



Government of **Western Australia**
School Curriculum and Standards Authority



ATAR course examination, 2020

Question/Answer booklet

GEOGRAPHY

Place one of your candidate identification labels in this box.
Ensure the label is straight and within the lines of this box.

WA student number: In figures

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In words

Time allowed for this paper

Reading time before commencing work: ten minutes
Working time: three hours

Number of additional
answer booklets used
(if applicable):

Materials required/recommended for this paper

To be provided by the supervisor

This Question/Answer booklet
Broadsheet
Multiple-choice answer sheet

To be provided by the 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, string, protractor), up to three calculators, which do not have the capacity to create or store programmes or text, are permitted in this ATAR course 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 the supervisor **before** reading any further.

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Ref: 20-031



GEO

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	12	12	70	40	40
Section Three Extended response Part A: Unit 3	2	1	40	20	20
Part B: Unit 4	2	1	40	20	20
Total					100

Instructions to candidates

- The rules for the conduct of the Western Australian external examinations are detailed in the *Year 12 Information Handbook 2020: Part II Examinations*. Sitting this examination implies that you agree to abide by these rules.
- Write your answers in this Question/Answer booklet preferably using a blue/black pen. Do not use erasable or gel pens.
- 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 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. 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.
- Wherever possible, you are encouraged to use relevant, fully-labelled sketch maps, diagrams and actual examples to illustrate and support your answers.
- 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.
- Supplementary pages for planning/continuing your answers to questions are provided at the end of this Question/Answer booklet. 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.
- You are encouraged to refer to the sources on the Broadsheet to support your answer for any question. The Broadsheet is not to be handed in with your Question/Answer booklet.

See next page

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. Do not use erasable or gel pens. 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.

Suggested working time: 30 minutes.

Refer to **Source 1**: Ulverstone Tasmania topographic map 1986 to answer Questions 1 to 10.

1. The height at the top of Heazlewoods Hill at GR 311422 is closest to
 - (a) 75 metres.
 - (b) 80 metres.
 - (c) 85 metres.
 - (d) 90 metres.

2. Identify the cultural feature that is located along northing 430, between eastings 30 and 33.
 - (a) Buttons Creek
 - (b) oval
 - (c) school
 - (d) Ulverstone Station

3. The scale of the Ulverstone topographic map, as a written statement, is one centimetre represents
 - (a) 2.5 kilometres.
 - (b) 25 kilometres.
 - (c) 250 metres.
 - (d) 250 kilometres.

4. What is the compass bearing to be followed when travelling along Forth Road from the intersection of Bass Highway GR 349426 to the intersection of Turners Beach Road GR 355419?
 - (a) 40°
 - (b) 80°
 - (c) 140°
 - (d) 190°

5. The landform feature found at GR 338421 is a
 - (a) cliff.
 - (b) plain.
 - (c) ridge.
 - (d) saddle.

See next page

6. The straight line distance between Goat Island GR 276457 and Seagull Islet GR 297454 is closest to
- (a) 200 metres.
 - (b) 2 kilometres.
 - (c) 800 metres.
 - (d) 8 kilometres.
7. Which of the following **best** describes the site of Dial Street Reserve, located in AR 3043?
- (a) sited on flat land, on a coastal plain, adjacent to tidal flats
 - (b) sited on flat land, on a coastal plain, surrounded by medium forest
 - (c) sited one kilometre north-east of Nicholsons Point
 - (d) sited on undulating land, north-east of a caravan park, with a picnic area
8. Which of the following **best** describes the situation of the Gawler Post Office GR 295403?
- (a) situated on the east side of Preston Road, 25 kilometres west-south-west of Claytons Bay
 - (b) situated on undulating, cleared land east of Masons Creek
 - (c) situated four kilometres, north-north-west of West Ulverstone School, at latitude $41^{\circ} 09'S$, longitude $146^{\circ} 09'E$
 - (d) situated three kilometres south-south-west of Ulverstone Station, at latitude $41^{\circ} 11'S$ longitude $146^{\circ} 10'E$
9. The area of the property numbered 0817 located across AR 3440 and AR 3441 is closest to
- (a) 25 hectares.
 - (b) 40 hectares.
 - (c) 250 hectares.
 - (d) 400 hectares.
- Note: One hectare is 10 000 m².
10. A train travelling at an average speed of 30 km/h from the intersection of the railway line and Castra Road at GR 308434 and the intersection of the railway line and Maskells Road at GR 342434 would complete the journey in approximately
- (a) 3 minutes.
 - (b) 7 minutes.
 - (c) 14 minutes.
 - (d) 30 minutes.

Refer to **Source 1**: Ulverstone Tasmania topographic map 1986 and **Source 2**: Ulverstone aerial photograph 2019 to answer Questions 11 and 12.

11. Identify the natural feature located at the point marked A on **Source 2**.
- tidal flats
 - Dial Street Reserve
 - intermittent swamp
 - jetty
12. The scale of **Source 2** compared to that of **Source 1** is
- indefinable.
 - larger.
 - smaller.
 - the same.

Refer to **Source 1**: Ulverstone Tasmania topographic map 1986 and **Source 3**: Ulverstone oblique aerial photograph to answer Question 13.

13. What type of land use has replaced the sawmill at GR 299435?
- agricultural
 - plantation
 - recreational
 - residential
14. An environment is **best** described as
- a community of plants and animals and the flows of energy between them.
 - a community of life forms adapted to a large natural area.
 - the living and non-living elements of the earth's surface and atmosphere.
 - a set of naturally occurring interrelated parts, with inputs, throughputs and outputs.

Refer to **Source 4**: Factors influencing land cover change to answer Question 15.

15. According to **Source 4**, world population growth, growing affluence and advances in technology are best represented as
- causal factors.
 - indirect drivers.
 - direct pressures.
 - ecosystem services.
16. Which of the following are all impacts of land cover change on local and regional environments?
- changes to regional climates, urban heat islands and soil erosion and degradation
 - changes to the water cycle, unemployment, loss of habitat and biodiversity
 - changes to regional climates, soil erosion and degradation and unemployment
 - changes to demographics, loss of ecosystem services and urban heat islands

See next page

Refer to **Source 6**: Urban population versus GDP per capita, 2016 to answer Questions 17 and 18.

17. Which of the following countries has an urbanisation level above 80 per cent and a GDP per capita greater than \$10 000?
- (a) Ireland
 - (b) Japan
 - (c) Libya
 - (d) Sri Lanka
18. Which one of the following statements best describes a pattern demonstrated by **Source 6**?
- (a) Nations in Africa and South America typically have levels of urbanisation below 40 per cent and GDP per capita below \$10 000.
 - (b) Nations in Asia and North America typically have levels of urbanisation below 60 per cent and GDP per capita below \$10 000.
 - (c) Nations in Africa and Asia typically have levels of urbanisation above 40 per cent and GDP per capita above \$10 000.
 - (d) Nations in Europe and North America typically have levels of urbanisation above 60 per cent and GDP per capita above \$10 000.
19. Environmental factors that have contributed to the spatial distribution of urban and rural places in Australia include
- (a) employment, infrastructure, ports and transport facilities.
 - (b) location of and reason for first settlements, and establishment of capital cities.
 - (c) high desire for home ownership, low-density housing and private car ownership.
 - (d) patterns of reliable rainfall and water supply, fertile soils and moderate relief.
20. Inertia is **best** described as the process
- (a) whereby a land use remains in its original location even though the original reasons for locating there no longer apply.
 - (b) of increasing the density of land use within a developed area to reduce the rate of expansion in the urban rural fringe.
 - (c) of grouping similar functions and land uses together into distinct zones with similar characteristics.
 - (d) whereby land is redeveloped from areas of blight and deterioration into areas of medium to high density housing and land use.

End of Section One

See next page

Section Two: Short response**40% (40 Marks)**

This section has **12** 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. 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.

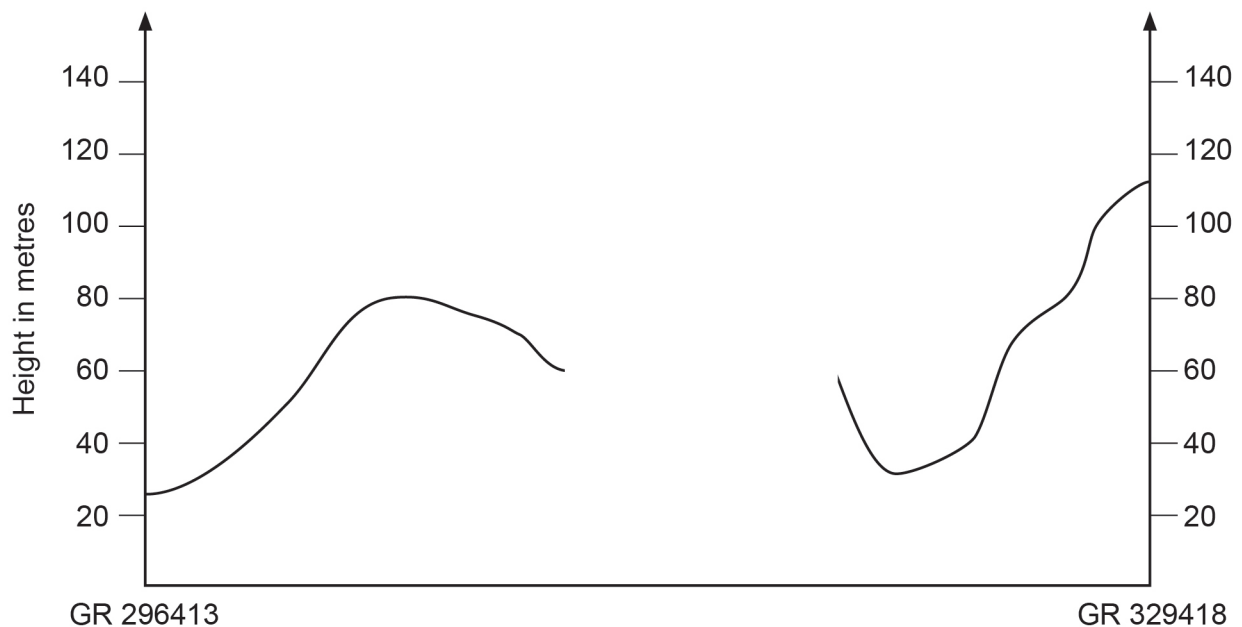
Suggested working time: 70 minutes.

Refer to **Source 1**: Ulverstone Tasmania topographic map 1986 to answer Questions 21 and 22.

Question 21**(5 marks)**

- (a) Complete the cross-section extending from GR 296413 to GR 329418. (2 marks)

Cross-section between GR 296413 and GR 329418



- (b) Annotate the following features on the cross-section above.

- area of intermittent swamp
- Castra Road
- water treatment plant

(3 marks)

See next page

Question 22

(2 marks)

Calculate the average gradient of the creek from its source at GR 271414 to where it meets the River Leven at GR 274426.

Show your method of calculation and your answer.

Refer to **Source 1**: Ulverstone Tasmania topographic map 1986 and **Source 2**: Ulverstone aerial photograph 2019 to answer Question 23.

Question 23

(4 marks)

Describe the land use changes that can be observed in AR 3243 and in AR 3542 between 1996 and 2019.

AR 3243

AR 3542

See next page

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Refer to **Source 1**: Ulverstone Tasmania topographic map 1986 and **Source 3**: Ulverstone oblique aerial photograph to answer Question 24.

Question 24

(2 marks)

State the area reference that point B is located in on **Source 3** and identify the reason for the lack of residential development at this location.

Area reference

Reason

Question 25

(3 marks)

Explain the concept of biodiversity loss.

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Refer to **Source 4**: Factors influencing land cover change to answer Question 26.

Question 26

(6 marks)

Explain how **one** indirect driver of land cover change and **one** direct pressure on land cover change have brought about loss of ecosystem services.

Indirect driver

Direct pressure

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Refer to **Source 5**: Land use patterns of Shanghai in 1995 and 2015 to answer Question 27.

Question 27

(2 marks)

Identify **two** land cover changes that can be observed to have occurred in Shanghai between 1995 and 2015.

Question 28

(3 marks)

Name **one** land management practice of Aboriginal and Torres Strait Islander Peoples and summarise its impact on land cover over time.

Question 29

(2 marks)

Define the process of urbanisation.

See next page

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Refer to **Source 6**: Urban population versus GDP per capita, 2016 to answer Question 30.

Question 30

(2 marks)

With specific reference to **Source 6**, identify the relationship between the level of urbanisation and the level of human wellbeing, as measured by GDP per capita. Provide an example to support your answer.

Refer to **Source 7**: The economic and environmental interdependence of urban and rural places to answer Question 31.

Question 31

(6 marks)

Choose **two** of the interconnections shown on **Source 7** and use these to demonstrate the interdependence of urban and rural places. Include specific examples to support your answer.

One

Two

Question 32

(3 marks)

Explain the process of agglomeration.

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End of Section Two

See next page

Section Three: Extended response**40% (40 Marks)**

Section Three consists of **two** parts, Part A: Unit 3 and Part B: Unit 4.

Part A: Unit 3 consists of Questions 33 and 34. Part B: Unit 4 consists of Questions 35 and 36. Answer **one** question from Part A: Unit 3 and **one** question from Part B: Unit 4.

Supplementary pages for planning/continuing your answers to questions are provided at the end of this Question/Answer booklet. 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: 80 minutes.

Part A: Unit 3**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 pages 15–19. When you have completed Part A: Unit 3, turn to page 20.

Suggested working time: 40 minutes.

Question 33**(20 marks)**

- (a) Describe **one** major type of evidence through geological time and **one** major type of evidence in recent human history for either climate change **or** loss of biodiversity. (8 marks)
- (b) Evaluate a program designed to address the impacts of land cover change, giving consideration to **two** of the following: (12 marks)
- environmental benefits and costs
 - economic benefits and costs
 - social benefits and costs.

or**Question 34****(20 marks)**

- (a) Describe **one** natural and **one** anthropogenic cause of either global climate change **or** loss of biodiversity. (8 marks)
- (b) Evaluate an approach to the management of land cover change, giving consideration to how it has the potential to achieve **two** of the following aspects of sustainability into the future: (12 marks)
- environmental
 - economic
 - social.

See next page

Question number: _____

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Question number: _____

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Part B: Unit 4

20% (20 Marks)

Choose **either** Question 35 **or** Question 36.

Indicate the question you will answer by ticking the box next to the question. Write your answer on the pages provided.

Suggested working time: 40 minutes.

Question 35**(20 marks)**

- (a) Describe the nature and causes of **one** significant challenge facing metropolitan Perth **or** a regional urban centre in Western Australia. (8 marks)
- (b) Select a significant challenge facing a megacity you have studied and explain **two** planning strategies adopted in the selected megacity to address this challenge. (12 marks)

or

Question 36**(20 marks)**

- (a) Describe the nature and causes of **one** significant challenge facing a megacity you have studied. (8 marks)
- (b) Select a significant challenge facing metropolitan Perth **or** a regional urban centre in Western Australia and explain the views and attitudes of **two** major stakeholder groups in relation to this challenge. (12 marks)

End of questions

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