



# **GEOGRAPHY**

## **ATAR course examination 2020**

### **Marking key**

Marking keys are an explicit statement about what the examining panel expect of candidates when they respond to particular examination items. They help ensure a consistent interpretation of the criteria that guide the awarding of marks.

## Section One: Multiple-choice

20% (20 Marks)

Question	Answer
1	c
2	b
3	c
4	c
5	d
6	b
7	a
8	d
9	a
10	b
11	a
12	c
13	d
14	c
15	a
16	a
17	b
18	d
19	d
20	a

Section Two: Short response

40% (40 Marks)

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

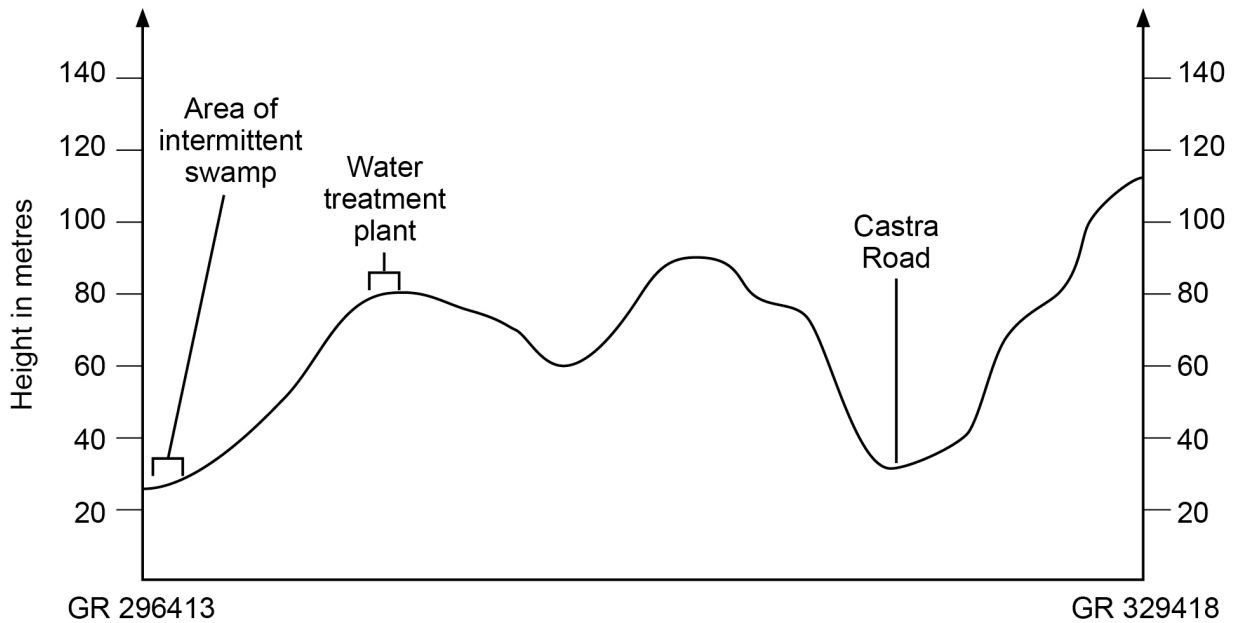
Question 21

(5 marks)

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

(2 marks)

**Cross-section between GR 296413 and GR 329418**



Description	Marks
Correctly completes the cross section to an accurate level in relation to variations in height, slope and relief of the land in the area indicated	2
Completes the cross section to a reasonably accurate level in relation to variation in height, slope and relief. May contain some small variations or errors	1
Bares no resemblance to the correct shapes and heights	0
<b>Total</b>	<b>2</b>
Note: Highest point should not exceed 100 m.	

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

(3 marks)

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

Description	Marks
Three features are correctly labelled to within 2 mm	3
Two features are correctly labelled to within 2 mm	2
One feature is correctly labelled to within 2 mm	1
<b>Total</b>	<b>3</b>

## 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.

Description	Marks										
Correctly shows <b>calculations</b> to determine the answer. (Answer may be correct or incorrect depending on whether they determined correct heights and distances – this mark is for correct and logical method of calculation demonstrated)	1										
Correct answer is provided due to correct determination of heights and distance	1										
<b>Total</b>	<b>2</b>										
<p>Marker information:</p> <p>Height at GR 271414 is 100 metres and at GR 274425 is 0 metres. Distance between the two points is 1250 metres (5 cm).</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: left;"><u>Rise</u></td> <td style="text-align: left;"><u>Difference in vertical height</u></td> <td style="text-align: center;"><math>\frac{100 \text{ m} - 0 \text{ m}}{1250 \text{ m}}</math></td> <td style="text-align: center;"><math>\frac{100}{1250 \text{ m}}</math></td> <td style="text-align: right;"><b>Gradient 1:12.5</b></td> </tr> <tr> <td style="text-align: left;">Run</td> <td style="text-align: left;">Distance between the two points</td> <td></td> <td></td> <td></td> </tr> </table> <p><b>Or</b></p> <p>Rise:Run = Difference in vertical height:distance between the two points            = 100 m – 0 m:1250 m            = 100:1250            = <b>1:12.5</b></p>		<u>Rise</u>	<u>Difference in vertical height</u>	$\frac{100 \text{ m} - 0 \text{ m}}{1250 \text{ m}}$	$\frac{100}{1250 \text{ m}}$	<b>Gradient 1:12.5</b>	Run	Distance between the two points			
<u>Rise</u>	<u>Difference in vertical height</u>	$\frac{100 \text{ m} - 0 \text{ m}}{1250 \text{ m}}$	$\frac{100}{1250 \text{ m}}$	<b>Gradient 1:12.5</b>							
Run	Distance between the two points										
<p>Note: Very astute candidates may measure distance as 4.9 cm so distance would be 1225 m, so answer would be 1:12.25.            Accept 4.8 – 5 cm (1200 m – 1250 m) for distance and therefore <b>1:12 to 1:12.5</b>.</p>											

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.

Description	Mark
AR 3243	
Correctly describes what the land use was in the area in 1986	2
Correctly describes what the land use is in the area in 2019	1
Only correctly describes what the land use is (2019), or was (1986)	1
<b>Subtotal</b>	<b>2</b>
AR 3542	
Correctly describes what the land use was in the area in 1986	2
Correctly describes what the land use is in the area in 2019	1
Only correctly describes what the land use is (2019), or was (1986)	1
<b>Subtotal</b>	<b>2</b>
<b>Total</b>	<b>4</b>
Answers could include:	
<p>AR 3243            1986 (Source 1) – western side of area, residential, school, swimming centre, sports ground. Eastern side a few scattered larger buildings and mostly cleared land.            2019 (Source 2) – very small expansion of residential on western side near creek. Eastern side many new larger buildings, probably industrial in nature. Warehouses, small factories and commercial outlets.</p>	
<p>AR 3542            1986 (Source 1) – cleared land, scattered buildings, some residential along Forth Road and Turners Beach Road, training track and glasshouses.            2019 (Source 2) – Expansion of urban area (residential) in south west corner and within the triangular area of the three roads and up to the drainage features that can be observed to the east. Glasshouses may have expanded or could be a shopping centre in the middle of the housing.</p>	
Accept other relevant answers.	

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.

Description	Mark
Correct area reference. AR 2844	1
Correctly identifies the reason for the lack of residential development	1
<b>Total</b>	<b>2</b>
Answer could include: This area is relatively steep, as indicated by the contour lines, compared to the built-up areas adjacent to it. Therefore not very suitable for residential development.	

**Question 25****(3 marks)**

Explain the concept of biodiversity loss.

Description	Marks
Correctly explains the concept of biodiversity loss, (describing its characteristics and explaining why it is occurring i.e. some of the factors which cause it to occur)	3
Correctly describes the concept of biodiversity loss (only describing some of its characteristics)	2
States or briefly defines biodiversity loss	1
<b>Total</b>	<b>3</b>
Answers could include: <ul style="list-style-type: none"> <li>• a decrease in number, type, extent or variety of living organisms</li> <li>• reference to causes such as habitat destruction through agriculture, forestry, urban expansion, species invasion, species depletion.</li> </ul>	
Accept other relevant answers.	

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.

Description	Mark
<b>For one indirect driver of land cover change</b>	
Correctly explains how one indirect driver of land cover change has brought about a loss of ecosystem services. Clearly demonstrates cause and effect or a clear relationship between the indirect driver and the loss of ecosystem services. Refers to one driver and at least one of the impacts found in the source to support the explanation	3
Describes one indirect driver of land cover change that has brought about a loss of ecosystem services. Demonstrates a simple cause and effect or relationship between the indirect driver and the loss of ecosystem services. Makes a general reference to the source to support the explanation	2
States one indirect driver of land cover change that has brought about a loss of ecosystem services. Demonstrates a simple cause and effect or relationship between the indirect driver and the loss of ecosystem services. Limited or no reference to the source has been made	1
<b>Subtotal</b>	<b>3</b>
<b>For one direct pressure on land cover change</b>	
Correctly explains how one direct pressure on land cover change has brought about a loss of ecosystem services. Clearly demonstrates cause and effect or a clear relationship between the direct pressure and the loss of ecosystem services. Refers to one direct pressure and at least one of the impacts found in the source to support the explanation	3
Describes one direct pressure on land cover change that has brought about a loss of ecosystem services. Demonstrates a simple cause and effect or relationship between the direct pressure and the loss of ecosystem services. Makes a general reference to the source to support the explanation	2
States one direct pressure on land cover change that has brought about a loss of ecosystem services. Demonstrates a simple cause and effect or relationship between the direct pressure and the loss of ecosystem services. Limited or no reference to the source has been made	1
<b>Subtotal</b>	<b>3</b>
<b>Total</b>	<b>6</b>
<p>Marker information:</p> <ul style="list-style-type: none"> <li>• drivers, pressures and areas of impact are clearly labelled in the source</li> <li>• these points are what the candidates should be referring to and addressing</li> <li>• better answers will demonstrate a clear understanding of the concepts being referred to.</li> </ul> <p>Answers should include reference to Ecosystem services such as:</p> <ul style="list-style-type: none"> <li>• Provisioning services – such as the production of food and water</li> <li>• Regulating services – such as the control of climate and diseases</li> <li>• Supporting services – such as nutrient cycling and oxygen production</li> <li>• Cultural services – such as spiritual, recreational and cultural benefits.</li> </ul>	
Accept other relevant answers.	

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.

Description	Marks
Correctly identifies (recognises and names) <b>two</b> land cover changes that can be observed to have occurred in Shanghai between 1995 and 2015	2
Correctly identifies (recognises and names) <b>one</b> land cover change that can be observed to have occurred in Shanghai between 1995 and 2015	1
<b>Total</b>	<b>2</b>
Answers could include: <ul style="list-style-type: none"> <li>• a change implies that what was there (1995) and what is there (2015) are identified</li> <li>• high-density built-up area (red) has expanded into previously low density built-up area and agricultural land</li> <li>• low density built-up area (grey) has expanded into previously agricultural land</li> <li>• agricultural land and some low and high-density built-up area have expanded into water bodies (land reclamation along the coastline).</li> </ul>	
Accept other relevant answers.	

**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.

Description	Marks
Names one recognised land management practice of Aboriginal and Torres Strait Islander Peoples and summarises (expresses concisely) the relevant details of its impact on land cover over time. Clearly demonstrates the relationship between the land management practice and its impact on land cover	3
Names one land management practice of Aboriginal and Torres Strait Islander Peoples and expresses some relevant details of its impact on land cover over time. Adequately demonstrates the relationship between the land management practice and its impact on land cover	2
Attempts to name one land management practice of Aboriginal and Torres Strait Islander Peoples. Limited details of its impact on land cover over time are provided. Relationship between the land management practice and its impact on land cover may not be clear or If the practice is named on its own	1
<b>Total</b>	<b>3</b>
Answers could include: <ul style="list-style-type: none"> <li>• after gathering in an area for a time, leaving adequate seeds and vegetation to ensure regrowth and future supply</li> <li>• use of fire to encourage plant regrowth and seed dispersal</li> <li>• use of knowledge of seasons to maximise food supply and to not over-exploit an area.</li> </ul> The impact on land cover of these and other relevant practices need to be summarised, i.e. expressed concisely.	
Accept other relevant answers.	



## Question 29

(2 marks)

Define the process of urbanisation.

Description	Marks
Correctly defines the process of urbanisation, clearly referring to an increase in the percentage or proportion of people living in urban areas	2
Defines urbanisation; with no reference to process	1
<b>Total</b>	<b>2</b>
<p>Marker information: The process of urbanisation refers to the increasing percentage or proportion of a population living in urban areas of a country. This typically involves the movement or shift of people from rural to urban areas or a large influx of migrants into urban areas at a greater rate than into rural areas.</p> <p>Note: answer must refer to an increase or movement to be defining the process of urbanisation, rather than only stating the percentage or proportion of, which is the level of urbanisation.</p>	

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.

Description	Marks
Correctly identifies the positive relationship or correlation between the level of urbanisation and human wellbeing. Quotes directly from the source to support their answer	2
Identifies the positive relationship or correlation between the level of urbanisation and human wellbeing. No specific reference to the source is made	1
<b>Total</b>	<b>2</b>
<p>Answers could include:</p> <ul style="list-style-type: none"> <li>statement of strong positive correlation or relationship</li> <li>in general, the higher the level of urbanisation the higher the level of human wellbeing as measured by GDP per capita – specific examples: Qatar, Singapore, Netherlands, Belgium, USA, Sweden.</li> <li>in general, the lower the level of urbanisation the lower the level of human wellbeing as measured by GDP per capita – specific examples: Burundi, Niger, Rwanda, Ethiopia, Burkina Faso, Afghanistan.</li> </ul> <p>Accept other relevant answers.</p>	

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.

Description	Marks
For each of the two interconnections chosen (2 x 3 marks each)	
Demonstrates (uses specific examples) the interdependence of urban and rural places. The two-way nature of the interdependence through the chosen type of interconnection is shown. Specific examples are provided to support their answer	3
Demonstrates the interdependence of urban and rural places. The two-way nature of the interdependence through the chosen type of interconnection is shown. Limited or poor examples are provided to support their answer. (Alternatively, relevant examples are provided (demonstrates), but the relationship is only demonstrated in one direction)	2
Briefly states that urban and rural places are interdependent. Limited details on how this is demonstrated due to the chosen type of interconnection	1
<b>Subtotal</b>	<b>3</b>
<b>Total</b>	<b>6</b>
<p>Marker information:</p> <ul style="list-style-type: none"> <li>as the question is heavily scaffolded, more than a simple restating of the words on the source is needed. Details via examples will support a good answer</li> <li>the term interdependence implies a two-way interaction or relationship between urban and rural places. A good answer will demonstrate both directions of these interconnections (as indicated by the arrow on each end of the flow lines in the diagram).</li> </ul> <p>Answers could include:</p> <ul style="list-style-type: none"> <li>Population – creation of jobs, therefore people movements, in both rural and urban areas (especially linked to mining). Labour and professional services from urban to rural. Education and job opportunities in urban places</li> <li>Investments – royalties and taxes to urban areas, reinvested into rural areas. Capital for exploration, new ventures in rural areas</li> <li>Goods – agricultural produce, forest produce, minerals to urban areas. Processing, packaging and distribution of final products back to rural areas. Specialist services found in urban places. Raw materials for energy production for urban areas often from rural areas</li> <li>Environmental – aesthetic qualities of rural areas for recreation, relocation. Flow of wastes from urban to rural for disposal. Rural areas provide ecosystem services, such as regulation, to urban areas</li> <li>Government – incentives and schemes to open up rural areas for agriculture and settlement. Royalties and taxes to urban areas. Government supplies infrastructure and amenities to rural areas.</li> </ul> <p>Accept other relevant answers.</p>	

## Question 32

(3 marks)

Explain the process of agglomeration.

Description	Marks
Correctly explains the process of agglomeration. Clear reference to the advantages of agglomeration. Correct example(s) are provided to support their answer	3
Describes the process of agglomeration. Makes general reference to the advantages of agglomeration. Limited or poor examples are provided to support their answer	2
States what the process of agglomeration is. No examples are provided to support their answer	1
<b>Total</b>	<b>3</b>
Marker information: <ul style="list-style-type: none"><li>• a group of similar, but not necessarily the same, functions or land uses that locate in the same area due to benefits such as: sharing common infrastructure, the provision of goods and services from each other or the access to increased customer flows</li><li>• good answers will explain (state why) agglomeration occurs and brings about the perceived benefits.</li></ul>	
Accept other relevant answers.	

## Section Three: Extended response

40% (40 Marks)

## 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)

Description	Marks
For each of <b>two</b> major types of evidence (2 x 4 marks each)	
<p>A detailed description of the type of evidence is given and accurate information is provided on how this type of evidence provides information on either climate change or loss of biodiversity.</p> <p>A wide range of appropriate supporting material and examples is used to develop and strengthen the description. The accurate use of relevant geographical terminology and concepts helps to develop a cohesive, concise and articulate answer, with well-developed sentences and paragraphs in an extended answer format.</p>	4
<p>An appropriate description of the type of evidence is given and relatively accurate information is provided on how this type of evidence provides information on either climate change or loss of biodiversity.</p> <p>A range of appropriate supporting material and examples is used to develop and strengthen the description. Relevant geographical terminology and concepts help to develop a cohesive and detailed answer, with well-developed sentences and paragraphs in an extended answer format.</p>	3
<p>An outline (limited description) of the type of evidence is given and some generalised information is provided on how this type of evidence provides information on either climate change or loss of biodiversity.</p> <p>Limited evidence and examples are used to support statements and generalisations. There is limited use of geographical terminology and concepts in a largely unstructured response.</p>	2
<p>Identifies a type of evidence. Limited or no information is provided on how this type of evidence provides information on either climate change or loss of biodiversity.</p> <p>There is limited or no use of geographical terminology and concepts, and poor literacy skills may contribute to a response that is difficult to understand.</p>	1
	<b>Subtotal</b> 4
	<b>Total</b> 8
<p>Marker information:</p> <p>Primary focus of the candidates' answers should be on how the selected type of evidence provides information on the occurrence of either climate change or loss of biodiversity.</p> <p>Answers could include:</p> <p>Climate change/geological time:</p> <ul style="list-style-type: none"> <li>• ice cores</li> <li>• ocean sediments</li> </ul> <p>Climate change/recent human history:</p> <ul style="list-style-type: none"> <li>• changes in atmospheric carbon dioxide levels</li> <li>• sea level rise</li> <li>• ocean temperatures/acidity.</li> </ul>	

Loss of biodiversity/geological time:

- fossil records
- mass extinctions

Loss of biodiversity/recent human history:

- climate change
- land cover change and habitat destruction.

Accept other relevant answers.

## Question 33 (continued)

(b) Evaluate a program designed to address the impacts of land cover change, giving consideration to **two** of the following:

- environmental benefits and costs
- economic benefits and costs
- social benefits and costs.

(12 marks)

Description	Marks
For each of <b>two</b> aspects of benefits and costs (2 x 6 marks each)	
<p>A detailed and comprehensive evaluation of how the selected aspect of these benefits and costs results from the program's response to the impacts of land cover change is presented</p> <p>A wide range of appropriate supporting evidence and examples is used to develop and strengthen the evaluation. The accurate use of relevant geographical terminology and concepts helps to develop a cohesive, concise and articulate answer, with well-developed sentences and paragraphs in an extended answer format</p>	5–6
<p>An evaluation of how the selected aspect of these benefits and costs results from the program's response to the impacts of land cover change is presented</p> <p>Some supporting evidence and examples are used to develop and strengthen the evaluation. Relevant geographical terminology and concepts help to develop a cohesive and concise answer, with well-developed sentences and paragraphs in an extended answer format</p>	3–4
<p>A basic description, of how the selected aspect of these benefits and costs results from the program's response to the impacts of land cover change is presented</p> <p>Insufficient evidence is used to support statements and generalisations. There is limited or no use of geographical terminology and concepts and poor literacy skills may contribute to a response that is difficult to understand</p>	1–2
<b>Subtotal</b>	<b>6</b>
<b>Total</b>	<b>12</b>
<p>Marker information:</p> <p>On any one of the environmental, economic or social aspects for any given program the benefits are likely to outweigh the costs or vice versa. Markers are therefore not seeking a balance of benefits and costs in every – or indeed any – case. Nevertheless, to obtain at least a mark for their evaluation, a candidate must ascertain the value or amount of the benefits or costs they have highlighted.</p> <p>Specific programs referred to should focus on addressing <b>impacts</b> of land cover change, rather than just general statements referring to 'reforestation' or 'restoration'. Specific programs could relate to:</p> <ul style="list-style-type: none"> <li>• agroforestry</li> <li>• silviculture</li> <li>• habitat protection and reconstruction</li> <li>• alternative farming practices</li> <li>• land care management programs.</li> </ul> <p>These types of programs address impacts such as:</p> <ul style="list-style-type: none"> <li>• soil salinity</li> <li>• soil erosion</li> <li>• soil degradation</li> <li>• habitat loss</li> <li>• species protection.</li> </ul>	
Accept other relevant answers.	

## Question 34

(20 marks)

- (a) Describe **one** natural and **one** anthropogenic cause of either global climate change or loss of biodiversity. (8 marks)

Description	Marks
For each of <b>two</b> causes (2 x 4)	
<p>A detailed description of a cause is given, and accurate information is provided on how the selected cause brings about either climate change or loss of biodiversity.</p> <p>A wide range of appropriate supporting material and examples is used to develop and strengthen the description. The accurate use of relevant geographical terminology and concepts help to develop a cohesive, concise and articulate answer, with well-developed sentences and paragraphs in an extended answer format.</p>	4
<p>An appropriate description of a cause is given, and relatively accurate information is provided on how the selected cause brings about either climate change or loss of biodiversity.</p> <p>A range of appropriate supporting material and examples is used to develop and strengthen the description. Relevant geographical terminology and concepts help to develop a cohesive and detailed answer, with well-developed sentences and paragraphs in an extended answer format.</p>	3
<p>An outline (limited description) of a cause is given and some generalised information is provided on how the selected cause brings about either climate change or loss of biodiversity.</p> <p>Limited evidence and examples are used to support statements and generalisations. There is limited use of geographical terminology and concepts in a largely unstructured response.</p>	2
<p>Correctly identifies a cause. Limited or no information is provided on how the selected cause brings about either climate change or loss of biodiversity.</p> <p>There is limited or no use of geographical terminology and concepts, and poor literacy skills may contribute to a response that is difficult to understand.</p>	1
<b>Subtotal</b>	<b>4</b>
<b>Total</b>	<b>8</b>
<p>Marker information:            Primary focus of candidates' answers should be on how the selected cause brings about either climate change or loss of biodiversity.</p> <p>Answers could include:            Climate change/natural cause:</p> <ul style="list-style-type: none"> <li>• sun spot variation</li> <li>• variation in solar orbits</li> </ul> <p>Climate change/anthropogenic cause:</p> <ul style="list-style-type: none"> <li>• fossil fuel consumption</li> <li>• agricultural practices.</li> </ul> <p>Loss of biodiversity/natural cause:</p> <ul style="list-style-type: none"> <li>• impact of volcanic activity</li> <li>• climate related events such as floods, fires and droughts</li> </ul> <p>Loss of biodiversity/anthropogenic cause:</p> <ul style="list-style-type: none"> <li>• habitat fragmentation due to introduced species such as feral cats, prickly pear.</li> </ul> <p>Accept other relevant answers.</p>	

## Question 34 (continued)

- (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:

- environmental
- economic
- social.

(12 marks)

Description	Marks
For each of <b>two</b> aspects of sustainability (2 x 6 marks each)	
<p>A detailed and comprehensive evaluation of the selected approach to the management of land cover change is presented. Detailed and accurate information is provided on the extent to which the selected approach contributes to the achievement of the relevant aspect of sustainability into the future.</p> <p>A wide range of appropriate supporting evidence and examples is used to develop and strengthen the evaluation. The accurate use of relevant geographical terminology and concepts helps to develop a cohesive, concise and articulate answer, with well-developed sentences and paragraphs in an extended answer format.</p>	5–6
<p>An evaluation of the selected approach to the management of land cover change is presented. Information is provided on the extent to which the selected approach contributes to the achievement of the relevant aspect of sustainability.</p> <p>Some supporting evidence and examples are used to develop and strengthen the evaluation. Relevant geographical terminology and concepts help to develop a cohesive and concise answer, with well-developed sentences and paragraphs in an extended answer format.</p>	3–4
<p>A basic description of the selected approach to the management of land cover change is presented. Limited information is provided on the extent to which the selected approach contributes to the achievement of the relevant aspect of sustainability.</p> <p>Insufficient evidence is used to support statements and generalisations. There is limited or no use of geographical terminology and concepts and poor literacy skills may contribute to a response that is difficult to understand.</p>	1–2
<b>Subtotal</b>	<b>6</b>
<b>Total</b>	<b>12</b>
<p>Marker information:</p> <p>The question requires an evaluation. A good answer (i.e. one receiving high marks) will therefore include both the extent to which the selected approach may fail to manage land cover change sustainably as well as the extent to which it may succeed in doing so.</p> <p>Approaches to the management of land cover change could include:</p> <ul style="list-style-type: none"> <li>• mitigation strategies</li> <li>• conservation strategies</li> <li>• preservation strategies</li> <li>• restoration strategies</li> <li>• reafforestation strategies</li> <li>• rehabilitation strategies.</li> </ul> <p>Good answers will focus on an <b>evaluation</b> of the approach to the management of land cover change, in the context of the two selected aspects of sustainability, rather than just a general description of an approach.</p> <p>Accept other relevant answers.</p>	



## 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)

Description	Marks
<p>For either metropolitan Perth or a regional urban centre in Western Australia: A detailed and comprehensive description is given, and accurate information is provided, on both the nature and the causes of the selected significant challenge.</p> <p>A wide range of appropriate supporting evidence and examples are used to develop and strengthen the description. The accurate use of relevant geographical terminology and concepts help to develop a cohesive, concise and articulate answer, with well-developed sentences and paragraphs in an extended answer format.</p>	7–8
<p>For either metropolitan Perth or a regional urban centre in Western Australia: An appropriate description is given, and relatively accurate information is provided on both the nature and the causes of the selected challenge.</p> <p>A range of appropriate supporting evidence and examples are used to develop and strengthen the description. Relevant geographical terminology and concepts help to develop a cohesive and detailed answer, with well-developed sentences and paragraphs in an extended answer format.</p>	5–6
<p>For either metropolitan Perth or a regional urban centre in Western Australia: An outline (limited description) is given and generalised information is provided on both the nature and causes of the selected challenge.</p> <p>Limited evidence and examples are used to support statements and generalisations. There is limited use of geographical terminology and concepts in a largely unstructured response.</p>	3–4
<p>For either metropolitan Perth or a regional urban centre in Western Australia: Provides some information on either the nature or the causes of the selected challenge.</p> <p>There is limited or no use of geographical terminology and concepts, and poor literacy skills may contribute to a response that is difficult to understand.</p>	1–2
<b>Total</b>	
<p style="text-align: right;"><b>8</b></p> <p>Marker information: Nature refers to the characteristics and impacts of the selected challenge, usually by providing a definition and a description of the general features of the challenge. Causes refer to the factors and conditions that have brought about the challenge.</p> <p>Note: An answer which only describes the nature of, or only describes the cause of should not be awarded more than four marks.</p> <p>Example, Urban sprawl: Nature:</p> <ul style="list-style-type: none"> <li>• the rapid spread of typically low density residential and urban development on the periphery of urban areas without the adequate provision of services and infrastructure</li> <li>• good answer will continue on to describe, with examples, the aspects of the challenge that cause disadvantage and disruption to daily urban living.</li> </ul>	

## Question 35(a) (continued)

<p>Causes: Underlying conditions which have caused the challenge to occur, such as:</p> <ul style="list-style-type: none"> <li>• desire for cheap land</li> <li>• rapid urban growth</li> <li>• desire for low density, privately owned housing</li> <li>• high motor vehicle dependence</li> <li>• availability of easily cleared land.</li> </ul>
Accept other relevant answers.

- (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)

Description	Marks
For each planning strategy described and explained (2 x 6 marks each)	
<p>A detailed and comprehensive explanation of why and how the planning strategy addresses the selected challenge is presented. Detailed and accurate information is provided about the strategy and the means by which it addresses the selected challenge.</p> <p>A wide range of appropriate supporting evidence and examples is used to develop and strengthen the evaluation. The accurate use of relevant geographical terminology and concepts helps to develop a cohesive, concise and articulate answer, with well-developed sentences and paragraphs in an extended answer format.</p>	5–6
<p>An explanation of why and how the planning strategy addresses the selected challenge is presented. Relatively accurate information is provided about the strategy and the means by which it addresses the selected challenge.</p> <p>Some supporting evidence and examples are used to develop and strengthen the evaluation. Relevant geographical terminology and concepts help to develop a cohesive and concise answer, with well-developed sentences and paragraphs in an extended answer format.</p>	3–4
<p>A basic description, with little explanation of why and how the planning strategy addresses the selected challenge. Limited information is provided about the strategy. The explanation of the means by which the planning strategy addresses the selected challenge is limited.</p> <p>Insufficient evidence is used to support statements and generalisations. There is limited or no use of geographical terminology and concepts and poor literacy skills may contribute to a response that is difficult to understand.</p>	1–2
<b>Subtotal</b>	<b>6</b>
<b>Total</b>	<b>12</b>
<p>Marker information: Note: Part A refers to Perth or a regional urban centre in WA, whilst Part B refers to a megacity.</p> <p>The syllabus uses the term strategy, which can be taken to include a plan or scheme. Teachers and candidates may therefore interpret this term as referring to a large-scale plan, such as ONENYC, a specific strategy within such a plan or a more local initiative. All of these approaches are to be accepted and assessed on the merit of their explanation of why and how the strategy addresses the selected challenge.</p>	

## Question 36

(20 marks)

- (a) Describe the nature and causes of **one** significant challenge facing a megacity you have studied. (8 marks)

Description	Marks
<p>For the selected megacity: A detailed and comprehensive description is given, and accurate information is provided on both the nature and the causes of the selected challenge.</p> <p>A wide range of appropriate supporting evidence and examples is used to develop and strengthen the description. The accurate use of relevant geographical terminology and concepts help to develop a cohesive, concise and articulate answer, with well-developed sentences and paragraphs in an extended answer format.</p>	7–8
<p>For the selected megacity: An appropriate description is given, and relatively accurate information is provided on both the nature and the causes of the selected challenge.</p> <p>A range of appropriate supporting evidence and examples is used to develop and strengthen the description. Relevant geographical terminology and concepts help to develop a cohesive and detailed answer, with well-developed sentences and paragraphs in an extended answer format.</p>	5–6
<p>For the selected megacity: An outline (limited description) is given and generalised information is provided on both the nature and causes of the selected challenge.</p> <p>Limited evidence and examples are used to support statements and generalisations. There is limited use of geographical terminology and concepts in a largely unstructured response.</p>	3–4
<p>For the selected megacity: Provides some information on either the nature or the causes of the selected challenge.</p> <p>There is limited or no use of geographical terminology and concepts, and poor literacy skills may contribute to a response that is difficult to understand.</p>	1–2
<b>Total</b>	<b>8</b>
<p>Marker information: Nature refers to the characteristics and impacts of the selected challenge, usually by providing a definition and a description of the general features of the challenge. Causes refers to the factors and conditions that have brought about the challenge. Note: An answer which only describes the nature of, or only describes the cause of should not be awarded more than four marks.</p> <p>Example Congestion Nature:</p> <ul style="list-style-type: none"> <li>• the movement of vehicles along transport arteries becomes excessive resulting in slow movement of vehicles, increased trip times and vehicle queuing</li> <li>• good answer will continue on to describe, with examples, the aspects of the challenge that cause disadvantage and disruption to daily urban living.</li> </ul> <p>Causes: Underlying conditions which have caused the challenge to occur, such as:</p> <ul style="list-style-type: none"> <li>• high daily influx of workers into CBD</li> <li>• imbalance between residential and employment locations</li> <li>• am and pm peaks in transport demand.</li> <li>• inadequate road and rail links into central areas</li> <li>• high dependence on private motor vehicle use</li> <li>• desire for low density, privately owned housing in outer suburbs.</li> </ul>	
Accept other relevant answers.	

**Question 36** (continued)

- (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)

Description	Marks
For each major stakeholder group selected (2 x 6 marks each)	
<p>A detailed and comprehensive explanation is presented of why the major stakeholder group holds the views and attitudes that it does in relation to the selected challenge. Detailed and accurate information is provided on how the selected challenge causes the stakeholder group to hold these views and attitudes in relation to it.</p> <p>A wide range of appropriate supporting evidence and examples is used to develop and strengthen the evaluation. The accurate use of relevant geographical terminology and concepts helps to develop a cohesive, concise and articulate answer, with well-developed sentences and paragraphs in an extended answer format.</p>	5–6
<p>An explanation is presented of why the major stakeholder group holds the views and attitudes that it does in relation to the selected challenge. Relatively accurate information is provided on how the selected challenge causes the stakeholder group to hold these views and attitudes in relation to it.</p> <p>Some supporting evidence and examples are used to develop and strengthen the explanation. Relevant geographical terminology and concepts help to develop a cohesive and concise answer, with well-developed sentences and paragraphs in an extended answer format.</p>	3–4
<p>A basic description, with little explanation of why the major stakeholder group holds the views and attitudes that it does in relation to the selected challenge. Limited information is provided on how the selected challenge causes the stakeholder group to hold these views and attitudes in relation to it.</p> <p>Insufficient evidence is used to support statements and generalisations. There is limited or no use of geographical terminology and concepts and poor literacy skills may contribute to a response that is difficult to understand.</p>	1–2
<b>Subtotal</b>	<b>6</b>
<b>Total</b>	<b>12</b>
<p>Marker information:</p> <p>Aspects of the description of a challenge are included in previous marker information.</p> <p>The question uses the term ‘major stakeholder group’. While these groups can be formal (e.g. RACWA or Bunbury City Council) or informal (e.g. interest groups such as environmentalists or land developers), they must be major. The views and attitudes of, for example, individuals, (nuclear) families or the residents of a single street do not constitute those of a major stakeholder group.</p> <p>Nevertheless, in the case of the smaller regional urban centres in Western Australia, some challenges have a highly local focus. Markers may therefore need to use their professional discretion in assessing what constitutes a major stakeholder group in such contexts.</p> <p>Views and attitudes: In explaining views and attitudes candidates should state the stakeholder groups’ role in, or connection to the challenge. Discussion should include their views and attitudes in relation to the challenge and the reason why authorities and groups in society may respond to the challenge in the ways that they do.</p>	

## ACKNOWLEDGEMENTS

### Question 26

Dot points 4–7 from: Ambe, B. A., Onnoghen, U. N. (2019, November 7). Ecosystems services of the tropical rain forest environment: Lessons from the Cross River National Park, Nigeria. *Journal of Geoscience and Environment Protection*, 7 (11). Retrieved July, 2020, from <https://www.scirp.org/journal/paperinformation.aspx?paperid=96244>  
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