TONGA FORM SIX CERTIFICATE

2017

GEOGRAPHY

QUESTION AND ANSWER BOOKLET

Time allowed: 3 Hours

INSTRUCTIONS:

1. Write your Student Enrolment Number (SEN) on the top right-hand corner of this page.
2. Additional sheets of paper can be obtained from your supervisor if necessary. Write your Student Enrolment Number (SEN) on each additional sheet, number the questions clearly and insert them in the appropriate part of your booklet.

<table>
<thead>
<tr>
<th>Sections/Topics</th>
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<tr>
<td>Section A: Living with Natural Hazards</td>
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<tr>
<td>Section B: The use and management of Water Resources</td>
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<td>Section C: Consequences of Population Growth</td>
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<td>Section D: The challenges of Urbanization</td>
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<td>Section E: Geographic Perspectives on Tourism</td>
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3. Follow the instructions and answer all questions in the spaces provided in this booklet.
4. Check that this booklet contains pages 2-27 in the correct order and that page 25-27 has been deliberately left blank.

YOU MUST HAND IN THIS BOOKLET TO THE SUPERVISOR BEFORE YOU LEAVE THE EXAMINATION ROOM.
SECTION A: LIVING WITH NATURAL HAZARDS

Spend about 40 minutes answering this section.

Question 1: DISTRIBUTION OF NATURAL HAZARDS.

Study Figure 1 below and use information from it to answer the questions that follow.

Figure 1: Tropical storms strengths and tracks.

a. State the region that experiences the strongest storms.

b. Describe the distribution of the strength of tropical storms shown on the map.

c. Give ONE (1) reason why tropical storms eventually lose their energy.
Question 2:  PROCESSES AND FACTORS OF NATURAL HAZARDS

Figure 2 shows information about an earthquake in Japan, 2008. Study Figure 2 and answer the questions that follow.

**Figure 2: Earthquake in Japan, 2008**

The earthquake was centered in a mountainous region in the countryside on Japan’s main island, Honshu.

As a result of the earthquake 12 people died and 358 were injured, many by broken glass. Large numbers of people are in temporary shelters because their homes have been destroyed. Many roads were badly damaged.

The earthquake caused landslides and aftershocks caused cracks in a dam and people had to be evacuated.

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**a.** Name the device that measures the intensity of the earthquake.

**b.** Compare and contrast the effects of the earthquake on Kitakami City and Soma City.
c. List **TWO** (2) immediate effects of the earthquake on the epicenter.

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Question 3:  EFFECTS OF VOLCANOES AND PLANNED RESPONSES.

Using the resource given in Figure 3 below and with reference to named examples, write paragraphs to:

Figure 3

a. Explain the effects of volcanic eruptions on the environment.

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b. **Discuss planned responses to volcanic eruptions and their implications.**
SECTION B: THE USE AND MANAGEMENT OF WATER RESOURCES
Spend about 36 minutes answering this section.

Question 1: NATURE AND DISTRIBUTION OF WATER RESOURCES
Study Figure 4 and answer the questions that follow.

Figure 4: Global Distribution of Water

![Water Distribution Diagram](image)

a. State the percentage of usable freshwater.

b. Give **ONE** (1) reason why freshwater is a limited resource.

c. Identify the water distribution pattern shown in Figure 4.
d. Name **ONE** (1) example of the water reservoirs shown in **Figure 4.**

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e. On the outline given below, draw a simple diagram to show the processes of the hydrological cycle. Apply all drawing conventions.
Question 2: USES OF WATER

Study Figure 5 and answer the questions that follow.

**Figure 5: Global Water Use**

![Figure 5: Global Water Use](image)

a. Name the **THREE** (3) major uses of water shown in the graph above.
   i. ____________________________________________________________
   ii. __________________________________________________________
   iii. ___________________________________________________________

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b. Describe the differences in the amount of water used in developing and developed countries.

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Question 3:   **PLANNING AND MANAGEMENT OF WATER RESOURCES.**

Using the resource given in **Figure 6** below and with reference to named examples, write a paragraph to:

**Figure 6**

Discuss the strategies for managing water in areas of water scarcity.

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**SECTION C: CONSEQUENCES OF POPULATION GROWTH**

Spend about 28 minutes answering this section.

**Question 1: DEMOGRAPHIC TRANSITION MODEL**

Study Figure 7 and answer the questions that follow.

**Figure 7: Demographic Transition Model**

![Demographic Transition Model Graph](image)

a. On the graph above, locate and name an area of natural increase.

b. Provide a reason for the falling death rate in **Stage 2 and 3**.

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c. On the box below, draw and label a population pyramid for a country in **Stage 4**.
You must include the following categories for the age-groups: children, youth, working group and old age.
Question 2: DISTRIBUTION OF THE WORLD’S POPULATION

Use Figure 8 below to answer the questions that follow.

Figure 8: Distribution of world’s population in 1950, 2000 and 2050 (estimated)

a. Name the continent with the greatest percentage of the world’s population from 1950 – 2050.

b. Describe the pattern of the population growth of the world’s continents shown above.
Question 3:  EFFECTS OF POPULATION GROWTH

Use Figure 9 and with reference to named examples, write a paragraph to:

**Figure 9**

![Diagram of population growth factors](image)

a. explain the natural factors that influence population distribution and density.

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SECTION D: THE CHALLENGES OF URBANISATION
(Spend about 36 minutes answering this section.)

Question 1: NATURE AND DISTRIBUTION OF URBAN AREAS.
Study Figure 10 and answer the questions that follow.

Figure 10: Location of the World’s top 10 megacities

a. Name the two megacities labeled A and B on Figure 10 above on the space provided below.

A: _____________________________________
B: _____________________________________

b. Give the definition of a megacity.

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c. Describe the location of the major megacities of the world as shown in Figure 10.

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Question 2: PROCESSES OF URBAN GROWTH

Study Figure 11 and answer the questions that follow.

Figure 11: BENEFITS OF URBAN GROWTH

Benefits created by urban growth

It is estimated that 80% of economic growth in developing countries occurs in urban areas. Cities create a wide range of economic and social benefits that are not always available in rural areas. This includes social services such as education and healthcare and access to basic facilities like clean water. Urban areas are often transfer hubs and consequently attract commercial development. Many cities in developing countries are financial centres and contain a large number of international businesses. Because of the growing population and increasing wealth, there is employment available in both the formal and informal sectors. These cities are often referred to as ‘engines of growth’ because of the way they create socio-economics benefits and are important to the economic development of the whole country.

a. Suggest why economic factors are more important than physical factors when explaining migration to cities in developing countries.

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b. According to Figure 11, provide TWO (2) factors that encourage people to move from rural areas to the urban areas.

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Question 3: PLANNED RESPONSES TO URBAN GROWTH
Study Figure 12 and answer the questions that follow.

Figure 12: Urban Growth Model

a. Name the type of settlement shown in Photo A in Figure 12.
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b. Explain the development of the settlement in Photo A in Figure 12 in the Concentric Model above.
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Question 4: STRATEGIES FOR PLANNING AND MANAGEMENT OF URBAN GROWTH

Use Figure 13 and with reference to named examples, write a paragraph to:

**Figure 13:**

explain the planned responses to urban growth and their implications.

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SECTION E: GEOGRAPHIC PERSPECTIVES ON TOURISM
(Spend about 40 minutes answering this section.)

Question 1: NATURE OF GLOBAL TOURISM

Study Figure 14 and answer the questions that follow.

**Figure 14: Nature of Global Tourism**

Every year, 1.2 billion people travel abroad. These, and the billions more who travel domestically, create a sector which contributes 10% of global GDP to the world’s economies and 1 in 11 jobs. Tourism has become a passport to prosperity, a driver of peace, and a transformative force for improving millions of lives.

Taleb Rifai - UNWTO Secretary General.

**SUPPORTING THE 2017 INTERNATIONAL YEAR OF SUSTAINABLE TOURISM FOR DEVELOPMENT**

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a. Define sustainable tourism.

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b. Explain the economic benefits of tourism mentioned in Figure 14.

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c. Name **ONE** (1) of the principal countries of origin of international tourists.

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Question 2: EFFECTS OF TOURISM DEVELOPMENT

Study Figure 15 and answer the questions that follow.

Figure 15: Effects of Tourism Development

a. Provide ONE (1) change to the infrastructure and accommodation in the island after development.

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<tr>
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b. Describe the environmental impacts that were brought over by the development of the island.

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Question 3: TOURISM STRATEGIES AND MANAGEMENT.
Use Figure 16 and with reference to named examples, write paragraphs to:

Figure 16:

- **Food Service Management**
- **Event Management**
- **Accommodation & Hospitality Management**
- **Tour & Travel Management**

a. **Explain the different strategies for managing tourism.**

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b. Evaluate the effectiveness of the different strategies for managing tourism.

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