skill Level 2												
Proficient												
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NR												
C3b	<p>Use the information from the completed Venn diagram in C3a to make a generalisation about your findings on the causes of regular floods in Nadi.</p> <hr style="border: 0.5px solid black; margin-bottom: 5px;"/> <hr style="border: 0.5px solid black; margin-bottom: 5px;"/> <hr style="border: 0.5px solid black; margin-bottom: 5px;"/> <hr style="border: 0.5px solid black; margin-bottom: 5px;"/> <hr style="border: 0.5px solid black; margin-bottom: 5px;"/>	<table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <tr style="background-color: #cccccc;"> <th colspan="2">Skill Level 1</th> </tr> <tr> <td style="width: 80%;">Basic</td> <td style="width: 20%;"></td> </tr> <tr> <td>Weak</td> <td></td> </tr> <tr> <td>NR</td> <td></td> </tr> </table>	Skill Level 1		Basic		Weak		NR			
Skill Level 1												
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Weak												
NR												

Task 4: Interpretation of a graph and a flow chart

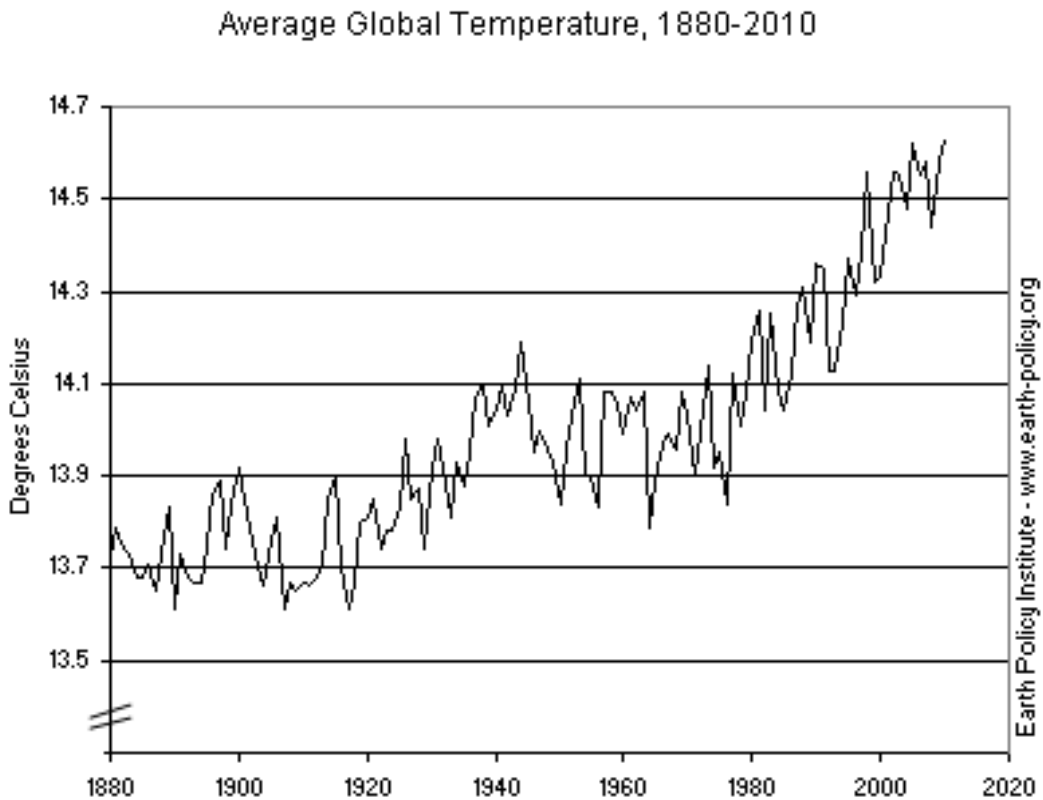
Refer to **Resource 5, Climate change and its impacts**, on **page 7**. Use the text and Figs 8 and 9 to answer questions C4a and C4b.

Assessor's use only

C4a Below is a copy of the graph **Average Global Temperature, 1880-2010** (Fig. 8) on page 7. On this graph:

C4ai Sketch the **general trend line** to show temperature change from 1880 to 2010.

C4aii Continue the existing line on the graph to indicate the expected average global temperature change between 2010 and 2020.



Skill Level 1	
Basic	
Weak	
NR	

Skill Level 1	
Basic	
Weak	
NR	

C4b Use the flow chart, **Some impacts of climate change on the physical environment of the Pacific Islands** (Fig. 9), on page 7 to **explain** how increasing sea surface temperatures are likely to cause an increase in river flooding.

Skill Level 1	
Basic	
Weak	
NR	

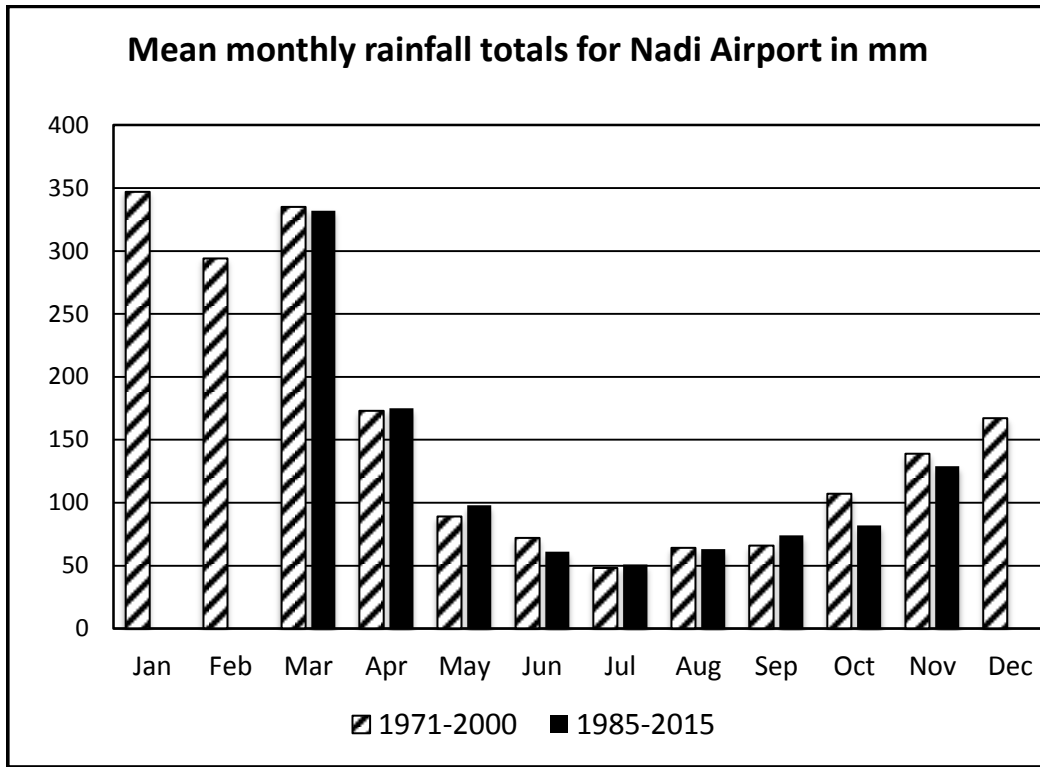
Task 5: Graph construction and interpretation of a weather map

Refer to **Resource 6** on **page 8**, which provides **Mean monthly rainfall totals (mm) for Nadi Airport for 1971-2000 and 1985-2015** (Fig. 10) and a map of Fiji showing **Percentage of normal rainfall received in April 2016** (Fig. 11). Then answer questions C5a and C5b below.

Assessor's use only

C5ai

Use the table **Mean monthly rainfall totals (mm) for Nadi Airport for 1971-2000 and 1985-2015** (Fig. 10) to complete the graph of monthly rainfall totals below. Draw the bars for January, February and December for the period 1985-2015.



C5aii

Does the rainfall data for Nadi Airport for the two time periods (Fig. 10) provide any evidence of climate change? Justify your answer.

C5b

Refer to the **mean monthly rainfall total** for Nadi for April during the period 1985-2015 (as shown in the table in Fig. 10) and the **percentage** of normal rainfall that Nadi received in April 2016 (as indicated in the map in Fig. 11). Then calculate the exact amount of rainfall received in Nadi in April 2016.

_____ mm

Skill Level 1	
Basic	
Weak	
NR	

Skill Level 1	
Basic	
Weak	
NR	

Skill Level 1	
Basic	
Weak	
NR	

Task 6: Interpretation of photographs

Refer to **Resource 7** on **page 9**, which provides information on the **Impacts of flooding in the Nadi River catchment area**. Then answer question C6a.

Assessor's use only

C6a	Use the two photographs (Figs 12 and 13) and your own knowledge to describe <u>TWO</u> impacts of flooding on community life. i. _____ _____ _____ ii. _____ _____ _____		
		Skill Level 1	
		Basic	
		Weak	
		NR	

Task 7: Analysis of a cyclone tracking map and information

Use the information on cyclones given in **Resource 8** on **page 10** to answer questions C7a and C7b.

Assessor's use only

C7a	Refer to the Tracking map of Cyclone Winston (Fig. 14) to answer the following <u>TWO</u> questions: (i) At what time and on which day was Winston at its closest point to Nadi? _____ (ii) For how many days was Winston classified as a category 5 cyclone? _____		
		Skill Level 1	
		Basic	
		Weak	
		NR	
C7b	Use the map (Fig. 14) <u>and/or</u> the photograph (Fig. 15) to suggest <u>ONE</u> reason why villages on Koro island suffered some of the worst destruction caused by Cyclone Winston. _____ _____ _____ _____		
		Skill Level 1	
		Basic	
		Weak	
		NR	

C7c

From the information on tropical cyclones and climate change provided at the bottom of page 10, how can we expect the weather patterns associated with tropical cyclones to change in the future? Give THREE predictions.

1. _____

2. _____

3. _____

Skill Level 1

Basic

Weak

NR

