

**GEOGRAPHICAL ASSOCIATION OF WESTERN AUSTRALIA** [Inc.]

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

**Semester 1, 2020**

**Question/Answer Booklet**

**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/writing paper, if supplied by your teacher/supervisor.

***To be provided by candidate***

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

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

***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 material. 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 A: 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. Write your answers in this Question/Answer Booklet or on the lined paper provided by your teacher/supervisor, preferably using a blue/black pen. Do not use erasable or gel pens.

3. 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. Do not use erasable or gel pens. 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.

Section Two: Answer all questions. Write your answers in this Question/Answer Booklet.

Section Three: Consists of two parts, each with two questions. You must answer one question from each part. Tick the box next to each question you are answering. Write your answers in this Question/Answer Booklet or on the lined paper provided by your teacher/supervisor.

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

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

6. 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.

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

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

This section has **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: 30 minutes.

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Refer to **Source 1:** Mooloolaba topographic map 1994 to answer Questions 1 to 10.

1. The contour interval used on this map is
2. 5 metres.
3. 10 metres.
4. 20 metres.
5. 50 metres.
6. The linear feature extending from GR 071453 to GR 117454 is a
7. high voltage transmission line.
8. pipeline.
9. proposed railway.
10. state border.
11. The map scale of the Mooloolaba topographic map 1994 as a statement in words is
12. one centimetre represents 2**.**5 metres.
13. one centimetre represents 25 metres.
14. one centimetre represents 250 metres.
15. one centimetre represents 25 000 metres.
16. The approximate area of the the section of Mooloolaba River National Park, north of the Sunshine Motorway, located in the south west quadrant of the map, is closest to
17. 1 square kilometre.
18. 1**.**5 square kilometres.
19. 2**.**5 square kilometres.
20. 24 square kilometres.
21. The latitude and longitude of the Police Station at GR 118487 is closest to
22. 26° 41’ S 153° 07’ E.
23. 26° 49’ S 153° 12’ E.
24. 153° 12’ S 26° 12’ E.
25. 153° 49’ S 26° 49’ E.

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1. The direction to the Cotton Tree Post Office at GR 100518 from the Waterfall at GR 048492 is
2. ENE.
3. NE.
4. SW.
5. WSW.
6. Which one of the following would be closest to the compass bearing on a direct line from the information centre at GR 119489 to the information centre at GR 102512?
7. 135 degrees
8. 145 degrees
9. 315 degrees
10. 325 degrees
11. The landform located between GR 062498 and GR 067498 is a
12. escarpment.
13. ridge.
14. saddle.
15. spur.
16. If you were travelling along King Street from the information centre at GR 050484 to the intersection with Dixon Road at GR 072485, you would be travelling
17. along a ridge with lower land to the north and the south.
18. through a valley with higher land to the north and the south.
19. uniformly downhill for the length of your journey.
20. uniformly uphill for the length of your journey.
21. The average gradient of the land between GR 064482 and GR 067482 is closest to
22. 1:20.
23. 1:12.
24. 1:6.
25. 1:2.

Refer to **Source 1:** Mooloolaba topographic map 1994 and **Source 2:** Mooloolaba satellite image 2020 to answer Questions 11 - 12.

1. Which one of the following statements is correct?

(a) The scale of the satellite image is larger than that of the topographic map.

(b) The scale of the topographic map is smaller than that of the satellite image.

(c) The scales of the topographic map and the satellite image are the same.

(d) The scale of the topographic map is larger than that of the satellite image.

1. The cultural features at locations A and B on Source 2 are the
2. Headland Golf Course and Mountain Creek State H.S.
3. Headland Golf Course and TAFE Queensland Mooloolaba.
4. Mountain Creek State H.S. and TAFE Queensland Mooloolaba.
5. Mountain Creek State H.S. and the Waste Landfill Centre.

Refer to **Source 1:** Mooloolaba topographic map 1994 and **Source 3:** Mooloolaba oblique aerial photograph 2020 to answer Question 13.

1. The **Source 3** photograph was taken at approximately GR 120491. Based on evidence from the sources, which direction was the photographer facing when taking the photograph?
2. NNW
3. SSE
4. SSW
5. WNW
6. Atmospheric, hydrological and geomorphic processes and events in our environment that have the potential to affect people adversely, are known as
7. disasters.
8. ecological hazards.
9. extreme weather.
10. natural hazards.

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1. The term spatial distribution refers to the arrangement of geographical phenomena or activities
2. as they are built by people.
3. as they occur in nature.
4. over the earth’s surface.
5. throughout months and years.
6. In relation to hazards, frequency refers to
7. how close to a hazard you are.
8. how often a hazard occurs.
9. susceptibility to harm or change.
10. the strength and size of a hazard.

Refer to **Source 4:** Global reported natural hazards by type, 1970 - 2018 to answer questions 17 and 18.

1. Which one of the following statements is correctly indicated by the data in **Source 4**?
2. All hazard types are increasing in the number reported each year.
3. All years have had more earthquakes reported than floods reported.
4. Approximately 130 extreme weather events were reported in 1990.
5. Approximately 190 extreme weather events were reported in 1990.

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1. In each of the following years: 2000, 2002, 2005, 2006 and 2007, over 400 natural hazard events were reported. Which one of the following hazard types was the most commonly reported for each of these years?
2. Extreme Weather
3. Floods
4. Mass Movement
5. Volcanic Activity

Refer to **Source 5:** The decade of the last recorded case of paralytic polio, by country to answer Questions 19 and 20. (Paralytic polio is a virus that weakens muscle tissue and muscle function.)

1. The decade Australia recorded its last case of paralytic polio was after the decade for
2. Canada and before the decade for New Zealand.
3. Canada and after the decade for Papua New Guinea.
4. New Zealand and before the decade for Papua New Guinea.
5. New Zealand and before the decade for Canada.
6. Paralytic polio is best categorised as
7. a plant and animal invasion.
8. a toxin based respiratory ailment.
9. an animal transmitted disease.
10. an infectious disease.

**END OF SECTION ONE**

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

This section has **10** questions. Answer **all** questions. Write your answers in the spaces provided.

Supplementary pages for planning/continuing your answers to questions are 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: 70 minutes.

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Refer to **Source 1:** Mooloolaba topographic map 1994 to answer Questions 21 – 23.

**Question 21 (4 marks)**

Describe **two (2)** characteristics of the site and **two (2)** characteristics of the situation of Headland Golf Course located in grid squares AR 0947 and AR 0948.

Site characteristic 1:

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Site characteristic 2:

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Situation characteristic 1:

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Situation characteristic 2:

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**Question 22 (2 marks)**

If you were travelling along Route 70, the Sunshine Motorway, at 70 km/h between the intersection at GR 049451 and the intersection at GR110474, calculate how long your journey would take? Show both your method of calculation and your answer.

Calculation: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Answer: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Question 23 (4 marks)**

Describe the nature of the hydrological features, and the spatial relationship between the hydrological features and settlement, in the two areas listed below:

1. The area bordered by eastings 05 and 07 and northings 47 and 49

Nature of: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Relationship with settlement: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. The area bordered by eastings 10 and 12 and northings 46 and 49.

Nature of: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Relationship with settlement: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Refer to **Source 1:** Mooloolaba topographic map 1994 and **Source 2:** Mooloolaba satellite image 2020 to answer Question 24.

**Question 24 (3 marks)**

Locate and describe **one (1)** example of a land use change that can be observed in **Source 2** when compared to **Source 1**.

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Refer to **Source 1:** Mooloolaba topographic map 1994 and **Source 3:** Mooloolaba oblique aerial photograph 2020 to answer Question 25.

**Question 25 (4 marks)**

Locate and describe one piece of evidence from **Source 1** and one piece of evidence from **Source 3**, which support the statement that the Mooloolaba region relies heavily on income from tourism and recreation activities.

Source 1:

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Source 3:

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**Question 26 (4 marks)**

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Define the following terms and give an example of each.

1. Geomorphic hazards: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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1. Water-borne diseases: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Refer to **Source 5:** The decade of the last recorded case of paralytic polio, by country to answer Question 27.

**Question 27 (3 marks)**

With specific reference to **Source 5**, describe both the spatial and temporal pattern of the last recorded cases of paralytic polio that can be observed.

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Refer to **Source 6:** Community risk from hazards to answer Question 28.

**Question 28 (6 marks)**

Explain how the characteristics of **one (1)** of the factors listed under *Hazards* and **one (1)** of the factors listed under *Community Assets* on **Source 6** may contribute to the level of *Risk* a community may experience due to a hazard.

Support your answer with examples.

Hazards factor:

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Community assets factor:

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Refer to **Source 7:** Disaster occurrences and impacts, by region, 2005 – 2018 to answer Question 29.

**Question 29 (6 marks)**

Referring to specific data and regions shown on **Source 7:**

1. Explain the patterns of the three disaster characteristics: *Occurrences*, *Deaths & missing*, and *Total economic loss*, for the Americas. (3 marks)

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(b) Explain the patterns of the three disaster characteristics: *Occurrences*, *Deaths & missing*, and *Total economic loss*, for Asia. (3 marks)

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**Question 30 (4 marks)**

Describe how spatial technologies may be used to study, monitor or respond to the occurrence of:

1. a natural hazard

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1. an ecological hazard

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**END OF SECTION TWO**

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

Section Three consists of **two** parts, Part A: Unit 1 Depth Study 1 and Part B: Unit 1 Depth Study 2.

Part A: Unit 1 Depth Study 1 consists of Questions 31 And 32 and Part B: Unit 1 Depth Study 2 consists of Questions 33 And 34.

Answer **one** question from Part A and **one** question from Part B.

Supplementary pages for planning/continuing your answers to questions are 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.

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**PART A: Unit 1 Natural Hazards 20% [20 marks]**

Choose **either** Question 31 or Question 32

Indicate the question you will answer by ticking the box next to the question. Write your answer on pages 17-21 (or on the lined paper provided by your teacher/supervisor). When you have completed Part A: Natural Hazards, turn to page 22.

Suggested working time: 40 minutes.

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**Question 31 (20 marks)**

1. Describe the spatial distribution of a natural hazard you have studied and how **one (1)** biophysical process and **one (1)** human process has influenced this distribution.

(8 marks)

1. Evaluate the environmental and economic impacts of a natural hazard you have studied in a developed country, such as Australia, and in a less developed country or region.

(12 marks)

**OR**

**Question 32 (20 marks)**

1. Describe the characteristics of a natural hazard you have studied by describing its typical magnitude, duration, frequency and probability.

(8 marks)

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

(12 marks)

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**PART B: Ecological Hazards 20% [20 marks]**

Choose **either** Question 33 or Question 34

Indicate the question you will answer by ticking the box next to the question. Write your answer on the pages provided (or on the lined paper provided by your teacher/supervisor).

Suggested working time: 40 minutes.

**Question 33 (20 marks)**

(a) Describe the spatial distribution and causes of an ecological hazard you have studied.

(8 marks)

(b) Evaluate the physical and human factors that explain why some places and people are more vulnerable than others to an ecological hazard you have studied.

(12 marks)

**OR**

**Question 34 (20 marks)**

1. Describe the spatial distribution of an ecological hazard you have studied and how **one (1)** biophysical process and **one (1)** human process has influenced this distribution.

(8 marks)

(b) Evaluate the extent to which human activities can intensify the impacts of an ecological hazard you have studied.

(12 marks)

**END OF QUESTIONS**

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