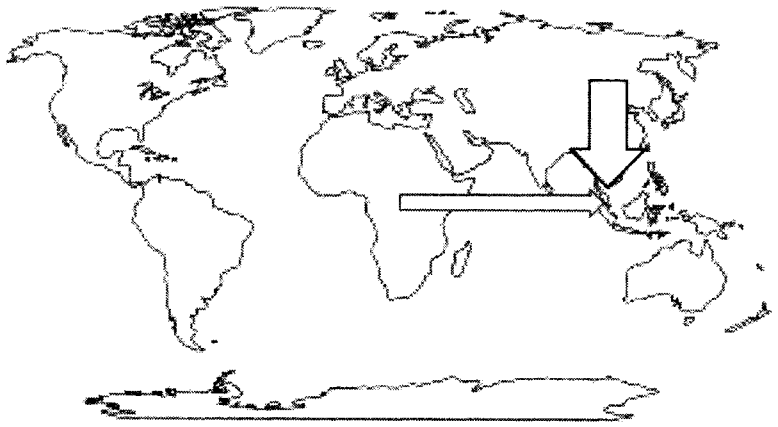
Pure Geo pp 1 Answer Key

1 (a) (i)	• Government website/Singapore Tourism Board [1] • Academic research and Publications [1] AO 1 [2 marks]
1 (a) (ii)	• Food and drink [1] AO 1 [1 mark]
1 (b) (i)	• Students could divide and locate themselves at different parts of Gardens by the Bay (entrance of Cloud forest, entrance of Flower dome, Supertree Observatory and etc) as the volume of visitors would be the greatest [1 mark]. • These locations are also ideal as they are the popular tourist sites within Gardens by the Bay hence providing opportunities for the students to approach the visitors easily. [1 additional mark] • Students could use simple random sampling as it is used to remove bias that could stem from the selection of visitors [1 mark]. A random number generator is used to generate random numbers to select the samples. [1 additional mark] • Students collect the data on a Monday for 3 hours from 11am – 2pm to ensure a large sample size could be collected so that there is more data for comparison[1] • Accept other types of sampling technique (2 m max) AO 2 [4 marks]
1 (b) (ii)	

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	AO2 [2 mark]
1 (b) (iii)	• The data from table 1.1 does not support the hypothesis. Most tourists from Singapore does not come from Europe. [1] • The region with the highest number of tourists to Singapore is Asia. [1] • It accounts for 50% of the tourists in Singapore. [1 additional mark] • Tourists from Europe only accounts a smaller percentage of 18%. [1] AO2 [3 marks]
1 (b) (iv)	• The data was only collected from one attraction which is Gardens by the Bay. [1] • This may miss out tourists who may come from other regions but did not visit Gardens by the Bay thus the sample may not be representative of the overall tourist population in Singapore. [1 additional mark] • As the data was collected on a Monday morning only from 11am to 2pm, the time frame is limited. [1] • This may miss out other tourists' pattern, like where they come from which may differ by season or even time of the day. e.g. school holidays [1 additional mark] • A sample size of 100 from a specific location is sufficient to help identify the region where most tourists come from. [1] AO3 [4 marks]
1 (c)	• Students can construct comparative bar graph. [1] • For each attribute, there will be two bars placed side by side, one representing number replying yes and the other replying no. [1] • The different attributes will be on the X axis and the number of respondents will be on the Y axis. [1] • There should be a clear legend to distinguish between those replying yes and those replying to no. [1] AO2 [4 marks]

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2 (a)	• The increasing pressure of work and hectic lifestyles have increase people's motivation to travel to relieve stress. [1] • Many people therefore travel to different destinations and engage in different tourist activities to escape from the urban environment to rest and relax. [1 additional mark] • Many people travel as a way for self-growth and to achieve their fullest potential. [1] • It helps them to develop themselves further by learning something new or improving their existing knowledge and skills such as cooking local cuisines. [1 additional mark] • Some are motivated to travel so as to gain unique travel experiences in order to satisfy their curiosity about the world. [1] • They get to explore different environments and cultures and to participate in uncommon tourism activities such as trekking along the slopes of a volcano. [1 additional mark] AO1 [5 marks]
2 (b)	• Globalisation has led to increased demand by making the international tourism more accessible and desirable. [1] • Globalisation allows tourists to search for and buy tourism related products from anywhere that results in greater competition among businesses, which drives them to offer value-for-money travel experiences. [1] • This increases the demand by making travelling more affordable for a wider range of people. [1 additional mark] • With increased access to new ideas on tourism destinations and experiences from all over the world, more tourists are motivated to travel [1] • Especially for lesser-known destinations that were not previously popular, with the greater flow of information about these destinations, it has enticed more people to travel to these second cities. [1 additional mark] AO1 [4 marks]
2 (c)	• Government policies help push change on sustainable tourism for tourism organizations which may not prioritize change. [1]

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	• This may include enforcing regulations to limit tourist numbers. [1 additional mark] • Government can also offer guidance to tourism organisations on sustainable tourism as not all will have the know how and thus the adoption of sustainable practices would be slower. [1] • If the policies are inconsistent and lack enforcement or monitoring, the effectiveness is limited. [1] • Reserve 1m each for effectiveness and ineffectiveness AO3 [2 marks]
2 (d)	• Generally, it is an increasing trend for domestic travel but a slight decreasing trend for international travel between 2019 and 2014. [1] • For domestic travel, it increased from 53.1mil to 55.8 mil, an increase of 2.7 million. For international tourism, it decreased by 0.1 million. [1 additional mark] • Both domestic and international decreased drastically from 2019 to 2020. [1] • International decreased from 13.5 million to 2.4 million. Domestic decreased from 53.1 million to 20.5 million. [1 additional mark] • Domestic travel was always more than international. [1 mark] AO2 [4 marks]
3 (a)	• A large-scale volcanic eruption releases large volumes of carbon dioxide, water vapour, sulfur dioxide, dust and ash into the atmosphere. [1] • The sulfur-based particles, dust and ash spread around the lower atmosphere area of the earth. [1] • These particles absorb and reflect solar energy back to space and temporarily offsets the greenhouse effect, lowering temperature. [1] AO1 [3 marks]
3 (b)	• Rising sea levels and flooding will lead to a decrease in Asia's GDP and put many people at risk. [1]

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<table>
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- Among the cities, Bangkok is the most affected with 10.45 million people at risk and has the highest economic loss of 96%. [1]
- The least affected is Hong Kong, with only 0.09 million people at risk and an economic loss of 0.4%. [1]
- For Manila, even though only a smaller number of 1.54 million people are affected, yet the economic loss is high, projected at 87%. [1]

AO2 [3 marks]
</td></tr>
<tr><td>3 (c)</td><td>

Level	Marks	Descriptors
3	7-9	Develops arguments that support both sides of the discussion clearly using a range of points with good elaboration. Examples used demonstrate a comprehensive understanding of the issue or phenomenon. Evaluation is derived from a well-reasoned consideration of the arguments.
2	4 - 6	Develops arguments that support one side of the discussion well using one or two points with some elaboration. Examples(s) used demonstrate a good understanding of the issue or phenomenon. Evaluation is well supported with arguments.
1	1- 3	Arguments are unclear with limited description or may be listed. No examples provided or examples are generic, demonstrating a basic understanding of the issue or phenomenon. Evaluation is simple, missing or unclear.

-
</td></tr>
<tr><td></td><td>

- L3

To deal with climate change, there should be a synergistic approach. Although clean energy provides the essential technological backbone to
</td></tr>
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	reduce carbon emissions, changes in consumption pattern within the communities play a more significant role in reducing overall environmental impact and waste. The shift in the mind set of individuals will lead to more resilient communities in the face of global challenges. AO3 [9 marks]

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Name: Register Number: Class:

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南僑中學

NAN CHIAU HIGH SCHOOL

PRELIMINARY EXAMINATION 2025
SECONDARY FOUR EXPRESS

GEOGRAPHY **2279/02**

Paper 2 **29 August 2025, Friday**

1 hour 45 minutes

Marking Scheme

1 Cluster 1: Geography in Everyday Life

(a) Study Fig. 1.1 (Insert), which shows the locations of popular shopping malls and Shibuya Station in Tokyo.

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(i) Using Fig. 1.1 (Insert), suggest one reason why cities like Tokyo develop shopping malls in close spatial association with subway stations. [2]

- By locating shopping malls in close spatial association with subway stations, cities like Tokyo make it more accessible and convenient for both local residents and tourists to access retail, dining, and entertainment facilities. [1 mark]
    - o Shoppers can easily visit malls without needing private transport, which helps to reduce congestion on the roads / which is more sustainable for the environment / less space needed for carparks, allowing cities to use their space more efficiently. [1 additional mark]
- When shopping malls are located next to busy subway stations, many people will pass by or through these malls every day, whether to shop or on their way to work. [1 mark]
    - o This large number of visitors means shops are more likely to make sales, sustaining a profitable business. [1 additional mark]

Award marks only for the first reason give.

Study Fig. 1.2 (Insert), which shows Todoroki Valley in central Tokyo.

(ii) Using Fig. 1.2 (Insert), explain how nature in this area may provide regulating ecosystem services. [3]

- The dense trees and vegetation in Todoroki Valley help to regulate the local climate by providing shade. [1 mark]
    - o This cools the surrounding air, making the area less hot, especially during summer. [1 additional mark]
- The plants and vegetation cover reduce surface runoff by retaining water in the soil. [1 mark]
    - o Reducing the risk of sudden flooding after heavy rain. [1 additional mark]
- The leaves can trap dust and other small particles, regulating air quality. [1 mark]

Study Fig. 1.3, which shows an excerpt from an article on sustainability efforts in Tokyo.

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Building a Sustainable Tokyo: Balancing the Environment, People, and the Economy
Japan for Sustainability

In Tokyo, several efforts have been made to reduce the effects of hot summer temperatures. These include building wind paths by spacing out tall buildings and removing older ones that block natural airflow, such as in a redevelopment project near Tokyo Station. Greenery is also being added in creative ways, such as planting grass along tram lines, installing rooftop and wall gardens, and using climbing plants like morning glory on window nets. Some cities like Nagoya have even passed laws that require new buildings to include a certain amount of green space. The government supports these efforts through grants, tax reductions, and planning incentives.

Fig. 1.3

(iii) With reference to Fig. 1.3, explain how the spatial layout and planning of Tokyo's urban areas help to build sustainable neighbourhoods. [4]

Environmental sustainability:

- Building wind paths through buildings ensures that the space is designed to be energy-efficient to minimize the use of resources like air conditioning.
- Incorporating greenery into commonly used areas show a concerted effort to protect habitats and ecosystems.
- Tree corridors, rooftop gardens, and climbing plants provide shade and support evapotranspiration, helping to lower surrounding temperatures and reduce the urban heat island (UHI) effect.
- These green features also help to absorb pollutants such as carbon dioxide and dust particles, leading to cleaner air in densely built areas.

Social sustainability:

- Shared community spaces like rooftop gardens offer places for recreation, rest, and social interaction, enhancing the quality of life for residents.
- The presence of greenery improves the aesthetic appeal of neighbourhoods, the unique design can also help to strengthen a sense of shared identity.

Economic sustainability:

- By naturally cooling the environment, greenery helps reduce reliance on air-conditioning, leading to lower energy consumption and utility costs.
- Government incentives (e.g. grants and tax reductions) encourage private property owners to take part in greening efforts, supporting long-term maintenance of these initiatives.

Reserve 1 mark for reference to spatial layout.

Reserve 1 mark for reference to urban planning (green spaces).

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(b) In early 2025, a fast-moving wildfire broke out in the Palisades neighbourhood of Los Angeles, California, following weeks of dry weather, strong winds, and the rapid spread of flammable vegetation. The fire swept through the suburban area, destroying homes, infrastructure, and nearby natural spaces. Hundreds of residents were forced to evacuate.

Study Figs. 1.3 and 1.4 (Insert), which show scenes from the Palisades neighbourhoods in California after the 2025 wildfires.

i. With reference to Fig. 1.3 (Insert), describe the economic impacts of the wildfire on the Palisades neighbourhoods in California. [3]

- The wildfire caused extensive damage to private property, including homes, vehicles, and household belongings and important documents, which leads to economic losses.
- Further costs may also be incurred after the fire is over as money is required to repair and rebuild the properties that were damaged in the fire.
- The fire may result in potential loss of property value in the affected area, and make it more difficult for residents to sell or insure their homes in the future.
- Businesses in the area may have suffered from interruption of operations, leading to income loss for owners and employees, which further affects the local economy.

ii. Using Figs 1.3 and 1.4 (Insert), comment on how events like these may affect the Palisades residents' sense of place. [3]

- The destruction of homes and familiar streets shown in Fig. 1.3 may cause residents to feel that their community identity has been lost, as key landmarks and shared spaces are no longer recognisable.
- In Fig. 1.4, the posture of the resident among the rubble reflects a deep personal attachment to place and the grief caused by the damage.
- The sudden loss of social connections in a once-familiar environment may lead to a weakened emotional connection with the neighbourhood.
- There is a decrease in sense of safety and security, and the place is no longer a familiar space of comfort.
- These changes can lead residents to redefine or even lose their sense of place, especially if they are displaced for an extended period.

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2 Cluster 4: Tectonics

(a) On 28 March 2025, a powerful magnitude 7.7 earthquake struck central Myanmar along the Sagaing Fault. The earthquake resulted in approximately 3,649 deaths and more than US $11 billion in economic damage, equivalent to around 14% of the country's GDP. Cities such as Naypyidaw and Mandalay were among the hardest hit.

Study Fig. 2.1 (Insert), which shows a map showing the location of Sagaing fault in Myanmar and the distribution of earthquakes in the region since 1900.

i. With reference to Fig. 2.1 (Insert), explain how tectonic movements along the Sagaing Fault could have caused the earthquake on 28 March 2025. [4]

- The rock masses on both sides of the Sagaing Fault are pushed by tectonic forces / tectonic plates slide past each other along the Sagaing Fault.
- Friction causes the rock masses to get locked and stress builds up.
- When the stress exceeds the strength of the fault/rock, the rocks snap and suddenly move into new position.
- This sudden movement causes seismic waves to be released, resulting in violent shaking of the ground, causing earthquakes.

ii. Using Fig. 2.1 (Insert), calculate the population density of Naypyidaw. [1]

Population density = Population ÷ Land Area

= 788,238 ÷ 7054

= 111.7

= approximately 112 persons per km²

Unit must be shown to get the mark.

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iii. Using Fig. 2.1 (Insert), explain why the 2025 earthquake caused severe devastation in Myanmar despite the country experiencing many magnitude 6 and above earthquakes since 1900. [4]

- The 2025 earthquake had a shallow focus of 10 km, the seismic waves reach the surface with greater energy. [1 mark]
    - o This increased the intensity of shaking in areas directly above the epicentre, causing more destruction to buildings and infrastructure. [1 additional mark]
- The epicentre was located near Naypyidaw and Mandalay, which are cities with large populations and densely built-up areas with taller infrastructure. [1 mark]
    - o This increases the risk of injury during an earthquake, as crowded conditions and narrow escape routes can lead to congestion and panic during evacuation. [1 additional mark]
- While Myanmar has experienced many magnitude 6 earthquakes, the 2025 earthquake had a much stronger magnitude of 7.7. The higher intensity may have caught the people off-guard. [1 mark]
    - o Especially if residents were unfamiliar with how to respond or lacked knowledge of safety procedures during strong ground shaking. [1 additional mark]
- A major aftershock (magnitude 6.7) occurred shortly after the main quake. This caused further damage to already weakened buildings. [1 mark]
    - o The aftershock may also have disrupted emergency efforts, causing rescue teams to halt operations, increasing the risk for those trapped. [1 additional mark]

(b) Study Fig. 2.2 (Insert), which shows Singapore's cyborg cockroaches being used to help with search-and-rescue efforts following the 2025 Myanmar quake.

With reference to Fig. 2.2 (Insert) and your own knowledge, evaluate the effectiveness of disaster response strategies implemented immediately after an earthquake. [6]

Effective:

- Cyborg cockroaches equipped with cameras and sensors can help rescuers confirm the presence and exact location of trapped victims before deploying full rescue teams. [1 mark]
    - o This allows search efforts to be more targeted and efficient, reducing time spent searching blindly and improving the chances of rescuing survivors quickly. [1 additional mark]
- The use of cyborg cockroaches reduces the need for human rescuers to immediately enter unstable or confined spaces. [1 mark]

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  - This lowers the risk of injury to rescuers and makes it possible to assess dangerous areas safely before committing manpower or heavier equipment. [1 additional mark]

- When the Myanmar government allows international teams to assist, it expands the capacity for search-and-rescue operations. [1 mark]
  - Teams like Singapore's Operation Lionheart contribute specialised skills and additional manpower / technology, improving the speed and reach of efforts to locate survivors. [1 additional mark]
- Working closely with local authorities also helps coordinate timely evacuation of survivors to safer zones, such as open fields. [1 mark]
  - These areas are less prone to aftershocks and allow for the organised distribution of basic services like shelter, food, and medical care. [1 additional mark]

Ineffective:

- While technology like cyborg cockroaches is innovative, it may only be available in small numbers. [1 mark]
  - This limits their reach in large-scale disasters, where hundreds of sites may require attention, so not all affected sites can be searched quickly. [1 additional mark]
- The Myanmar government delayed approval for international aid teams to enter affected areas. [1 mark]
  - This slowed down the delivery of life-saving assistance and search-and-rescue efforts, especially in the critical early hours after the earthquake when chances of survival are highest. [1 additional mark]
- Ongoing aftershocks can cause further building collapses or landslides, forcing teams to suspend operations and increasing the risk to both trapped individuals and response teams. [1 mark]
- Miscommunication between foreign responders and local authorities or residents can lead to delays, duplication of efforts, or incorrect prioritisation of rescue sites. [1 mark]
- Blocked roads, damaged airports, and collapsed bridges can delay the arrival of aid and prevent teams from reaching remote or heavily affected areas quickly. [1 mark]

Reserve 2 marks for effectiveness.

Reserve 2 marks for ineffectiveness.

Accept other plausible short-term strategies.

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3 Cluster 5: Singapore

(a) i. Describe two physical vulnerabilities that Singapore faces. [4]

Limited land:
- Singapore is a small island nation with a total land area of about 730 km^2.
- Its limited physical space poses challenges for land use, especially as the population grows.
- It is difficult to juggle the competing demands for land to cater to economic, social and environmental needs.

Low-lying coastal location:
- Singapore is a low-lying island with about 30% of its land less than 5 metres above sea level.
- This makes it highly vulnerable to sea level rise caused by climate change, which may lead to coastal flooding and erosion, especially during high tides or storm surges.
- More areas in Singapore could be flooded easily, especially during seasons of intense rainfall.

Food, water, energy insecurities:
- Singapore lacks large natural freshwater sources such as lakes or rivers. This makes it vulnerable to water scarcity, especially during prolonged dry spells.
- Due to limited land, Singapore is unable to produce enough food or energy domestically. Over 90% of its food is imported, making it vulnerable to global supply disruptions, price fluctuations, and export bans.
- It has no natural fossil fuel resources, relying on imports for energy.

Increasing daily mean temperatures:
- Singapore is experiencing rising temperatures due to both global climate change and the urban heat island effect.
- With an increase in daily mean temperatures, the existing environment will become more humid. This places stress on natural ecosystems.
- Native species that are sensitive to temperature changes may face habitat loss, reduced reproduction rates, or even extinction, reducing biodiversity resilience.

Changing weather patterns:
- More frequent and intense rainfall events increase the risk of flash floods, especially in low-lying areas and coastal wetlands.
- Sudden flooding can damage natural habitats, wash away soil nutrients, and disrupt the breeding cycles of freshwater species.
- In contrast, longer dry spells can reduce water availability in ponds and nature reserves, affecting aquatic and bird life.

Accept any 2 factors.
Do not accept answers beyond the first 2 factors given.

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i. Study Figs. 3.1 and 3.2 (Insert), which shows a cartoon on global trade tensions following the introduction of tariffs by the United States in 2025, and an article on the impact of changing global trade policies on Singapore respectively.

Using Figs. 3.1 and 3.2 (Insert), suggest how Singapore may be affected by global trade policies such as the 2025 US tariffs. [4]

- Fig. 3.1 shows the United States imposing tariffs on global trade partners like China, the EU, and Canada and fragmentation of the globe. This suggests rising trade tensions.
- Fig. 3.2 also mentioned that Singapore is a small, open economy that depends heavily on international trade, making it highly vulnerable to such global trade disruptions.
- Reduced global trade flows may lead to lower investor confidence, slowing down foreign investment into Singapore.
- Singapore is a major shipping and transshipment hub. Tariffs reduce trade volume between large economies, which could lower shipping traffic and port activity in Singapore, impacting its maritime and logistics sectors.
- Singapore's manufacturing sector, which produces high-value goods like microchips, may face lower demand and higher costs due to disrupted supply chains and reduced exports.

Accept other plausible answers.

(b) Study Fig. 3.3, which shows a summary of design features of Changi Airport's upcoming Terminal 5.

Singapore Changi Terminal 5 Breaks Ground: What Travelers Can Expect by the 2030s
MustShareNews

Terminal 5 will be one of the world's largest airport terminals, designed to meet future travel needs more efficiently. The terminal layout includes shared-use spaces where departure, arrival, and transit areas are placed close together, allowing passengers and airport staff to move between functions more easily. The terminal is also designed with flexible spaces that can be adjusted based on passenger volume. For example, specific areas can be opened or closed depending on how busy the airport is at different times, or during periods of recession or border restrictions.

Climate-friendly features include energy-efficient cooling systems, natural lighting, and provisions for using sustainable aviation fuel. The building will also use smart

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controls to reduce energy consumption and incorporate green building materials to minimise its environmental footprint.

Fig. 3.3

Using Fig. 3.3, account for how the design features of Terminal 5 support Singapore's long-term ability to cope with global challenges. [3]

Coping with global uncertainties such as pandemics and changing travel demand

- Terminal 5 includes flexible spaces that can be opened or closed depending on passenger volume. **This allows the airport to adjust operations during times of reduced travel, such as during a pandemic or financial downturn.**
- The shared-use layout, where arrival, departure, and transit zones are located close together, allows for more efficient movement of passengers and airport staff. **This reduces the need for extra manpower and helps the airport function smoothly during manpower shortages or sudden changes in travel flow.**
- By preparing for long-term demand and adopting future-ready infrastructure, Terminal 5 ensures Singapore stays competitive as a leading global air hub, even as travel patterns evolve.

Responding to climate change and supporting environmental sustainability

- Terminal 5 uses energy-efficient cooling systems and natural lighting, **which help to reduce electricity consumption and lower carbon emissions.**
- The building is designed to include smart controls that adjust energy use **based on real-time needs, helping to minimise energy waste.**
- It also supports the use of sustainable aviation fuel and uses green building materials, **showing Singapore's commitment to reducing its environmental footprint and building long-term climate resilience.**
- These climate-friendly features are important as Singapore prepares for future challenges linked to global warming and rising energy demands.

Award marks only for responses that go beyond repeating / paraphrasing the source.

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(c) Study Fig. 3.4 (Insert), which shows the Singapore Hotel Sustainability Roadmap.

With reference to Figs 3.3 and Fig 3.4 (Insert), evaluate the extent to which Singapore can balance economic growth in tourism with climate sustainability. [9]

Level Descriptors for 9-mark AO3 Questions		
Levels	Marks	Descriptors
3	7-9	Develops arguments that support both sides of the discussion clearly, using a range of points with good elaboration. Examples used demonstrate a comprehensive understanding of the issue or phenomenon. Evaluation is derived from a well-reasoned consideration of the arguments.
2	4-6	Develops arguments that support one side of the discussion well, using one or two points with some elaboration. Example(s) used demonstrate a good understanding of the issue or phenomenon. Evaluation is well supported by arguments.
1	1-3	Arguments are unclear with limited description or may be listed. No examples provided or examples are generic, demonstrating a basic understanding of the issue or phenomenon. Evaluation is simple, missing or unclear
0	0	No creditworthy response.

Sample response:

Singapore's tourism sector is an important part of its economy, providing jobs, attracting investments, and contributing significantly to GDP. However, tourism also has environmental impacts, especially through high energy use and carbon emissions. Based on Figs. 3.2 and 3.3, Singapore is taking steps to grow its tourism sector while reducing its impact on the environment. While these efforts are promising, there are still challenges to achieving a true balance.

Tourism is a major contributor to Singapore's economy, supporting over 65,000 jobs and contributing about 4% of GDP before the COVID-19 pandemic. Singapore's focus on developing world-class attractions such as Jewel Changi Airport, Sentosa, and the Formula 1 Night Race helps it remain a top tourist destination. The development of Terminal 5 (Fig. 3.2) is part of Singapore's long-term strategy to support future growth in international travel. Once completed, it will be one of the largest airport terminals in the world, helping to increase passenger handling capacity by up to 50 million additional travellers per year. With more capacity, Singapore can welcome more tourists, which in turn leads to higher tourism spending on hotels, food, shopping, transport, and attractions. This multiplier effect supports growth across multiple sectors and boosts overall economic performance. It also strengthens Singapore's position as a global air hub, ensuring continued relevance in the Asia-Pacific region's growing travel market. These efforts show that Singapore sees tourism as a key engine of economic growth in the decades to come.

Singapore is planning its tourism infrastructure to support both economic growth and environmental sustainability. For example, Terminal 5 (Fig. 3.2) will include energy-efficient

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cooling systems, natural lighting, and smart controls to reduce energy use. There are also plans to support sustainable aviation fuel (SAF), which helps reduce emissions from flights — a key source of pollution in global tourism. This shows Singapore is trying to reduce the environmental impact of growing air travel. In addition, the Hotel Sustainability Roadmap (Fig. 3.3) aims for 60% of hotel rooms to be certified sustainable by 2025, and for all hotels to work towards net-zero emissions by 2050. Hotels are encouraged to improve energy and water efficiency, manage waste, and buy from sustainable suppliers. These changes reduce the environmental impact of tourism, while still helping Singapore attract high-value, eco-conscious tourists. Together, these efforts show that Singapore is not just growing its tourism sector, it is doing so in a way that aims to minimise long-term harm to the environment.

Beyond airport and hotel design, Singapore has launched various other strategies to keep tourism environmentally sustainable. For example, the Singapore Green Plan 2030 includes goals to make tourism and transport more eco-friendly. The government promotes the use of electric buses and vehicles to reduce carbon emissions from land transport. Attractions like the Singapore Zoo and Gardens by the Bay also implement green practices, such as recycling water, using solar panels, and protecting biodiversity. Eco-tourism is growing as well, with places like Pulau Ubin and Coney Island offering nature-based experiences with low environmental impact. These efforts help Singapore diversify its tourism beyond shopping and entertainment, creating more low-carbon and educational experiences. By supporting green transport, promoting nature-based tourism, and setting national environmental targets, Singapore is building a tourism sector that supports long-term climate goals while continuing to attract visitors.

Singapore has taken serious steps to ensure that tourism growth does not come at the expense of the environment. Its long-term planning, clear targets, and investment in green technologies show strong national commitment. While trade-offs are unavoidable, especially with the environmental cost of air travel, Singapore has shown that economic development and environmental responsibility do not have to be in conflict. Although challenges remain, the country has made realistic and measurable progress towards achieving this balance.

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