



ANDERSON SECONDARY SCHOOL
Preliminary Examinations 2025
Secondary Four Express /
Secondary Five Normal Academic



CANDIDATE NAME:

CLASS:

INDEX NUMBER:

HUMANITIES

2260/02

Paper 2 Geography

27 August 2025

1 hour 45 minutes

0800 - 0945

Additional Materials: Insert

Mark Scheme

Section A

Answer Question 1 **and** Question 2.

1 Cluster 1: Geography in Everyday Life

(a) Study Fig. 1.1 which shows The Singapore Botanic Gardens.

The Singapore Botanic Gardens



Fig. 1.1

- The Gardens is a 166-year-old tropical garden and a UNESCO World Heritage Site, located in the heart of Singapore. It is a place of beauty, scientific research, and recreation, offering a diverse range of attractions and experiences.
- The Gardens was selected as one of the UNESCO World Heritage Site on July 4, 2015. This makes it a unique and significant cultural and natural landmark for Singapore.
- Queen Elizabeth II toured the Gardens in 1972 and has an orchid named in her honour, *Dendrobium Elizabeth*.
- The Gardens are filled with locals practicing tai chi, jogging, and watching open-air concerts at the Symphony Lake during the weekends.

- (i) With reference to Fig. 1.1, describe the cultural ecosystem services in the Singapore Botanic Gardens. [3]

Award 1m for each description, up to 3 m.

Award a maximum of 1 additional mark for further development of each description, where applicable.

Cultural ecosystem services: refer to the provision of benefits people obtain from ecosystems including aesthetic experiences, educational opportunities, and recreational activities. [1 - definition]

- The Gardens selected in the UNESCO World Heritage List brings **social and cultural pride and identity** for the local visitors. [1]
- It provides **educational opportunities** for visitors to learn about the various vegetations and orchids that thrive there. [1]
- Visitors can **learn about Singapore's colonial history**, since it is an old and historical site, with orchids named after British monarchs. [Additional 1 mark]
- There is **aesthetic appreciation** for the plants, e.g. heritage trees or significant orchid species. [1]
- There is **aesthetic musical experience** to enjoy with open-air concerts at the Symphony Lake during the weekends. [1]
- The green spaces provide opportunities for visitors to participate in **recreational activities** such as tai chi and jogging. [1]

AO2

- (ii) Describe how visitors to the Botanic Gardens can bring disadvantages to nature.[2]

Award 1m for each description, up to 2 m.

- Visitors may trample on the vegetation, damaging plants and affecting their growth. [1]
- Visitors may pollute the Gardens through littering which wildlife may mistake for food and consume them causing illness or death. [1]
- Visitors may disturb the wildlife that live in the Gardens, increasing their likelihood to attack when fearful or triggered. [1]

AO1

- (b) Explain how environmental stewardship is achieved in the neighbourhood. [3]

Award 1m for each description, up to 3 m.

Award a maximum of 1 additional mark for further development of each description, where applicable.

Environmental stewardship refers to the actions taken by individuals or groups, to protect, care for or responsibly use the environment to pursue environmental and/or social outcomes. [1 mark – definition]

- Promoting volunteerism among neighbourhood residents to share knowledge with others about the importance of healthy ecosystems. [1]
- This helps residents become more aware of what they can and should do to responsibly use and protect the natural environment. [Additional 1 mark]
- Partnership of public and private sectors contributes to environmental stewardship efforts. [1]
- Residents play a vital role in the proper recycling of their waste, public agencies enhance awareness and education, while private stakeholders provide recycling facilities. [Additional 1 mark]

AO1

- (c) A group of students from Anders High School were investigating the level of inclusiveness in Tampines. They came up with the hypothesis, **‘The more inclusive the neighbourhood is, the higher the number of elderly living there.’**

They conducted a closed-ended questionnaire survey to gather data for their investigation. The results of the questionnaire are shown in Table 1.1. (Insert).

- (i) Using Table 1.1 (Insert), evaluate the validity of the collected data. [4]

Award 1 mark for each evaluation of the validity of students’ findings, up to 4m.
Award a maximum of 1 additional mark for further development of each evaluation, where applicable.

Valid:

- Majority of the residents, 71% surveyed, stated that Tampines is an inclusive neighbourhood. [1 m – compulsory]
- There are plenty of inclusive features built in Tampines. [1]
- This is seen in Table 1.1 that 6 out of the 8 inclusive features listed, more than 70% of respondents indicated that they have seen these features all the time in Tampines. [Additional 1 mark]
- The longer the residents lived in Tampines, they observed more inclusive features being built over the years, hence a valid finding. [1]
- This is seen in 72% of the residents surveyed who have lived in Tampines for more than 11 years and 11% of the residents surveyed have lived more than 15 years. [1]
- 92% of residents stating that the elderly fitness corner is present ‘all the time’ indicated that a very high percentage are aware of the inclusive features. [Additional 1 mark]

Not Valid:

- The questionnaire did not show the actual number of elderly living in Tampines or whether it had increased with the inclusive features, instead it only shows the responses by residents who reside in Tampines. [1]
- Almost $\frac{1}{3}$ of residents (29%) felt that Tampines is not inclusive. Thus, it is quite a significant number although still in the minority. [1]
- However, many of these people may have lived in Tampines for a shorter duration. [Additional 1 mark]

AO3

- (ii) With reference to Table 1.1 (Insert), evaluate the reliability of using close-ended questionnaire surveys to collect primary data. [2]

Award 1 mark for each explanation for or against the reliability of the data collection method, to a maximum of 2 marks.

For:

- Generally, closed-ended questionnaires are reliable due to their use of pre-defined responses like those in Table 1.1, which guide participants and makes it easier for them to answer. [1 mark]
- The quantitative data obtained is also easier to analyse and interpret consistently since they are in fixed categories. [1 mark]

Against:

- However, there is a need to include open-ended questions to balance out the evaluation, hence only close-ended questionnaire is not reliable. [1]
- The aim of the questionnaire was to collect data from the residents and by using only closed-ended questions this cannot be achieved. [1]
- *Question 2* only has three options, '*all the time*', '*sometimes*' and '*not at all*' and may disregard the possibility of the person not choosing any of the options, therefore the data is unreliable.'

AO3

[Total: 14]

2 Cluster 2: Tourism

- (a) Explain how an increase in mobility leads to the growth of tourism. [3]

Award 1m for each description, up to 3 m.

Award a maximum of 1 additional mark for further development of each description, where applicable.

- There is an increase in the expansion of public transport services and infrastructure by increasing roads, railways and airports. [1]
- This increases the connectivity to different parts of a country so tourists can travel to more places in much shorter time. [Additional 1 mark]
- The new rapid development of transportation technology has resulted in new modes of travel as tourists can travel faster and further by air, land and sea. [1]
- Increased in private car ownership allows families to travel comfortably and conveniently to nearby attractions for leisure boosting domestic tourism. [Additional 1 mark]

AO1

- (b) Study Fig. 2.1 (Insert) which shows the number of international visitors' arrivals and tourism receipts from 2019 to 2023 in Changi Airport, Singapore.

With reference to Fig. 2.1 (Insert), describe the relationship between international visitor arrivals and tourism receipts in Changi Airport from 2019 to 2023. [3]

Award 1m for each description, up to 3 m.

Award a maximum of 1 additional mark for further development of each description, where applicable.

- There is a positive relationship between international visitor arrivals (IVA) and tourism receipts (TR) as international visitor arrivals increase, the tourism receipts also increase together. [1]
- IVA was the lowest at 0.33 million in 2021 and TR was also the lowest at 1.9 billion in the same year. [Additional 1 mark]
- IVA rose to a projected 12 – 14 million and TR also increased to a projected 18 – 21 billion in 2023. [Additional 1 mark]
- There was a sharp drop in 2020 for both IVA and TR. [1]
- IVA dropped sharply by 16.4 million while TR also dropped significantly by 22.9 billion. [Additional 1 mark]

AO2

- (c) Study Fig. 2.2 (Insert) which shows women from the hill tribes of Sapa, Vietnam, working on hand-embroidered textiles.

With reference to Fig. 2.2 (Insert), explain how tourism to destinations such as Sapa, Vietnam can bring benefits to society and culture. [3]

Award 1m for each description, up to 3 m.

Award a maximum of 1 additional mark for further development of each description, where applicable.

- From Fig. 2.2, tourism can lead to cultural preservation, ensuring the passing down of knowledge and cultural practices across generations [1 mark - compulsory]
- Tourists can visit Sapa's hill tribes to learn about and appreciate their hand-embroidered textiles, including bags, wall hangings and clothings. [1]
- Tourism revenue from the sale of hand-embroidered textiles can boost the local economy. [1]
- This provides an incentive to protect traditional cultural practices and art forms. [Additional 1 mark]
- Planning authorities may give grants to further preservation of traditional skills in producing such handcrafted textiles shown in Fig.2.2, enhancing preservation efforts and building locals' sense of belonging. [Additional 1 mark]

AO2

- (d) 'Ecotourism is a more effective approach than community-based tourism in achieving sustainable tourism development.'

To what extent do you agree with this statement? Explain your answer. [9]

Relevant content:

Benefits of Ecotourism

- + Educate and increase tourists' appreciation of nature
- + Put in place measures to minimize the negative impacts on the environment
Eg. Galapagos Islands in Ecuador → 97% of island's total area was declared a National Park with 3% for humans to live on.
- + Authorities implemented rules & regulations to protect the environment.
 - Limited number of visitors allowed in park
 - Tourists are required to pay an entrance fee of USD\$100
 - A guide who educates tourists is required at each site.

Limitations of Ecotourism

- Uncertainty over the continuity of efforts in conserving nature
Eg. In the Galapagos Islands, the large increase in number of tourists resulted in erosion along trails and disturbance to wildlife and plants.
- Uncertainty over involving local community

Eg. In Kufri India, economic leakages occur when locals do not have necessary skills, resulting with jobs going to non-locals.

Another factor to consider: Community-Based Tourism (CBT)

Benefits of CBT

+ Economic benefits

- Locals are encouraged to innovate & set up business and offer homestays
- Provide employment to locals, minimize locals and benefits locals economically

+ Social benefits

- Revenue generated from tourism can be directed at community projects such as funding schools & clinics.
- Improves the social well-being of the local community as they receive better education & healthcare.

Limitations of CBT

- Loss of culture

Eg. In the CBT project in Kyrgyzstan, the commodification of local traditions to suit tourists' preferences has been observed. Traditional yurts have been modified, such as the inclusion of beds and modern furniture.

- Competition with large-scale tourism developments

Eg. In Thanh Ha Pottery Village in Vietnam has been facing competition from other more established pottery villages in Central Vietnam in attracting tourists because they do not have enough highly skilled pottery artisans.

A possible approach:

The answer could explain the benefits of ecotourism which contribute to sustainable tourism development. The answer should also include the limitations of ecotourism. This could be followed by the consideration of another factor, Community-Based Tourism, which has both economic and social benefits. In the long run, ecotourism can be sustainable with continuous effort in conservation awareness and education. Government must take the lead to implementing rules and regulations and ensure that locals are involved in partnership to ensure the success of ecotourism.

The evaluation could weigh the arguments discussed, arriving at a well-reasoned conclusion.

Level 3	7-9m	Develop 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 .
Level 2	4-6m	Develop arguments that support one side of the discussion well, using one or two points with some elaboration. Example(s) used demonstrates a good understanding of the issue or phenomenon. Evaluation is well supported by arguments.

Level 1	1-3m	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.
Level 0	0m	No creditworthy response.

AO3

[Total: 18]

Section B

3 Cluster 4: Tectonics

(a) Study Fig. 3.1, (Insert) which shows a plate boundary marked Y.

(i) Identify the type of plate boundary Y shown in Fig. 3.1. [1]

Convergent / Oceanic-continental convergence [1]

AO2

(ii) With reference to Fig. 3.1 (Insert), explain the formation of landforms found at such plate boundaries. [4]

Award 1m for each description, up to 4 m.

Award a maximum of 1 additional mark for further development of each description, where applicable.

- The denser oceanic plate subducts beneath the continental plate. [1]
- Forming an oceanic trench. [1]
- As the subducting plate sinks into the mantle, the high-pressure forces water out of its oceanic crust. [1] Water lowers the melting point of the overlying mantle causing it to melt, forming magma. [Additional 1 mark]
- Magma rises through weak areas in the crust to the Earth's surface, forming volcanoes [1] on the continental plate.
- Enormous pressure at the plate boundaries causes rocks on the continental plate to be uplifted and buckled, forming fold mountains. [1]

AO2

(b) Explain how magnetic striping occurs at divergent plate boundary. [3]

Award 1m for each description, up to 3 m.

Award a maximum of 1 additional mark for further development of each description, where applicable.

- Magnetic striping on the ocean floor is formed by the **process of seafloor spreading** at mid-ocean ridges at divergent plate boundary. [1]
- Basaltic rocks from the oceanic crust are **volcanic rocks formed from iron-rich lava**. [1]
- As magma rises from the Earth's mantle and cools, the **magnetic minerals within it align with the Earth's magnetic field** at the time. [1]
- This creates a pattern of magnetized rock with **alternating stripes of normal and reversed polarity** [1] as the **magnetic field flips over** [Additional 1 mark] geological timescales.

AO1

- (c) Study Fig. 3.2, (Insert) which shows the hazard map of Mount Agung eruption in Bali, Indonesia.

Describe the impacts of the eruption on the environment and people living near Mount Agung. [4]

Award 1m for each description, up to 4 m.

Award a maximum of 1 additional mark for further development of each description, where applicable.

Award up to 3m if description is either impact on environment or people.

Impact on Environment:

- The pyroclastic flows from Hazard Zone 3 can burn through forests causing biodiversity loss and ecosystem damage at Kubu. [1]
- The large spread of pyroclastic flow of more than 20km to the northern at Kubu and southern of Mount Agung at Sideman also lead to large areas of habitat loss and loss of species of flora and fauna. [1]
- The ash falls and rock flow from Hazard Zone 1 will mix with water causing lahar which can cover ecosystems with thick mud which hardens like concrete destroying habitats at Amlapura. [1]
- Lahars can also pollute rivers, killing aquatic animals at Besakih where plenty of rivers flow. [Additional 1 mark]

Impact on People:

- The high pyroclastic flows can burn through homes, properties and infrastructure destroying everything in its path at Kubu. [1]
- Pyroclastic flows can destroy electricity and communication cables and gas pipes, disrupting supply of these services. [1]
- People may not be able to evacuate as the lava flow has spread blocking the 10km evacuation zone at Amlapura. [1]
- As roads and evacuation routes are blocked, this will hinder rescue of people and delivery of medical supplies and emergency aid. [Additional 1 mark]
- Ash falls can cause respiratory problems, difficulty in breathing and eye irritation. [1]
- Ash falls can accumulate on roofs of buildings and when saturated with water, the weight can of ash can double causing building roofs to collapse. [1]
- Thick blankets of ash can damage farmland and destroy livelihood. [1]

AO2

- (d) Explain how duration and time of shaking can influence the disaster risk during an earthquake. [2]

Award 1m for each description, up to 2 m.

- The longer the duration of shaking, the more damaging an earthquake will be as structures such as buildings are subjected to long periods of stress. [1]
- If an earthquake happens at night, people who are asleep at night will be less alert and are unable to evacuate quickly, increasing the rate of fatality. [1]

AO1

- (e) Explain how increased preparedness for response and recovery build community resilience. [4]

Award 1m for each description, up to 4 m.

Award a maximum of 1 additional mark for further development of each description, where applicable.

- Raising public awareness of hazards through education by providing people with knowledge of the hazards and how to respond to them. [1]
- First aid training also enables people to administer basic medical care to the injured and keep the mobile so they can be evacuated if needed. [1]
- Conducting evacuation drills enables people to be familiar with evacuation procedures and routes. [1]
- This reduces the likelihood of them being trapped in collapsed buildings [Additional 1 mark]
- For tsunami, the drills would familiarize people with the designated tsunami inundation zones and the marked evacuation routes, so they can avoid the tsunami waves. [1]

AO2

[Total: 18]