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ST. MARGARET'S SCHOOL (SECONDARY)

Preliminary Examinations 2024

CANDIDATE NAME

CLASS

REGISTER NUMBER

HUMANITIES (GEOGRAPHY) **2260/02**

Paper 2 Geography

20 August 2024

Secondary 4 Express

1 hour 45 minutes

INSERT

READ THESE INSTRUCTIONS FIRST

This Insert contains additional resources referred to in the questions.

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This document consists of **3** printed pages and **1** blank page.

Fig. 2.1 for Question 2

Faroe Islands tourism brochure

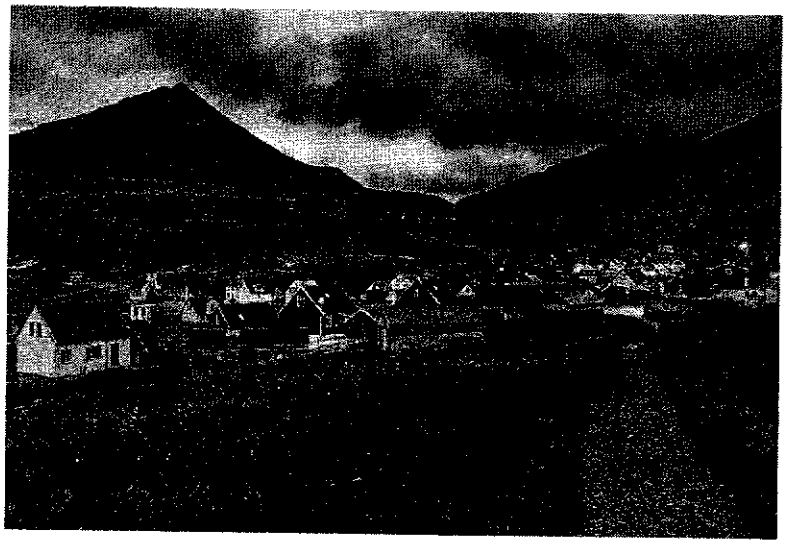


Unwind and relax at one of the stunning and secluded beaches on the Faroe Islands, surrounded by dramatic cliffs and rugged landscapes.



Trek to the summits of iconic peaks such as Slaettaratindur, the highest point in the Faroe Islands, for unmatched vistas and a profound sense of achievement.

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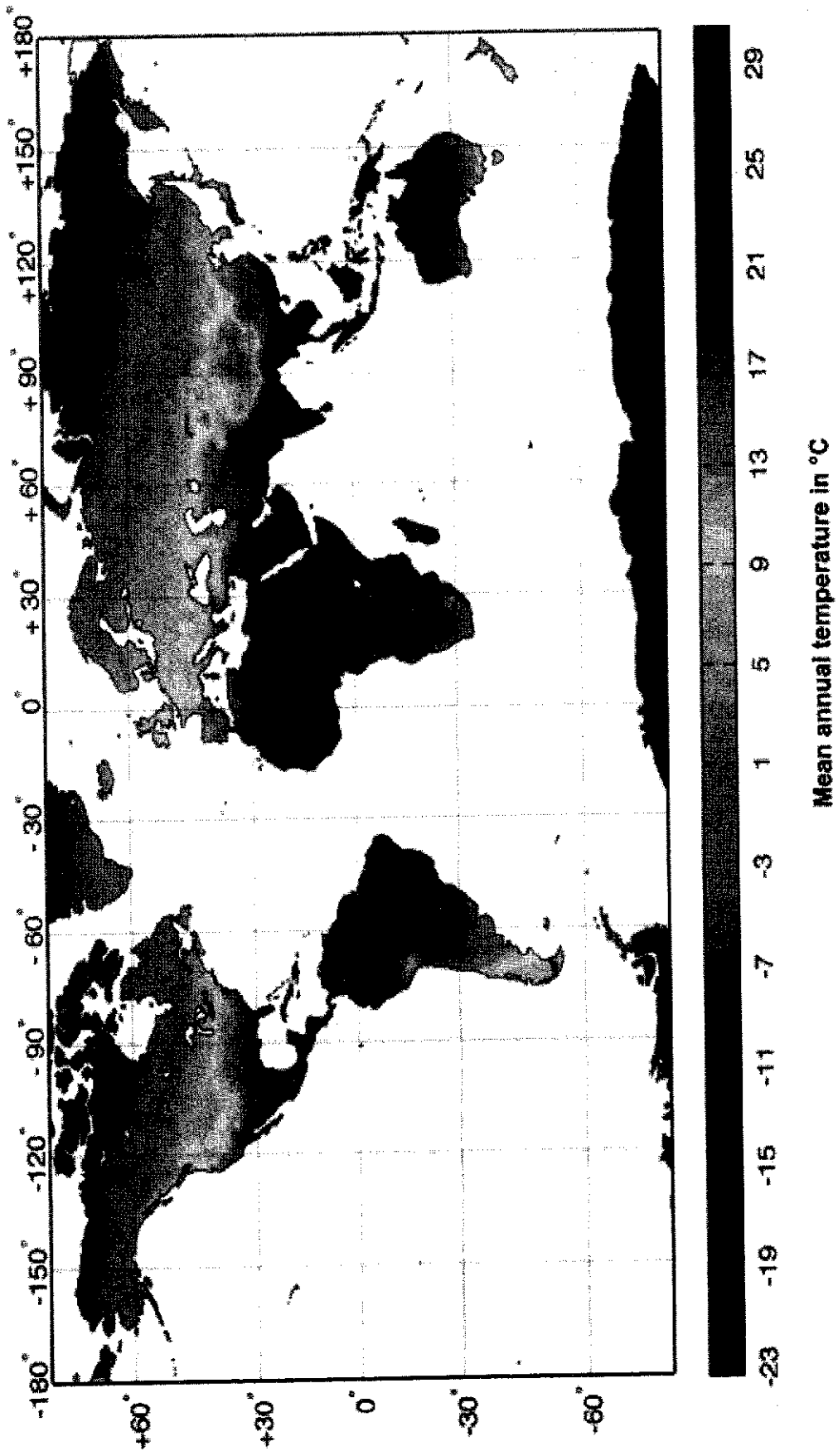


Traverse winding trails, uncover ancient traditions, and immerse in the essence of Faroese culture amidst the captivating villages of Tórshavn and Gjógv.

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Fig. 3.1 for Question 3

World map illustrating the global distribution of mean annual temperature (°C)



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HUMANITIES (GEOGRAPHY)

2260/02

Paper 2 Geography

20 August 2024

Secondary 4 Express

1 hour 45 minutes

Candidates answer on the Question Paper.
Additional Materials: Insert

READ THESE INSTRUCTIONS FIRST

Write your name, registration number and class on all the work you hand in.
Write in dark blue or black pen.
You may use an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, glue or correction fluid.

Answer **three** questions in total:
Section A
Answer Question 1 **and** Question 2.
Section B
Answer **either** Question 3 **or** Question 4.

The Insert contains additional resources referred to in the questions.

The number of marks is given in brackets [ ] at the end of each question or part question.

For Examiner's Use	
Question	Marks
1	/ 14
2	/ 18
③ / 4 *	/ 18

This document consists of **18** printed pages and **1** Insert.

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Total	/ 50

**Circle the question attempted.*

Section A

Answer Question 1 **and** Question 2.

1 Cluster 1: Geography in Everyday Life

(a) Fig. 1.1 shows an excerpt from a news article on raccoons found in urban neighbourhoods of Toronto, Canada.

Excerpt from a news article on raccoons found in urban neighbourhoods of Toronto, Canada



In Toronto, raccoons symbolise the struggle between urban development and wildlife adaptation. Dubbed "trash pandas," they navigate the city effortlessly, raiding garbage bins and causing property damage. Residents' opinions vary, with some embracing them as resilient city dwellers while others call for population control.

Efforts to outsmart them, like raccoon-proof bins, often fail. The raccoon dilemma highlights the complexities of urban expansion and human-wildlife interactions. Toronto faces a choice: continue the battle against raccoons or find a way to coexist peacefully. It is a lesson in the evolving relationship between cities and nature.

Fig. 1.1

(i) With reference to Fig. 1.1, explain how raccoon encounters in Toronto could have occurred.

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(ii) Explain the negative effects of raccoon encounters on the city dwellers in Toronto.

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(b) An elderly-friendly exercise park was recently installed in a HDB estate in Singapore. A group of students decided to carry out a geographical investigation on the age groups of people who use the exercise park.

The group decided to count the number of visitors at the park at different times of the day for one weekend during the June holidays. While counting the number of users at the park, the group also estimates the ages of the park visitors. Group members were to stand at the park for five minutes every hour from 8 am till 8 pm and count the number of visitors present.

The data collected is shown in Table 1.1.

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Table 1.1

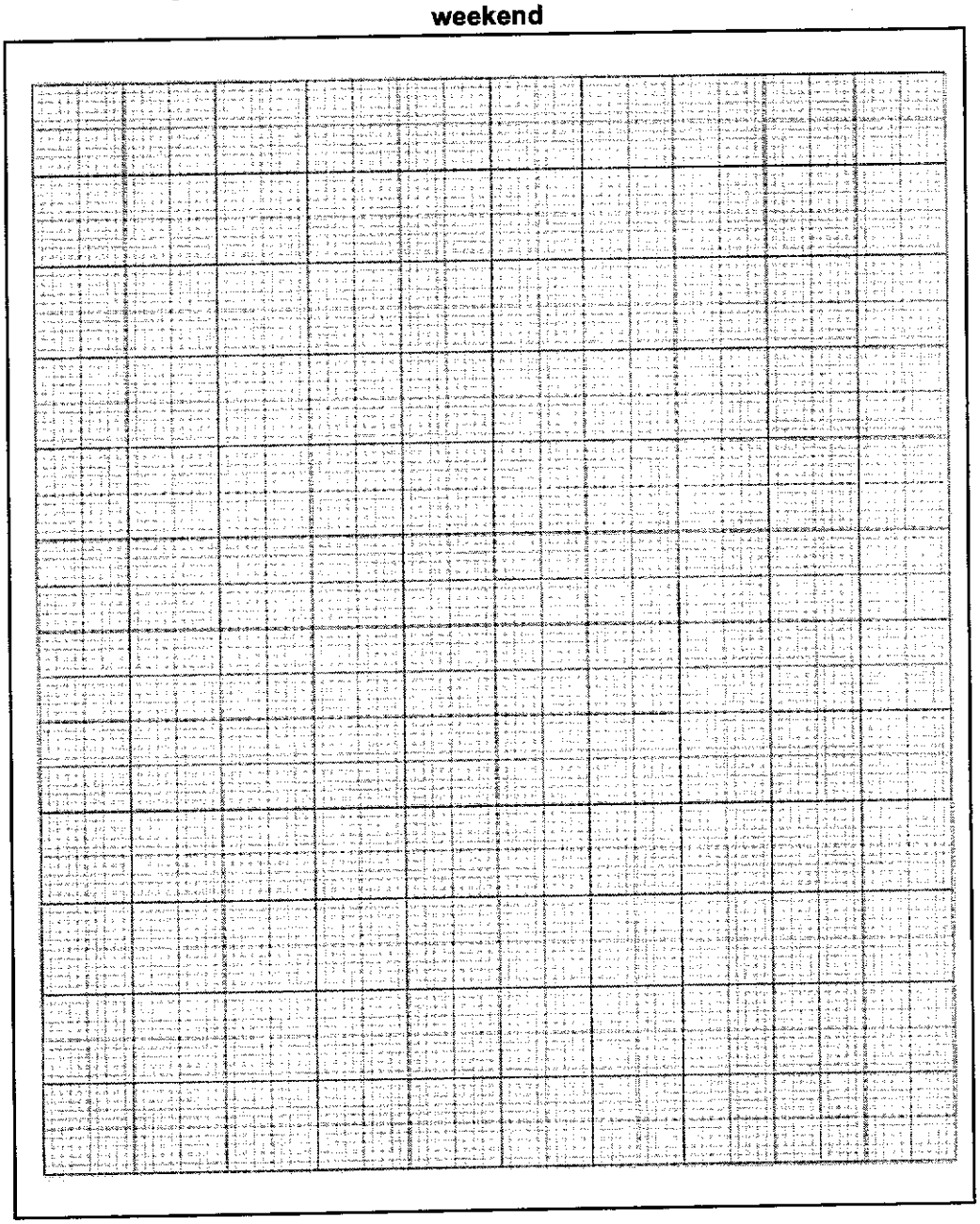
Number of people who uses the exercise park on a weekend

	Number of visitors		
Time	**Saturday**	**Sunday**	**Average**
8.00AM	6	8	7
9.00AM	6	7	6.5
10.00AM	5	5	5
11.00AM	0	0	0
12.00PM	0	0	0
1.00PM	0	0	0
2.00PM	0	0	0
3.00PM	0	0	0
4.00PM	5	5	5
5.00PM	7	8	7.5
6.00PM	5	6	5.5
7.00PM	2	2	2
8.00PM	0	0	0

(i) Draw a suitable graph that shows the relationship between the time of day and the average number of visitors at the park on a weekend. [3]

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Title: Average number of visitors at the elderly-friendly exercise park on a weekend



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(ii) Evaluate the validity of the students' investigation regarding the age group of people who use the exercise park.

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[Total: 14 marks]

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2 Cluster 2: Tourism

(a) Study Fig. 2.1 (Insert) showing a tourism brochure on the Faroe Islands, an archipelago in the North Atlantic Ocean.

With reference to Fig. 2.1, account for the different motivations behind people's travel to the Faroe Islands.

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(b) **(i)** Study Fig. 2.2, which presents a bar graph depicting the number of visitor arrivals in Hong Kong from 2013 to 2023.

Number of visitor arrivals in Hong Kong, 2013 – 2023

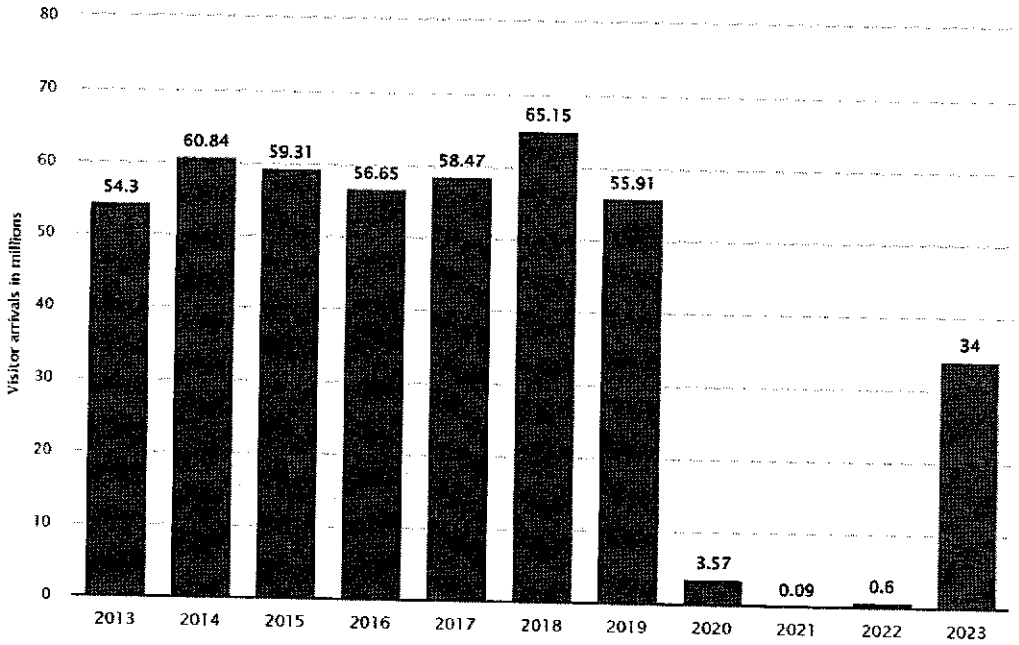


Fig. 2.2

Describe the trend in visitor arrivals to Hong Kong from 2013 to 2023 using Fig. 2.2.

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(ii) Fig. 2.3 shows demonstrators at the anti-police violence protest at Hong Kong International Airport in 2019.

Demonstrators at the anti-police violence protest at Hong Kong International Airport, 2019



Fig. 2.3

With reference to Fig. 2.3, explain why such an event in Hong Kong might lead to negative impacts on its tourism industry.

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(c) "Pro-poor tourism is more advantageous than community-based tourism for a country that is developing sustainable tourism."

To what extent do you agree with this statement? Use examples to support your answer.

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[9]

[Total: 18 marks]

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Section B

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

3 Cluster 3: Climate

(a) Fig. 3.1 (Insert) presents a world map illustrating the global distribution of mean annual temperature in degree Celsius (°C).

(i) Describe the changes in the mean annual temperature from location A to location B using Fig. 3.1.

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(ii) With reference to Fig. 3.1, account for the changes in mean annual temperature from location A to location B.

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(b) Compare the formation of convectional rain and relief rain.

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(c) Study Fig. 3.2, which shows an illustration of a volcanic eruption.

An illustration of a volcanic eruption

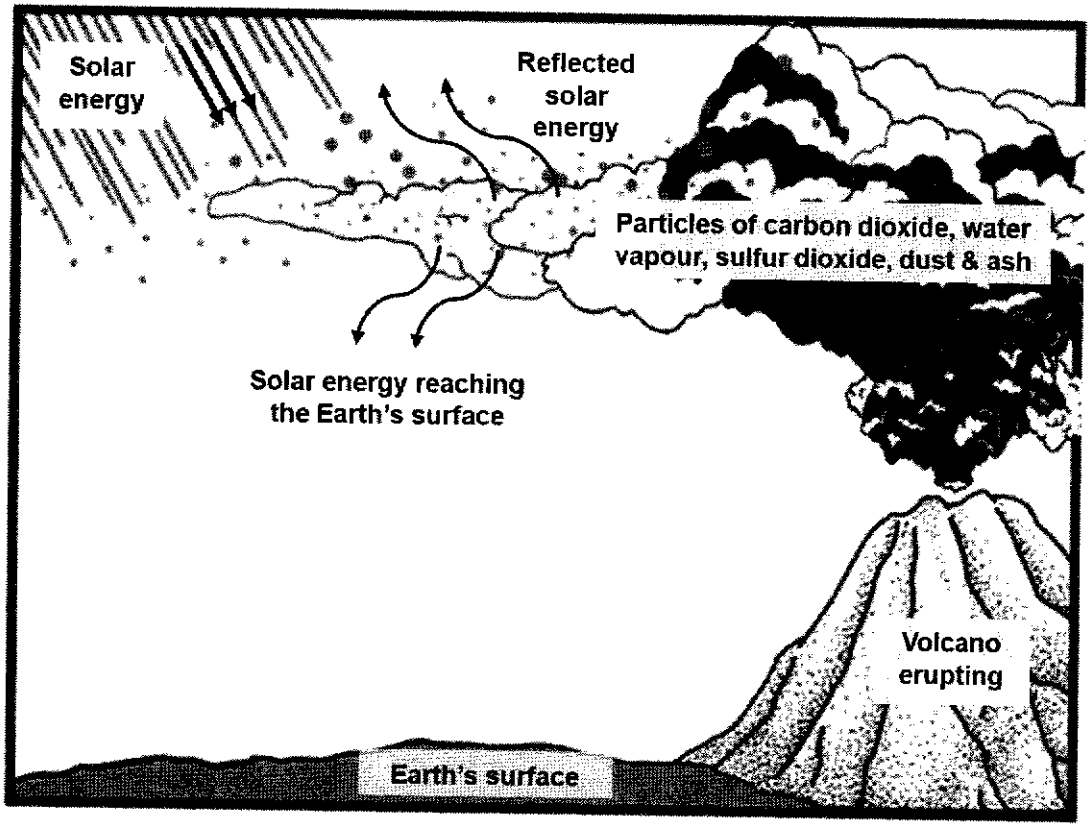


Fig. 3.2

Using Fig. 3.2, explain the effects of a volcanic eruption on global temperature.

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(d) Explain the indirect impacts that climate change has on the provisioning ecosystem services.

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[Total: 18 marks]

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4 Cluster 4: Tectonics

This question is reserved for candidates who have studied the Tectonics cluster. Please do <u>not</u> attempt.

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Additional Page

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Additional Page

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Copyright Acknowledgements:

Question 1 Fig. 1.1	https://scruss.com/blog/2023/06/23/welcome-to-trash-panda-city/ https://theguardian.com/world/2018/oct/05/canada-toronto-raccoons
Question 1 Table 1.1	Data is created for the purpose of the question and does not represent actual observations.
Question 2 Fig. 2.1	https://walkandalie.com/2015/11/gjogv-eidi-and-tjornuvik-faroe-islands https://www.tripadvisor.com.sg/AttractionProductReview-g190335-d23357687-Slaettaratindur_and_Golden_Circle_Full_Day_Tour-Torshavn_Streymoy.html https://www.travelphotographyguru.com/travel-blogs/faroe-islands-travel
Question 2 Fig. 2.2	https://www.statista.com/statistics/317143/hong-kong-visitor-arrivals/
Question 2 Fig. 2.3	https://www.dailymail.co.uk/news/article-7288595/Protesters-calling-free-Hong-Kong-converge-airport.html
Question 3 Fig. 3.1	https://www.researchgate.net/figure/Global-distribution-of-annual-mean-temperature-T-C_fig2_296696619
Question 3 Fig. 3.2	https://www.nytimes.com/2018/02/01/climate/volcano-geoengineering.html

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ANSWER SCHEME

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Section A

Answer Question 1 **and** Question 2.

1	**Cluster 1: Geography in Everyday Life**			
	(a)	Fig. 1.1 shows an excerpt from a news article on raccoons found in urban neighbourhoods of Toronto, Canada.		

Excerpt from a news article on raccoons found in urban neighbourhoods of Toronto, Canada



In Toronto, raccoons symbolise the struggle between urban development and wildlife adaptation. Dubbed "trash pandas," they navigate the city effortlessly, raiding garbage bins and causing property damage. Residents' opinions vary, with some embracing them as resilient city dwellers while others call for population control.

Efforts to outsmart them, like raccoon-proof bins, often fail. The raccoon dilemma highlights the complexities of urban expansion and human-wildlife interactions. Toronto faces a choice: continue the battle against raccoons or find a way to coexist peacefully. It is a lesson in the evolving relationship between cities and nature.

Fig. 1.1

		(i)	**With reference to Fig. 1.1, explain how raccoon encounters in Toronto could have occurred.**	**[2]**
			Award 1 mark for each explanation on how raccoon encounters in Toronto could have occurred, to a maximum of 2 marks. Award a maximum of 1 additional mark for further development of each explanation, where applicable. Possible responses include: • The raccoon encounters could have occurred due to urban expansion. As population in cities have grown, urban areas expand and encroach into the natural environment. [1 mark]	

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			• This expansion causes urban areas and the home territory of raccoons to overlap or leads to the natural habitat of raccoons shrinking. [1 mark] • The food source of the raccoons could also be removed or reduced due to urban expansion, and this would force the animals to venture into urban areas in search of food [1 mark], leading to raccoons raiding garbage bins for food in Toronto, as seen in Fig. 1.1. [1 additional mark] **AO2**	
		(ii)	**Explain the negative effects of raccoon encounters on the city dwellers in Toronto.**	**[3]**
			Award 1 mark for each explanation on negative impacts of raccoon encounters on city dwellers in Toronto, to a maximum of 3 marks. Award a maximum of 1 additional mark for further development of each explanation, where applicable. Possible responses include: • As the raccoon population in Toronto increases, city dwellers who may not know how to deal with them may unintentionally provoke them, leading to attacks. [1 mark] • The city dwellers communities would be negatively impacted as unexpected human encounters with raccoons would likely result in injuries. [1 additional mark] • City dwellers would also suffer from property damage and littering due to raccoons scavenging for food in garbage bins. [1 mark] • Due to the scavenging behaviour of raccoons which can be noisy and disruptive, this could disturb city dwellers' peace of mind. [1 mark] • Raccoons rummaging through trash bins can potentially carry diseases, posing health risks to city dwellers. [1 mark] **AO1**	

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	(b)	An elderly-friendly exercise park was recently installed in a HDB estate in Singapore. A group of students decided to carry out a geographical investigation on the age groups of people who use the exercise park. The group decided to count the number of visitors at the park at different times of the day for one weekend during the June holidays. While counting the number of users at the park, the group also estimates the ages of the park visitors. Group members were to stand at the park for five minutes every hour from 8 am till 8 pm and count the number of visitors present. The data collected is shown in Table 1.1.	

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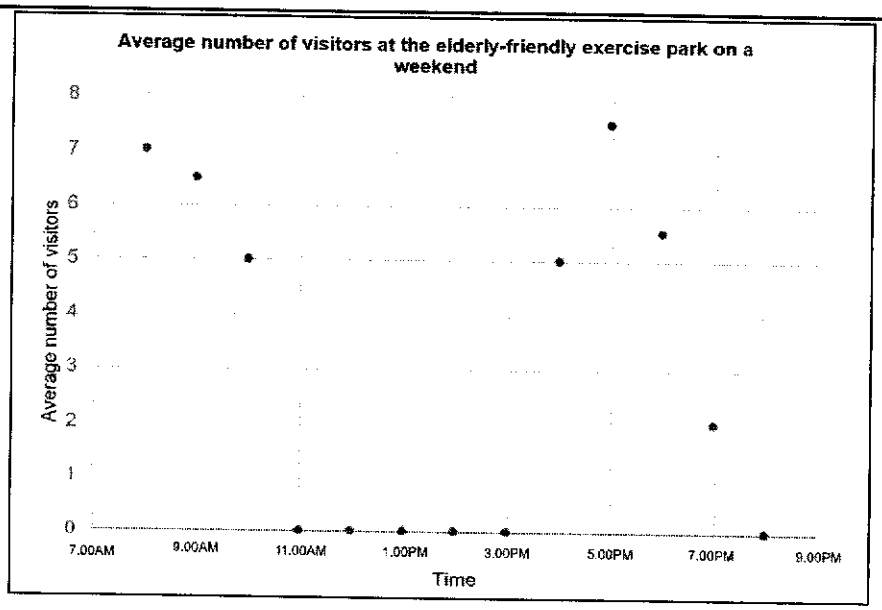
Table 1.1

Number of people who use the exercise park on a weekend

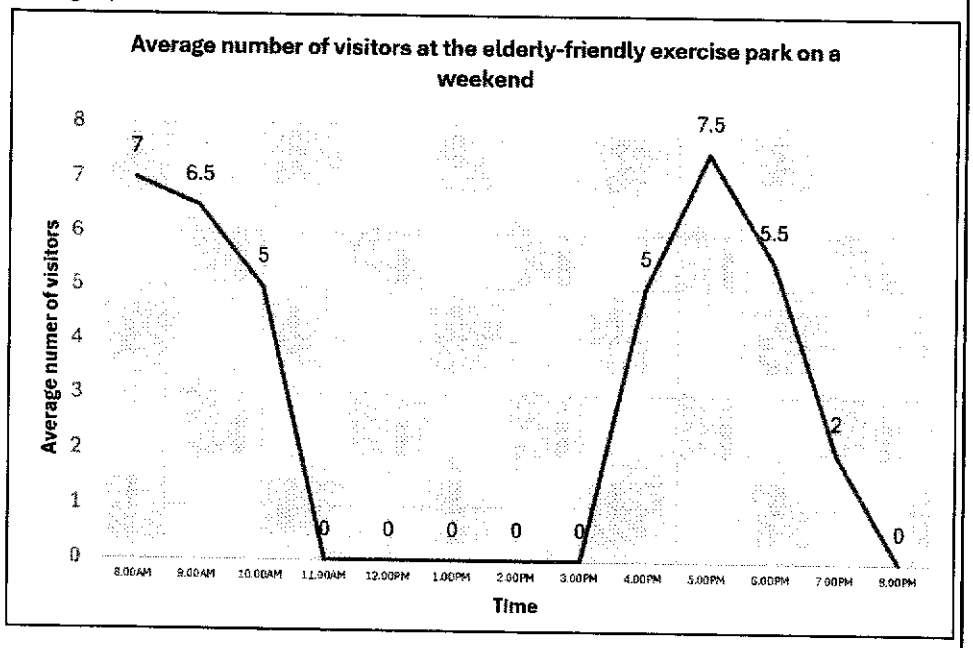
Time	Number of visitors		
	Saturday	Sunday	Average
8.00AM	6	8	7
9.00AM	6	7	6.5
10.00AM	5	5	5
11.00AM	0	0	0
12.00PM	0	0	0
1.00PM	0	0	0
2.00PM	0	0	0
3.00PM	0	0	0
4.00PM	5	5	5
5.00PM	7	8	7.5
6.00PM	5	6	5.5
7.00PM	2	2	2
8.00PM	0	0	0

		(i)	**Draw a suitable graph that shows the relationship between the time of day and the average number of visitors at the park on a weekend.**	[3]
			Award 1 mark for drawing the correct graph (line graph or scatter plot graph). Award 1 mark for accurate labelling of x and y axes. Award 1 mark for accurate scale (i.e. consistent intervals, proportional representation, appropriate range) and accurate plotting of points on the graph. Scatter plot graph:	

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Line graph:



AO2

		(ii)	**Evaluate the validity of the students' investigation regarding the age group of people who use the exercise park.**	**[6]**
			Award 1 mark for each evaluation of the validity of the students' investigation, to a maximum of 6 marks. Award a maximum of 1 additional mark for further development of each explanation, where applicable. Possible responses include:	

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			• The investigation is valid as the students collected firsthand data by counting the number of people who uses the park and observing the age groups of people who uses the park. [1 mark] • The data collected from the investigation is valid as the students observed the park at regular intervals (every hour from 8am to 8pm) which captures variations in park usage throughout the day. [1 mark] • The investigation is valid as data was collected over a weekend since parks typically experience higher usage during weekends [1 mark], allowing for better accuracy of the age group of people who uses the exercise park to be observed. [1 additional mark] • The investigation may not be valid as data was only collected for one weekend and may not give a full picture of how it is used. [1 mark] People might use the park differently on weekdays and this was not captured in the investigation. [1 mark] • The investigation may not be valid as observing the park for only five minutes every hour might miss some visitors who come and go at other times. [1 mark] This short observation might not show the actual variety of age group who uses the park. [1 additional mark] • The investigation may not be valid as estimating the age groups of visitors based on observation can be subjective and prone to error. [1 mark] Different observers might categorise individuals into age groups differently, leading to inconsistencies in the data. [1 additional mark] **AO3**	
			[Total: 14 marks]	

2	**Cluster 2: Tourism**		
	(a)	Study Fig. 2.1 (Insert) showing a tourism brochure on the Faroe Islands, an archipelago in the North Atlantic Ocean.	

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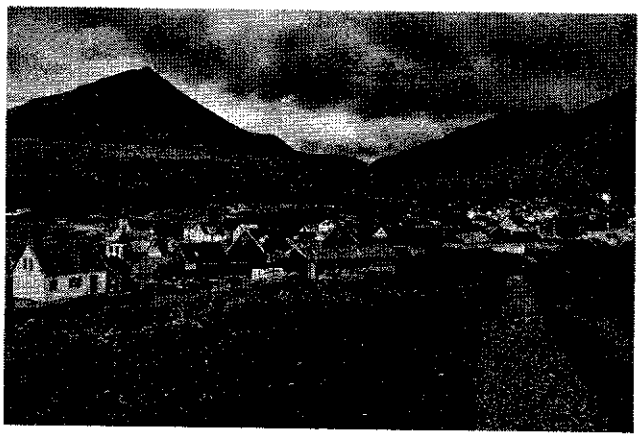
Faroe Islands tourism brochure



Unwind and relax at one of the stunning and secluded beaches on the Faroe Islands, surrounded by dramatic cliffs and rugged landscapes.



Trek to the summits of iconic peaks such as Slaettaratindur, the highest point in the Faroe Islands, for unmatched vistas and a profound sense of achievement.



Traverse winding trails, uncover ancient traditions, and immerse in the essence of Faroese culture amidst the captivating villages of Tórshavn and Gjógv.

Fig. 2.1

		With reference to Fig. 2.1, account for the different motivations behind people's travel to the Faroe Islands.	**[4]**
		Award 1 mark for each explanation on why people travel to the Faroe Islands, to a maximum of 4 marks.	

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			Award a maximum of 1 additional mark for further development of each explanation, where applicable. Possible responses include: • People would travel to the Faroe Islands to relieve stress, or as a way to rest and rejuvenate. [1 mark] • The natural landscape or the secluded beach on the Faroe Islands would help people to relax in nature or to escape their urban environment, rest and enjoy scenic views. [1 mark] • People would also travel to the Faroe Islands to participate in activities such as mountain climbing or trekking that are challenging or adventurous to fulfil their potential. [1 mark] o By participating in these activities, people would feel that they are being stretched physically and emotionally, and therefore achieve personal growth. [1 additional mark] • People would also travel to discover unique travel destinations to satisfy their curiosity about the world. [1 mark] • Travelling allows them to explore different environments and learn more about the ancient traditions of Faroese cultures that are not widely known. [1 mark] **AO1**	
	(b)	**(i)**	Study Fig. 2.2, which presents a bar graph depicting the number of visitor arrivals in Hong Kong from 2013 to 2023.	
			Number of visitor arrivals in Hong Kong, 2013 – 2023	

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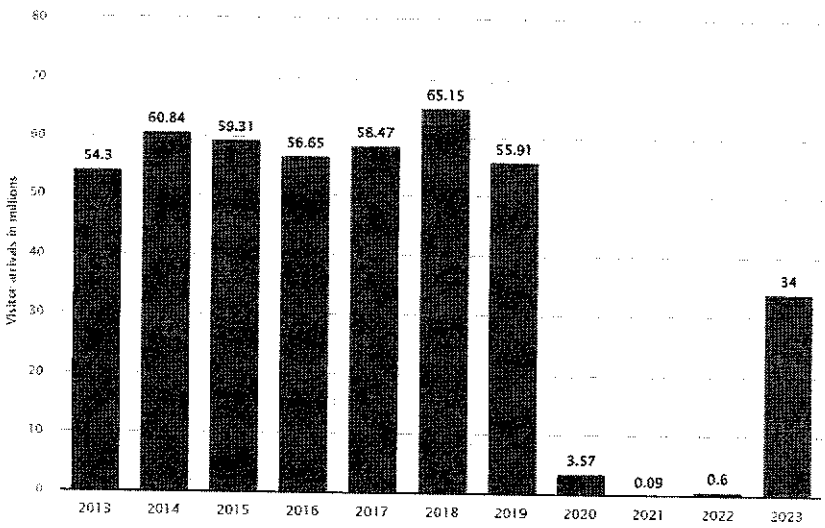


Fig. 2.2

			Describe the trend in visitor arrivals to Hong Kong from 2013 to 2023 using Fig. 2.2.	**[2]**
			Award 1 mark for each description of the trend of visitor arrivals to Hong Kong, to a maximum of 2 marks. Award a maximum of 1 additional mark for a further development of each description, where applicable. Award a maximum of 1 mark for a response that includes only a description of the trend without supporting evidence from Fig. 2.2. Possible responses include: • [General trend] The number of visitor arrivals in Hong Kong fluctuated significantly or has decreased from 2013 to 2023. [1 mark] • [Specific trends] The number of visitor arrival increased between 2013 to 2018 [1 mark], from 54.3 million to 65.15 million. [1 additional mark] • [Specific trends] The number of visitor arrival suffered a drastic drop between 2019 and 2021 [1 mark], with 55.91 million in 2019 and 0.09 million in 2021. [1 additional mark] • [Specific trends] The number of visitor arrival increased between 2022 and 2023 [1 mark], from 0.6 million to 34 million respectively. [1 additional mark] **AO2**	
		(ii)	Fig. 2.3 shows demonstrators at the anti-police violence protest at Hong Kong International Airport in 2019.	

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Demonstrators at the anti-police violence protest at Hong Kong International Airport, 2019



Fig. 2.3

			With reference to Fig. 2.3, explain why such an event in Hong Kong might lead to negative impacts on its tourism industry.	**[3]**
			Award 1 mark for each explanation of why unfavourable political situations leading to fall in visitor numbers would impact the economy of Hong Kong, to a maximum of 3 marks. Possible responses include: • Unfavourable political situations like the anti-police violence protest in Hong Kong in 2019 (as seen in Fig. 2.3) would result in a sudden fall in tourist numbers, causing the economic benefits from tourism to fluctuate. [1 mark] • Tourists would stay away from the Hong Kong as tourist may fear being caught up in the turmoil as seen in Fig. 2.3 and potentially lose their lives or be seriously inconvenienced. [1 mark] • The Hong Kong economy would be seriously impacted as many tourists would not travel and those the tourism sector of the economy would not be able to make a living as the tourist numbers would be in decline as tourists stay away from the city. [1 mark] • There would less income generated from tourist receipts and a general fall in the economic development of the country. [1 mark] **AO2**	

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	(c)	**"Pro-poor tourism is more advantageous than community-based tourism for a country that is developing sustainable tourism."** **To what extent do you agree with this statement? Use examples to support your answer.**	[9]

Relevant content

Approaches in achieving sustainable tourism development:

- Pro-poor tourism
- Community-based tourism

A possible approach:

The answer could explain the effectiveness of pro-poor tourism and community-based tourism in achieving sustainable tourism development with reference to examples. An example of pro-poor tourism can be found in the villages around China's Three Parallel Rivers Region, a UNESCO World Natural Heritage Site, where the financial assistance offered by the authorities allowed many villagers to set up tourism businesses such as homestays and restaurants. This could be followed by the consideration of shortcomings of the two approaches discussed. For example, the economic benefits from pro-poor tourism may be highly unevenly distributed, with most of the benefits being channelled to non-poor locals. The evaluation could weigh the arguments discussed, arriving at a reasoned conclusion. For instance, while both pro-poor tourism and community-based tourism aim to foster sustainable development, pro-poor tourism is more advantageous for a developing country. Community-based tourism plays a crucial role in empowering local communities and ensuring environmental sustainability. However, pro-poor tourism's focused approach is designed to ensure that the poorest segments of the population benefit directly from tourism activities. This targeted strategy can lead to immediate improvements in income and living standards for those most in need, making pro-poor tourism particularly beneficial for developing countries aiming to achieve rapid and sustainable development outcomes.

AO3

Generic Level Descriptors for 9-mark question
Candidates at each level will show the following characteristics: **LEVEL 1 (1-3 MARKS)** 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. **LEVEL 2 (4-6 MARKS)** 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. **LEVEL 3 (7-9 MARKS)** 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.

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		[Total: 18 marks]	

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Section B

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

3 Cluster 3: Climate

(a) Fig. 3.1 (Insert) presents a world map illustrating the global distribution of mean annual temperature in degree Celsius (°C).

World map illustrating the global distribution of mean annual temperature (°C)

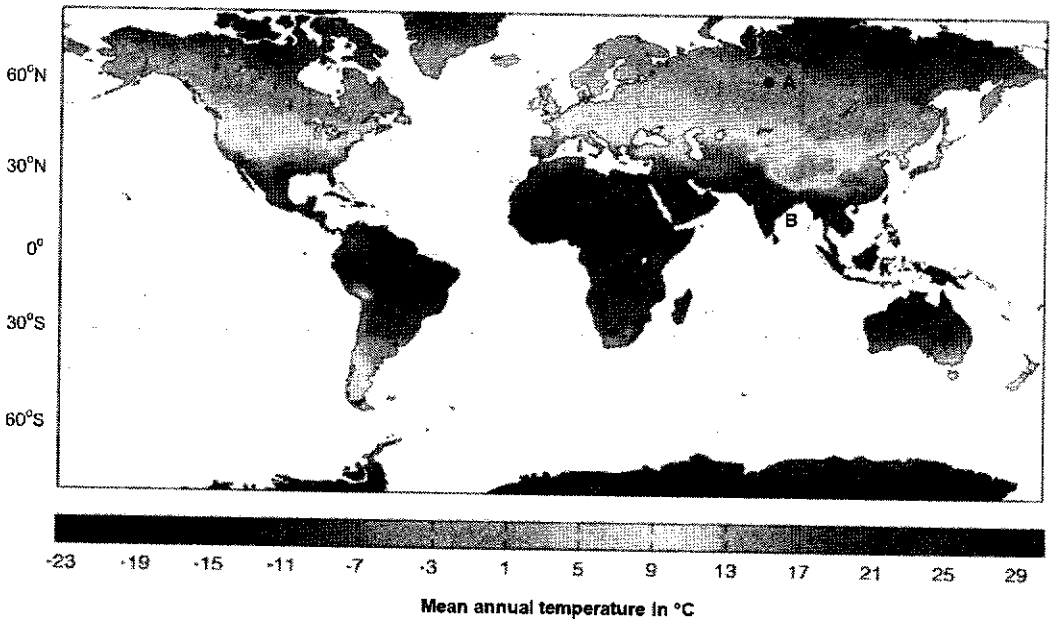


Fig. 3.1

(i) Describe the changes in the mean annual temperature from location A to location B using Fig. 3.1. **[3]**

Award 1 mark for each description of the changes in mean annual temperature from location A to location B, to a maximum of 3 marks.

Possible responses include:

- The mean annual temperature increases from location A to location B. [1 mark]
- At location A, located at a higher latitude of 60°N, the temperature drops to below 1°C. [1 mark]
- At location B, situated at a latitude of 25°N, the temperature is approximately 26°C. [1 mark]

AO2

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		(ii)	**With reference to Fig. 3.1, account for the changes in mean annual temperature from location A to location B.**	[4]
			Award 1 mark for each explanation of the changes in mean annual temperature, to a maximum of 4 marks. Award a maximum of 1 additional mark for a further development of each description, where applicable. Possible responses include: • Due to the Earth's spherical shape, the angle at which the sun's rays strike the Earth's surface (solar angle) varies at different parts of the Earth. [1 mark] • At higher latitudes (further north), like location A in Fig. 3.1 at latitude of 60°N, the solar angle is lower. [1 mark] • This causes solar radiation to be diffused (or spread out) over a larger surface area [1 mark], resulting in lower temperatures at location A at higher latitudes. [1 additional mark] • Nearer the equator, where latitudes are lower, like location B in Fig. 3.1 at latitude of 25°N, the solar angle is higher (close to 90°), and solar radiation is more direct. [1 mark] • Therefore, the solar radiation is concentrated over a smaller surface area [1 mark], causing higher temperatures at location B at lower latitudes. [1 additional mark] **AO2**	

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	(b)	Compare the formation of convectional rain and relief rain.	[4]
		Award 1 mark for each similarity and each difference in the formation of convectional and relief rain, to a maximum of 3 marks. Award a maximum of 1 additional mark for a further development of each description, where applicable. Award a maximum of 3 marks for a response that includes only similarities or differences between the two types of rainfall. • [Difference in process] Convectional rain is caused by the heating of the Earth's surface, which warms the air above it, causing it to rise. [1 mark] As the warm air ascends, it cools and condenses to form clouds and precipitation. [1 additional mark] Relief rain occurs when moist air is forced to ascend a mountain range. [1 mark] As the air rises, it cools, and the moisture condenses, resulting in precipitation. [1 additional mark] • [Difference in formation location] Convectional rain commonly occurs in tropical regions and during summer months in temperate regions. [1 mark] Relief rain commonly occurs in regions with mountain ranges. [1 mark] • [Difference in time of occurrence] Convectional rain occurs commonly in the afternoons due to intense surface heating. [1 mark] Relief rain occurs whenever moist air is pushed up by mountains, regardless of the time of day. [1 mark] • [Similarity in cooling and condensation of moist air] For both rainfall types, moist air must cool and condense. [1 mark] Relative humidity will have to reach 100% and dewpoint temperature is reached. [1 additional mark] Saturation needs to occur and the presence of condensation nuclei and the water droplets coalescing has to take place before rain falls. [1 additional mark] **AO1**	

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(c) Study Fig. 3.2, which shows an illustration of a volcanic eruption.

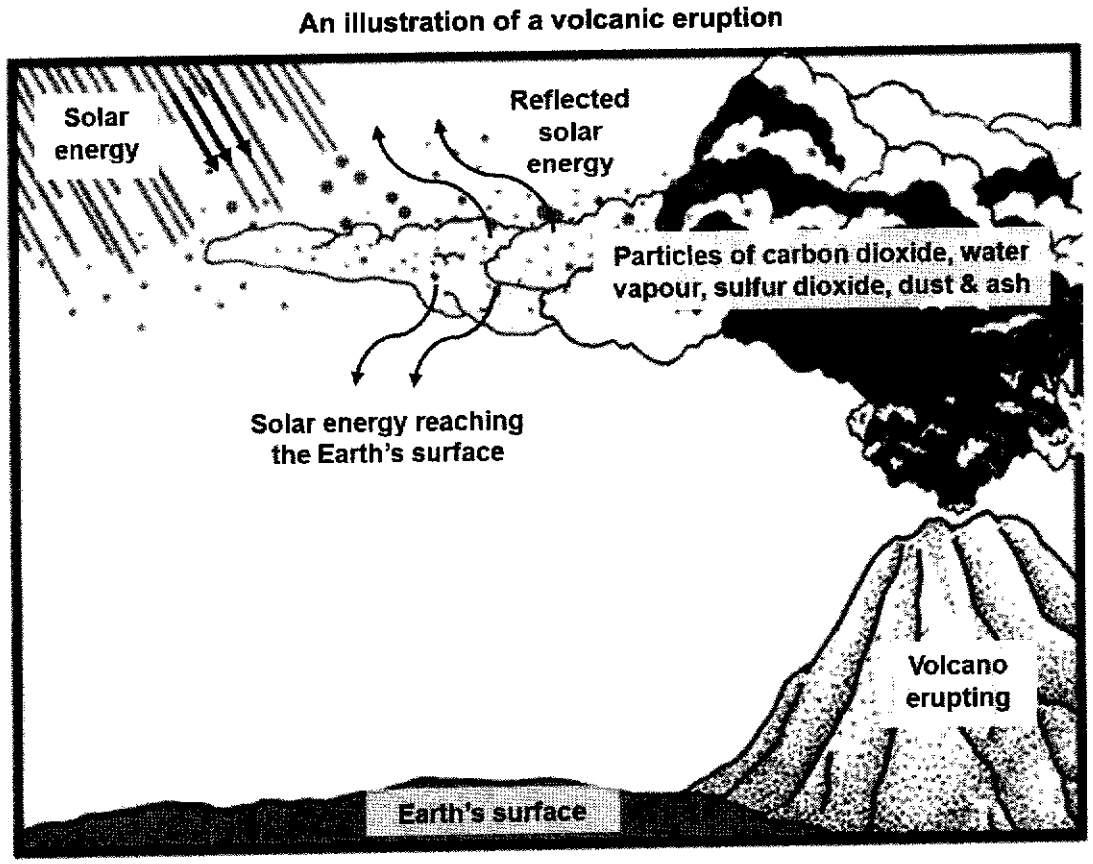


Fig. 3.2

Using Fig. 3.2, explain the effects of a volcanic eruption on global temperature. [3]

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		Award 1 mark for each explanation of the effects of a volcanic eruption on global temperature, to a maximum of 4 marks. Award a maximum of 1 additional mark for a further development of each description, where applicable. Possible responses include: • Global temperature decreases after a large volcanic eruption. [1 mark] • A volcanic eruption releases large volumes of carbon dioxide, water vapour, sulfur dioxide, dust and ash into the atmosphere, as shown in Fig. 3.2. [1 mark] • The sulfur-based particles, dust and ash spread around the lower atmosphere area of the Earth. [1 mark] • These particles absorb and reflect solar energy back into space, as seen in Fig. 3.2. [1 mark] • This temporarily offsets the greenhouse effect, lowering temperatures, until these particles grow large enough and fall down to the Earth. [1 mark] **AO2**	
	(d)	**Explain the indirect impacts that climate change has on the provisioning ecosystem services.**	[4]
		Award 1 mark for each explanation of the indirect impacts of climate change on the provisioning ecosystem services, to a maximum of 4 marks. Award a maximum of 1 additional mark for a further development of each description, where applicable. Possible responses include: • One indirect impact that climate change has on humans is on the provisioning ecosystem services, where fish production and agricultural yield can be negatively impacted. [1 mark] • With climate change, the oceans will warm, and the warmer ocean temperatures increase acidity and change the geographic distribution of the aquatic species. [1 mark] • Some species will no longer be able to survive in the lower latitudes and this may result in food security issues as fish supplies dwindle. [1 additional mark] • It may also threaten the economic livelihoods of people who depend on fisheries. [1 additional mark] • With climate change, more severe or frequent extreme weather events like floods and droughts would result, making it difficult for crop yields to survive thus reducing food production [1 mark], which can cause food prices to increase. [1 additional mark] **AO1**	
		[Total: 18 marks]	

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