



NAN HUA HIGH SCHOOL
PRELIMINARY EXAMINATION 2025

HUMANITIES
2260/02

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Paper 2 Geography

MARK SCHEME

Section A

1.	Geography in Everyday Life
a(i) AO2	Study Fig. 1.1 (Insert), which shows a photograph of Bidadari Park in Singapore. Using Fig. 1.1, explain how residents living nearby can benefit from the regulating ecosystem services provided by Bidadari Park. [2] Award 1 mark for each explanation of how residents living nearby can benefit from the regulating ecosystem services provided by Bidadari Park. Award a maximum of 1 additional mark for further development of each explanation • The park can provide regulating ecosystem services as the trees in the park will photosynthesise, in the process taking pollutants from the atmosphere, thus allowing the nearby residents to breathe in air of higher quality [1] • The trees in the park can provide shade for the people using the park, which can lower the surrounding temperatures and increase the comfort level of the residents. [1] <i>Accept other plausible answers: Eg. trees photosynthesise, taking in carbon dioxide and giving out oxygen (regulating), vegetation cover → prevent erosion, ensuring water quality.</i>
a(ii) AO1	Describe how human activities can bring benefits to green spaces such as parks. [2] Award 1 mark for each description on how green spaces can benefit from human actions Award a maximum of 1 additional mark for further development of each explanation. • Humans can organise/ participate in events such as litter picking events to reduce the amount of waste in the park [1] • Humans can help raise awareness of the importance of keeping parks clean, so others can also do their part to protect parks [1] Accept other plausible answers.
b(i) AO2	Study Fig. 1.2 (Insert), which shows a photo of Choa Chu Kang Central in Singapore. Using Fig. 1.2, explain how the facilities in Choa Chu Kang Central can bring about economic sustainability in the neighbourhood. [3] Award 1 mark for each explanation of how the facilities in CCK Central can bring about economic sustainability Award a maximum of 1 additional mark for further development of each explanation • CCK Central has an MRT and LRT station, which allows residents to travel around the neighbourhood/ Singapore conveniently easily, lowering their transport expenses [1] • CCK Central has Lot One Shopping mall, which has many shops that can

	employ the residents living in CCK area, allowing them to earn an income and raise their standard of living [1] • Transport infrastructure is kept close to one another, such as the CCK MRT and LRT systems. This lowers the cost of building connecting infrastructures such as roads/sheltered walkways [1] Accept other plausible answers: Eg. shops in Lot One getting business from local residents; homes located near transport systems, allowing people to walk home thus lowering transport expenses
b(ii) AO1	Describe one way in which buildings in urban neighbourhoods can be designed to be environmentally sustainable [1] Award 1 mark for describing how buildings in urban neighbourhoods can be designed to be environmentally sustainable • Cooling paint can be used on buildings, which can lower temperature and reduce energy consumption [1] OR • Water harvested from rain can be used for washing the buildings or for flushing the toilet [1]
c	Some students from Gao Zhong High School wanted to conduct an investigation to find out if the number of activities organised by the neighbourhood Community Centre (CC) helps to strengthen the relationships among the local residents. Over the course of one month, they walked around different precincts to conduct interviews from 8am to 9am every weekend. They approached a total of 200 participants using the simple random sampling method. The participants were asked to fill in a simple questionnaire shown in Fig. 1.3 (Insert).
(i) AO1	Suggest a suitable hypothesis for their geographical investigation. [1] Award 1 mark for stating a plausible hypothesis. • The higher the participation in CC activities, the stronger the relationship between residents. [1] Accept other plausible hypotheses
(ii) AO3	Evaluate the data collection process used in the investigation. [3] Award 1m for each description of the strengths of the data collection process, up to a maximum of 2 marks Award 1m for each description of the limitations of the data collection process, up to a maximum of 2 marks Strengths • The data is reliable as students collected their data over the course of one month, which allows them to get data from different people on different days of the month [1] • The students visited different precincts to collect their data, which allows them to get data that is representative of the neighbourhood [1]

	• There were 200 respondents, which allows students to collect data from a large sample, allowing the data to be more representative of the residents in the neighbourhood [1] • The students used simple random sampling method, which removes researcher bias [1] Limitations • The students only collected data on weekends, so they did not have the responses of people who could be around precinct on weekdays, thus making their data unreliable [1] • The students only collected data from 8-9am on weekends, which might be too early, and many people might not be awake. • The questionnaire only had 2 questions/ close ended questions, which does not fully capture the sentiments of the residents Accept other plausible answers
(iii) AO1	Describe the potential risks faced by the students during the data collection process. [2] Award 1m for each description of the risks involved with the data collection process. • As students are walking around the precincts, the sun might be too hot and could lead to heat injuries [1] • Students walking around pavements or the roads of the housing estates might be exposed to traffic hazards [1] Accept other plausible answers
	[Total: 14m]

2.	Tourism
a(i) AO2	Study Fig. 2.1 (Insert), which shows the numbers of travellers in Spain between 1999 and 2022. Using Fig. 2.1, describe the trend of the travellers in Spain between 1999 to 2022. [3] Award 1 mark for each valid description of the trends in travellers in Spain from 1999 to 2022, with data from the figure. • The overall number of travellers increased from 68 million in 1999 to 132 million in 2022 [1] • The lowest number of travellers to Spain was in 2020, with 44 million travellers [1] • National travellers were generally higher than international travellers from 1999 to 2022, except for the years 2017 to 2019, where national and international travellers were almost equal/ international travellers were slightly higher than national travellers [1]
a(ii) AO2	With reference to Fig. 2.1, explain how the trend of travellers in Spain could have been affected by global events. [2]

	Award 1 mark for explaining how global events could have an impact on travellers in Spain, up to a maximum of 2 marks Award 1 additional mark for further development of the explanation • Global events such as a pandemic could affect tourists' motivation to travel as they might fear for their safety when travelling to Spain [1] • Governments might also issue travel advisories to dissuade or disallow global travel, which could have led to the significant drop of travellers in 2020 during a pandemic [1] Other accepted answers: COVID-19 leading to global economic downturn (2020), or Global Financial Crisis (2009), wars
b(i) AO1	Study Fig. 2.2 (Insert), which shows how locals in some countries have responded to the issue of overtourism in their country. With reference to Fig. 2.2, explain how tourists and locals can mutually affect each other. [2] Award 1m for each explanation of how the behaviour of tourists can impact locals Award 1m for each explanation of how the behaviour of locals can impact tourists Award up to 1 additional mark for further development of each answer. • When tourists travel to other countries, they might exhibit inconsiderate behaviour such as disrespecting the local culture, which can anger locals and lead to negative sentiments towards tourists [1] • Locals might exhibit anti-tourist behaviours such as organising anti-tourist protests, which can make the tourist destination region unsafe, causing tourists to become unwilling to travel there. [1] • Locals might spray graffiti with anti-tourist content, which can cause tourists to feel unwelcome and become unwilling to travel to the destination. [1] • Countries might impose visitor limits for tourists, which could cause tourists to be put off by the restrictions and choose not to travel to the tourist destination [1] • For example, in 2017, there was a tourist bus that was attacked by anti-tourist protestors in Barcelona.
b(ii) AO1	Describe how tourism can lead to positive environmental impacts in the destination region. [2] Award 1 mark for each description of how tourism can lead to positive environment impact in the destination region Award 1 additional mark for further development of each description • Governments are incentivised to maintain a clean environment in order to continue attracting tourists to visit [1] • Governments can restore nature areas like aquatic or terrestrial sites in order to continue attracting tourists [1] Accept other plausible answers.
c. AO3	"A high disposable income is the main factor that generates tourists from developed countries". To what extent do you agree with this statement? Explain your answer. [9]

Level	Mark	Descriptor
3	7-9	• Develops arguments that support both sides of the discussion clearly, using a range of points with good elaboration. • Example(s) used demonstrate comprehensive understanding of issue/phenomenon. • Evaluation derived from well-reasoned consideration of the arguments.
2	4-6	• Develops arguments that support one side of the discussion, using 1 or 2 points with some elaboration. <u>OR</u> Develops arguments that support both sides of the discussion, with little or some elaboration • Example(s) used demonstrate a satisfactory understanding of the issue/phenomenon. • Some evaluation, supported by arguments
1	1-3	• Arguments unclear. • Limited description, or just listing/stating. • No examples provided, or examples are generic, showing basic understanding of the issue/phenomenon. • Evaluation missing, simple, or unclear
Eg. Disposable income is the income that an individual is able to spend after paying taxes and buying basic necessities. As countries become more developed, more people are employed and have good jobs that offer good pay. This increases the disposable income of individuals in developed countries, thus giving them better ability to travel out to other countries for holidays. For example, as China's GDP quadrupled, international tourism grew from 9 million departures in 1999 to 154 million departures in 2019. This shows that as a country becomes developed, they will generate more tourists as its citizens now have higher disposable income that they can spend on holidays. A high disposable income also enables individuals to be able to afford a car. Having a private car will make tourism more attractive as tourists will be able to travel at their own schedule, in their own comfort. As such, this will motivate them and their families to travel within their country for domestic tourism, or across borders. For instance, Singapore, a developed country with a strong economy, has many car owners who frequently drive across the causeway into Johor Bahru for leisure activities such as shopping and eating. Hence, a high disposable income generates tourists from developed countries as it allows individuals to own cars and travel more easily. However, the need for relaxation can also be a factor that generates tourists in a developed country. In the case of developed countries, the economy is doing well because of a strong workforce that has many productive and hardworking workers. They might work long hours to drive the economy, and as a result cause them to have high stress levels. As such, developed countries might generate tourists not so		

	much due to a high disposable income, but the need for relaxation. For example, many tourists from the United Kingdom enjoy travelling to the beaches in Phuket, Thailand for relaxation. This shows that the need for relaxation is an important factor that drives tourists from developed countries. Possible conclusion: I believe strongly that a high disposable income is the main factor that generates tourists from developed countries as having a high disposable income gives individuals the financial ability to be able to afford the travel mode, whether car or plane. Moreover, it allows individuals to travel overseas with a peace of mind, as they do not have to worry about other financial commitments, thus enabling them to relax on their vacation. Thus, a high disposable income is the main factor that generates tourists from developed countries. Possible points (for): • High disposable income → increase in private car ownership → more individuals buy cars to drive across countries (eg. Singapore to JB) • High disposable income → basic needs have already been met → individuals more motivated to travel to other countries to seek personal growth and self-fulfilment (eg. climbing Mt Everest to as a personal challenge) Note: plausible answers must show how high disposable income can generate tourists from developed countries Possible points (against): • High disposable income → country's economy is strong → government has many resources to build facilities such as transport hubs (eg. airports) → easily accessible for other people → tourist destination rather than generating region. (eg. Changi Airport T4/T5 catering to more flights into SG) • Introduction of new modes of travel → development of cheaper transport options → individuals without high disposable income are also able to travel → tourists are generated from less developed (eg. budget airlines) • Developed countries → workers are very productive and work very hard and for long hours → more stress from working → need to travel for relaxation → generate tourists (eg. tourists from UK travelling to Phuket for relaxation) Note: plausible answers must explain how: • high disposable income can generate tourists from <u>less developed</u> countries. • high disposable income leads to developed countries becoming a tourist destination region. • other factors not related to disposable income can also generate tourists from developed countries
	[Total: 18m]

Section B

Answer **either** Question 3 **or** Question 4

3.	Climate
a(i) AO2	Study Fig. 3.1 (Insert), which shows the temperatures of two cities, Guayaquil and Quito, which are located at similar latitudes. Using Fig. 3.1, compare the differences in temperature experienced at the two cities. [2] Award 1 mark for each comparison of the differences in temperatures experienced in the two cities, with data from the figure • The city of Quito has lower mean monthly temperatures while the city of Guayaquil has higher mean monthly temperature. [1] (Students may provide data and similar mark should be awarded. • Quito's mean annual temperature is 13°C while Guayaquil has a mean annual temperature which is higher by 12°C at 25°C. / Guayaquil has a higher mean annual temperature of 25°C while Quito has a lower mean annual temperature at 13°C [1]
(ii) AO2	With reference to Fig. 3.1, account for the difference in the climate of two cities located on a similar latitude. [4] Award 1 mark for each explanation of the differences in the climate of the two cities. Award up to 1 additional mark for further development of each explanation • Temperatures decrease with altitude. Quito, located at an altitude of 2850m experiences lower temperatures than Guayaquil which is located at an altitude of 9m. [1] • At higher altitudes, air is less dense and air pressure is lower as gravity pulls most of the air molecules towards the ground surface [1] • With fewer air molecules, air has a lower ability to absorb and radiate heat, leading to lower temperatures [1] • At lower latitudes, air is more dense and is thus more able to absorb and radiate heat [1]

b(i)	Study Fig. 3.2, which shows how global average sea surface temperature has changed from 1880 to 2024. The graph displays the change in global average sea surface temperature (°C) from 1880 to 2024. The y-axis ranges from -0.5 to +1.0 °C. A red line represents the annual temperature change, and a shaded area indicates the 1951-1980 average. The graph shows a general upward trend, with a significant increase starting around 1980. Fig. 3.2 Using Fig. 3.2, describe how global average sea surface temperatures have changed since 1880. [3] Award 1 mark for each description of how global average sea surface temperatures have changed since 1880. • The global average sea surface temperature increased by 0.8°C from 1880 to 2024[1] • Global average sea surface temperature decreased by 0.4°C from 1880 to 1910, which was the largest and only temperature decrease [1] • In the year 1940 there was a positive change in global average sea surface temperature compared to 1880, but there was a negative change from 1880 in the year 1950 [1]
b(ii) AO1	Explain the burning of fossil fuels has accelerated climate change. Use examples to support your answer [3] Award 1 mark for each explanation of the anthropogenic factors that have accelerated climate change, up to a maximum of 2 marks Award 1 mark for each example of the anthropogenic factor that has accelerated climate change Award up to 1 additional mark for further development of each explanation • One anthropogenic factor that has accelerated climate change is the burning of fossil fuels, which is used by humans for activities such as

	agriculture, industries, and urbanisation [1] • As fossil fuels have high carbon content, the burning of fossil fuels will produce large amounts of greenhouse gases into the atmosphere, leading to the enhanced greenhouse effect, accelerating climate change [1] • Since the industrial revolution in the 1880s, the use of fossil fuels have increased steeply, causing more than 35 billion tonnes of carbon dioxide to be emitted into the atmosphere [1]
c AO3	Study Fig. 3.2 (Insert), which shows a poster that promotes the use of solar energy. With the help of Fig. 3.2, discuss the effectiveness of using solar energy as a clean energy source. [3] Award 1 mark for each description of the effectiveness of using solar energy as a clean energy source, up to a maximum of 2 marks Award 1 mark for each description of the challenges of using solar energy as a clean energy source up to a maximum of 2 marks Award 1 additional mark for further development of each description • Solar energy depends on converting the Sun's energy into thermal or electrical energy, thus it is abundant and highly renewable [1] • Solar energy is cheaper for the individual household, which makes it more likely for people to take up this climate actions and use solar energy for their personal use [1] • Solar energy infrastructure can be very expensive to install, and governments might have other priorities/ insufficient financial resources to build solar panels [1]
d AO1	Explain the impacts of climate change on human systems [3]. Award 1 mark for each explanation of the impact of climate change on human systems Award 1 additional mark for further development of each explanation • Sea level rise can cause low-lying countries and islands to be flooded more frequently, causing people to lose their homes/ part of their land [1] • More extreme weather events can also happen, such as heatwaves that cause heat injuries and death to people [1] • Climate change causes the lengthening of growing seasons in certain places, which can negatively affect the productivity of certain crops, causing a lack of food for people [1] Accept other plausible answers: Droughts, wildfires, tropical cyclones.
	[Total: 18m]

4.	Tectonics
a(i) AO2	Study Fig. 4.1 (Insert), which shows the magnitude of the earthquakes in Turkiye from 1900 to 2020, as well as the number of recorded deaths from those earthquake events. Using Fig. 4.1, describe the relationship between the magnitude of the earthquakes and the number of recorded deaths. [3] Award 1 mark for describing the relationship between magnitude and number of deaths, with data from the figure. • The higher the magnitude of the earthquake, the higher the recorded number of deaths [1] • In 1900 an earthquake of magnitude 6Mw recorded about 3000 deaths, but when the magnitude increased to 7.8Mw in 2023, the number of deaths increased to more than 31,000 [1] • However, in 2000, there was an earthquake that had a magnitude around 8Mw, but the deaths recorded were only at 17, 127, lower than earthquakes of similar magnitude in 1940 and 2023 [1]
(ii) AO2	With reference to Fig. 4.1, explain how soil and rock properties can lead to variations in the social impacts of an earthquake [2] Award 1 mark for each explanation of soil and rock properties can lead to variations in the social impacts of an earthquake event. Award 1 additional mark for further development of each explanation • Soil and rock properties will affect the stability of buildings. Reclaimed land or soil that has high water content will lead to soil liquefaction, causing buildings to become unstable and collapse and kill people, even if the magnitude is relatively lower [1] • Buildings that are built on stable ground will not be prone to collapsing, even if the magnitude is comparatively higher, which explains why some high magnitude earthquake events have fewer deaths [1] Accept other plausible social impacts: eg. buildings collapse → homelessness; buildings collapse → people injured; liquefied soil mix with water bodies → no water.
b AO3	Evaluate the effectiveness of using land-use planning to build community resilience against earthquakes. [3] Award 1 mark for each explanation of the effectiveness of land-use planning to build community resilience against earthquakes up to a maximum of 2 marks Award 1 mark for each explanation of the challenges of land-use planning to build community resilience against earthquakes up to a maximum of 2 marks Award 1 additional mark for further development of each explanation • Land-use planning controls and minimises developments in high-risk areas by using hazard maps to identify areas at high risk of tectonic disasters, which reduces the potential loss of lives and damage to

	properties [1] • Land-use planning also involves building important infrastructure such as hospitals away from earthquake-prone areas, so that medical aid can still be supplied when an earthquake occurs [1] • Land-use planning involves building homes and important infrastructure on higher ground, which can reduce the loss of lives and damage if the earthquake triggers a tsunami [1] • For example, after a tsunami in Japan in 1933, land use planning was implemented and residential land use near coastal areas (eg. Touni-hongo village) are shifted to higher ground. In the 2011 Tohoku earthquake and tsunami, houses on higher ground were not destroyed. [1] • However, effective implementation of land-use planning requires a lot of resources, which not all countries might have [1] • For example, Bangladesh is prone to tectonic hazards but 30% of its citizens live below the poverty line, so they might have difficulty implementing land-use planning to build community resilience and prepare against earthquakes as resources would have been used for economic development [1]
c(i) AO2	Study Fig. 4.2 (Insert), which shows a diagram of the Hawaiian Volcanic Islands in the Pacific Ocean. Using Fig. 4.2, account for the differences in the age of the Hawaiian Volcanic Islands. [4] Award 1 mark for each account of the age of volcanoes in the Hawaiian Volcanic Islands • As the volcanic islands move further away from the spreading centre, the age of the volcano increases. [1] • Hawaii is 0.7-0 Ma, which is younger than Hi'hau Kaua'i at 5.6-4.9Ma [1] • The spreading centre is where the magma rises to the crust, cools, and solidifies, and forms new volcanoes [1] • As the plates continue to diverge, newer and younger volcanic islands are formed and older volcanic islands are pushed away from the spreading centre, causing them to be older than the islands nearer to the spreading centre [1]
(ii) AO1	Mauna Loa and Kilauea are two shield volcanoes that are found along the Hawaiian Volcanic Islands. With reference to Fig. 2, explain how the physical features and type of eruption of Mauna Loa and Kilauea are affected by their silica content. [2] Award up to 1 mark for each explanation of the physical features of a shield volcano Award up to 1 mark for each description of the eruption type of a shield volcano • Mauna Loa and Kilauea have low silica content, so the lava is less viscous and can thus travel a longer distance before cooling and solidifying, resulting in a broad base [1] • The low silica content also means that less gas is trapped in the magma, so it has gentle and effusive eruptions as there is no pressure build up as the

	gases would have been slowly released over time [1]
d(i) AO1	Study Fig. 4.3 (Insert), which shows the percentage of energy consumption from different sources in Iceland from 1940 to 2020. Using data from Fig. 4.3, describe the trend of the consumption of geothermal energy as an energy source in Iceland from 1940 to 2020. [1] Award 1 mark for a description of the trend of the consumption of geothermal energy in Iceland, with data from the figure. • The use of geothermal energy as an energy source increased from 9% in 1940 to 71% in 2020/ increased by 62%
(ii) AO1	With reference to Fig. 4.3, explain how volcanoes can be beneficial for a country. [3] Award 1 mark for each explanation of the benefits of living near volcanoes on countries, up to a maximum of 3 marks Award 1 additional mark for further development of each explanation • Volcanoes contribute to fertile soil that can lead to high agricultural yield, and provide food for people in the country [1] (also accepted: food that can be exported to other countries for revenue) • Precious rocks and minerals such as copper, silver, and gold can also be found beneath volcanoes, and these rocks can be mined and sold to other countries for export revenue [1] (also accepted: raw materials for construction to develop the country; locals can be hired to mine the minerals, creating employment; revenue used to provide social services) • Countries with many volcanoes can also use geothermal energy to heat up groundwater, which generates steam to generate electricity, which is a cheaper/cleaner/more sustainable energy source for locals [1] (also accepted: geothermal plants creating employment) • Countries with volcanoes will generate tourism as many people will want to visit the volcanoes to appreciate the landform or hike up to the crater. This will generate tourist revenue for the country [1] Accept other plausible answers.
	[Total: 18m]

Table of Specifications

Cluster	Qn	AO1	AO2	AO3		Qn	AO1	AO2	AO3
GEL	a(i)		2						
	a(ii)	2							
	b(i)		3						
	b(ii)	1							
	c(i)	1							
	c(ii)			3					
	c(iii)	2							
Tourism	a(i)		3						
	a(ii)		2						

	b(i)	2							
	b(ii)	2							
	c			9					
Tectonics	a(i)		3		Climate	a(i)		2	
	a(ii)		2			a(ii)		4	
	b			3		b(i)		3	
	c(i)		4			b(ii)	3		
	c(ii)	2				c			3
	d(i)		1			d	3		
	d(ii)	3							
Total		15	20	15	Total		16	19	15