

**Section A**

Answer Question 1 **and** Question 2.

**1 Cluster 1: Geography in Everyday Life**

**(a)** Study Fig. 1.1 (Insert), which shows two neighbourhoods in Bedok New Town.

Using Fig. 1.1, compare the features between the two neighbourhoods.

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**(b)** Study Fig. 1.2 (Insert), which shows a park in an urban neighbourhood in Singapore.

**(i)** With reference to Fig. 1.2, explain how parks can help in promoting social sustainability in an urban neighbourhood.

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- (ii) With reference to Fig. 1.2 (Insert), describe how parks can provide regulating ecosystem services for residents.

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- (c) A group of students investigated the well-being of residents in Tampines. They tested the hypothesis: 'There is variation in the wellness of residents across different age groups.'

They used a closed-ended questionnaire survey to collect information on the well-being of residents. They organised themselves into two groups, with each group conducting the survey at a location shown in Fig. 1.3 (Insert).

Each group of students surveyed 400 participants, and they used quota sampling to select 100 participants from each age group. They ensured that the participants are residents of Tampines before conducting the survey.

Fig. 1.3 (Insert) shows the locations where the students conducted their survey and Table 1.1 (Insert) shows the results of the questionnaire survey.

- (i) Evaluate the reliability of the students' data collection methods.

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- (ii) Using Table 1.1, evaluate how well the data supports the students' hypothesis.

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[Total: 14]

## 2 Cluster 2: Tourism

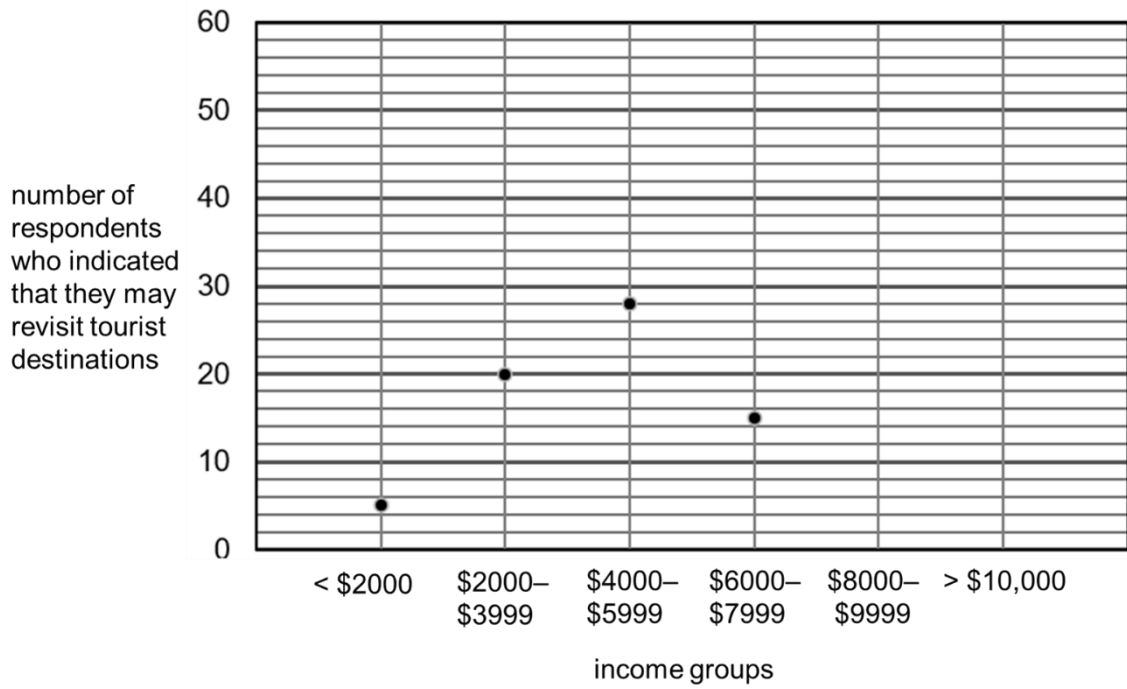
- (a) Study Table 2.1, which shows the results of a survey carried out to find out if tourists may revisit tourist destinations. The results of the survey are collated based on income groups and Fig. 2.1 shows a partially completed scatter graph representing the results shown in Table 2.1.

**Table 2.1**

**Results of the survey which are collated based on income groups**

| <b>income group</b>                                                       | <b>&lt;\$2000</b> | <b>\$2000-\$3999</b> | <b>\$4000-\$5999</b> | <b>\$6000-\$7999</b> | <b>\$8000-\$9999</b> | <b>&gt;\$10,000</b> |
|---------------------------------------------------------------------------|-------------------|----------------------|----------------------|----------------------|----------------------|---------------------|
| number of respondents who indicated they may revisit tourist destinations | 5                 | 20                   | 28                   | 15                   | 40                   | 55                  |

**Relationship between income and revisiting tourist destinations**



**Fig. 2.1**

- (i) Use the information from Table 2.1 to complete the scatter graph in Fig. 2.1 and draw a best-fit line. [2]

- (ii) Using Table 2.1 and Fig. 2.1, describe how income may affect the decision of tourists to revisit tourist destinations.

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- (b) Study Fig. 2.2A (Insert), which shows Gross National Product (GNP) per capita of countries in Asia and Fig. 2.2B (Insert), which shows tourist departures from countries in Asia.

Using Figs. 2.2A and 2.2B, to what extent does the data show that GNP per capita of countries and tourist departures have a positive relationship?

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**(c)** Study Fig. 2.3, which shows tourists participating in an ecotourism activity.

‘Ecotourism is the most effective approach in achieving sustainable tourism development.’

With reference to Fig. 2.3, to what extent do you consider this statement to be true? Explain your answer.

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### Section B

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

#### 3 Cluster 3: Climate

- (a) Study Fig. 3.1A (Insert) which shows the location of two cities in Canada, Winnipeg and Halifax, and Fig. 3.1B (Insert), which shows the average temperature of these two cities.
- (i) Use information from Fig. 3.1B, describe differences in the average temperature between Winnipeg and Halifax.

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- (ii) Using Figs. 3.1A and 3.1B, account for the variation in average temperature between Winnipeg and Halifax.

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**(b)** Explain how higher sunspot activity results in higher temperatures on Earth.

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(c) Explain the impact of climate change on terrestrial ecosystems.

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- (d) Study Fig. 3.2 (Insert), which shows the aftermath of a tropical storm on the southern coastal region of Bangladesh in 2016.

With reference to Fig. 3.2, suggest how the tropical storm might have affected the economy of Bangladesh.

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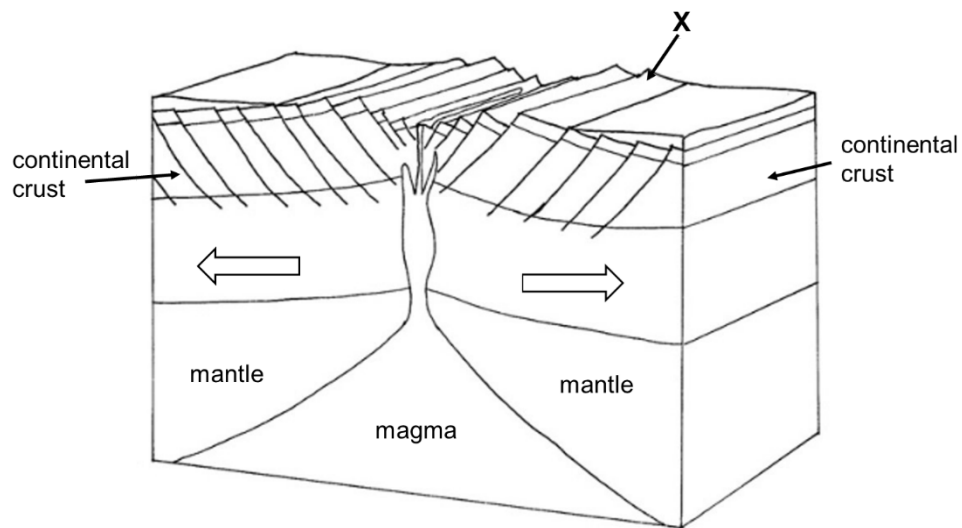
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[Total: 18]

#### 4 Cluster 4: Tectonics

(a) Study Fig. 4.1, which shows a divergent plate boundary.

**A divergent plate boundary**



**Fig. 4.1**

With reference to Fig. 4.1, explain the processes which occur at a divergent plate boundary.

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**(b)** Study Figs. 4.2A (Insert) and 4.2B (Insert).

Fig. 4.2A is a map showing tectonic plates and plate boundaries. Fig. 4.2B is a map showing the distribution of ocean trenches and fold mountains.

Using Figs. 4.2A and 4.2B, describe similarities and differences in the distribution of oceanic trenches and fold mountains in relation to plate boundaries.

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**(c)** Study Figs. 4.3A (Insert) and 4.3B (Insert).

Fig. 4.3A is a map showing the plate boundaries where Nepal is located and Fig. 4.3B is a map showing information about an earthquake which occurred in Nepal in 2015.

**(i)** With reference to Fig. 4.3A, explain why the earthquake occurred.

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- (ii) Using Fig. 4.3B, explain why many areas in Nepal suffered serious damage as a result of the earthquake.

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(d) Explain how tectonic disasters can result in economic losses.

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**Additional page**

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*Copyright Acknowledgements:*

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|------------|-----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Question 1 | Fig. 1.1  | © <a href="https://sso.agc.gov.sg/SL-Supp/S333-2019/Published?DocDate=20190426&amp;ProvIds=Sc-https://sso.agc.gov.sg/SL/HDA1959-S638-2019?ValidDate=20190923&amp;ProvIds=Sc-">https://sso.agc.gov.sg/SL-Supp/S333-2019/Published?DocDate=20190426&amp;ProvIds=Sc-https://sso.agc.gov.sg/SL/HDA1959-S638-2019?ValidDate=20190923&amp;ProvIds=Sc-</a> |
| Question 1 | Fig. 1.2  | © <a href="https://www.ramboll.com/projects/water/bishan-park-singapore-nature-for-all">https://www.ramboll.com/projects/water/bishan-park-singapore-nature-for-all</a>                                                                                                                                                                             |
| Question 1 | Fig. 1.3  | © <a href="https://www.streetdirectory/tampines">https://www.streetdirectory/tampines</a>                                                                                                                                                                                                                                                           |
| Question 2 | Fig. 2.2A | © <a href="https://www.indexmundi.com/facts/indicators/st.int.dprt/map/asia">https://www.indexmundi.com/facts/indicators/st.int.dprt/map/asia</a>                                                                                                                                                                                                   |
| Question 2 | Fig. 2.2B | © <a href="https://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28nominal%29">https://en.wikipedia.org/wiki/List_of_countries_by_GDP_%28nominal%29</a>                                                                                                                                                                                           |
| Question 2 | Fig. 2.3  | © <a href="https://wiki.ubc.ca/Course:CONS200/2019/Impacts_of_Ecotourism_on_the_Galapagos_Islands">https://wiki.ubc.ca/Course:CONS200/2019/Impacts_of_Ecotourism_on_the_Galapagos_Islands</a>                                                                                                                                                       |
| Question 3 | Fig. 3.1A | © <a href="https://www.sciencedirect.com/science/article/abs/pii/S0013935120303650">https://www.sciencedirect.com/science/article/abs/pii/S0013935120303650</a>                                                                                                                                                                                     |
| Question 3 | Fig. 3.2  | © <a href="https://www.straitstimes.com/asia/south-asia/thousands-homeless-in-cyclone-hit-bangladesh">https://www.straitstimes.com/asia/south-asia/thousands-homeless-in-cyclone-hit-bangladesh</a>                                                                                                                                                 |
| Question 4 | Fig. 4.2A | © <a href="https://www.livescience.com/planet-earth/geology/how-many-tectonic-plates-does-earth-have">https://www.livescience.com/planet-earth/geology/how-many-tectonic-plates-does-earth-have</a>                                                                                                                                                 |
| Question 4 | Fig. 4.2B | © <a href="https://www.ccyd.co.uk/wp-content/uploads/2020/03/Tectonics-workbook-1.pdf">https://www.ccyd.co.uk/wp-content/uploads/2020/03/Tectonics-workbook-1.pdf</a>                                                                                                                                                                               |
| Question 4 | Fig. 4.3A | © <a href="https://bordenepal.wordpress.com/wp-content/uploads/2015/09/2a-map.jpg">https://bordenepal.wordpress.com/wp-content/uploads/2015/09/2a-map.jpg</a>                                                                                                                                                                                       |
| Question 4 | Fig. 4.3B | © <a href="https://sg.news.yahoo.com/beyond-repair-nepals-quake-hit-homes-await-bulldozers-063550961.html">https://sg.news.yahoo.com/beyond-repair-nepals-quake-hit-homes-await-bulldozers-063550961.html</a>                                                                                                                                       |