

Mark Scheme

1		Cluster 1: Geography in Everyday Life
	(a)	Study Fig. 1.1 (Insert), which shows a children's playground and an adult fitness corner in Tanjong Pagar.
	(i)	Using Fig. 1.1 (Insert), explain the spatial association shown in the photograph. [2] Award 1 mark for each explanation, to a maximum of 2 marks. • [Proximity] The playgrounds and fitness corners are usually built near each other, this allows parents or grandparents to exercise while still keeping an eye on their children playing • [Usage] The playground caters to children's needs for play, while the fitness corner serves adults' needs for exercise
	(ii)	Describe how the facilities in Fig. 1.1 (Insert) could benefit local communities. [2] Award 1 mark for each explanation, to a maximum of 2 marks. Award a maximum of 1 additional mark for further development of each explanation, where applicable. • These spaces become gathering points where children make friends and adults interact with neighbours • This strengthens community bonds and fosters a sense of belonging [1 m additional] • Encourages active lifestyle through exercising
	(b)	Explain how people acquire a sense of place in their neighbourhoods. [4] Award 1 mark for each explanation, to a maximum of 4 marks. Award a maximum of 1 additional mark for further development of each explanation, where applicable. • People acquire sense of place when they <u>associate importance, meanings and memories</u> with specific locations in their neighbourhoods • Most people's sense of place is due to <u>repeated encounters</u> of the natural and built environment, and regular interaction with others in their neighbourhoods • For instance, students would remember <u>significant events</u> that took place at different parts of their schools like the canteen or field [1 m additional]

		• People's sense of place may also be associated with significant or memorable events that took place at <u>local landmarks</u> and gathering places. • For example, the Bedok Town Square, which regularly hosts events such as competitions, fairs, performances and roadshows, offering diverse experiences for visitors [1 m additional]
	(c)	Study Fig. 1.2 (Insert), which shows a photograph of Tianjin Eco City in China.
	(i)	With reference to Fig. 1.2 (Insert), explain how Tianjin Eco City contribute to sustainable development in China. [4] Award 1 mark for each explanation, to a maximum of 4 marks. Award a maximum of 1 additional mark for further development of each explanation, where applicable. <i>Answer should cover at least 2 aspects of sustainable development.</i> • [Environmental] Buildings and landscaping in TJ is designed such that it is energy efficient through the use of solar panels • [Environmental] LRT systems run on electricity rather than petrol or diesel. This produces fewer greenhouse gas emissions, and less air pollution compared to private cars or buses. • [Economic] LRT is a reliable transport helps people reach workplaces, schools, and shopping areas more quickly. This boosts productivity and supports local businesses. • [Economic] LRT lowers transport cost for people • [Social] Eco-city provides a healthy living environment as eco-cities have more green spaces, clean air, and less pollution. This improves the residents' health and well-being. • [Social] The presence of green spaces encourage social interaction which helps to build a sense of belonging and togetherness
	(ii)	Outline factors that can hinder sustainable development. [3] Award 1 mark for each explanation, to a maximum of 3 marks. • Overuse of natural resources, which leads to depletion and environmental damage. • Poverty, as poorer communities may prioritise short-term survival over long-term sustainability. • Government lack resources such as funds and hence could not invest in sustainable development • Poor planing and implementation of policies which can lead to destruction of natural ecoystem / traffic congestion / pollution.

2		Cluster 4: Tectonics
	(a)	Study Fig. 2.1 (Insert), which shows the age of oceanic lithosphere at the seabed.
		Using Fig. 2.1, explain how the age of the rocks is an evidence of plate tectonic theory. [4] Award 1 mark for each explanation, to a maximum of 3 marks. <i>Reserve 1 mark for data.</i> • Rocks nearest to the centre of mid-ocean ridge are the youngest, <u>approx. 0- 20</u> million years old while rocks furthest away from the ridge are progressively older, approx. 40 – 120 million years old <u>[Data]</u> • This is due to seafloor spreading where two plates move apart at divergent plate boundaries • Magma from deep within the earth rises through the mid-ocean ridge, forming new oceanic crusts • Hence this means that the Earth's lithospheric plates are moving apart due to convection currents in the mantle [therefore an evidence of plate tectonic theory]
	(b)	Study Fig. 2.2 (Insert), which shows the relationship between the magnitude of earthquake and death tolls in Turkey from 1903 to 2023.
	(i)	Using Fig. 2.2, describe the relationship between the magnitude of earthquake and death tolls in Turkey. [3] Award 1 mark for each description, to a maximum of 3 marks. <i>Reserve 1 mark for data AND 1 mark for exception.</i> • Generally, the <u>higher the magnitude, the higher the death toll</u> • For example, 1939 EQ magnitude is 7.8 with a death toll of 33 000 • However, there are <u>exceptions</u>. The EQ in 2023 magnitude is 7.8 but death toll is approx 5 000 OR • In the year 1975, the death toll is low approx. 3000 despite a high magnitude of 7.5
	(ii)	Suggest how earthquakes can bring serious impacts to the economy. [2] Award 1 mark for each explanation, to a maximum of 2 marks. • EQ damage infrastructure and buildings, <u>disrupting transport and trade</u> • <u>Rebuilding</u> requires huge amounts of money • <u>Disruption to services</u> such as electricity, water, and communication networks may be damaged which affects industries • Governments spend <u>large amounts on emergency</u> relief and reconstruction. This diverts money away from other aspects of development

		Tourists would avoid the area, leading to decrease in <u>tourism revenue</u>
	(c)	Evaluate the risks and benefits of living near volcanoes. [6] Award 1 mark for each description, to a maximum of 6 marks. Award a maximum of 1 additional mark for further development of each explanation, where applicable. Both risks and benefits are to be discussed. Benefits of Living Near Volcanoes <u>Geothermal energy</u> can be harnessed from the Earth's natural heat which is associated with active volcanoes giving off heat at depth - Steam from high-temperature geothermal fluids can be used to drive turbines and generate electrical power - Geothermal heat warms more than 70% of the homes in Iceland, and The Geysers geothermal field in Northern California produces enough electricity to meet the power demands of San Francisco. [1 additional mark for example] <u>Tourism</u> activities can develop at the volcanic cone as the scenery is most breathtaking. o For example, Mount Fuji, the 3,776 metres tall volcano in Japan, is the central feature of the Fuji-Hakone-Izu National Park which was designated a UNESCO World Heritage site in 2013 - Provides <u>fertile soil</u> for farming after volcanic materials are broken down and weathered, and makes available valuable minerals and building materials - The <u>precious gems</u> that are formed are exposed and made available for mining. o Some precious gems including peridot is formed from the cooled lava. Most of the metallic minerals mined in the world such as copper, gold, silver, lead, and zinc are associated with magma Risk - Eruptions can <u>destroy homes, infrastructure</u>, and farmland <u>People can be injured or killed</u> by lava, ash, or pyroclastic flows <u>Tourism, agriculture, and businesses can be severely disrupted</u> during and after eruptions

3		Cluster 5: Singapore
	(a)	Study Fig. 3.1 (Insert), which shows Singapore extreme weather events in 2023.
		Using Fig. 3.1, describe the impacts on people. [3] Award 1 mark for each description, to a maximum of 3 marks. Award a maximum of 1 additional mark for further development of each explanation, where applicable. <i>Reserve 1 mark for data.</i> • <u>Heat stress as evidenced in AMK of 37 °C</u>, increases people's vulnerability to heat exhaustion and heat stroke • <u>Flash floods</u> as evidenced in Woodlands, which is the <u>wettest month in Dec</u>, may affect transportation and hence people may experience delay in commuting • <u>Strong gusts</u> from storms as evidenced in <u>Pasir Panjang of 85 km/h</u>, can damage property, uproot trees, and pose safety risks to people
	(b)	Study the newspaper extract in Fig. 3.2. The Marina Barrage, a dream 20 years in the making An iconic landmark, a symbol of the city-state's success in water management.  The Marina Barrage has become an iconic landmark and a popular social space for many Singaporeans. It is the result of visionary planning at the highest political level, and painstaking planning and implementation by scores of officers at PUB, Singapore's national water agency.

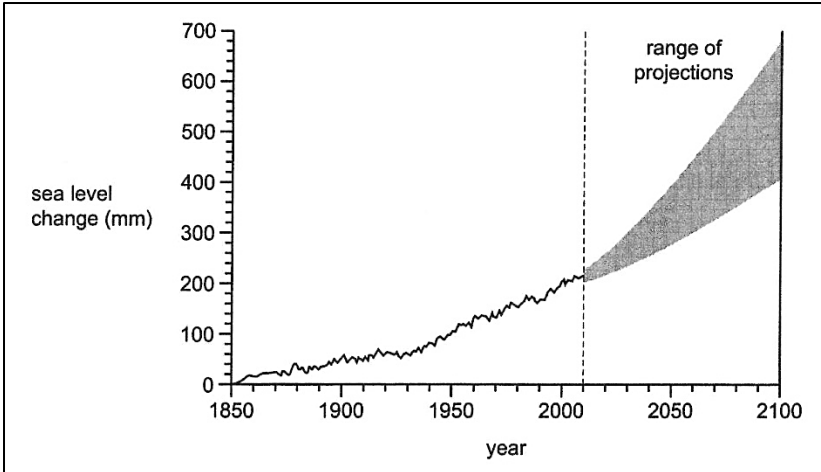
Fig. 3.2		
(i)	Using Fig. 3.2, describe how Marina Barrage has benefited Singapore. [3]	
	Award 1 mark for each description, to a maximum of 3 marks. Award a maximum of 1 additional mark for further development of each explanation, where applicable. • Marina Barrage creates a reservoir by storing rainwater, helping Singapore meet its water needs • It reduces dependence on imported water and strengthens national water security [1 m additional] • Barrage acts as a tool for flood control. During heavy rain, excess water is released into the sea • Marina Barrage has parks and cycling paths. Hence it provides a leisure space for residents and attracts tourists.	
(ii)	Outline two political considerations involved in the planning large scale sustainable development projects such as Marina Barrage. [2]	
	Award 1 mark for each description, to a maximum of 2 marks. • There must good political leadership who have a clear vision to identify the needs of Singapore • Government must have the willpower and commitment to see through the project as it takes years to for the project to come to realisation	
(c)	Study Fig. 3.3, which shows changes in global rise in sea level.	
	 The graph plots sea level change in millimeters (mm) on the y-axis (0 to 700) against the year on the x-axis (1850 to 2100). A solid line shows historical data from 1850 to 2000, showing a steady increase from approximately 20 mm to 200 mm. From 2000 onwards, a shaded area represents the 'range of projections', showing a significant upward trend, reaching between approximately 400 mm and 650 mm by the year 2100.	

		Fig. 3.3
		Describe the changes in the sea level from 1850 to 2100. [3] Award 1 mark for each description, to a maximum of 3 marks. Reserve 1 mark for data. • Generally, the change in sea level has increased from 1850 to 2100, from 0 mm in 1850 to 700 mm projected in 2100 • The increase is a gradual one from 1850 to 2010 • After which, there is a sharp increase from 90 mm in 1950 to 200 mm in 2010 • From 2010 to 2100, it is predicted to have a wide range in the change in sea level rise.
	(d)	‘Sea level rise is the main challenge that Singapore faces.’ To what extent do you agree with the statement? Explain your answer. [9]
		<u>Relevant content</u> The answer could highlight other challenges that Singapore faces such as - Food insecurity - Water insecurity - Energy insecurity - Changing demographics - Global uncertainties - Regional competition in tourism Relevant examples or case studies should be made to illustrate the argument. <u>A possible approach:</u> The answer could highlight which challenge will hamper Singapore’s progress to achieve sustainable development. Relevant examples or case studies should be made to illustrate the argument.

Level	Marks	Generic Level Descriptors for 9-Mark AO3 Questions
3	7 - 9	Develops arguments that supports 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

Sea level rise is no doubt a challenge, as it threatens Singapore's survival in the long run as we have no hinterland. However, **food security and demographic change may present more immediate challenges**. Changing demographics poses social and economic challenges as a shrinking workforce means increased healthcare costs, and pressure on younger generations to support the elderly. Unlike sea level rise, which is gradual and long-term, demographic change is already happening and will have immediate implications for the economy. Food security is equally a challenge because it has an immediate impact on our daily lives should there be disruptions in food supply chain.

Assessment Grid

Question	Max Mark	Question Part	AO1	AO2	AO3
1	15	1(a)(i)	2		
		1(a)(ii)	2		
		1(b)	4		
		1(c)(i)		4	
		1(c)(ii)	3		
2	15	2(a)		4	
		2(b)(i)		3	
		2(b)(ii)	2		
		2(c)			6
3	20	3(a)		3	
		3(b)(i)		3	
		3(b)(ii)	2		
		3(c)		3	
		3(d)			9
			15	20	15