2021 HSC Geography Marking Guidelines

Section I

Multiple-choice Answer Key

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

Section II

Question 21 (a)

Criteria	Marks
• Correctly calculates the local relief	2
• Shows some understanding of local relief	1

Sample answer:

3.9 – 0.9 = 3.0

Question 21 (b)

Criteria	Marks
• Correctly calculates the vertical exaggeration	2
• Shows some understanding of vertical exaggeration	1

Sample answer:

$$\frac{\text{Vertical scale}}{\text{Horizontal scale}} = \frac{\frac{1}{100\,000}}{\frac{5}{200\,000\,000}} = \frac{1}{100\,000} \times \frac{40\,000\,000}{1}$$

$$= \frac{40\,000\,000}{100\,000}$$

$$\text{VE} = 400$$

Question 22 (a)

Criteria	Marks
• Outlines TWO benefits of using a GIS to study the possible effects of the proposed housing development • Refers to Sources *E* and/or *G*	3
• Outlines ONE benefit of using a GIS to study the possible effects of the proposed housing development OR • Identifies TWO benefits of using a GIS to study the possible effects of the housing development	2
• Provides some relevant information about using a GIS	1

Sample answer:

One benefit is seeing the size, slope and aspect of the site, so that the housing development can be better planned (as seen in Source *E*). A second benefit is seeing what ecosystems, businesses and urban areas are in and around the site (as seen in Source *G*). This may help assess the impacts of the housing development.

Question 22 (b)

Criteria	Marks
• Justifies TWO management strategies that could be used in the surrounding area	3
• Justifies ONE management strategy that could be used in the surrounding area OR • Identifies TWO management strategies that could be used in the surrounding area	2
• Provides some relevant information about management strategies	1

Sample answer:

One management strategy is using silt traps. This will reduce damage from sediment runoff in the Onkaparinga River (Source *G*). A second management strategy is weed removal. This will reduce weed infestations in the neighbouring bushland (Source *F*).

Question 22 (c)

Criteria	Marks
• Describes how the completed housing development in Seaford may affect economic enterprises in the surrounding area	3
• Outlines how the completed housing development in Seaford may affect economic enterprises in the surrounding area	2
• Provides some relevant information	1

Sample answer:

Economic enterprises in the surrounding area may experience an increase in customers, sales and profits. For example, food and other retail outlets at the nearby shopping centre may see higher trade. There may, however, be congestion in the car park, leading the shopping centre to invest in more parking.

Question 22 (d)

Criteria	Marks
• Describes how the completed housing development may affect the Seaford area's culture of place	3
• Outlines how the completed housing development may affect the Seaford area's culture of place	2
• Provides some relevant information	1

Sample answer:

The development may affect the architecture, streetscape, vitality and lifestyles of the Seaford area. The new residential development will bring modern designs of houses and streetscapes, and possibly better use of greenery on streets. Young families could move in, leading to an increase in community activities such as children's sports.

Question 23 (a)

Criteria	Marks
• Describes TWO traditional management strategies used in ecosystems	3
• Describes ONE traditional management strategy used in ecosystems OR • Outlines TWO traditional management strategies used in ecosystems	2
• Provides some relevant information about management strategies used in ecosystems	1

Sample answer:

One traditional management strategy involves totemic systems. Each person/clan has responsibility for a particular plant/animal to ensure its safekeeping. A second TMS is 'fire stick farming' where Aboriginal peoples would burn patches of land with cool fires to increase regrowth and thus attract animals to the area, open seed pods and mitigate bushfires.

Question 23 (b)

Criteria	Marks
• Explains how variations in climate lead to a diversity of ecosystems • Supports answer with detailed and relevant examples	5
• Describes how variations in climate lead to a diversity of ecosystems • Supports answer with relevant examples	4
• Outlines how variations in climate lead to a diversity of ecosystems • Supports answer with examples	3
• Provides some information on how variations in climate lead to a diversity of ecosystems or an ecosystem	2
• Provides some relevant information	1

Sample answer:

Temperature and rainfall determine the characteristics of ecosystems and the rate and speed at which they function. For example, the warm, moist climate found in equatorial regions means tropical rainforests flourish as the large volumes of rainfall accelerate the rate of plant growth and increase the speed at which elements cycle through the ecosystem leading to high biodiversity. Polar ecosystems located at high latitudes are cold deserts. Due to the extreme cold, polar ecosystems function very slowly thus slowing down the uptake of nutrients and leading to highly specialised plants and animals, such as polar bears. Other ecosystems include mid-range temperature and rainfall ecosystems, such as the Australian bush.

Question 24 (a)

Criteria	Marks
• Outlines the spatial distribution of world cities	2
• Provides some relevant information	1

Sample answer:

Most world cities are found in the wealthy countries of the Northern Hemisphere, particularly in Europe (eg London) and North America (eg New York). Some world cities are found in the wealthier parts of Asia eg Tokyo. Few major world cities are found in the poorer parts of the world such as Africa.

Question 24 (b)

Criteria	Marks
• Provides a comprehensive comparison of the character of mega cities in the developing world with the character of world cities	6
• Describes some similarities and/or differences between the character of mega cities in the developing world and the character of world cities	5
• Describes the character of mega cities in the developing world and the character of world cities	4
• Describes the character of mega cities in the developing world or the character of world cities OR • Outlines the character of mega cities in the developing world and that of world cities	3
• Shows some understanding of the character of mega cities and/or world cities	2
• Provides some relevant information about mega cities or world cities	1

Sample answer:

World cities are characterised by advanced levels of technology in architecture, communications and transport eg bullet trains in Tokyo and the 'Gherkin' in London. They house iconic cultural features such as the Louvre in Paris and the theatres of Broadway in New York. In contrast, mega cities in the developing world have less technology and few if any iconic cultural features.

Traffic congestion is a characteristic shared by some world cities and mega cities, though due to a lack of infrastructure this problem is greater in mega cities.

Most mega cities of the developing world are characterised by the presence of large slum areas with poor access to clean water, power and sewerage facilities, and basic housing facilities. In comparison housing quality in world cities is generally of a high standard. While some poor quality housing may be present, only a small portion of the population would be affected. Both world cities and mega cities house the best schools and hospitals in the country. However, the quality and quantity of health and education facilities in world cities is higher.

Question 25 (a)

Criteria	Marks
• Explains how ONE locational factor affects ONE external linkage of the economic enterprise	3
• Outlines how ONE locational factor affects ONE external linkage	2
• Provides some relevant information	1

Sample answer:

First Creek Wines is located in the Hunter Region in NSW, a major grape growing and winemaking district. This enables FCW to significantly reduce the costs of their external fruit supplies. Over half of their produce is locally sourced within the region and therefore reduces expenses and potential fruit spoilage during transport.

Question 25 (b)

Criteria	Marks
• Explains how ecological factors influence the nature and spatial patterns of the economic activity	5
• Describes how ecological factors influence the nature and spatial patterns of the economic activity	4
• Outlines how ecological factors influence the nature and spatial patterns of the economic activity OR • Explains how an ecological factor influences the nature or spatial patterns of the economic activity	3
• Shows some understanding of the nature and/or spatial patterns and/or ecological factors of the economic activity/enterprise	2
• Provides some relevant information about a factor affecting the economic activity/enterprise	1

Sample answer:

Using a single crop in viticulture increases the risk of disease and pest outbreaks in vineyards. A successful harvest often requires the inclusion of a range of chemicals and/or companion crops to prevent outbreaks and improve sustainability.

Viticulture also requires extensive land and water resource use. This limits viticulture to areas with available cleared land, sheltered aspect and permeable soil (common in southern Europe). The necessity of an adequate water supply also restricts viticulture to areas with around 500L of water annually, although advancements in irrigation have extended this.

Section III

Question 26

Criteria	Marks
• Demonstrates comprehensive knowledge and understanding of the effects of human activities on ecosystems • Provides comprehensive analysis of the positive and negative effects • Integrates relevant case studies, illustrative examples and the Stimulus Booklet where appropriate • Presents a sustained, logical and cohesive response using appropriate geographical information, terms and concepts	17–20
• Demonstrates well-developed knowledge and understanding of the effects of human activities on ecosystems • Relates some implications of the positive and negative effects • Refers to relevant case studies, illustrative examples and the Stimulus Booklet where appropriate • Presents a logical response using appropriate geographical information and terms	13–16
• Demonstrates a sound understanding of the effects of human activities on ecosystems • Provides characteristics and features of the positive and/or negative effects • Refers to case studies, illustrative examples and the Stimulus Booklet where appropriate • Presents a structured response using appropriate geographical information	9–12
• Demonstrates some knowledge and understanding of human activities and/or their effects on ecosystems • May refer to case studies, illustrative examples and the Stimulus Booklet • Uses some geographical information	5–8
• Demonstrates a basic understanding of human impacts on ecosystems	1–4

Answers could include:

- Human activities can affect ecosystems through modifications to energy flows, nutrient cycling and relationships between biophysical components.
- Ecosystems could include – GBR, ITW, rainforests, coastal dunes, polar areas
  - positives – zoning, education, management strategies, exclusion, education, action, design, legislation
  - negatives – climate change, melting permafrost, invasive species, fishing, rubbish dumping, oil spills, development
- Implications of these effects may be improved or degraded ecosystem function, diversity, services, and attraction for tourists to visit.

Question 27

Criteria	Marks
• Demonstrates comprehensive knowledge and understanding of urban dynamics including suburbanisation and consolidation • Provides a comprehensive discussion of the statement with reference to ONE large city from the developed world • Integrates relevant case studies, illustrative examples and the Stimulus Booklet where appropriate • Presents a sustained, logical and cohesive response using appropriate geographical information, terms and concepts	17–20
• Demonstrates well-developed knowledge and understanding of urban dynamics including suburbanisation and consolidation • Provides a discussion of the statement with reference to ONE large city from the developed world • Refers to relevant case studies, illustrative examples and the Stimulus Booklet where appropriate • Presents a logical response using appropriate geographical information and terms	13–16
• Demonstrates a sound understanding of urban dynamics including suburbanisation and/or consolidation • Describes the urban dynamics that shape the development of ONE large city from the developed world • Refers to case studies, illustrative examples and the Stimulus Booklet where appropriate • Presents a structured response using appropriate geographical information	9–12
• Demonstrates some knowledge and understanding of the urban dynamics that shape the development of ONE large city from the developed world • May refer to case studies, illustrative examples and/or the Stimulus Booklet • Uses some geographical information	5–8
• Demonstrates a basic understanding of urban dynamics	1–4

Answers could include:

A discussion of the influence of a variety of urban dynamics of change in shaping the development of a large city in the developed world, including suburbanisation and consolidation, and may include:

- Counterurbanisation
- Urban decay
- Urban renewal
- Urban village
- Spatial exclusion.

Examples of large cities from the developed world may include: Sydney, New York, London, Paris, Tokyo, Melbourne, Rome, Los Angeles.

Question 28

Criteria	Marks
• Demonstrates comprehensive knowledge and understanding of global changes on an economic enterprise operating at a local scale • Provides a comprehensive evaluation of the effects of global changes on the economic enterprise • Integrates relevant case studies, illustrative examples and the Stimulus Booklet where appropriate • Presents a sustained, logical and cohesive response using appropriate geographical information, terms and concepts	17–20
• Demonstrates well-developed knowledge and understanding of global changes on an economic enterprise operating at a local scale • Provides an evaluation of the effects of global changes on the economic enterprise • Refers to relevant case studies, illustrative examples and the Stimulus Booklet where appropriate • Presents a logical response using appropriate geographical information and terms	13–16
• Demonstrates a sound understanding of global changes on an economic enterprise operating at a local scale • Provides the characteristics and features of the effects of global changes on the economic enterprise • Refers to case studies, illustrative examples and the Stimulus Booklet where appropriate • Presents a structured response using appropriate geographical information	9–12
• Demonstrates some knowledge and understanding of global change and/or its effect on an economic enterprise/activity • May refer to case studies, illustrative examples and/or the Stimulus Booklet • Uses some geographical information	5–8
• Demonstrates a basic understanding of an economic enterprise/activity	1–4

Answers could include:

- Evaluation of global changes in an activity impacting a local enterprise such as:
  - Ecological eg climate change
  - Economic eg change in competition, consumer demand fluctuations, economy fluctuations
  - Sociocultural eg changing lifestyles, changing travel patterns
  - Technological eg advancements in ICT, transport, production
  - Political eg government restrictions, tariffs, agreements.
- Evaluation could be conducted via criteria such as:
  - Economic / financial factors eg revenue/profit, sales figures, visitors, employee numbers, growth
  - Environmental eg resource use, waste levels
  - Social eg community impacts, social distancing requirements.

2021 HSC Geography Mapping Grid

Section I

Question	Marks	Content	Syllabus outcomes
1	1	Mega city photo interpretation	H10
2	1	Type of photograph	H10
3	1	Geographical terminology	H5
4	1	Mega city map reading	H10
5	1	City population size graph reading	H11
6	1	Food chain	H2
7	1	Radial graph of business spending	H10
8	1	Type of data and reliability	H9
9	1	Aspect	H10
10	1	Area	H10
11	1	Gradient	H10
12	1	Direction of photograph	H10
13	1	Scale of second map	H11
14	1	Interpreting a synoptic chart	H10
15	1	Interpreting a synoptic chart	H10
16	1	Geographical concepts	H6
17	1	Proportional sector graphs	H10
18	1	Non straight-line distance	H10
19	1	Direction	H10
20	1	Latitude and longitude	H10

Section II

Question	Marks	Content	Syllabus outcomes
21 (a)	2	Local relief	H11
21 (b)	2	Vertical exaggeration	H11
22 (a)	3	Benefits of GIS	H7
22 (b)	3	Ecosystem management strategies	H5, H6
22 (c)	3	Effects on businesses	H1, H10
22 (d)	3	Culture of place	H1, H3
23 (a)	3	Traditional ecosystem management strategies	H5
23 (b)	5	Ecosystems and climate	H1, H12
24 (a)	2	World city spatial distribution	H12
24 (b)	6	Character of mega cities and world cities	H3, H13
25 (a)	3	Enterprise locational factors / external linkage	H1, H4
25 (b)	5	Economic activity ecological factors	H4, H12

Section III

Question	Marks	Content	Syllabus outcomes
26	20	Human impacts on ecosystems	H2, H12, H13
27	20	Urban dynamics	H3, H12, H13
28	20	Effects of global changes on local enterprise	H1, H12, H13