

Marking Scheme for 2023 Sec 3 Geography Elective EOY Exam

Question	Answer	Marks
1(a)	<p>The night bazaar event was held between 1 August to 18 August 2023 on the open space next to the Hougang MRT station. There were many stalls which sell a diverse range of food from which originate from different countries in Asia.</p> <p>Study Fig. 1.1 which shows one of the stalls in the night bazaar selling stinky tofu.</p> <p>With reference to Fig. 1.1, suggest why the night bazaar could affect the Hougang residents' sense of place.</p> <p>Award 1 mark for each suggested reason of how the night bazaar could affect the residents' sense of place, to a maximum of 3 marks. Award a maximum of 1 additional mark for further development of each reason, where applicable.</p> <p>Possible responses include:</p> <ul style="list-style-type: none"> • The night bazaar was held near to the Hougang MRT station, which helps residents to remember that a significant event was held near to their homes, where residents can interact and be bonded together, enhancing their sense of place. [1 mark]. • The stalls in the night bazaar sell a diverse range of food which appeal to many of the residents who might have missed the food they had in different countries and could not access the food if there is no night bazaar. [1 additional mark]. • Residents' sense of place may be negatively affected, as the smell of the stinky tofu was unpleasant and affected the residents living near to the night bazaar. [1 mark]. <p>AO2</p>	3

Question	Answer	Marks
1(b)(i)	<p>Study Fig. 1.2, which shows types of fires in residential premises in Singapore in 2020 and 2021.</p> <p>Using Fig. 1.2, compare the types of fire in residential premises between 2020 and 2021.</p> <p>Award 1 mark for each comparison up to a maximum of 4 marks. Award a maximum of 1 additional mark for further development of each comparison, where applicable.</p> <p>Possible responses include:</p> <p>Similarity</p> <ul style="list-style-type: none"> For both 2020 and 2021, unattended cooking caused the highest number of fires at 375 fires in 2020 and 358 fires in 2021. <p>Differences</p> <ul style="list-style-type: none"> From 2020 to 2021, decrease in the number of fires at 17 (375 - 358) from unattended cooking and 48 (193 - 145) from discarded contents. [1 mark] but Increase of 5 fires (185 to 192) from electrical and 17 fires (166 to 183) from household contents. [1 additional mark] Greater decrease in fires between 2020 and 2021 is from discarded items in common areas at 48 as compared to unattended cooking as only 17. [1 mark] Greater increase in fires between 2020 and 2021 is from household contents at 17 as compared to electrical which is only 5. [1 mark] Decrease in number of fires for all types from 921 in 2020 to 878 in 2021. [1 mark] Decrease in fires from unattended cooking from 375 in 2020 to 358 in 2021. [1 mark] Decrease in fires from discarded items in common areas from 193 in 2020 to 145 in 2021. [1 mark] Increase in fires from electrical from 187 in 2020 to 192 in 2021. [1 mark] increase in fires from household content from 166 in 2020 to 183 in 2021. [1 mark] <p>AO2</p>	4

Question	Answer	Marks
1(b)(ii)	<p data-bbox="320 208 1310 271">Explain how developing community resilience can help in managing the risks from fires in residential premises.</p> <p data-bbox="320 315 1294 389">Award 1 mark for each explanation of how community resilience can help to manage risks from residential fires</p> <p data-bbox="320 398 1257 472">Award a maximum of 1 additional mark for further development of each explanation, where applicable.</p> <p data-bbox="320 510 719 546">Possible responses include:</p> <ul data-bbox="320 548 1332 824" style="list-style-type: none"> <li data-bbox="320 548 1332 645">• In Singapore, Community First Responders (CFRs) volunteers are important in supporting the government in search and rescue operations, relief work as well as educating the public on simple first-aid and basic firefighting. [1 mark] <li data-bbox="320 645 1332 705">• The Community First Responders (Fire) are alerted to minor rubbish chutes and bin fires within their immediate vicinity and help put out the fires. [1 mark] <li data-bbox="320 705 1332 766">• This helps SCDF optimize its emergency resources to attend to life-threatening and other higher-priority cases. [1 mark] <li data-bbox="320 766 1332 824">• The residents also helped to prevent fires by not discarding items in common areas. [1 mark] <p data-bbox="308 891 371 927">AO1</p>	4

Question	Answer	Marks
1(c)	<p>Study Fig. 1.3 (insert), which shows some focus areas of the HDB Green Towns Programme.</p> <p>Using Fig. 1.3, explain how the features can help urban neighbourhoods to be sustained environmentally.</p> <p>Award 1 mark for each explanation of how the features contribute to environmental sustainability, to a maximum of 4 marks.</p> <p>Award a maximum of 1 additional mark for further development of each explanation, where applicable.</p> <p>Possible responses include:</p> <ul style="list-style-type: none"> • Motion-sensor SMART LED lighting in common areas that brighten when movement is detected helps in energy conservation as common areas need not be lit for long periods of time through the night as it only lights up when movement is detected. This results in less energy used to light up common areas. [1 mark] • Urban water harvesting system collects rainwater and uses it for block washing helps with the conservation of water and reduces overall water consumption. [1 mark] • The planting of greenery on rooftops of HDB blocks helps to lower building temperatures which in turn reduces the need to turn on fans and air-conditioners. This in turn helps to reduce individual household energy consumption.[1 mark] • The use of cool paint helps to lower the temperature in the neighborhood, thus reducing energy consumption in the use of appliances such as fans and air-conditioning. [1 mark]. • Use of solar panels enables conversion to electricity to power supply for households, thus reducing the need to burn fossil fuel for energy consumption. <p>AO2</p>	4

Question	Answer	Marks
1d)	<p>Study Fig. 1.4 (insert), which shows an infographic on how mangrove provides various ecosystem services.</p> <p>With reference to Fig. 1.4, explain how mangrove contributes to the provisioning and regulating ecosystem services.</p> <p>Award 1 mark for each explanation of how mangrove contributes to one ecosystem services, to a maximum of 4 marks.</p> <p>Possible responses include:</p> <ul style="list-style-type: none"> • The mangrove provides provisioning services such as fishing which provides food for people. [1 mark] • The mangrove also provides provisioning services such as medicine as well as fuel and timber from the trees. [1 mark] • The mangrove provides regulating services for people as the carbon dioxide is absorbed through photosynthesis. [1 mark]. • Mangrove also provides regulating services such as regulating water quality and coastal protection. [1 mark] <p>AO1</p>	4

Question	Answer	Marks
1(e)	<p>A class of 16 students wanted to find out the levels of satisfaction of use of the facilities in Punggol by the residents of Punggol. They decided to conduct a questionnaire survey on a Saturday. They were divided into four groups for the survey with two groups in the morning and two groups in the afternoon. One group stationed themselves outside the MRT station and another group at the bus interchange. The students surveyed the first 100 people they saw.</p> <p>They concluded from the findings shown in Table 1.1 that the residents of Punggol has a high level of satisfaction of use of the facilities in Punggol.</p> <p>With reference to Table 1.1, evaluate the validity of the data collection regarding the satisfaction of use of the facilities in Punggol by its resident.</p> <p>Award 1 mark for each explanation for or against the reliability of the data collection method, to a maximum of 4 marks.</p> <p>Award a maximum of 1 additional mark for further development of each explanation, where applicable.</p> <p>Possible responses include:</p> <p>Valid:</p> <ul style="list-style-type: none"> • A large sample size which is representative of 100 people who were interviewed [1 mark]. • A wide range of scale (level of satisfaction) for respondents to choose. • Majority of the people are somewhat or very satisfied at an average score of 55.8 which shows that their conclusion is that residents of Punggol have a high level of satisfaction in the use of the facilities in Punggol. [1 mark] <p>Not valid:</p> <ul style="list-style-type: none"> • There is no indication in the survey to check if those interviewed are residents of Punggol. [1 mark]. • The respondents were not selected randomly (convenience sampling) thus the sample might not be representative of Punggol [1 mark]. • Thus, students might also have interviewed the same person more than once [1 additional mark]. • The students did not ensure that there is a mix of respondents, thus this might affect the sample's representation [1 mark]. • Majority were neutral in their responses at 32.8 chose neither satisfaction or dissatisfaction. [1 additional mark] • Data collected is only for a weekend (Saturday) on 2 separate sessions (morning and noon) which might render the data to be not representative. <p>AO3</p>	6

Question	Answer	Marks
2(a)(i)	<p>Using Table 2.1, calculate the temperature range at locations A and B. [2]</p> <p>Award 1 mark for each correct calculation of temperature range.</p> <p>Temperature range at location A:7...°C</p> <p>Temperature range at location B:28...C</p> <p>A02</p>	2
2(a)(ii)	<p>Using Fig. 1 and Table 1, explain the temperature difference between locations A and B.</p> <p>Award 1 mark for explanation of temperature difference, to a maximum of 4 marks.</p> <p>Possible responses include:</p> <ul style="list-style-type: none"> • A is close to the Pacific Ocean, whereas B is further inland/ 500 metres away from the coast. [1 mark] • A has warmer winters and cooler summers/ A has a smaller annual range of 7°C, this is due to the maritime effect as the sea loses heat and absorbs heat slowly. [1 mark] • However, B has a continental effect as it loses heat and absorbs heat slowly. • Thus has B has a greater temperature range of 28°C <p>AO2</p>	4
2(b)	<p>Explain how burning of fossil fuels results in enhanced greenhouse effect.</p> <p>Award 1 mark for explanation, to a maximum of 4 marks.</p> <p>Possible responses include:</p> <ul style="list-style-type: none"> • Fossil fuels have high carbon content. • To create energy for agriculture, industries and urbanisation, humans burn fossil fuels such as coal, oil and natural gas which produce greenhouse gases, • With more greenhouse gases in the atmosphere, less heat is able to escape into space and more heat is radiated back towards the Earth's surface • The Earth's temperature increases as the heat is trapped known as enhanced greenhouse effect <p>AO1</p>	4

Question	Answer	Marks
2(c)	<p>Study Fig. 2.2 (Insert), which shows the new possible areas where Malaria can potentially be found in 2050 as a result of climate change.</p> <p>Describe the possible changes in distribution of malaria as shown in Fig. 2.2.</p> <p>Award 1 mark for each description of possible change in malaria distribution, to a maximum of 3 marks. Award 1 mark for further development of the description.</p> <p>Possible responses include:</p> <ul style="list-style-type: none"> • Malaria is expected to extend to the north and south of its current distribution, reaching the higher latitudes [1 mark]. • Malaria is expected to affect more coastal areas [1 mark]. • Malaria is expected to be found in countries previously unaffected [1 mark]. Malaria can be found in countries such as Australia which was not affected previously [1 additional mark] <p>AO2</p>	3
2 (d)	<p>Describe the three factors which affect the level of climate risks in a place.</p> <p>Award 1 mark for each factor affecting climate risk, to a maximum of 3 marks.</p> <p>Possible responses include:</p> <ul style="list-style-type: none"> • Nature of hazards– such as flood, drought • Vulnerability – such as access to healthcare • Exposure – such as low-lying coastal areas or floodplain <p>AO1</p>	3

Question	Answer	Marks
2(e)	<p>‘Mitigation strategies alone are effective in building climatic resilience in countries.’</p> <p>To what extent do you agree with this statement? Explain your answer.</p> <p><u>Relevant Content</u></p> <p>Mitigation strategies:</p> <ul style="list-style-type: none"> • international agreements and cooperation; use of low-carbon technologies • use of clean energy sources; and changes in consumption patterns <p>Adaptation strategies:</p> <ul style="list-style-type: none"> • water and flood management • use of technology to produce food • raising awareness and education • national and regional policies and plans <p><u>A possible approach:</u></p> <p>The answer makes clear a judgement on whether mitigation strategies adopted by countries are partially effective or effective with reference to examples. An example could be the low-carbon technologies to import hydrogen fuels for electricity generation. This is followed by shortcomings of the mitigation strategies discussed. The answer could also consider adaptation strategies to show the ineffectiveness of mitigation strategies in building climate resilience. An example is the move towards high-technology farming in Singapore, which reduces food insecurity brought about by climate change.</p> <p>AO3</p>	

Generic Level Descriptors for 9-mark AO3 Questions		
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. 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.

Assessment Specification Grid

Question	Max Mark	Question part	AO1	AO2	AO3
1	14	(a)		3	
		(b) (i)		4	
		(b) (ii)	4		
		(c)		4	
		(d)	4		
		(e)			6
		Total	8	11	6
2	18	(a)(i)		2	
		(a)(ii)		4	
		(b)	4		
		(c)(i)		3	
		(c)(ii)	3		
		(d)(iii)			9
		Total	7	9	9

AO1: = 15m

AO2: = 20m

AO3: 6+9=15m