Mark Scheme

1		Cluster 1: Geography in Everyday Life
	(a)	Study Fig. 1.1 (Insert), which shows the National Day Parade (NDP) held in 2023. The National Day Parade is an annual event held in Singapore to commemorate its independence.
		Using Fig. 1.1 (Insert), suggest how the National Day Parade enhances Singaporeans' sense of place. [3]
		Award 1 mark for each explanation, to a maximum of 3 marks. Award a maximum of 1 additional mark for further development of each explanation, where applicable.
		 Flypast of the National Flag or the singing of National antheme are shared common experiences [1m].
		 It signifies a unity of different people and race [1m additional]
		People attend the ND Parade (NE shows) or watch the show on TV with fellow
		[1m]
		 People develop sense of place associated with NDP as iconic landmarks (e.g.
		MBS, CBD sky towers) may evoke certain memories [1m].
		NDP may hold special memories for a specific group of people e.g
		schoolmates/classmates if they are participants of the NDP [1m].
	(b)	Study Figs. 1.2 and 1.3 (Insert), which shows two mental maps drawn by two individuals living in Toa Payoh.
		With supporting information from Figs. 1.2 and 1.3 (Insert), suggest why the mental maps differ. [2]
		Award 1 mark for each difference with supporting information, to a maximum of 2 marks.
		 Susan and John's sense of place and the memories associated with places differ, hence the layout of places is shown differently on the mental maps [1m]. Differ in types of functions [1m]. E.g John is younger, a student, so he focuses on food like Bubble Tea, Macdonalds as significant landmarrks. However, Susan is older, hence the type of places marked are more diverse [1m additional].

(c)	Study Fig. 1.4 (Insert), which shows a map of the Park Connector Network (PCN) in the central region of Singapore.					
	The Park Connector Network (PCN) is a network of walking, running, and cycling paths that connect various parks and green spaces in Singapore.					
(i)	A group of students wanted to find out if park connectors encourage physical activities such as walking, running and cycling, which enhance residents' overall well-being. They designed a closed-ended questionnaire to test the hypothesis: 'The Park Connector Network enhances people's well-being'.					
	With reference to Fig. 1.4 (Insert), evaluate the suitability of Sites 1 and 2, each marked by an 'X', for students to collect data to test the hypothesis. [6]					
	Award 1 mark for each explanation, to a maximum of 6 marks. Award a maximum of 2 additional marks for further development of each explanation, where applicable. Evaluation must cover both sites to be awarded 6m.					
	Possible responses include:					
	 Both sites are not sheltered, hence both are not suitable as students are exposed to elements of weather [1m]. Both sides enable students to collect data as they are located along PCN [1m]. Site 2 will have more users of PCN compared to Site 1 as there are more amentities such as toilets, carparks and playgrounds at the intersection of 2 PCNs [1m]. OR The volume of users at Site 1 will be fewer as Site 1 is located at the end of the start/end of PCN [1m]. Hence the number of data collected will be differ at both sites [1m additional]. Site 2 users may not be PCN users, but Site 1 will most likely have PCN users [1m additional]. Site 1 is located far away from public transport which may not be a suitable location for data collection as students may have difficulty accessing the site [1m]. 					

	neighbourhood: Ang Mo Kio Neighbourhood								
	Level of satisfaction								
		very dissatisfied	somewhat dissatisfied	neither satisfied nor dissatisfied	somewhat satisfied	very satisfied			
	Number of respondents	1	9	35	33	22			
	Table 1 Toa Payoh Neighbourhood								
			Level of	satisfaction					
		very dissatisfied	somewhat dissatisfied	neither satisfied nor dissatisfied	somewhat satisfied	very satisfied			
	Number of respondents	1	3	15	47	34			
		Table 2							
	What type of ra • Likert so	ting scale is u cale	sed in this que	estionnaire?		['			
(iii)	Describe how t	ne data in Tab	le 1 may be re	epresented.		[
	Award 2 marks for describing the data representation method. Award 2 marks if students draw an accurate data representation.								
 Using a simple bar graph which shows values of Table 1 from categories- very dissatisfied to very satisfied [1m]. The x-axis (horizontal axis) represents the categories- very dissatisfied to very satisfied. The y-axis (vertical axis) represents the values of the categories (vertical bar graphs) [1m]. 									
	OR								
	 Using pie chart which shows the values are converted to percentages then to degrees for each sector - very dissatisfied to very satisfied [1m]. Label each sector of the pie chart [1m]. 								

2		Cluster 2: Tourism
	(a)	Explain how globalisation encourages international tourism. [3]
		Award 1 mark for each explanation, to a maximum of 3 marks. Award a maximum of 1 additional mark for further development of each explanation or use of examples, where applicable.
		 Globalisation increases people's ability to travel as people now can search for and buy tourism-related services from anywhere [1m]. People have greater access to new ideas on tourism destinations and experiences from all over the world, especially through social media and the internet [1m]. This increases people's motivation to travel as they encounter new places and entice them to travel [1m additional]. For example, travel blogs and reviews will inspire people to explore less-known destinations [1m additional]. As places become more connected via different transport modes, travelling has become more convenient as people do not need to reply on mass tourism [1m].
	(b)	Study Fig. 2 (Insert), which shows three photographs of popular tourist sites in Cambodia.
		With reference to Fig. 2 (Insert), suggest how tourism may affect the environment in each site differently. [3]
		Award 1 mark for each explanation, to a maximum of 3 marks. Marks are awarded for distinct impacts. No repetition.
		 Angkor Wat Temple The constant influx of tourists can lead to physical wear and tear on the temple structures [1m]. Tourists may leave behind a significant amount of litter [1m].
		 Sihanoukville beach Tourists often leave behind plastic waste such as bottles, bags, and food packaging, which can end up in the ocean, harming marine life [1m]. Loud music, large gatherings, and other human activities can disturb both terrestrial and marine wildlife [1m]. Overcrowding on popular beaches can exceed the environment's carrying capacity, leading to degradation of natural resources [1m]. Foot traffic can compact sand, destroy vegetation, and disturb wildlife habitats [1m].
		 Kratie Town Boat traffic generate noise that can disturb marine life, particularly marine mammals like dolphins [1m]. Sunscreens and lotions used by tourists can wash off in the water, introducing harmful chemicals that can cause harm to marine life [1m].

	(c)	Outline the role of the government in enabling sustainable tourism development.	[3]				
		Award 1 mark for each explanation, to a maximum of 3 marks.					
		Award a maximum of 1 additional mark for further development of each explanation or					
		relevant use of example, where applicable.					
		Governments attract and control tourism development through government					
		ministries or state-sponsored tourism corporations [1m].					
		 Governments create plans that shape the economic framework for the tourism inductor [1m] 					
		 The Singapore Tourism Board formulates and implements policy that champions 	5				
		tourism as the country's key service sector and economic pillar and drives tourism development with other stakeholders [1m additional].	m				
		Governments provide infrastructure and education requirements for tourism [1m]].				
		 Governments enforce regulations in which businesses operate and help in marketing tourism [1m] 					
		 Governments provide funding and training for local businesses or tourism project 	cts				
		[1m].					
	(d)	'Ecotourism is the most effective approach to achieve sustainable tourism development.	,				
	. ,						
		To what extent do you agree with this statement? Explain your answer using examples.[[9]				
		Evaluation can be based on:					
		Evaluation can be based on: Physical conditions of the locations as eas tourism does not work in all					
		locations					
		- Government and local communities' level of involvement					
		- Presence or non-existence of 'greening' practices					
		- How alternatives/ strategies can be, not always, successful e.g PPT, CBT					
		- Other considerations such as social and cultural context					
		Delevent content					
		<u>Relevant content</u>					
		Ecotourism occurs in both protected and unprotected natural environments with an					
		attempt to increase benefits to the economy, society and environment through sustainab	ole				
		demands high level of environmental commitment among small number of tourists in					
		specialised tours. On the other end of the spectrum, soft ecotourism, including nature-					
		based resorts, features larger number of conventional tourists making a moderate					
		commitment to environmental issues. Ecotourism is diverse in South Africa where some	;				
		others like Kruger National Park have luxury lodges with swimming pools and extensive					
		road networks. Linking tourism with environmental protection and empowering the local	l				
		communities can bring potential benefits if ecotourism is properly planned and managed	J.				
1		The commercialisation of Kruger National Park means private companies are evaluated	in				

terms of financial aspects, environmental management and social objectives when operating tourism in the protected area.

Limitations of Ecotourism

The ideals of ecotourism may diverge from how it is practiced in reality. Places are marketed as ecotourism products but may not meet the basic criteria of sustainable tourism development.

Ecotourism operators may not always follow through with the nature conservation efforts and involvement of the local communities. As number of tourists visiting nature-based areas increases such as the Galapagos Islands, it can lead to environmental degradation. It is uncertain if ecotourism is still conserving nature if carrying capacity is not enforced and managed. In contrast, smaller number of tourists may result in smaller overall profits compared to established forms of tourism, which may result in a financial trade-off. With more foreign operators investing in ecotourism, local communities' involvement may diminish if they do not possess the skills to take on the available jobs. Higher foreign investments may also create inflation in the local economy.

Community-based tourism (CBT) aims to be socially sustainable, including respect for local culture, heritage and traditions. Tourism activities are developed and operated mainly by the local communities with high participation. Revenues are directed towards the local communities through various ways including small-scale tourism enterprises, joint-venture community associations or businesses that employ locals. Homestays provide tourists opportunities to experience local culture and heritage through living with the locals, including indigenous people, in their homes. For example, in the government funded Malaysia Homestay Programme, tourists experience local living through cooking traditional food, celebrating festivities and farming crops. Locals were also given skills training which enabled them to earn additional incomes.

Agricultural tourism develops agriculture as the destination for educational and recreational activities. For example, in the village of Bangunkerto, Indonesia, the local community with the government's help established a plantation centre for tourists by changing their crops to the more popular and profitable Salak fruit. Agricultural tourism has promoted development and strengthened local identity because the villagers have control in decision-making at the local level.

Limitations of Community-based Tourism

As the culture itself becomes the attraction in CBT, it may become inauthentic and commodified. Indigenous culture can be sold to tourists through cultural performances and souvenirs, which may change over time to suit tourists' needs. CBT may face competition and threat posed by larger-scale tourism operators, including resorts in the surrounding area. Large-scale operations have the resources, finances and marketing skills to take businesses away from small operations. For example, CBT development in Thanh Ha pottery village, Vietnam, faces competition from other industry products, which are mass-produced and made of cheap and readily available materials compared to traditional handicrafts. A key challenge for relevant stakeholders is to find a way for large and small tourism businesses to co-exist and collaborate as part of an integrated local tourism development policy.

Pro-poor tourism takes an overall approach to poverty reduction and can be implemented in large or small scales, and in urban or rural settings. It can include

community-based tourism or ecotourism, but tourism development would need to have the strategies to help the poor improve their livelihoods, in the economic, social and environment aspects. The poor, particularly women, are provided with education and training to acquire new skills and take up tourism jobs. Expanding the poor's access to micro-finance gives them capital to start new tourism businesses, enabling them to earn incomes to improve their standards of living.

For example, Alexandra Township, an impoverished and densely populated place in South Africa, engages with pro-poor tourism by getting tourists to visit sites of significance to understand issues of poverty and historic oppression during the apartheid government. Tourists are linked to the poor community through hotel programmes; marketing tours to the Township, recycling guest amenities to be made into crafts and the sale of locally produced souvenirs to hotel guests.

Limitations of Pro-poor Tourism

Pro-poor tourism may not be able to alleviate absolute poverty as most strategies are small-scale and localised to make significant impact. Rather it helps make some sections of poorer communities 'better off' and reduce vulnerability of the poor to hunger. Investment in social services like education, healthcare and infrastructure development may have a bigger reach in reducing poverty, as it can improve the lives of the locals directly. For example, with the support of the Asian Development Bank (ADB), 6 countries (Cambodia, Laos, Myanmar, Thailand and Vietnam) sharing the Mekong River undertook a joint tourism project in 2005 to primarily reduce poverty in the region, while minimising its adverse impacts. Despite the strategic regional approach to poverty reduction, ADB found that tourism revenues and employment have increased, however, majority are concentrated in one country and the distribution of these benefits to the poorest is minimal.

A possible approach:

The answer could highlight the effectiveness of the approaches to achieve sustainable tourism developement, which depends on the context or place characteristics, thus the same approaches may be more effective in some locations and not others. Relevant examples or case studies should be made to illustrate the argument.

Examples of evaluation (PPT VS Ecotourism):

PPT aims to ensure that the economic benefits of tourism are distributed to the poorest members of society. It focuses on creating jobs, supporting local businesses, and ensuring that local communities receive a fair share of the revenue generated by tourism. While ecotourism also aims to benefit local communities, its primary focus is on conservation and environmental sustainability. Economic benefits to local communities can be a secondary objective. [SCALE of impact/WHO benefit most]

PPT directly addresses poverty by creating economic opportunities for the poor, improving their living standards, and providing them with skills and training that can lead to long-term employment. Although ecotourism can contribute to local economies, the primary beneficiaries are often conservation projects and sometimes larger, established businesses rather than the poorest community members. [SCALE of Impact]

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

4		Cluster 4: Tectonics						
	(a)	Study Fig. 4.1 (Insert), which shows magnetic striping on the seafloor.						
		With reference to Fig. 4.1 (Insert), describe how magnetic striping supports the plate tectonic theory. [3]						
		Award 1 mark for each description of the process, to a maximum of 3 marks.						
		 Magnetic stripping occurs as the basaltic rocks from the oceanic crust are iron-ri lava which contains magnetic materials [1m]. 						
		Its magnetic materials point towards Earth's magnetic North, recording evidence Earth's polarity at that time [1m].						
		• As plates move, new iron-rich lava erupts from the centre of the ridge. When Earth's polarity reverses, the rocks record the reversals [1m].						
		 Over time, the zebra like symmetrical pattern shows that plates move [1m]. 						
	(b)	Study Fig. 4.2 (Insert), which shows a map of the 2011 Tohoku Earthquake in Japan.						
		Using Fig. 4.2 (Insert), explain the tectonic processes that resulted in the Tohoku earthquake. [3]						
		Award 1 mark for each description of the process, to a maximum of 3 marks.						
		• The EQ was caused by the converging plates, namely the Eurasian Plate and Pacific Plate [1m]. The denser oceanic Pacific plate subducts beneath the less dense Eurasian continental plate [1m additional].						
		 This process is not smooth, hence the friction causes stress to build up [1m]. The stress is released in the form of ground shaking [1m]. 						

(c)	Describe the different impacts caused by volcanic eruptions on natural and human systems. [5]
	Award 1 mark for each description on impacts which can be both direct and indirect, to a maximum of 5 marks. Response must cover both natural and human system.
	Award a maximum of 1 additional mark for further development of each description, where applicable.
	 Lava flow can destroy <u>burn houses /ecosystems</u> along its path [1m]. Larger volcanic bombs the size of vehicles can land on <u>property destroying</u> them [1m].
	 Ashfall can accumulate on <u>roofs of houses causing them to collapse</u> [1m]. Thick blankets of ash can <u>damage farmland and suffocate crops</u> and <u>destroy</u> <u>livelihoods</u> [1m].
	 Sulphur dioxide released can cause <u>acid rain</u> which <u>damage vegetation</u>, <u>soil and kill wildlife / irritates skin</u>, <u>eyes</u>, <u>nose and throat</u> [1m]. Air containing over 35 carbon dioxide can cause breathing difficulties and when
	 Pyroclastic flows of hot cloud of gas (up to 700 degrees C), ash and rocks
	travelling down the slopes of volcanoes at great speeds can burn through homes / kill people instantly / <u>destroy electricity and communication cables and gas pipes</u> disrupting services [1m].
	 Lahars /mudflows comprising water and volcanic ash washing down the slopes can <u>cover forests with thick mud</u> which hardens like <u>concrete destroying them</u> [1m]
	 Damaged areas can be converted into <u>tourist attractions and provide employment</u> <u>opportunities[1m]</u>.
(d)	Study Fig. 4.3 (Insert), which is a scatter graph showing the relationship between the Volcanic Explosivity Index (VEI) and the average number of deaths worldwide.
	Using Fig. 4.3 (Insert), describe the relationship between VEI and the average number of deaths worldwide. [3]
	 The higher the VEI, the higher the average number of deaths (G) For example, when VEI is 3, the number of deaths is approx. 500. When VEI is 5, the number of deaths is approx. 900. (S) However, there are anomalies. When VEI is 7, the number of deaths is approx.
	700 OR When VEI is 4, the number of deaths is approx. 1100. (O)

(e)	Using Fig. 4.4 (Insert), describe how community resilence is strengthened against tsunamis in Ishinomaki City, Japan. [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.
	 Areas highly exposed to tsunami has been mapped out in red to reduce community's exposure to tsunami [1m]. No houses can be built within the disaster zone. This helps to prevent houses been swept away by tsunami leading to high number of causualities [1m]. Levees are also built to prevent water/waves from overflowing to areas outside disaster risk zone. This is to slow down the possibility of flooding [1m]. Shelters such as schools and medical facilities such as hosiptals are built on higher grounds to ensure the local community are able to access these amentities and medical help should tsunami strike the city [1m]. Presence of evacuation tower and facilities for people to seek refuge [1m].

Question	Max Mark	Question Part	AO1	AO2	AO3	
1	14	1(a)		3		
		1(b)		2		
		1(c)(i)			6	
		1(c)(ii)	1			
		1(c)(iii)		2		
2	18	2(a)	3			
		2(b)		3		
		2(c)	3			
		2(d)			9	
4	18	4(a)	3			
		4(b)		3		
		4(c)	5			
		4(d)		3		
		4(e)		4		
			15	20	15	

Assessment Grid