GEOGRAPHY

Sample Examination 2016

Marking Key

Marking keys are an explicit statement about what the examiner expects of candidates when they respond to a question. They are essential to fair assessment because their proper construction underpins reliability and validity.

Section One: Multiple-choice 20% (20 Marks)

Question	Answer
1	B
2	C
3	A
4	C
5	B
6	D
7	D
8	C
9	A
10	A
11	C
12	D
13	B
14	C
15	C
16	D
17	C
18	D
19	A
20	B

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

Question 21 **(3 marks)**

Refer to Sources 1 and 2 to answer Questions 21 and 22.

Identify **three** examples of land use change between 1985 and 2004 in the area shown on the aerial photograph.

Description	Marks
Correctly identifies three specific examples of land use change e.g. • New residential development to the south of Capel which exhibits a curvilinear road/street pattern (GR 663852) • The aerial photograph shows that the Bussell Highway now bypasses the town of Capel and runs approximately half a kilometer north west of the town (AR 6687) • A new industrial estate indicated by large buildings has been built to the south west of the Capel township (GR 655855)	3
Correctly identifies one or two specific examples of land use change	1–2
Total	**3**

Question 22 **(5 marks)**

In the frame provided, construct a simple annotated sketch map of the Capel aerial photograph. Identify and label the following:
● the Capel River
● one major transport route
● the Capel town site showing the boundary of the built up area
● one recreational facility
● one special purpose area

Sketch map of Capel (2004)

North   Approximate scale 1:10 000

Key (use as required)

The Capel River

Major roads

Oval (recreation)

Railway

Boundary of the built up area

Special purpose area

Description	Marks
Correctly identifies and labels all of the required features – allocate 1 mark to each of the bullet points listed	5
Correctly identifies and labels 3-4 of the required features	3–4
Correctly identifies and labels 1-2 of the required features	1–2
Total	**5**

Question 23 **(4 marks)**

Identify **one** significant challenge in either metropolitan Perth **or** a regional urban centre in Western Australia, and discuss briefly the views and attitudes of **two** major stakeholder groups who will be affected.

Description	Marks
Each stakeholder total 2 marks = 2 x 2 = 4 marks	
Identifies correctly one major stakeholder group affected by the challenge and briefly discusses the attitudes and viewpoints of this stakeholder group	2
Identifies correctly one major stakeholder group and makes at least some attempt to discuss the attitudes and viewpoints of this stakeholder group.	1
Each stakeholder total	**2**
Total	**4**

Question 24 **(4 marks)**

Describe **two** characteristics of the site and **two** characteristics of the situation of **either** metropolitan Perth **or** a regional urban centre in Western Australia.

Site

Description	Marks
Describes correctly any two aspects of the physical environment (e.g. natural drainage, topography, natural vegetation and soil)	2
Describes correctly any one aspect of the physical environment (e.g. natural drainage such as rivers, topography, natural vegetation and soil)	1
Total	**2**

Situation

Description	Marks
Describes correctly any two characteristics of the location in relation to other places or features (e.g. latitude and longitude, distance and direction from other places or features, and location in relation to major transport routes).	2
Describes correctly any one characteristic of the location in relation to other places or features (e.g. latitude and longitude, distance and direction from other places or features, and location in relation to major transport routes).	1
Total	**2**

Question 25 **(4 marks)**

Identify **one** megacity of your choice. Explain briefly the extent to which **one** planning strategy can be used to address **one** challenge.

Description	Marks
Identifies correctly one challenge faced by the megacity e.g. congestion. Describes briefly one planning strategy and explains how the strategy will address the challenge. Refers to specific examples to support their answer.	3–4
Identifies correctly one urban challenge faced by the megacity e.g. congestion, and makes at least some attempt to briefly explain the way in which at least one planning strategy aims to address the challenge. No appropriate examples are provided.	1–2
Total	**2**

Question 26   **(4 marks)**

Explain the concept of climate change.

Description	Marks
Explains in detail the concept of climate change. The concepts of space, time and variability are included. The candidate clearly demonstrates the application of scale to all three variables and includes that climate change involves **both** ice age and global warming events.	3–4
Describes a definition of climate change – similar to a definition of climate itself i.e. average weather conditions in an area over a period of time. May include that the time variable will be longer i.e. thousands of years.	1–2
Total	**4**

Question 27   **(4 marks)**

Explain the concept of biodiversity loss.

Description	Marks
Explains in detail the concept of biodiversity, and that natural and anthropogenic factors have caused a reduction in species abundance and diversity. The concepts of space, time and variability are discussed. The candidate clearly demonstrates the application of scale and includes that biodiversity loss involves events **both** through geological time and in recent human history.	3–4
Describes a definition of biodiversity i.e. the type, number and variety of living organisms within a given environment, and that loss involves a reduction in species abundance and diversity.	1–2
Total	**4**

Question 28   **(3 marks)**

Identify and describe briefly **one** major type of evidence for climate change, **or** biodiversity loss, through geological time.

Climate change

Description	Marks
Identifies correctly one major type of evidence for climate change e.g. climatic data from ice cores, and briefly describes the nature of the information available in the evidence e.g. ancient atmosphere preserved within ice cores are used to reconstruct past climates.	3
Identifies correctly one major type of evidence for climate change e.g. climatic data from ice cores. Makes some attempt to describe the information available in the evidence.	1–2
Total	**3**

or

Biodiversity loss

Description	Marks
Identifies correctly one major type of evidence for biodiversity loss e.g. fossil evidence, and briefly describes the nature of the information available in the evidence e.g. fossil evidence contained in geological strata and fossil pollens contained in cores from ancient lake sediments are used to reconstruct past ecosystems.	3
Identifies correctly one major type of evidence for biodiversity loss e.g. climatic data from ice cores. Makes some attempt to describe the information available in the evidence.	1–2
Total	3

Refer to **Source 5** to answer Question 29.

Question 29 **(3 marks)**

Describe **three** characteristics of the spatial distribution of the world's biomes.

Description	Marks
Describes correctly three characteristics of the spatial distribution of the world's biomes e.g. occur as broad belts across the continents, their boundaries correspond to lines of latitude, desert biomes tend to be located in the interior and along the western margins of continents. Students may also refer to latitudinal markings as shown in Source 5 to describe the distribution of individual biomes.	3
Describes correctly two characteristics of the spatial distribution of the world's biomes	2
Describes correctly one characteristic of the spatial distribution of the world's biomes	1
Total	3

Question 30 **(6 marks)**

Explain briefly **two** impacts of land cover change on local and/or regional environments.

One

Description	Marks
Each impact total 3 marks = 3 x 2 = 6 marks	
Identifies correctly one impact of land cover change e.g. changes to the water cycle, soil erosion and degradation, loss of habitat and biodiversity. Explains briefly the consequences of this impact on local and/or regional environments.	3
Identifies correctly one impact of land cover change. Makes some attempt to explain the consequences of this impact on local and/or regional environments.	1–2
Each impact total	3
Total	6

End of Section Two

Section Three: Extended response 40% (40 Marks)

Part A: Unit 3 – Answer either Question 31 or Question 32 20% (20 marks)

Question 31 **(20 marks)**

Refer to **Source 7** if you choose loss of biodiversity, or to **Source 8** if you choose climate change, to answer Question 31 (a).

(a) Explain the effects of **either** loss of biodiversity **or** climate change in natural and anthropogenic biomes, and comment on the projected impacts of these changes.

(10 marks)

Description	Marks
For loss of biodiversity: Explains clearly at least one effect of loss of biodiversity in natural biomes (e.g. simplification of ecosystems; habitat loss; loss of ecosystem services such as water filtration, climate regulation, nutrient cycling, photosynthesis and soil formation) and at least one effect of loss of biodiversity in anthropogenic biomes (e.g. loss of benefits for people such as access to natural resources, foods and medicines, regulation of some human diseases, aesthetic and spiritual values). Comments on the projected impacts of loss of biodiversity (e.g. threats to human food security from declining biodiversity in terrestrial, freshwater and marine ecosystems). **or** **For climate change:** Explains clearly at least one effect of climate change in natural biomes (e.g. temperature and precipitation change, sea level rise, increased incidence of extreme events, melting ice sheets) and at least one effect of climate change in anthropogenic biomes (e.g. threats to water resources and agriculture, flooding in low lying and coastal areas). Comments on the projected impacts of climate change (e.g. shifting ecological boundaries, threats to human settlement). For both loss of biodiversity and climate change, Sources 7 and 8 respectively, are referred to in the explanations. Where appropriate, specific examples are used to demonstrate understanding.	9–10
Explains in less detail at least one effect of loss of biodiversity or climate change in natural biomes, and at least one effect of loss of biodiversity or climate change in anthropogenic biomes. Briefly comments on the projected impacts of loss of biodiversity or climate change. For both loss of biodiversity and climate change, Sources 7 and 8 respectively, are referred to in the explanations. Some supporting examples are used.	7–8
Identifies correctly and makes some attempt to explain one effect of loss of biodiversity or climate change in natural biomes, and one effect of loss of biodiversity or climate change in anthropogenic biomes. Makes some attempt to comment on the projected impacts of loss of biodiversity or climate change. Use of sources on the broadsheet and examples is limited.	5–6

Description	Marks
Identifies correctly at least one effect of loss of biodiversity or climate change, but reference to natural and anthropogenic biomes is lacking or inaccurate. The projected impacts are largely neglected or inaccurate. No relevant examples are provided.	3–4
Displays limited appreciation of the effects of loss of biodiversity or climate change in natural and anthropogenic biomes.	1–2
Makes no relevant attempt to answer the question.	0
Total	**10**

(b)   Evaluate **two** strategies proposed and/or implemented to mitigate the adverse effects of **either** global climate change **or** loss of biodiversity. (10 marks)

Description	Marks
For loss of biodiversity: Evaluates clearly two strategies proposed and/or implemented to mitigate the adverse effects of loss of biodiversity (e.g. at national level, the Environment Protection and Biodiversity Conservation Act; and at international level, the Ramsar Convention for the protection of wetlands of international significance). **or** **For climate change:** Evaluates clearly two strategies proposed and/or implemented to mitigate the adverse effects of climate change (e.g. climate change strategies at state and national levels, and the Kyoto Protocol at international level). For both loss of biodiversity and climate change specific examples are used, where appropriate, to demonstrate understanding.	9–10
Evaluates in less detail two strategies proposed and/or implemented to mitigate the adverse effects of either loss of biodiversity or climate change. Some supporting examples are used.	7–8
Makes some attempt to evaluate two strategies proposed and/or implemented to mitigate the adverse effects of either loss of either biodiversity or climate change. Use of supporting examples is limited.	5–6
Identifies correctly and makes a limited attempt to evaluate, one strategy proposed and/or implemented to mitigate the adverse effects of either loss of biodiversity or climate change, A second strategy may be mentioned, but is poorly described or inaccurate. No relevant examples are provided.	3–4
Displays limited appreciation of the proposed and/or implemented strategies for addressing the adverse effects of either loss of biodiversity or climate change	1–2
Makes no relevant attempt to answer the question.	0
Total	**10**

or

Question 32 **(20 marks)**

Refer to **Source 7** if you choose loss of biodiversity, or to **Source 8** if you choose climate change, to answer Question 32 (a).

(a) Explain the anthropogenic causes of **either** loss of biodiversity **or** climate change, and comment on the effects of these changes in natural and anthropogenic biomes.

(10 marks)

Description	Marks
For loss of biodiversity: Explains clearly at least one anthropogenic cause of loss of biodiversity (e.g. growth in human population; increased consumption of natural resources such as water, energy and living organisms; land uses such agriculture, forestry, urban settlement and industry). Comments on at least one effect of loss of biodiversity in natural biomes (e.g. simplification of ecosystems; habitat loss; loss of ecosystem services such as water filtration, climate regulation, nutrient cycling, photosynthesis and soil formation) and at least one effect of loss of biodiversity in anthropogenic biomes (e.g. loss of benefits for people, such as access to natural resources, foods and medicines, regulation of some human diseases, aesthetic and spiritual values). **or** **For climate change:** Explains clearly at least one anthropogenic cause of climate change (e.g. increased emission of greenhouse gases resulting from human activity and land use). Comments on at least one effect of climate change in natural biomes (e.g. temperature and precipitation change, sea level rise, increased incidence of extreme events, melting ice sheets) and at least one effect of climate change in anthropogenic biomes (e.g. threats to water resources and agriculture, flooding in low lying and coastal areas). For both loss of biodiversity and climate change, Sources 7 and 8 respectively, are referred to in the explanations. Where appropriate, specific examples are used to demonstrate understanding.	9–10
Explains in less detail at least one anthropogenic cause of loss of biodiversity or climate change. Comments in less detail on at least one effect of loss of biodiversity or climate change in natural biomes, and at least one effect of loss of biodiversity or climate change in anthropogenic biomes. For both loss of biodiversity and climate change, Sources 7 and 8 respectively, are referred to in the explanations. Some supporting examples are used.	7–8
Identifies correctly and makes some attempt to explain one anthropogenic cause of loss of biodiversity or climate change. Correctly identifies and makes some attempt to comment on one effect of loss of biodiversity or climate change in natural biomes, and one effect of loss of biodiversity or climate change in anthropogenic biomes. Use of sources on the broadsheet and examples is limited.	5–6
Identifies correctly at least one anthropogenic cause of loss of biodiversity or climate change. Correctly identifies at least one effect of loss of biodiversity or climate change, but reference to natural and anthropogenic biomes is lacking or inaccurate. No relevant examples are provided.	3–4

Description	Marks
Displays limited appreciation of the anthropogenic causes of loss of biodiversity or climate change, and the effects of these changes in natural and anthropogenic biomes.	1–2
Makes no relevant attempt to answer the question.	0
Total	**10**

(b) Evaluate the sustainability of a program designed to address the impacts of land cover change on local and regional environments. (10 marks)

Description	Marks
Evaluates clearly one program designed to address the impacts of land cover change on local and regional environments against the criteria for sustainability, including *triple bottom line* (environmental, economic and social components) and essential intergenerational equity (temporal dimension). For example, *Ribbons of Blue* is a school-based program to address the impacts of land cover change in local catchments and the resultant impacts on natural waterways. Specific examples are used, where appropriate, to demonstrate how the program has enhanced sustainability in local and regional environments.	9–10
Evaluates, in less detail, one program designed to address the impacts of land cover change on local and regional environments against the criteria for sustainability. Some supporting examples are used.	7–8
Makes some attempt to evaluate one program designed to address the impacts of land cover change on local and regional environments against the criteria for sustainability. Use of supporting examples is limited.	5–6
Identifies correctly, and makes a limited attempt to evaluate, one program designed to address the impacts of land cover change on local and regional environments. The concept of sustainability is poorly understood. No relevant examples are provided.	3–4
Displays limited appreciation of a program designed to address the impacts of land cover change on local and regional environments. The concept of sustainability is omitted or applied incorrectly.	1–2
Makes no relevant attempt to answer the question.	0
Total	**10**

Part B: Unit 4 – Answer either Question 33 or Question 34   **20% (20 marks)**

Question 33   **(20 marks)**

(a)   Identify **one** challenge facing metropolitan Perth **or** a regional urban centre in Western Australia, and **one** different challenge in a megacity of your choice. Describe the nature, scope and causes of each of these challenges.   (8 marks)

Description	Marks
Metropolitan Perth or regional urban centre	
Identifies correctly one challenge and provides a detailed description of the nature (what the urban challenge is and how/why it is an issue), scope (the extent of the challenge) and causes (factors responsible for the challenge). Specific examples will be provided to demonstrate understanding.	4
Identifies correctly one challenge and provides a less detailed but factual description of the nature, scope and causes. The student may neglect to address one of these descriptors. Some supporting examples will be provided.	3
Identifies correctly one challenge and makes at least some attempt to address the nature, scope and causes. The student may neglect to address one or more of these descriptors. Examples are limited/inaccurate or absent.	2
Identifies correctly one challenge but makes virtually no attempt to answer the question.	1
Makes no relevant attempt to answer the question.	
Sub-total	4
Different urban challenge for a megacity	
Identifies correctly one challenge and provides a detailed description of the nature (what the challenge is and how/why it is an issue), scope (the extent of the challenge) and causes (factors responsible for the challenge). Specific examples will be provided to demonstrate understanding.	4
Identifies correctly one challenge and provides a less detailed but factual description of the nature, scope and causes. The student may neglect to address one of these descriptors. Some supporting examples will be provided.	3
Identifies correctly one challenge and makes at least some attempt to address the nature, scope and causes. The student may neglect to address one or more of these descriptors. Examples are limited/inaccurate or absent.	2
Identifies correctly one challenge but makes virtually no attempt to answer the question.	1
Makes no relevant attempt to answer the question.	0
Sub-total	4
Total	8

(b)   Assess **one** planning strategy that has been used to address **one** challenge facing
        metropolitan Perth **or** a regional urban centre in Western Australia. Comment on how
        this strategy compares with responses implemented in other places.   (12 marks)

Description	Marks
Identifies correctly and assesses one planning strategy (e.g. urban consolidation; transport orientated development) and clearly links it to a challenge (e.g. urban sprawl; traffic congestion). This assessment should make a judgement of the value and results of these planning strategies in addressing the nominated urban challenges. Reference should be made to similarities and/or differences with planning responses used in other places in Australia or overseas. Specific examples are used to demonstrate understanding.	11–12
Identifies correctly and assesses one planning strategy and clearly links these to a challenge. This assessment is less detailed but should still make a judgement of the value and results of the planning strategy in addressing the nominated challenge. Reference should be made to planning responses used in other places in Australia or overseas. Specific examples are used to demonstrate understanding.	9–10
Identifies correctly and makes some attempt to assess one planning strategy and links this to one challenge. Reference should be made to planning responses used in other places in Australia or overseas. Some specific examples are used.	7–8
Identifies correctly and makes some attempt to assess one planning strategy and links this to one challenge. The link between this strategy and the challenge is poorly developed. Reference to planning responses used in other places is lacking or inaccurate. Limited examples may be used.	5–6
Identifies broadly one planning strategy and attempts to link this to a challenge. Reference to planning responses used in other places is lacking or inaccurate. No relevant examples are provided.	3–4
Displays limited appreciation of a planning strategy and its relationship to a challenge.	1–2
Makes no relevant attempt to answer the question.	0
Total	**12**

or

Question 34 **(20 marks)**

(a)   With reference to specific examples, describe **one** challenge facing rural and remote
places in Australia, and **one** different challenge in a megacity of your choice.

(8 marks)

Description	Marks
Describes correctly the main aspects of one challenge facing rural and remote places in Australia (e.g. population loss, economic restructuring, employment, housing, service and water provision, concentrations of socially vulnerable populations, social inclusion and exclusion, transportation, resource degradation, land use conflicts, declining political influence, isolation and remoteness, fly-in/fly-out work patterns) and one different challenge in a megacity (e.g. urban sprawl, congestion, transport, personal safety). Specific examples are provided for the challenge to demonstrate understanding.	7–8
Broadly describes the main aspects of one challenge facing rural and remote places in Australia, and one different challenge in a megacity in less detail. Some examples of places are provided for the challenge to demonstrate understanding.	5–6
Broadly describes one challenge facing rural and remote places in Australia and one different challenge in a megacity. Makes at least some attempt to provide limited but relevant examples.	3–4
Identifies correctly one or two challenges but makes virtually no attempt to answer the question.	1–2
Makes no relevant attempt to answer the question.	0
Total	**8**

(b) Evaluate the extent to which **two** planning strategies adopted in metropolitan Perth **or**
a regional urban centre in Western Australia have enhanced liveability. (12 marks)

Description	Marks
Identifies correctly two planning strategies for either metropolitan Perth or a regional urban centre in Western Australia (e.g. urban consolidation; transport orientated development) and evaluates these strategies against a selection of criteria for liveability, such as quality of life, health, sense of safety, access to services, cost of living, comfortable living standards, mobility and transport, air quality and social participation. Specific examples are used to demonstrate how the planning strategies have enhanced liveability in the urban place.	11–12
Identifies correctly two planning strategies and evaluates these strategies, in less detail, against a more limited selection of criteria for liveability. Specific examples are used to demonstrate how the planning strategies have enhanced liveability in the urban place.	9–10
Identifies correctly two planning strategies and makes some attempt to evaluate these strategies against the concept of liveability (one or two criteria may be identified). Some examples are used to demonstrate the link between planning strategies and liveability in the urban place.	7–8
Identifies correctly and makes some attempt to evaluate, at least one planning strategy and its link to the concept of liveability. A second strategy may be mentioned and the link between this strategy and the concept of liveability is poorly developed. Limited examples are used to demonstrate the link between planning strategies and liveability in the urban place.	5–6
Identifies broadly at least one planning strategy and makes a limited attempt to evaluate it in terms of its contribution to liveability. A second strategy may be mentioned but is poorly developed. No relevant examples are provided.	3–4
Displays limited appreciation of planning strategies and their relationship to liveability.	1–2
Makes no relevant attempt to answer the question.	0
Total	12