

**GEOGRAPHY – Year 11 ATAR Unit 1 Examination**

**Semester 1, 2018**

**Question/Answer Booklet**

My Target:

\_\_\_\_\_\_\_\_\_ / 100

**Student Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Student Number:**

(if required)

**Teacher Name:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Time allowed for this paper**

Reading time before commencing work: ten minutes

Working time: three hours

**Materials required/recommended for this paper**

***To be provided by your teacher/supervisor***

This Question/Answer Booklet

Broadsheet

Multiple-choice Answer Sheet

Examination writing booklet/paper

***To be provided by candidate***

Standard items: pens (blue/black preferred), eraser, correction fluid/tape, highlighters, ruler, pencils (including coloured), sharpener,

Special items: approved drawing and measuring instruments (i.e. dividers, drawing compass, string, protractor), non-programmable calculators approved for use in the ATAR examinations.

**Important note to candidates**

No other items may be taken into the examination room. It is **your** responsibility to ensure that you do not have any unauthorised materials. If you have any unauthorised material with you, hand it to your teacher/supervisor **before** reading any further.

**Structure of this paper**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Section** | **Number of questions available** | **Number of questions to be answered** | **Suggested working time**  **(minutes)** | **Marks available** | **Percentage**  **of**  **examination** |
| Section One:  Multiple-choice | 20 | 20 | 30 | 20 | 20 |
| Section Two:  Short response | 10 | 10 | 70 | 40 | 40 |
| Section Three Extended response  Part A: Natural Hazards | 2 | 1 | 40 | 20 | 20 |
| Section Three  Extended response  Part B: Ecological Hazards | 2 | 1 | 40 | 20 | 20 |
| **Total marks** | | | | | **100** |

**Instructions to candidates**

1. The rules for the conduct of this examination are as detailed by your teacher/supervisor.Sitting this examination implies that you agree to abide by these rules.

2. Answer the questions according to the following instructions:

Section One: Answer **all** questions on the separate Multiple-choice Answer Sheet provided. For each question, shade the box to indicate your answer. Use only a blue or black pen to shade the boxes. If you make a mistake, place a cross through that square, then shade your new answer. Do not erase or use correction fluid/tape. Marks will not be deducted for incorrect answers. No marks will be given if more than one answer is completed for any question.

Section Two: Answer all questions in the spaces provided in this Question/Answer booklet.

Section Three:

Part A: Answer one question from a choice of two.

Part B: Answer one question from a choice of two.

Write your answers in this Question/Answer Booklet or the writing booklet/paper provided by your teacher/supervisor.

3. Wherever possible, you are encouraged to use relevant, fully-labelled sketch maps, diagrams and actual examples to illustrate, and support your answers.

4. You must be careful to confine your responses to the specific questions asked and to follow any instructions that are specific to a particular question.

5. Additional working space pages for planning or continuing an answer are provided at the end of this Question/Answer booklet or provided by your teacher/supervisor. If you use these pages, indicate at the original answer, the page number it is planned/continued on and write the question number being planned/continued on the additional working space page.

6. You are encouraged to refer to the sources on the Broadsheet to support your answer for any question.

1. **Section One: Multiple-choice 20% [20 marks]**

This section has **twenty (20)** questions. Answer **all** questions on the separate Multiple-choice Answer Sheet provided. For each question, shade the box to indicate your answer. Use only a blue or black pen to shade the boxes. If you make a mistake, place a cross through the square, then shade your new answer. Do not erase or use correction fluid/tape. Marks will not be deducted for incorrect answers. No marks will be given if more than one answer is completed for any question.

Suggested working time for this section is 30 minutes.

**Note: GR = Grid Reference, AR = Area Reference.**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Refer to **Source 1**: Rotorua topographic map 2016 to answer Questions 1 to 9.

1. The map scale for the Rotorua topographic map as a statement in words is
2. one centimetre represents 50 metres.
3. one centimetre represents 500 metres.
4. one centimetre represents 50 kilometres.
5. one centimetre represents 500 kilometres.
6. The contour interval for the topographic map is
7. 20 metres.
8. 30 metres.
9. 40 metres.
10. 50 metres.
11. The highest elevation on the map area as indicated by a spot height or trig station is
12. 532 metres.
13. 572 metres.
14. 757 metres.
15. 758 metres.
16. The approximate area of Lake Rotorua shown on the topographic map is closest to

(a) 20 square kilometres

(b) 30 square kilometres

(c) 40 square kilometres

(d) 50 square kilometres

1. The latitude and longitude of Motutara Point at GR 862747 is closest to
2. 38° 08’ S 176° 16’ E.
3. 38° 12’ S 176° 86’ E.
4. 176° 86’ S 38° 12’ E.
5. 176° 16’ S 38° 08’ E.
6. Which of the following is closest to the direction and compass bearing of the peak of *Mokoai Island* (GR 882801) from *Motuwhetero Island* in *Lake Okataina* (GR 965728)?
7. SE and 95 degrees
8. SE and 150 degrees
9. NW and 275 degrees
10. NW and 310 degrees
11. The overall steepness and shape of the slope between the contour line at GR 805760 and the contour line at GR 812760 could be described as
12. flat and uniform.
13. moderate and concave.
14. steep and concave.
15. steep and uniform.
16. The linear feature extending from GR 955714 to the edge of the map at GR 000786 is a
17. foot track.
18. narrow road.
19. power line.
20. vehicle track.
21. The time taken for a vehicle, travelling at an average speed of 95 kilometres per hour, to travel along State Highway 30, from the road intersection at GR 917802 to its intersection with Tarawera Road at GR 872727, is nearest to
22. 3 minutes.
23. 6 minutes.
24. 9 minutes.
25. 12 minutes.

Refer to **Source 1**: Rotorua topographic map 2016 and **Source 2**: Rotorua satellite image 2018 to answer Questions 10 to 12.

1. Which one of the following statements is correct?
2. The scale of the topographic map is larger than that of the satellite image.
3. The scale of the topographic map is twice as large as that of the satellite image.
4. The scales of the topographic map and the satellite image are the same.
5. The scale of the topographic map is smaller than that of the satellite image.
6. The natural feature indicated by **A** on **Source 2** is
7. a marine farm.
8. sand and mud.
9. shoals or reef.
10. water.
11. The cultural feature located at **B** on **Source 2** is a
12. lake.
13. sewage treatment plant.
14. swimming pool.
15. water treatment plant.

Refer to **Source 1**:Rotorua topographic map 2016 and **Source 3**: Rotorua oblique photograph to answer Question 13.

1. The oblique aerial photograph in **Source 3** was taken from a location at approximately GR 824768. Based on evidence from the topographic map and the oblique photograph, which direction was the photographer facing when taking the photograph?
2. To the South East
3. To the South West
4. To the North East
5. To the North West
6. A hazard is best defined as
7. natural events which may grow to be very strong and powerful.
8. natural or human induced events that severely impact people, property and the environment.
9. naturally occurring events that cause widespread injury and death.
10. natural or human induced events that have the potential to negatively impact people, property and the environment.

Refer to **Source 4**: World map of natural hazards to answer Question 15.

1. The region of the world most at risk from the natural hazards shown in Source 4 would be
2. East Asia, including Japan and the Philippines.
3. Central Asia.
4. The west coast of South America.
5. Western Australia’s north west coastal region.

Refer to **Source 6**: Natural hazards and economic impacts 1995 - 2015 to answer

Question 16.

1. According to Source 6, the category of hazards that was responsible for the greatest economic impact between 1995 and 2015 was
2. Atmospheric hazards.
3. Biological hazards.
4. Ecological hazards.
5. Geomorphic hazards.
6. The term temporal distribution refers to
7. the distribution of geographical phenomena over distance.
8. the distribution of geographical phenomena overseas.
9. the distribution of geographical phenomena over space.
10. the distribution of geographical phenomena over time.
11. In relation to hazards, adaptation refers to the
12. ability to prevent or moderate the impact of a hazard.
13. adjustments made to better cope with the impacts of a hazard.
14. impacts of a hazard.
15. methods used to avoid a hazard.
16. In relation to hazards, magnitude refers to
17. how long the hazard event lasts.
18. how often a hazard event occurs.
19. the likelihood of a hazard event occurring.
20. the size of the hazard event.
21. Which of the following are all forms of remote sensing technologies?
22. environmental surveys, online surveys, questionnaires
23. ground photographs, aerial photography, digital photography
24. satellite imagery, radar imagery, aerial photography
25. weather instruments, satellite photography, weather balloons

**END OF SECTION ONE**

**Section Two: Short response 40% [40 marks]**

This section has **ten (10)** questions. Answer **all** questions. Write your answers in the space provided.

Supplementary pages for the use of planning/continuing your answer to a question have

been provided at the end of this Question/Answer Booklet or the lined paper provided by

your teacher/supervisor. If you use these pages to continue an answer, indicate at the

original answer where the answer is continued, i.e. give the page number.

Suggested working time for this section is 70 minutes.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Refer to **Source 1**: Rotorua topographic map 2016 to answer Questions 21 to 23.

**Question 21 (4 marks)**

Describe **two (2)** characteristics of the site and **two (2)** characteristics of the situation of the settlements at Mãtaikõtare/Te Ngae (ARs 9180 and AR 9280).

**Site characteristic 1:**

|  |
| --- |
|  |
|  |

**Site characteristic 2:**

|  |
| --- |
|  |
|  |

**Situation characteristic 1:**

|  |
| --- |
|  |
|  |

**Situation characteristic 2:**

|  |
| --- |
|  |
|  |

**Question 22 (2 marks)**

Describe the relationship between urban settlements and topography on the Rotorua topographic map 2016.

|  |
| --- |
|  |
|  |
|  |
|  |
|  |

**Question 23 (4 marks)**

Identify and give the location of **two (2)** pieces of evidence in **Source 1** that indicate the area covered by the map is an active geothermal region.

**Evidence 1:**

|  |
| --- |
|  |
|  |
|  |
|  |
|  |

**Evidence 2:**

|  |
| --- |
|  |
|  |
|  |
|  |
|  |

Refer to **Source 1**: Rotorua topographic map 2016 and **Source 2**: Rotorua satellite image 2018 to answer Question 24.

**Question 24 (3 marks)**

Identify the direction the town of Rotorua is most likely to grow in the future. Describe evidence from **Source 1** and **Source 2** to support your answer.

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

**Question 25 (3 marks)**

For a natural hazard you have studied. Give **one** example of a stakeholder and describe their viewpoint on adaptation to future occurrences of the hazard.

Natural hazard stakeholder:

Viewpoint:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Refer to **Source 5**: Factors affecting vulnerability to hazards to answer Questions 26 and 27.

**Question 26 (4 marks)**

Describe how any **two (2)** factors in the green column, ‘Vulnerability Underlying Causes’, could increase the level of risk associated with a ‘Hazard Trigger Event’ listed in the fourth column.

**Factor 1**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |

**Factor 2:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |

**Question 27 (4 marks)**

Describe how any **two (2)** factors in the blue column: ‘Vulnerability Unsafe Conditions’ could increase the level of risk associated with a ‘Hazard Trigger Event’ listed in the fourth column.

**Factor 1:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |

**Factor 2:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |

Refer to **Source 4**: World map of natural hazards and **Source 6**:Natural hazards and economic impacts 1995 - 2015 to answer Question 28.

**Question 28 (6 marks)**

Despite the Americas having a lower population than Asia, the economic impact by region of natural hazards from 1995 to 2015 has been higher. Identify and describe **two (2)** likely reasons why this has been the case.

|  |
| --- |
| **Reason 1:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
| **Reason 2**: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Refer to **Source 7**: Disaster rescue and response in developing and developed nationsto answer Question 29.

**Question 29 (6 marks)**

1. Identify the differences that can be observed in the initial response and rescue efforts shown in Source 7a and Source 7b.

(2 marks)

|  |
| --- |
|  |
|  |
|  |
|  |
|  |

1. Explain how the differences observed in hazard management and response techniques could influence the level of vulnerability of people living in developing nations and developed nations.

(4 marks)

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

**Question 30 (4 marks)**

Describe how the ‘proximity’ to a hazard event can increase the vulnerability of a community/region for both an ecological **and** a natural hazard.

**Ecological hazard:**

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
| **Natural hazard:** |
|  |
|  |
|  |
|  |
|  |

**END OF SECTION TWO**

**THIS PAGE HAS BEEN LEFT BLANK INTENTIONALLY**

**Section Three: Extended response 40% [40 marks]**

This section contains **four (4)** questions. You must answer **two (2)** questions; **one (1)** from **Part A** and **one (1)** from **Part B**. Write your answers in this answer booklet or lined paper provided by your teacher/supervisor.

Supplementary pages for the use of planning/continuing your answer to a question have

been provided at the end of this Question/Answer Booklet or the lined paper provided by

your teacher/supervisor. If you use these pages to continue an answer, indicate at the

original answer where the answer is continued, i.e. give the page number.

Suggested working time for this section is 80 minutes

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PART A ― Natural Hazards**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Answer either Question 31 or Question 32**

**Question 31 (20 marks)**

1. With reference to a natural hazard that you have studied, describe the risks the natural hazard may present in relation to property, infrastructure and loss of life.

(8 marks)

1. Assess the means by which the activities of people can intensify the impacts of a natural hazard you have studied.

(12 marks)

**OR**

**Question 32 (20 marks)**

(a) Describe the magnitude, duration, frequency and scale of spatial impact of a natural hazard you have studied.

(8 marks)

(b)Account for the variations in environmental and social impacts of a natural hazard between a developed country such as Australia and in a less developed country or region.

(12 marks)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PART B ― Ecological Hazards**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Answer either Question 33 or Question 34**

**Question 33 (20 marks)**

1. Describe the nature and causes of an ecological hazard you have studied.

(8 marks)

1. Evaluate the physical and human factors that help explain why some places and people are more vulnerable than others to a type of ecological hazard you have studied.

(12 marks)

**OR**

**Question 34 (20 marks)**

1. Describe how **one (1)** biophysical process and **one (1)** human process can be used to explain the spatial and temporal distribution of an ecological hazard you have studied.

(8 marks)

1. Evaluate the sustainability of risk management policies, procedures and practices designed to reduce the impacts of an ecological hazard you have studied.

(12 marks)

**END OF SECTION THREE**

**END OF PAPER**

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |

Question number:

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |
|  |