

91243



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2

SUPERVISOR'S USE ONLY

Level 2 Geography, 2016

91243 Apply geography concepts and skills to demonstrate understanding of a given environment

2.00 p.m. Wednesday 16 November 2016
Credits: Four

Achievement	Achievement with Merit	Achievement with Excellence
Apply geography concepts and skills to demonstrate understanding of a given environment.	Apply geography concepts and skills with precision to demonstrate in-depth understanding of a given environment.	Apply geography concepts and skills with precision to demonstrate comprehensive understanding of a given environment.

Check that the National Student Number (NSN) on your admission slip is the same as the number at the top of this page.

You should attempt ALL parts of the question in this booklet.

Make sure that Resource Booklet 91243R is included in your pack.

If you need more room for any answer, use the extra space provided at the back of this booklet.

Check that this booklet has pages 2–10 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.

High
Merit

TOTAL

6

ASSESSOR'S USE ONLY

INSTRUCTIONS

Refer to the resource booklet before answering the question in this booklet about the sustainability of development in South Tarawa, Kiribati.

Parts (a) to (c) and the related resources should enable you to gain an understanding of the environment of South Tarawa, Kiribati, so that you can explain how economic development has brought unpredictable or undesirable changes, and justify whether or not future development and population growth are sustainable, in part (d).

Space is provided on page 6 to help you plan your answer to (d).

QUESTION: SUSTAINABILITY OF DEVELOPMENT IN SOUTH TARAWA

(a) The South Tarawa environment

Refer to **Resources A–E** on pages 4 and 5 of the resource booklet, when answering (a).

(i) Identify the five natural features 1 to 5 identified in **Resource C** on page 4.

(1): Deep ocean

(2): reef edge

(3): reef

(4): sand cay

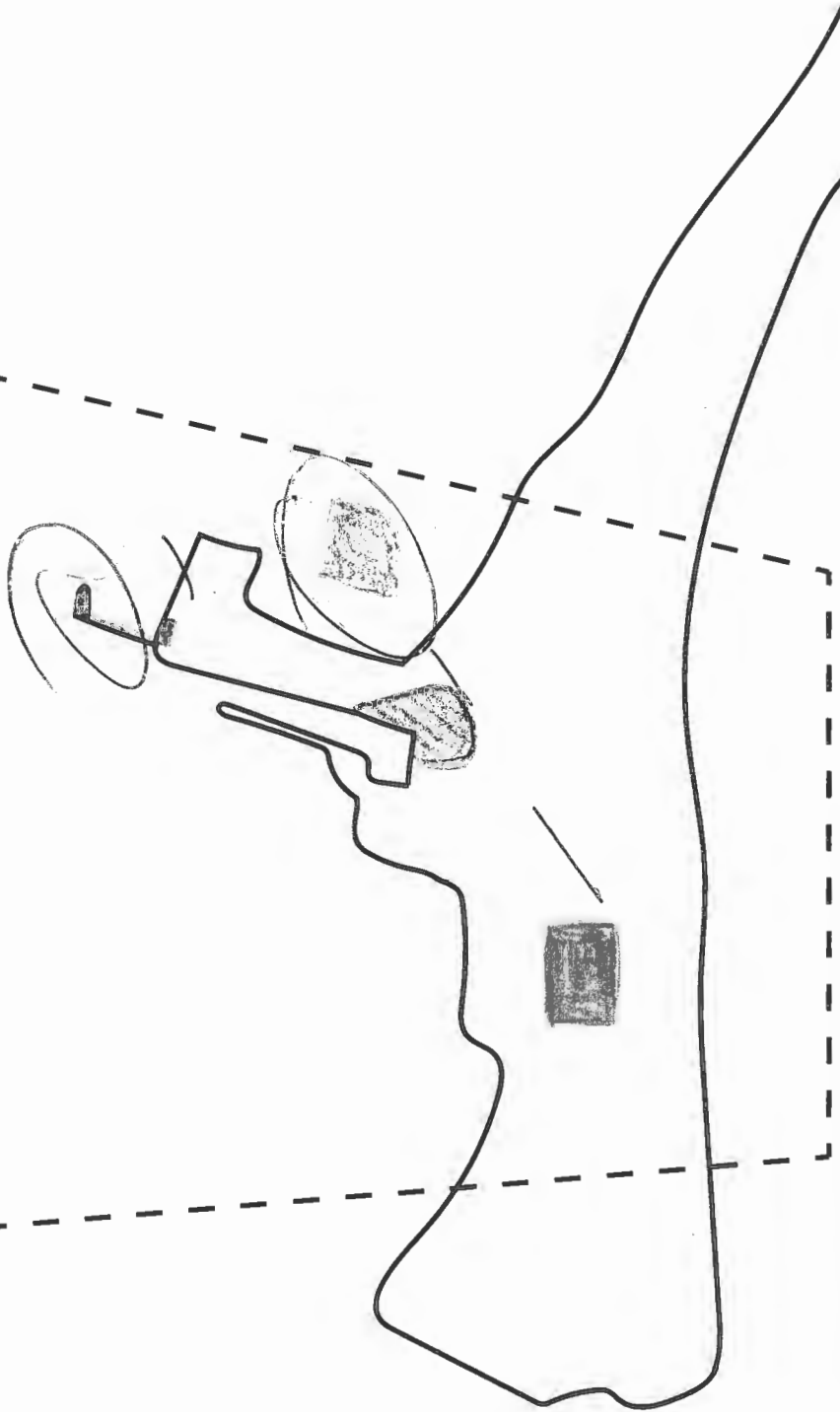
(5): lagoon

(ii) On the précis map on the following page, locate and label the following cultural features:

- the fish factory
- the sports field and stadium
- the reclamation area to the eastern side of the port
- the commercial area
- the new wharf (jetty).

Précis map of key cultural features of Betio Island, South Tarawa

Note: Area covered by oblique photograph in Resource E



Key

	Fish factory
	Sports field and stadium
	Reclamation area to the eastern side of the port
	Commercial area
	New wharf (jetty)

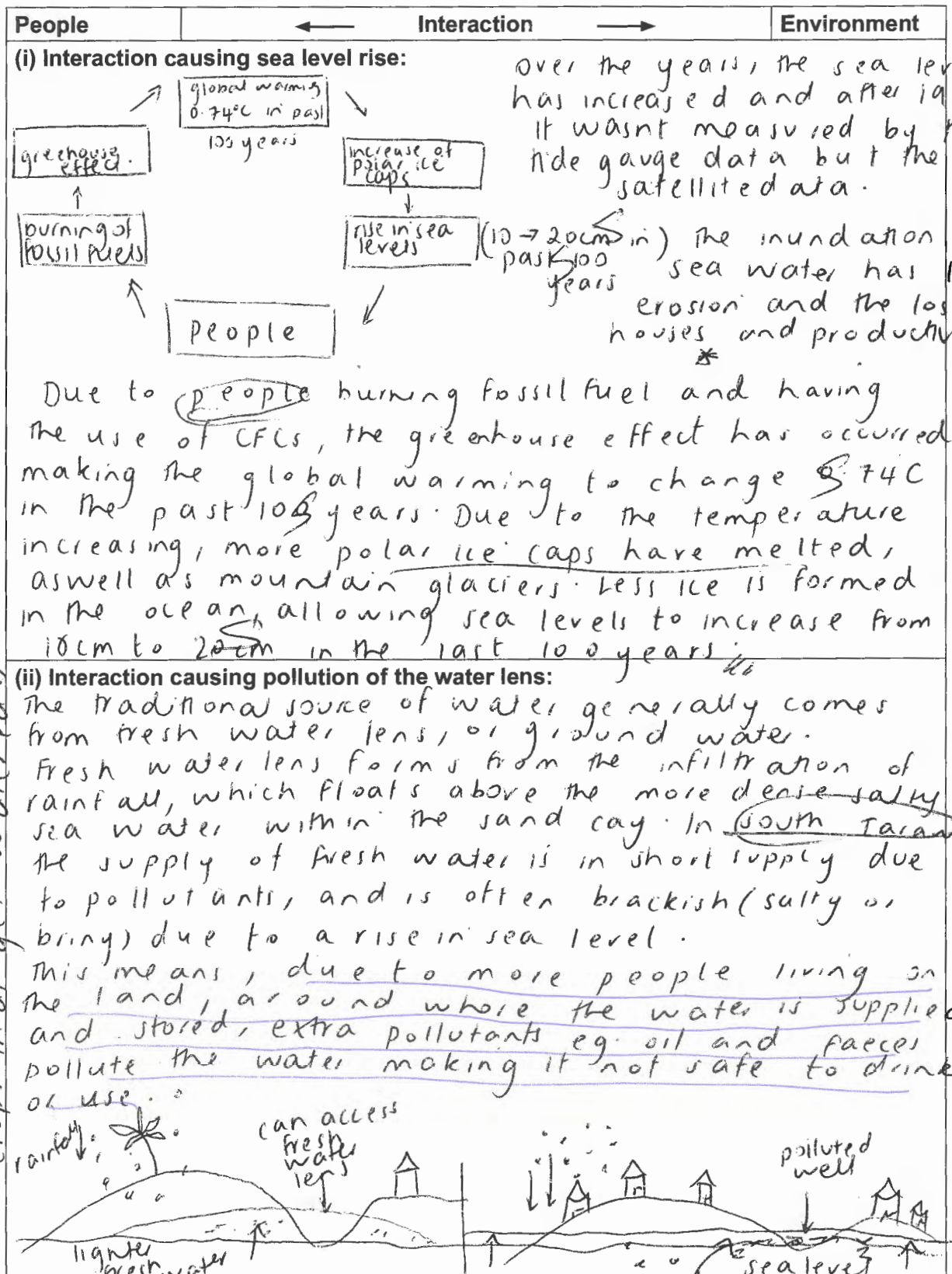
(b) Interaction between people and the environment in South Tarawa

ASSESS USE C

Refer to Resources F and G on pages 6 and 7 of the resource booklet, when answering (b).

Draw annotated diagrams OR write paragraphs to explain how interaction between people and the environment on a global and local scale has created environmental problems for the people of South Tarawa by causing:

- (i) sea level rise
- (ii) pollution of the water lens.



over the years, the sea level has increased and after 1990 it wasn't measured by the tide gauge data but the satellite data.

(10-20cm in) the inundation of sea water has led to erosion and the loss of houses and productive

People can get very sick or even die drinking the contaminated water, the water also affects the environment as it destroys crops that get water destroyed.

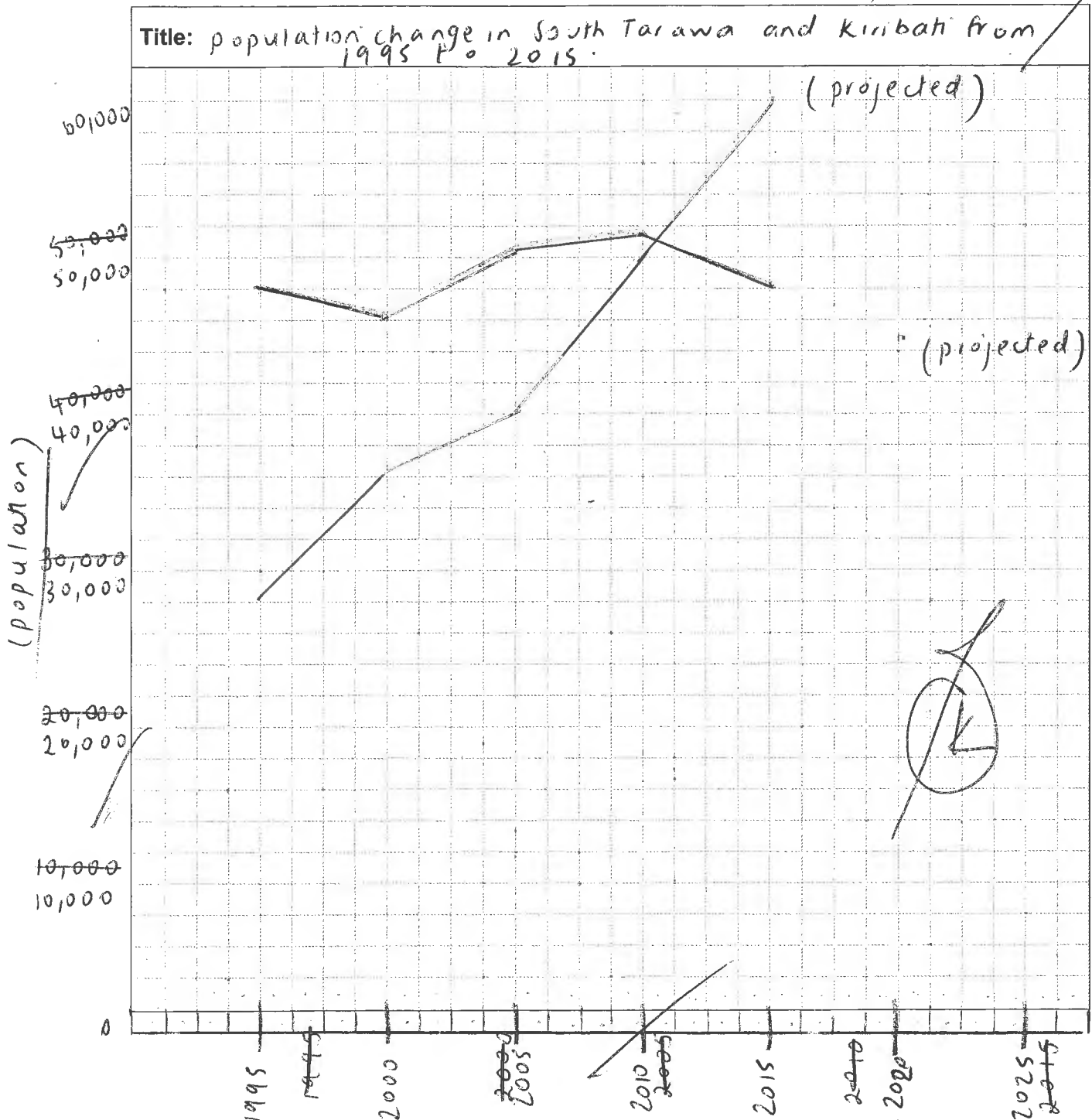
* sea levels rising has destroyed many trees

Tharinas land making it hor

(c) Population change in South Tarawa

Refer to Resource H on page 8 of the resource booklet, when answering (c).

- (i) Draw a multiline graph to show the population growth from 1995 to 2015, AND the projected population trend to 2025, for BOTH South Tarawa and the rest of Kiribati:



- (ii) State your projected population for South Tarawa for 2025. (year)

roughly 80,000

(d) **Economic development and sustainability in South Tarawa**

ASSESSOR'S
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Explain how economic development has brought unpredictable or undesirable changes to South Tarawa, AND justify whether or not future development and population growth on South Tarawa are sustainable.

In your answer, you should refer to:

- the geographic concepts of change and sustainability on page 2 of the resource booklet
- **Resource I** on pages 8 and 9, and other resources (as appropriate)
- specific information from your answers in (a) to (d) relating to the South Tarawa environment.

PLANNING (OPTIONAL)

Economic development has brought unpredictable or undesirable changes to South Tarawa as the deep-sea port at Betio, and the International airport at Bonriki at the eastern end, have caused South Tarawa to become the centre of the country's economical development. The country's parliament, public service, foreign embassies, and other services (including the major hospital) are also located on South Tarawa, and have created employment, 27% of the adult population is now working in cash employment. Many people have moved from the outlying islands to South Tarawa due to economic development, better employment and a 'perceived' increase in living standards eg. health and education. 70% of South Tarawa's population were born on other islands. Since 1985, the population has nearly tripled to 60,000 in 2015, and its population density is 3,200 people per km². An increase in population would also mean that more pollutant such as oil, chemicals and faeces would occur, making the water to end up being completely contaminated that it would no longer be safe or desirable to live on the island. South Tarawa has an annual growth rate of 4.1%. ~~And in the past~~ since 2005, every 5 years the population has increased by roughly 10,000 people. Some key ideas facing the nation would be providing enough food,

water and adequate sanitation. Due to the high population density, South Tarawa has had contamination occurring from houses, pigs being owned by too many families, and a lot of sanitation practices are needed. Due to high density housing and consequent contamination of water supplies 1,118 cases of children reporting acute diarrhoea and vomiting has occurred. Due to high sea levels, and shortage of land, subsistence agriculture is not possible.

65% of adults in South Tarawa are looking for jobs and are unemployed, and this percentage is going to keep increasing as the years go by and more people migrate to the island. With an increase in wealth, and insufficient free land for agriculture purposes, South Tarawa has become heavily dependent on expensive imported foods. This increase in the use of imported foods and consumer goods has resulted in an increase in waste. Due to the direction it is going in, South Tarawa would not be able to afford to provide appropriately for a larger population growth, and the development would not increase ^{be} unustainable due to the lack of land, lack of fresh water and lack of employment.

91243

High Merit exemplar for Geography 91243 2016		Total score	6
Q	Grade score	Annotation	
	M6	<p>This script meets the standard required for Merit as required by the Achievement Standard as:</p> <ul style="list-style-type: none"> - when applying skills, geographic conventions and presentation of information are to a high level of accuracy in both the map and graph, and - a detailed understanding of the geographic concepts of interaction, change, and sustainability are demonstrated, although these lack comprehensive understanding and insight as required by the Achievement Standard - and outlined in the assessment schedule - for Excellence. <p><i>Specific detail from the Assessment Schedule supporting this:</i></p> <p>The map in part (a) (ii) uses appropriate geographic conventions to show the location and size of the cultural features of Betio Island, with a “high level of accuracy” as required by the Achievement Standard, for the sports field, commercial area, and fish factory (although the reclamation area and new wharf are not plotted).</p> <p>The graph in part (c) uses geographic conventions required of a multiline graph (title, labelled axis, regular spacing of scale on the axis, etc), and shows the relative growth of South Tarawa and the Rest of Kiribati plotted with a high level of accuracy. The population of South Tarawa is projected with a high level of accuracy also, to be 80 000 in 2025.</p> <p>A detailed understanding of the concept of interaction is shown in part (b). The explanation establishes firstly that people have affected the environment by causing polar ice caps and sea level rise; and secondly, how people have affected the environment by polluting the water lens, which in turn, has an environmental effect on people resulting in sickness. The response is supported by a range of specific information.</p> <p>A detailed understanding of the concept of change is shown in explaining the unpredictable and undesirable changes resulting from economic development, and a range of supporting information is used.</p> <p>The changes are related to the concept of sustainability; however, neither a detailed understanding of sustainability is demonstrated, nor is there insight related to sustainability.</p>	