

Visit
FREETESTPAPER.com
for more papers



Website: freetestpaper.com



[Facebook.com/freetestpaper](https://www.facebook.com/freetestpaper)



[Twitter.com/freetestpaper](https://twitter.com/freetestpaper)

Name _____ ()

Class: _____



CHIJ KATONG CONVENT PRELIMINARY EXAMINATIONS 2016 Secondary Four (Express)

GEOGRAPHY

2236/01

Paper 1

Duration: 1 hour 40 minutes

Additional materials: 1:25,000 Map Extract

Classes: 403, 404, 405, 406

READ THESE INSTRUCTIONS FIRST

Write your name, class and registration number on all the work you hand in.
Write your answers and working in the spaces provided.
Write in dark blue or black ink on both sides of the paper.
You may use an HB pencil for any diagrams or graphs.
Do not use staples, paper clips, highlighters, glue or correction fluid/tape.

Section A

Answer Question 1.

Section B

Answer **one** question.

Write all answers in the writing paper provided.
Candidates are encouraged to support their answers with the use of relevant examples.
Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

At the end of the examination, fasten all your work securely together.
The number of marks is given in brackets [] at the end of each question or part question.

Section A

This question is compulsory.

- 1 A group of students were given the task of investigating the coast at Bondi Beach, Sydney, Australia. Photograph A shows the location where they carried out their fieldwork.



Photograph A

- (a) Draw a field sketch of the view shown in Photograph A. Annotate your sketch to identify and describe the coastal features shown. [4]
- (b) The view of the transect XY is shown in Fig. 1 below. Students took sediment samples from four different sites, A, B, C and D, as shown in Fig. 1. Photographs M and N show beach material found at Locations A and D in Fig. 1.

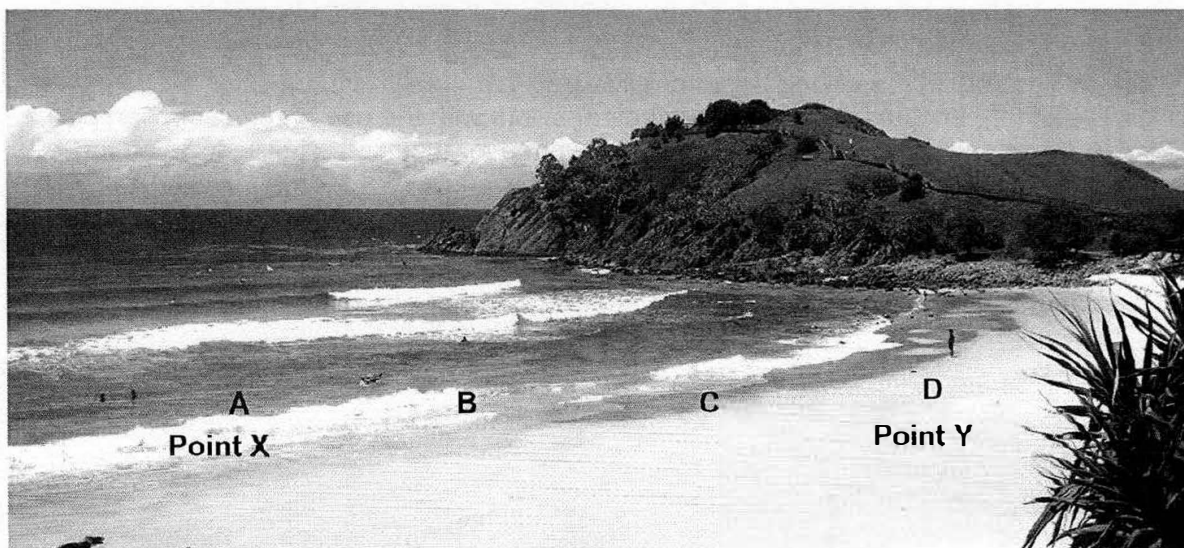


Fig. 1



Photograph M
Location A

Photograph N
Location D

Describe the size of the beach material at the two locations and suggest a hypothesis about the size of the beach material along the beach. [3]

(c) They collected the data and presented it in Table 1 below.

Site	Distance from sea (m)	Diameter of sediments retained (mm) / Percentage of sediments (%)					
		0.0625	0.125	0.25	0.5	2	4
A	2	20	40	20	10	5	5
B	4	30	25	20	10	10	5
C	6	35	20	20	10	10	5
D	8	5	5	10	15	20	45

Table 1

- (i) Describe how the data in Table 1 was collected using a set of sieves. [3]
- (ii) From Table 1, identify the sampling method used by the students. Suggest an advantage of using this method. [2]
- (iii) What information would be needed the day before starting such a field investigation, in order to ensure the safety of the students collecting the data? [1]
- (d) (i) Use the data in Table 1 to construct a comparative bar graph for **Sites A** and **D** only. Your graph should show how the size of beach materials varies at these two sites. [3]
- (ii) What conclusions can the students draw from Table 1? [3]
- (e) Suggest how reliable the data in Table 1 was. You should evaluate the data collection strategy and suggest possible improvements. [6]

Section B

Answer **one** question from this section.

- 2 (a) Study Figs. 2A and 2B, which show two types of waves.

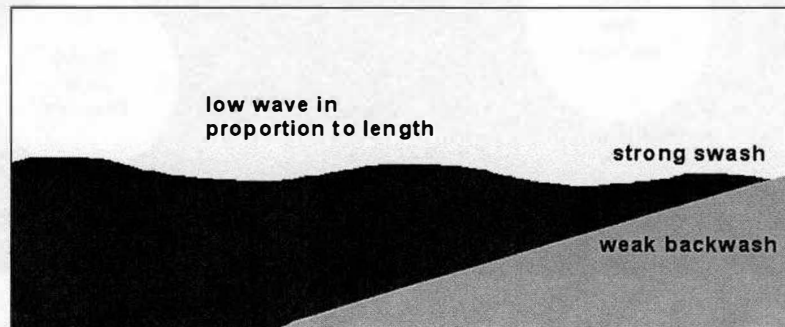


Fig. 2A

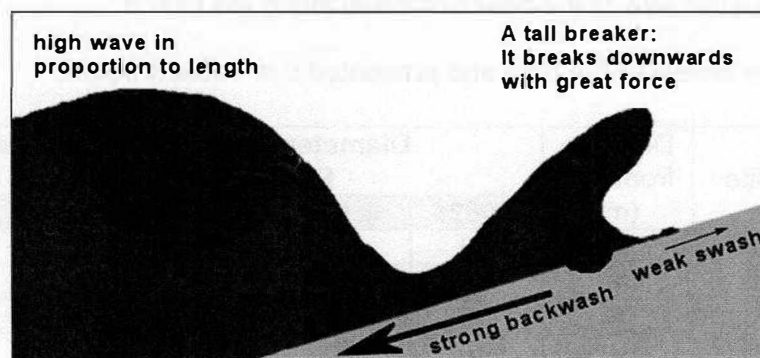


Fig. 2B

With reference to Figs. 2A and 2B, compare the two types of waves.

[4]

- (b) Explain how a tombolo may be formed over time.

[5]

- (c)** Study Figs. 3 and 4, which show information about mangroves.

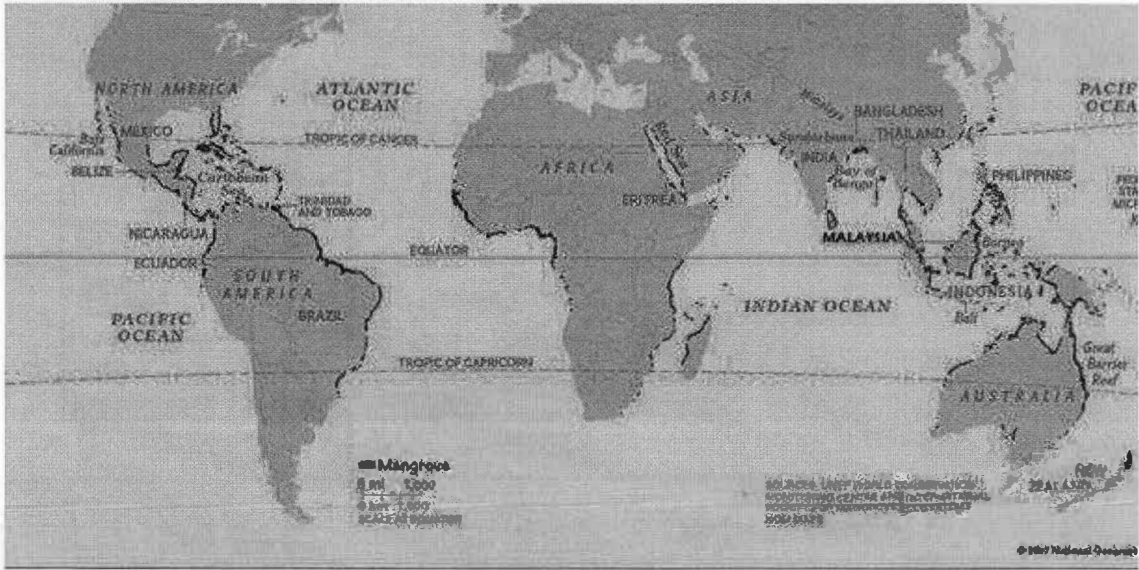


Fig. 3



Fig. 4

- (i) Use Fig. 3 to describe the distribution of mangroves around the world. [4]
- (ii) With the help of Fig. 4, describe how mangroves adapt to their environment. [4]
- (d) "Rising population is the main threat to coastal areas."
How far do you agree with this statement? Support your answer with relevant examples. [8]

- 3 (a) Study Figs. 5A and 5B, which show a section of coastline before and after coastal defences were built.

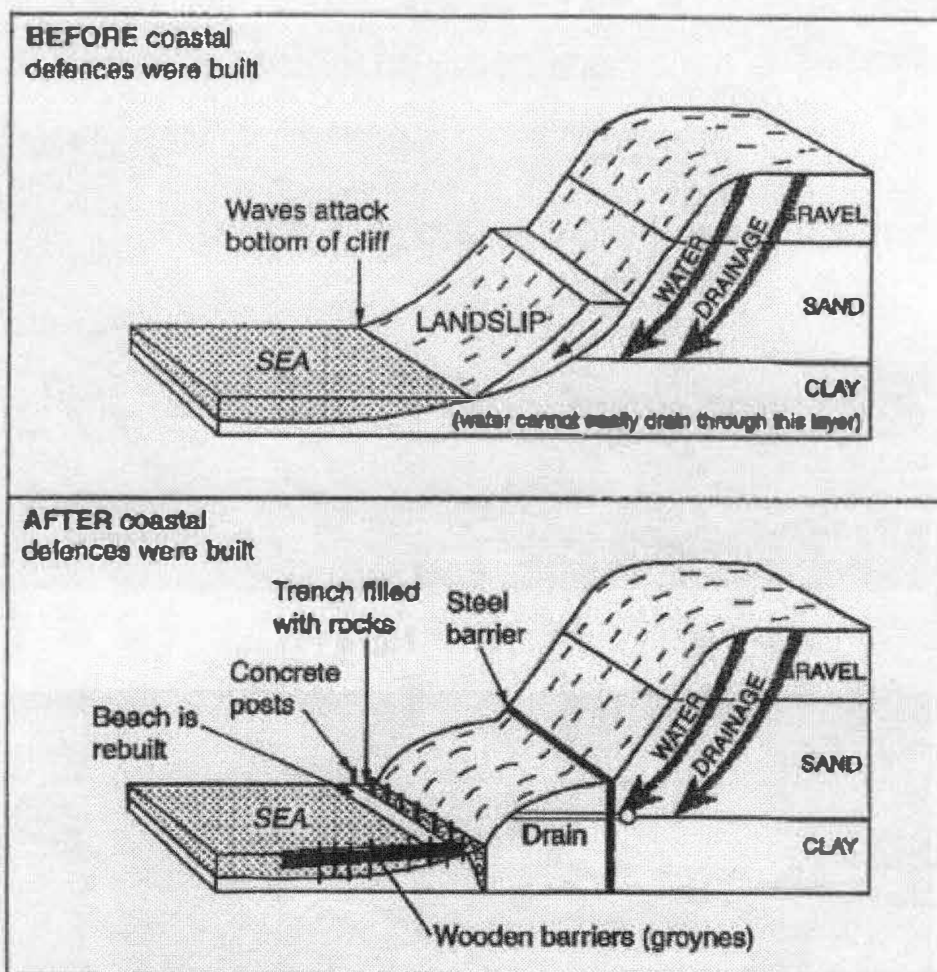


Fig. 5A

Fig. 5B

- (i) Describe the coastal section shown in Fig. 5A and explain how it was affected by natural processes. [4]
- (ii) Use Fig. 5B to explain how two of the measures taken for coastal defence might protect this section of the coastline. [4]
- (b) Explain what planning authorities can do to reduce the negative impact of tourism on the environment. [5]
- (c) Study the 1:25 000 map extract of Basseterre, St Kitts. Using map evidence, explain why *Kittitian Village*, which is in the south-eastern part of the map, is popular with tourists. [4]
- (d) 'The main reason why tourism has grown significantly over the years is because tourists can easily access information about their destinations.' How far do you agree with this statement? Explain your answer using relevant examples. [8]

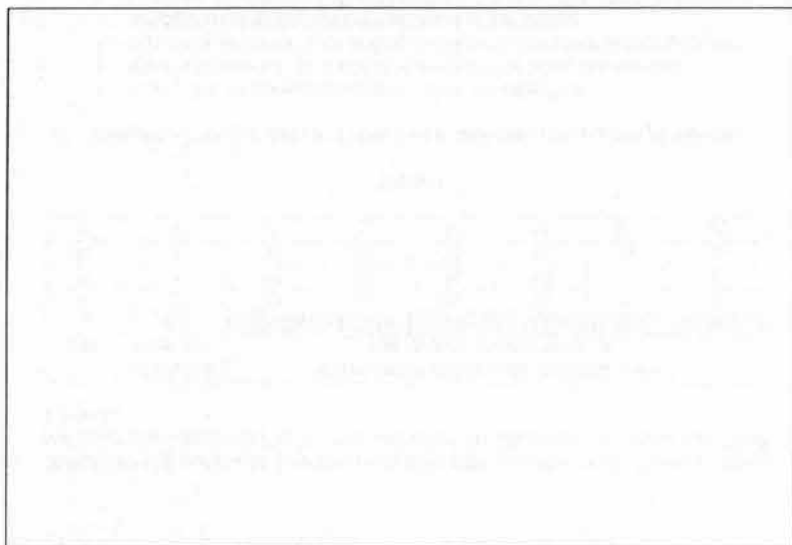
Answer Key 4E Core Geog P1 Prelim 2016

- 1 A group of students were given the task of investigating the coast at Bondi Beach, Sydney, Australia. Photograph A shows the location where they carried out their fieldwork.

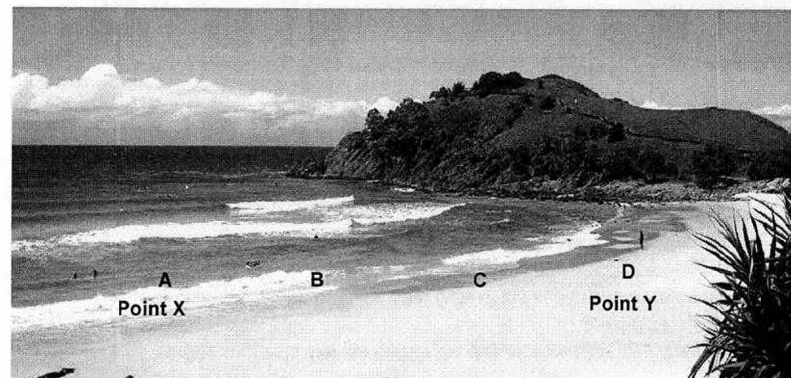
**Photograph A**

- (a) Draw a field sketch of the view shown in Photograph A. Annotate your sketch to identify and describe the coastal features shown.

[4]



- (b) The cross-section of the beach (points X and Y) is shown in Fig. 1 below.

**Fig. 1****Photograph M**
Location A**Photograph N**
Location D

- (b) Photographs M and N show beach material found at locations A and D on Fig. 1. Describe the size of the beach material and suggest a hypothesis about the size and location of this material along the whole beach.

[3]

- Sediment size is larger at Location D than at Location A (or sediment size is smaller at Location A than Location D) [1]
- Sediments at both locations are mostly much smaller than 2cm. [1]
- Hypothesis: The further from the sea, the larger the sediment size/ Beach material becomes bigger from location A to location D. [1]

- (c) Students took sediment samples from four different sites, A, B, C and D, along the beach as shown in Fig. 1. They collected the data and presented it in Table 1 below.

Site	Distance from sea (m)	Diameter of sediments retained (mm) / Percentage of sediments (%)					
		0.0625	0.125	0.25	0.5	2	4
A	2	20	40	20	10	5	5
B	4	30	25	20	10	10	5
C	6	35	20	20	10	10	5
D	8	5	5	10	15	20	45

Table 1

- (i) Describe how the data in Table 1 was collected using a set of sieves. [3]

- Find a line of transect perpendicular to the shoreline.
- Mark out points A, B, C and D in 2m intervals along the transect.
- Use a set of sieves (with netting of different sizes) that is arranged with largest holed-netting on top and finest at the bottom.
- Collect a fixed amount of sediment (e.g. 1 cup or 100g) from each point.
- Pour the sediment through the sieves and shake the sieves gently so that the sediments falls through each sieve easily
- Weigh the amount of sediment in each sieve layer and calculate the % of sediments of different sizes

1/2m for each point. Max=3m.

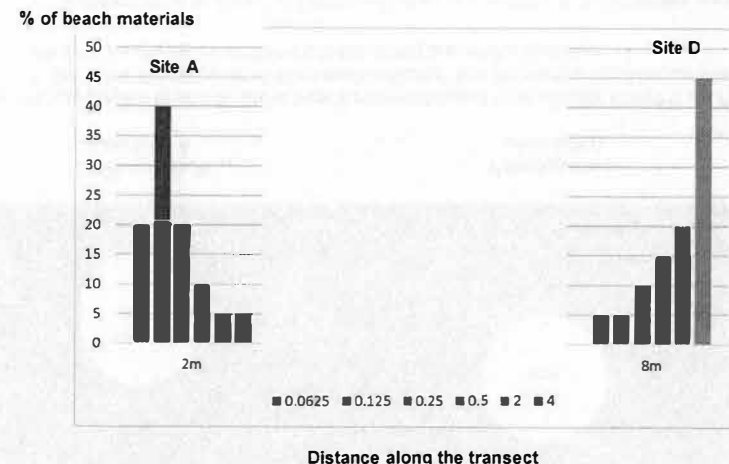
- (ii) From Table 1, identify the sampling method used by the students. Suggest an advantage of using this method. [2]

- Systematic sampling [1]
- This ensures that the coast will be evenly sampled as compared to using random sampling. [1]
- Systematic sampling is better than stratified sampling because it is free from human bias. [1]

- (iii) What information would be needed on the day before starting such a field investigation, in order to ensure the safety of the students who are collecting the data? [1]

- Tide times (times of high/low tide)
- Wind conditions/size of waves
- Weather conditions (too cold, too hot or too wet for fieldwork)
- Whether the cliffs are dangerous (prone to landslides)
- Other information on beach safety

- (d) (i) Use the data in Table 1 to produce a comparative bar graphs at Sites A and D only. It should show how the size of beach materials varies at these two sites. [3]



1m for correct X-axis
1m for correct Y-axis
1m for accurate plotting of points

- (ii) What conclusions can the students draw from the data in Table 1? [3]

- The data suggests that the further the distance from the sea, the bigger the sediment size. [1]
- For example, at 2m from the sea, 60% of the sediments were smaller than 0.25mm. [1]
- While at 8m from the sea, 45% of the sediments were bigger than 2mm. [1]

Any of the above points (overall statement, examples or identification of anomaly), 1 mark each. For mark for example, ensure that data cited is accurate.

- (e) Suggest how reliable the data in Table 1 was. You should evaluate the data collection strategy and suggest possible improvements. [6]

Reliability

- From the anomaly, data observed by the students may have been influenced by human activities and not a result of natural sorting by wave action and hence not reliable.
- The students only collected the data on 1 day.

However, the data was also reliable because:

- Measurements were taken at regular intervals along the line of transect i.e. 2m
- Improvements
- Students should select a part of the beach that is not affected by human activities.

- They could conduct the investigation for a longer period of time (e.g. 3 days)
- They should conduct the investigation at more parts of the beach.

1 mark each for any reason, elaboration on why this would affect reliability or improvement. If no explanations of reliability or suggestions for improvements – max 3 marks.

- 2 (a) Study Figs. 2A and 2B, which show two types of waves.

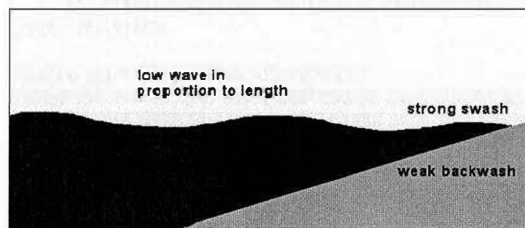


Fig. 2A

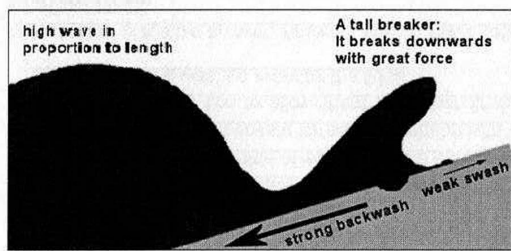


Fig. 2B

With reference to Figs. 2A and 2B, compare the two types of waves.

[4]

Constructive waves

Smaller and gentler waves

Have long wave length and low wave heights

Waves spilling when breaking and hence more powerful swash than backwash

Destructive waves

Large high waves

Have shorter wave lengths and greater wave heights

Waves plunging over when breaking and hence more powerful backwash than swash

2m for a set of difference so max 2 sets of differences. No difference, max-2m.

- (b) Explain how a tombolo may be formed over time.

[5]

- Along some coasts where the direction of the coastline changes abruptly, longshore drift continues to transport materials in the original direction for some distance. [1]
- The materials are deposited in the sea where they accumulate over time. [1]
- The accumulated materials will appear above the surface of the water, forming a spit. [1]
- A spit has one end connected to a mainland and has another projecting out into the sea. [1]
- If an offshore island lies near the mainland where the spit is forming, the spit may continue to extend until it connects the offshore island to the mainland thus forming a tombolo. [1]

- (c) Study Figs. 3 and 4, which show information about mangroves.

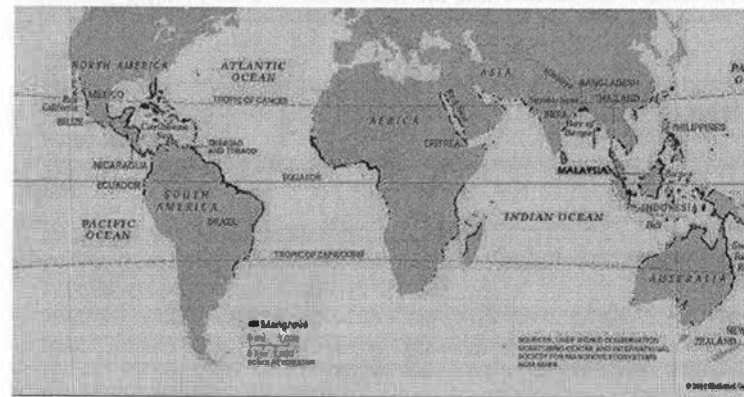


Fig. 3



Fig. 4

(i) Use Fig. 3 to describe the distribution of mangroves around the world.

[4]

- Found mostly along the coasts between the Tropic of Cancer and the Tropic of Capricorn. [1]
- The main concentrations of mangroves are in SE Asia eg. The west coast of Peninsula Malaysia and east coast of Sumatra. [1]
- Other concentrations include
 - Along the coast of Northern Australia. [1]
 - In Africa, mangroves are found on the west coast and eastern coast between Africa and Madagascar. [1]
 - Along the North eastern coast of South America and most of Central America. [1]

Any 4 points.

(ii) With the help of Fig. 4, describe how mangroves adapt to their environment.

[4]

- Mangrove trees, such as the Rhizophora as shown in Fig. 4, have prop roots that help to anchor the trees into the soft and muddy ground.
- Other types of roots include breathing roots and kneed roots which have their own functions to help in breathing and support respectively in the waterlogged soil.
- Mangrove forests are usually dense and are usually situated in areas of high salinity. Thus the underside of leaves secrete excess salt.
- The fruits are usually buoyant for easy dispersion with the help of the water flow.
- Some have sharp tips to allow them to anchor firmly into the muddy ground instead of being washed away by the tides.

Accept other plausible answer. Answers should make reference to the feature and the environment.

- (d) "Rising population is the main threat to coastal areas."
How far do you agree with this statement? Support your answer with relevant examples.

[8]

Candidates may include the following material:

Agree with the statement to a certain extent because there are other factors such as climate change, eroding shorelines, coastal development and habitat loss as well as pollution that pose threat to coastal areas.

Rising populations

- By 2015, it is possible that half of the world's population will be living within a 100-km strip along the coast, thus putting pressure on land and water resources.
- Besides that, governments and private organisations will seek coastal sites to expand and build new ports and housing, and exploit coastal resources for food and building materials.

Climate change

- The rise in sea levels indicates that global mean temperatures have increased, which can be between tens of cm to more than 1m.
- This could submerge low-lying coasts, such as sandy beaches, deltas and river estuaries, or even cause them to disappear.

- The fast pace at which the sea level rises makes it difficult for coastal ecosystems to adapt to the change.
- However, the warmer air and sea temperatures could help mangroves survive and grow in areas which are currently less favoured for their growth. Yet. This could be offset by reduced rainfall in these areas and rising salinity levels of the sea.

Eroding shorelines

- Climate change is likely to bring more storms which may also be more severe, thus rapidly eroding beaches and alter shorelines.
- Shorelines are also more open to erosion when coral reefs are destroyed.
- Higher temperatures will warm oceans and potentially devastate coral reefs.
- This is because acidification, which is the process where higher amounts of carbon are absorbed and changed into carbonic acid, occurs.
- The increasing acidification of the oceans make calcium carbonate more soluble and thus less is available for corals to build their skeleton structures with.

Coastal development and habitat loss

- Habitats are destroyed when coasts are altered with human structures such as coastal resorts, waste disposal systems and port facilities.
- Mangrove or coral reef ecosystems may also be threatened by the widespread and rapid conversion into aquaculture activities.
- Eg. The clearing of mangrove has left Vietnam's coastline more vulnerable to erosion from storms and pollution from pond waste.

Pollution

- Pollution in the form of waste disposal into the sea can destroy the coast and endanger marine life.
- The Great Pacific Garbage Patch has been referred to as a 'continent', when it is actually a mass of garbage, mostly plastic, that has accumulated in the Pacific Ocean.

To conclude, with increasing awareness of the impact human activities have on ecosystems, there is likely to be greater pressure from governments, activists and even individuals to preserve coastal areas. These areas are valuable for their natural beauty and their unique combination of life forms.

Level 1 (0–3 marks)

- At this level, answers will be generalised or with minimal support if any stand were given at all.
- Reasoning rather weak and expression may be unclear.
- A basic answer that has little development.
- No or vague examples only

Level 2 (4–6 marks)

- Disagreement or agreement will be supported by appropriate detail.
- Both agreement and disagreement are considered, but support is patchy so that the answer is not full.
- Good reasoning and logic in parts of the answer with good expression in places.
- Some general examples are presented to support answers in at least one place in the answer.

Level 3 (7–8 marks)

- At this level, answers will be comprehensive and supported by sound knowledge.
- Both agreement and disagreement are considered and well supported.
- Reasoning is clear and logical with good expression of language.
- Specific examples are used extensively to support answers.

- 3 (a) Study Figs. 5A and 5B, which show a section of coastline before and after coastal defences were built.

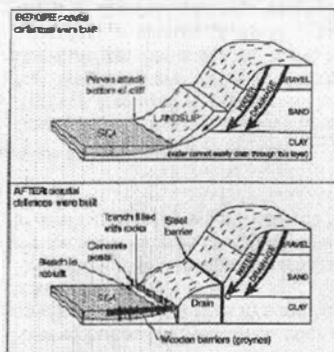


Fig. 5A

Fig. 5B

- (i) Describe the coastal section shown in Fig. 5A and explain how it was affected by natural processes.

[4]

- It is a steep sea cliff which is made up of three layers of soil. The upper part is made up of gravel, the second layer is sand while the third layer is clay. [1]
- Gravel and sand allows water to flow through them quickly and water takes a very long time to pass through clay. [1]
- During rainy season, water that goes through the two upper layers will not be able to drain easily through the clay layer. [1]
- This causes the water to be retained in the two upper layers. This increased weight of the sand and gravel due to the water causes landslips. [1]
- The base of the cliff is being eroded by the wave action and this will cause the cliff to recede. [1]

Any 4 points.

- (ii) Use Fig. 5B to explain how two of the measures taken for coastal defence might protect this section of the coastline.

[4]

- A **steel barrier** is constructed near the junction of the sand and clay layer [1] to prevent landslips. [1]
- Also a **drain** is constructed at the boundary of the sand and clay to prevent water flowing through the gravel and sand to be drained into the sea quickly. [1] This prevents water clogging and further landslips. [1]
- The **concrete post** is built along the coast [1] to reduce the effect of erosion by destructive waves. [1]

- The **groynes** are built perpendicular to the beach [1] to interrupt the longshore drift and this causes deposition to occur at the base of the cliff thus rebuilding the beach. [1]

Any 2 measures. 2m per point.

- (b) Explain what planning authorities can do to reduce the negative impact of tourism on the environment. [5]

- Restrict and control tourism development in the area and visitor numbers to preserve the fragile mountainous environment and culture of the people. High value, low volume tourism. [1]
- To enforce law and regulations on proper tourist behavior. [1]
- Employ or train more park rangers to patrol the area. [1]
- To educate tourists to be socially responsible through pamphlets and videos in the Visitor centre. [1]
- The local community can be involved in the maintenance of the park as well as tour guides. [1]
- The park can also encourage scientific research of its flora and fauna to enhance the need to conserve its environment. [1]

Any 5 points. Accept any plausible answer.

- (c) Study the 1:25 000 map extract of Basseterre, St Kitts. Using map evidence, explain why *Kittitian Village*, which is in the south-eastern part of the map, is popular with tourists. [4]

- Presence of accommodation eg. Hotels (2710/2711) [1]
- Presence of places of attractions eg. Fort Tyson Ruins (2610), North Frigate Bay (2710), Golf course (2611); corals (2711) [1]
- Highly accessible due to presence of main roads (2711).
- Presence of amenities since it is near the built-up area in Kittitian Village (2711)

Accept any plausible answer. No marks awarded if students did not give the 4-figure grid reference or other references to location.

- (d) 'The main reason why tourism has grown significantly over the years is because tourists can easily access information about their destinations.' How far do you agree with this statement? Explain your answer using relevant examples. [8]

Candidates may include the following materials:

Ease of Access to Information

- If travel related information can be accessed quickly and easily, tourists are more likely to visit a place.
- Tourist websites and travel reviews are easily accessible through the internet or on mobile phones.
- For example, tourists who are able to check plane/ train timings on the go. Travel reviews like TripAdvisor provide extensive feedback on the attractions and accommodation in a place.

Candidates may include other factors:

Other destination factors:**Investment in infrastructure and services**

- Countries have also invested heavily in tourism infrastructure and services.
- This includes developing airports and sufficient and wide variety of hotels to accommodate the ever growing tourism industry and each budget type.
- For example, Changi Airport is expanding to include Terminals 4 and 5 to increase its capacity. This allows more tourists to visit Singapore.

Attractions

- Governments, tourist authorities and tourism businesses have increased the investment in attractions.
- An attraction is a place that is interesting and enjoyable for the tourists.
- Attractions can be natural or built.
- Attractions can offer something spectacular, unique and interesting for tourists
- This in turn will encourage tourists to return repeatedly to spend their tourist money.
- For example, in Dubai (UAE) has become such a major tourist attraction for tourists on stopover to Europe or Asia.
- Two of Dubai's most well-known built attractions are the Burj Al-Arab, a seven star luxury hotel built on artificial islands, and the Palm Islands, the world's largest artificial islands for high-end residential, leisure and entertainment facilities.

Developments in technology:**Better and affordable transport**

- Improvements in safety, shorter travelling time, and lower travelling costs
- Commercial air travel is much more affordable than what it was 20 years ago
- Rise of budget airlines which offer no frills has also significantly reduced cost of travelling. Budget airlines fly short haul destinations and can reduce costs by selling tickets online
- Fuel efficient aircrafts that are smaller can travel longer distances
- Hence, more tourists can travel more frequently, travel further from home and travel to destinations that are not covered by major commercial airlines

More air routes and agreements

- Open skies agreement: Governments remove restrictions between respective flights. A free market environment is created for commercial airlines to compete in. E.g. Singapore and USA signed open skies agreement in 2001.
- Deregulation: Fares are allowed to rise and fall according to market demand, and according to market competition between various airline companies. E.g. Since 1978, all domestic and international flights have been deregulated
- Increased number of air routes and agreements have made various parts of the world more accessible and countries are much more connected. This gives more people opportunities to travel and more destinations to visit.
- Deregulation can increase the affordability of travel if airfares fall as a result.
- People are more likely to travel with greater accessibility and affordability.

Other demand factors:**Disposable income**

- Growth of disposable income of individuals has allowed them to spend more on goods, services and activities that improve their quality of life.
- Disposable income has been increasing due to rapid economic growth. The number of people in the middle income group have been growing.
- E.g. in China and India, there is a significantly larger number of tourists due to the expanding middle income group.

Leisure time

- For the middle to high income groups, leisure time comes in the form of paid leave. With more income and leave, people are more inclined to travel
- DCs and LDCs – people have enjoyed shorter working weeks, public holidays and paid annual leave. Hence, people are more inclined to travel.
- E.g. Australia – many employees exchange paid overtime work for leave. This increases their chances of taking longer weekend breaks.
- E.g. Canada – increase in additional breaks and extended weekends.

Changing lifestyles

- Fast pace of life, many people find themselves spending long hours at the workplace beyond official working hours.
- Therefore, people travel as a way to relax and take a break from this fast paced lifestyle.
- Advances in medical technology and knowledge allow people to live longer and healthier. Therefore, they are more physically fit and can travel frequently.
- There is an increasing number of retirees as they wish to spend the remainder of their healthy years productively.

To conclude, although the easy access to information is one of the reasons why tourism has grown significantly over the years, it is not the main reason because increase in disposable income and development in transport technology have a greater influence on a person's decision to travel.

Level 1 (0–3 marks)

- At this level, answers will be generalised or with minimal support if any stand were given at all.
- Reasoning rather weak and expression may be unclear.
- A basic answer that has little development.
- No or vague examples only

Level 2 (4–6 marks)

- Disagreement or agreement will be supported by appropriate detail.
- Both agreement and disagreement are considered, but support is patchy so that the answer is not full.
- Good reasoning and logic in parts of the answer with good expression in places.
- Some general examples are presented to support answers in at least one place in the answer.

Level 3 (7–8 marks)

- At this level, answers will be comprehensive and supported by sound knowledge.
- Both agreement and disagreement are considered and well supported.

- Reasoning is clear and logical with good expression of language.
- Specific examples are used extensively to support answers.

Table of Specs 4E Core Geog Prelim 2016 P1

Question Number	AO1 + AO2	AO1 + AO3
1(a)		4
1(b)		2
1(c)(i)	3	
1(c)(ii)	2	

1(c)(iii)	2	
1(d)(i)		3
1(d)(ii)		3
1(e)	6	
SEC A TOTAL	13	12
2(a)		4
2(b)	5	
2(c)(i)		4
2(c)(ii)		4
2(d)	8	
SEC B SUB-TOTAL	13	12
OR		
3(a)(i)		4
3(a)(ii)		4
3(b)	5	
3(c)		4
3(d)	8	
SEC B SUB-TOTAL	13	12
SEC A + B GRAND TOTAL	26	24

Name: _____ ()

Class: _____



CHI J KATONG CONVENT
PRELIMINARY EXAMINATIONS 2016
SECONDARY 4 EXPRESS

GEOGRAPHY

2236/02

Duration: 1 hour 30 mins

PAPER 2

Classes: 403, 404, 405, 406

READ THESE INSTRUCTIONS FIRST

Write your name, class and registration number on all the work you hand in.

Write in dark blue or black ink.

Do not use staples, paper clips, highlighters, glue or correction fluid/tape.

Section A

Answer one question.

Section B

Answer one question.

Candidates should support their answers with the use of relevant examples.

Sketch maps and diagrams should be drawn whenever they serve to illustrate an answer.

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

At the end of the examination, fasten all your work securely together.

This question paper consists of **10** printed pages

[Turn over]

Section A**Answer one question from this section.**

- 1 (a) Study Fig. 1, which shows the climatic data for a weather station in Chittagong, Bangladesh.

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Temperature (°C)	26	28	29	30	29	29	28	28	28	28	26	25
Rainfall (mm)	8	20	36	58	198	160	160	175	305	206	66	5

Fig. 1

Use Fig. 1 to describe the main features of the climate in Chittagong.

[3]

- (b) Study Fig. 2, which shows an activity which leads to enhanced greenhouse effect.

**Fig. 2**

Explain how the activity in Fig. 2 causes the enhanced greenhouse effect.

[4]

- (c) Study Figs. 3 and 4, which show the climate graphs of Darwin and Alice Springs, Australia. The locations of these two cities are shown on Fig. 5, a map of Australia.

Climate graph of Darwin, Australia

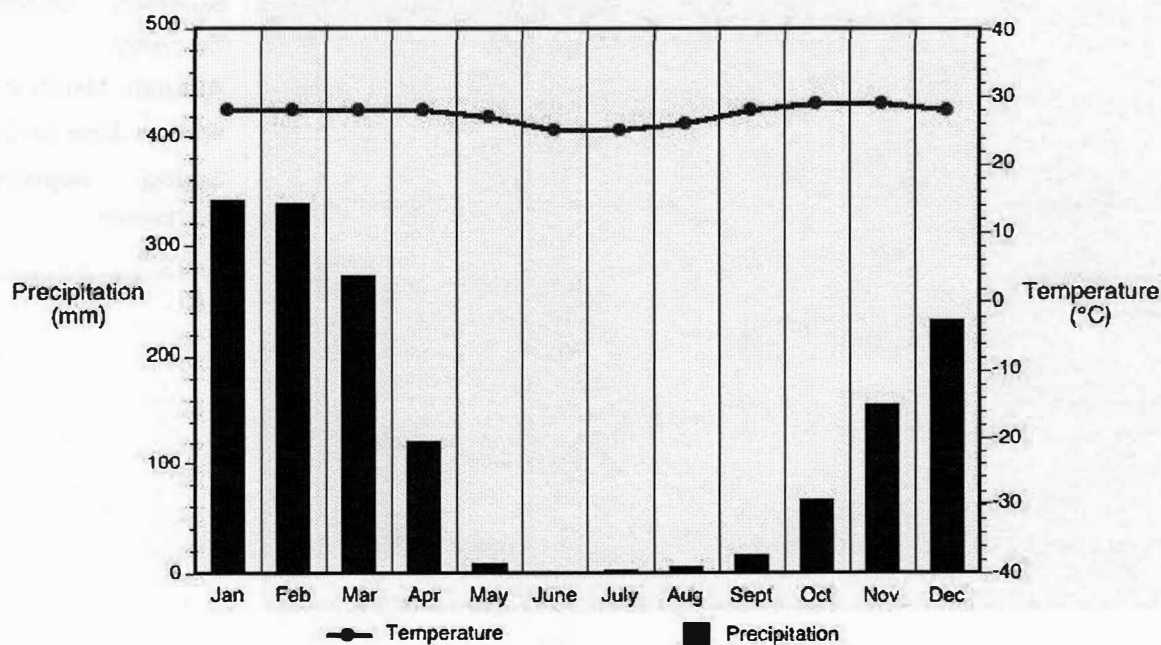


Fig. 3

Climate graph of Alice Springs, Australia

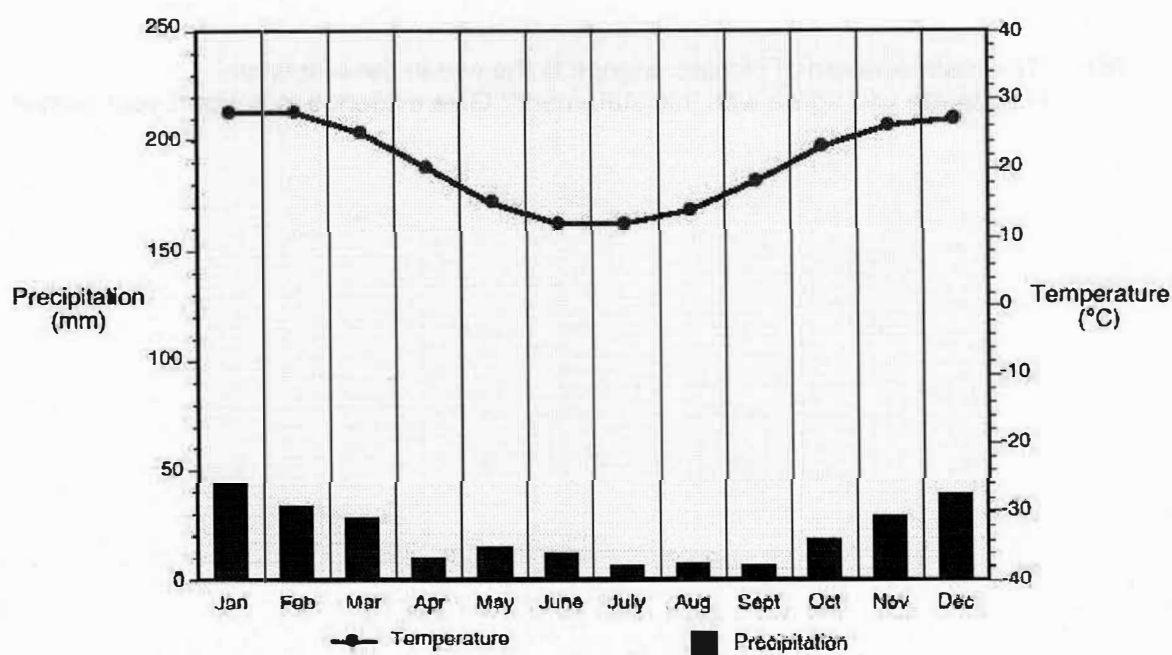
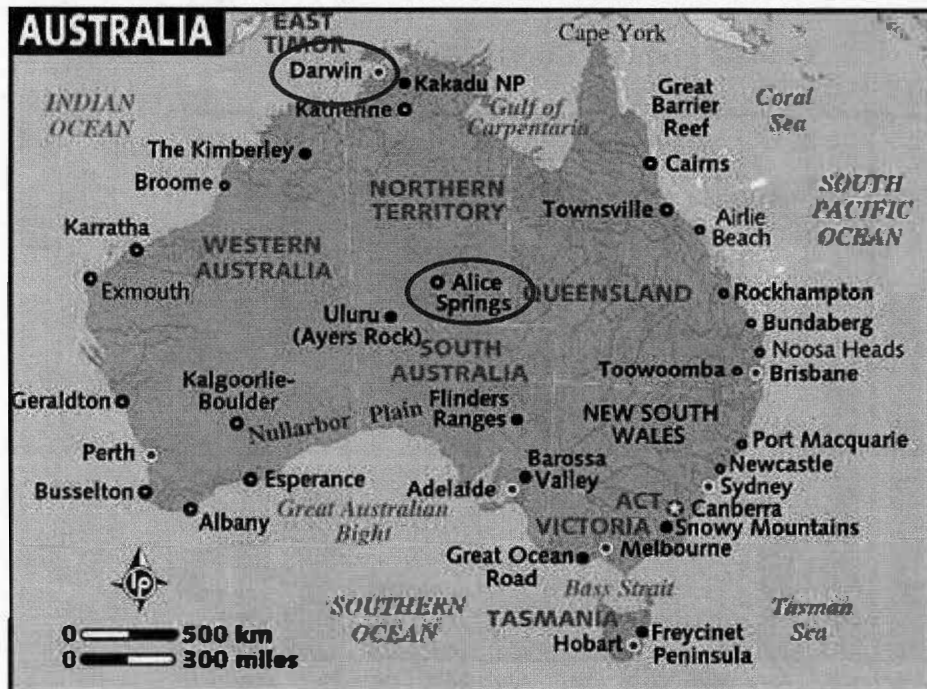


Fig. 4

A map of Australia

**The seasons in Australia:**

Summer: December to February.

Autumn: March to May.

Winter: June to August.

Spring: September to November.

Fig. 5

Use Figs. 3, 4 and 5 to describe and explain the difference between the climates of the two cities. [6]

(d) Explain how the lack of cloud cover can affect the daily temperature range. [4]

(e) 'The main concern of climate change is the rise in the sea level.'
How far do you agree with this statement? Give evidence to support your answer. [8]

- 2 (a) Describe the effects of tropical cyclones on the lives of people in areas where they are experienced. [4]

- (b) Study Fig. 6, which shows the characteristics of the climate in Singapore.

The following are the features of the climate in Singapore:

- average temperature 27°C,
- annual rainfall 2353mm,
- rainfall distributed throughout the year,
- rainfall maximum from November to January,
- average daily relative humidity 84%.

Fig. 6

With the help of Fig. 6, give reasons to explain the climate of Singapore. [6]

- (c) Study Fig. 7, which shows the formation of fold mountains.

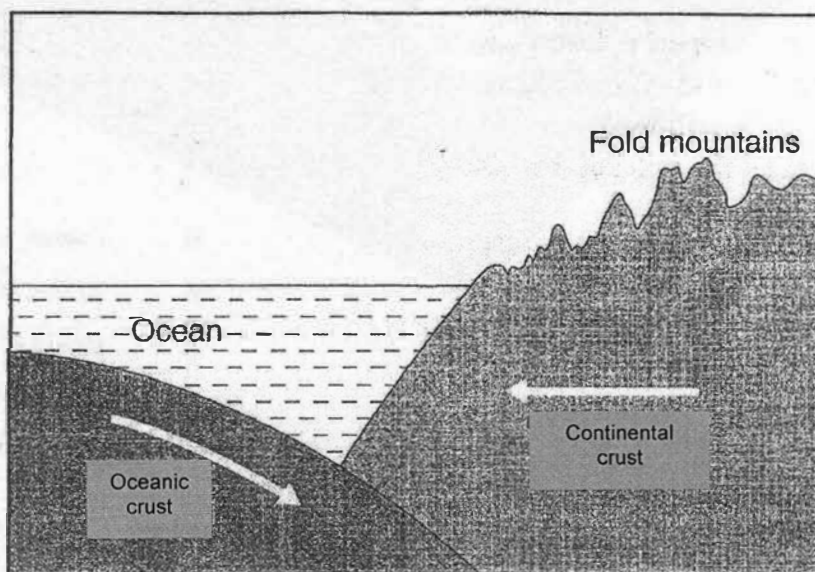


Fig. 7

Use Fig. 7 to explain how fold mountains have been formed. [3]

- (d) Study Fig. 8, which shows information on a major earthquake which occurred in Los Angeles, a large urban area in California, USA.

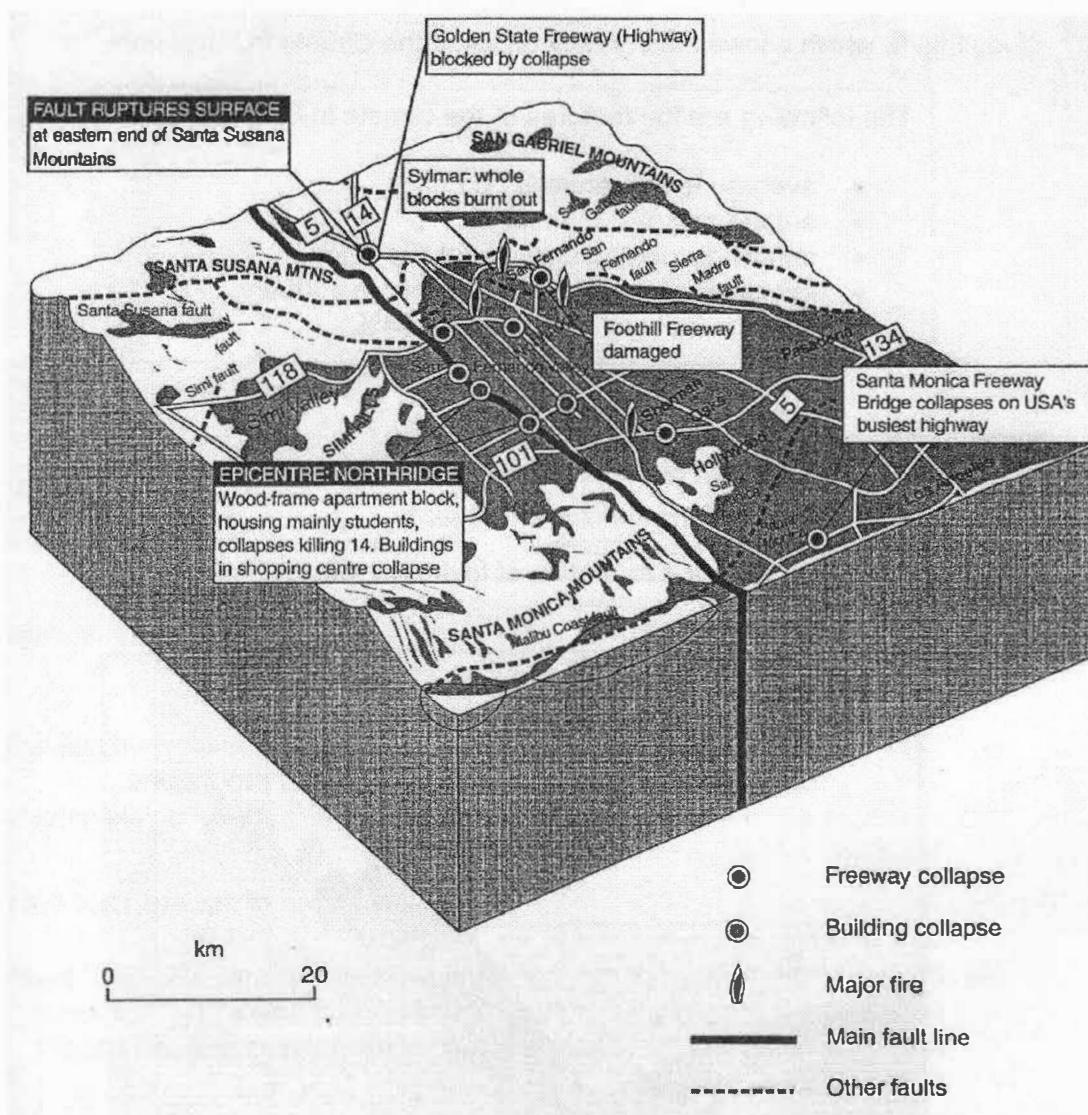


Fig. 8

Use Fig. 8 to help you explain why earthquakes are a severe hazard when they affect a large urban area, such as Los Angeles. [4]

- (e) 'Immediate responses are more crucial than preparedness measures to cope with threat of earthquakes.'
To what extent do you consider this statement to be true? Give evidence to support your answer. [8]

Section B

Answer one question from this section.

- 3 (a) Study Fig. 9, which shows the food preferences of 3 countries, A, B and C.

Triangular Graph on Food Preferences in 3 Countries

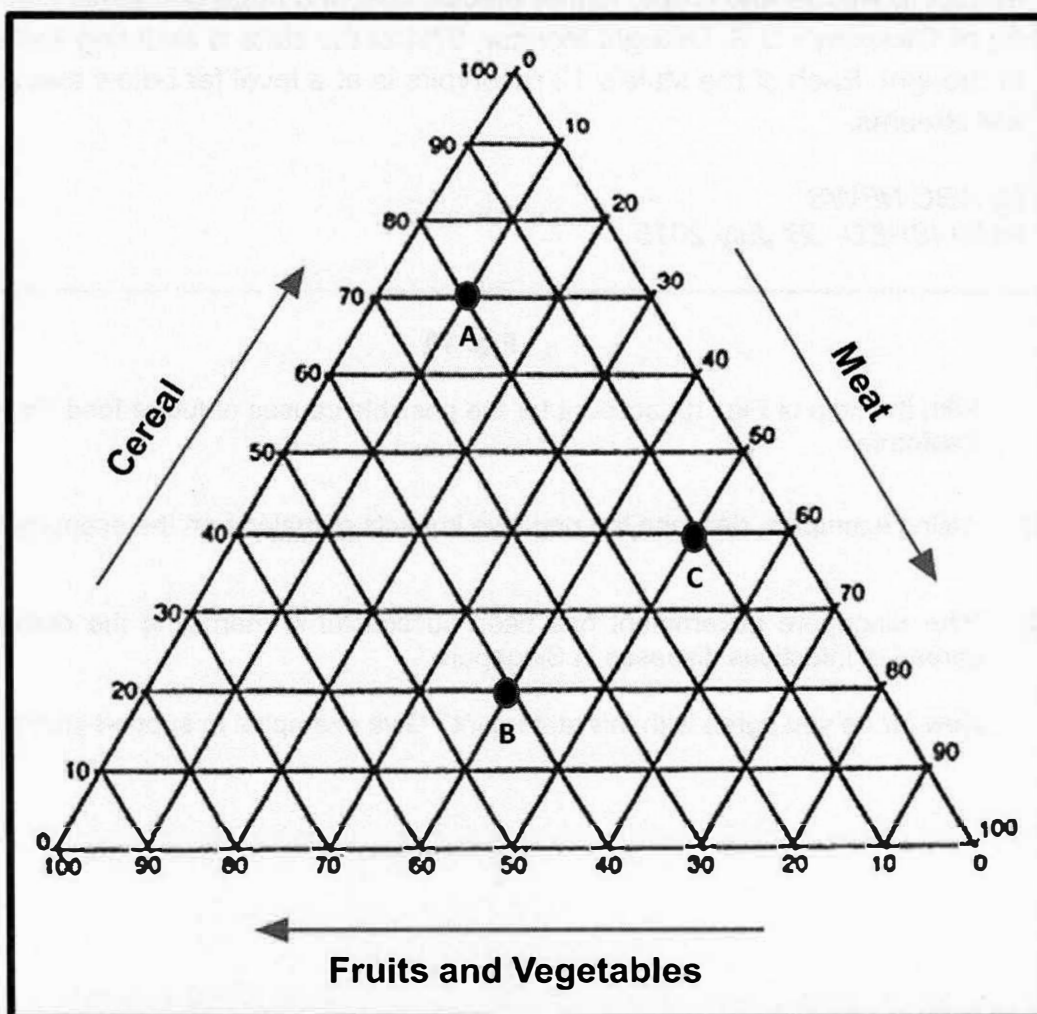


Fig. 9

- (i) Compare the consumption of cereal, meat, fruits and vegetables in the three countries as shown in Fig. 9. [3]
- (ii) Use Fig. 9 to rank and account for the level of development in the three countries. [4]

- (b) Study Fig. 10, which shows an extract citing a possible impact on future food supply of California.

Historic Droughts Create Havoc

The Golden State's massive water infrastructure system — the most extensive in the world — is being put to the test by the epic drought.

California's drought has brought unprecedented water shortages, increased threats to wildlife and crops, higher electric bills and huge economic losses.

As of Thursday's U.S. Drought Monitor, 97% of the state is enduring some level of drought. Each of the state's 12 reservoirs is at a level far below average, as are streams.

By ABC NEWS

PUBLISHED: 27 July 2015

Fig. 10

With the help of Fig. 10, account for the possible causes of future food shortages in California. [5]

- (c) Using examples, describe the negative impacts of malaria on the economy. [5]
- (d) 'The Singapore government has been successful in managing the outbreak and spread of infectious diseases in Singapore.'

How far do you agree with this statement? Give examples to support your answer. [8]

- 4 (a) Study Fig. 11, which shows the causes of death based on three income levels in Botswana, Africa.

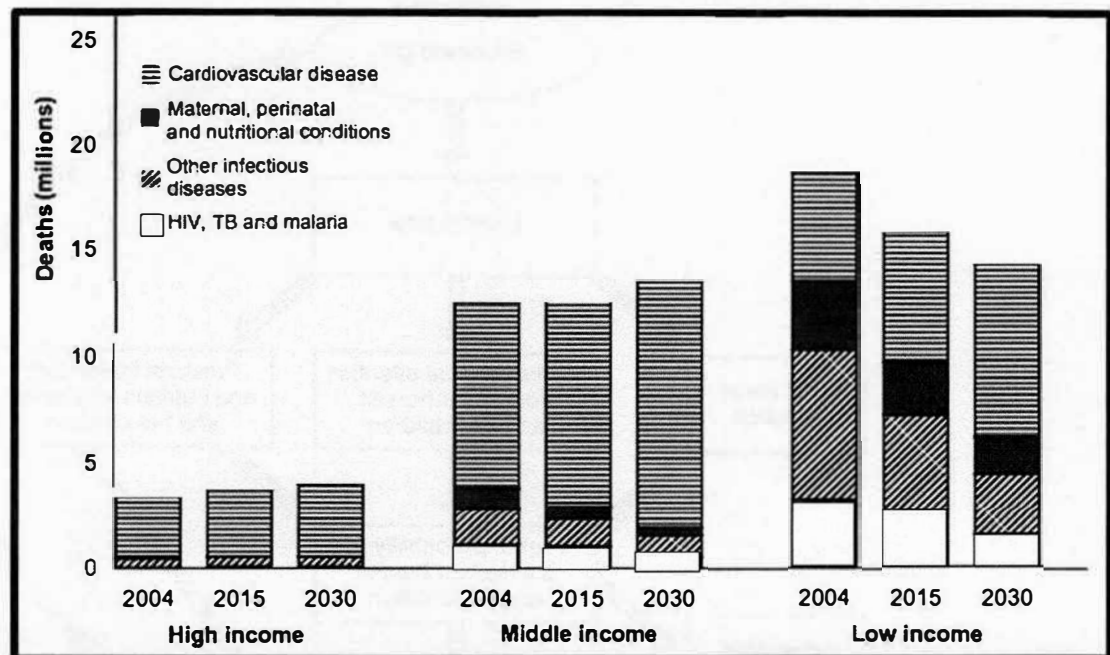


Fig. 11

Use Fig. 11 to help you describe and suggest reasons for the relationship between income level and the prevalence of HIV/AIDs among the men and women in Botswana.

[6]

- (b) Study Fig. 12, which shows the impact of education among girls.

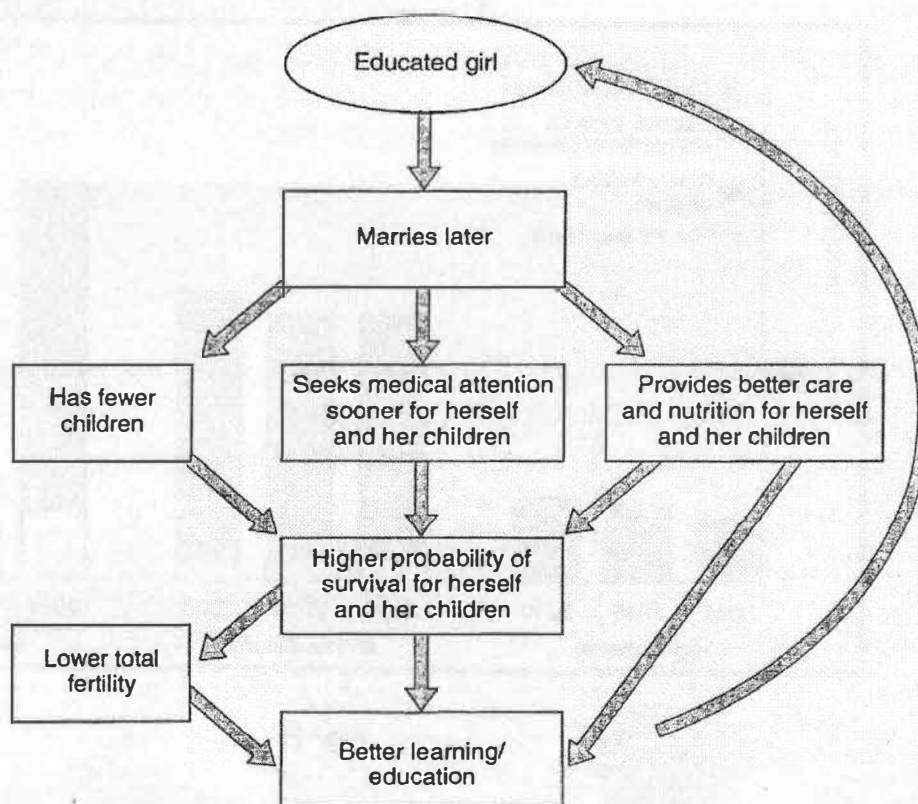


Fig. 12

With reference to Fig. 12, explain how educating girls can lead to a lower infant mortality rate. [6]

- (c) Describe the economic impacts of high HIV/AIDS infection rates. [5]

- (d) 'Social stigma faced by HIV/AIDS patients is the main cause of the spread of HIV/AIDS.'

How far do you agree with this statement? Give examples to support your answer. [8]

--End-of-Paper--

Answer Scheme 4E Core Geog P2 MYE 2016

- 1 (a) Study Fig. 1, which shows the climatic data for a weather station in an Asian city.

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Temperature (°C)	25	28	29	30	29	29	28	28	28	28	26	25
Rainfall (mm)	8	20	35	58	198	160	160	175	305	206	66	5

Fig. 1

Use Fig. 1 to describe the main features of the tropical monsoon climate. [3]

- Chittagong has a tropical monsoon climate.
- High mean annual temperature of 27.5°C. [1]
- Small annual temperature range of 5°C. [1]
- High annual rainfall but rainfall is not evenly distributed. [1]
- Distinct wet and dry seasons with May-Oct being the wet months (rainfall > 150mm) and Nov-Apr being the dry months (rainfall < 100mm). [1]

Any 3 points.

- (b) Study Fig. 2, which shows an activity which causes enhanced greenhouse effect.

**Fig. 2**

Identify the activity in Fig. 2 and explain how it causes the enhanced greenhouse effect. [4]

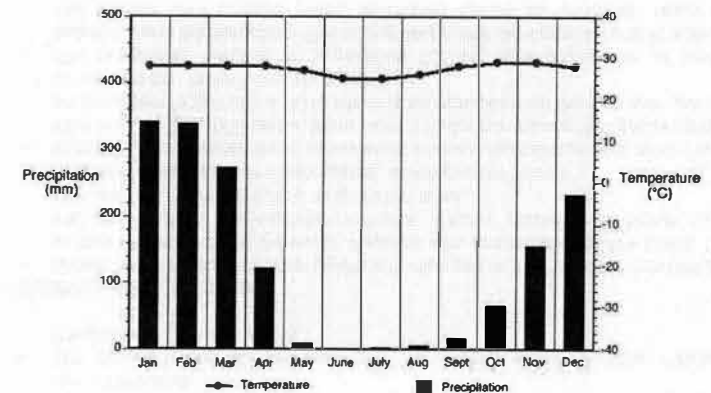
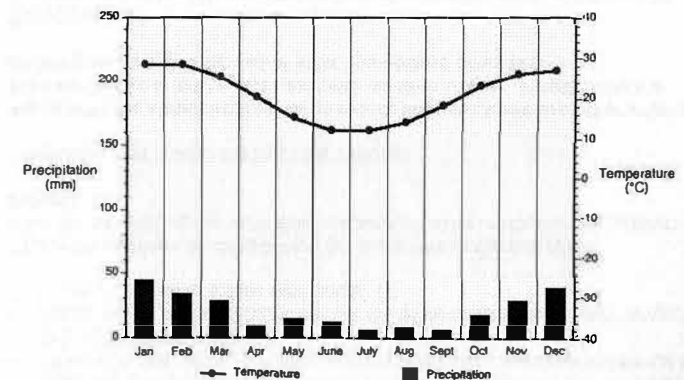
Activity: Deforestation/logging [1]

Explanation:

- With deforestation, there are fewer trees and other plants to absorb carbon dioxide, leading to an increase in carbon dioxide in the atmosphere. [1]

- Deforestation exposes soil to sunlight. This increases the soil temperature and the rate of carbon oxidation in the soil. Thus, this causes an increase in the rate at which carbon dioxide is released from the soil into the atmosphere. [1]
- Both effects result in an increase in carbon dioxide, which is one of the greenhouse gases which cause enhanced greenhouse effect. [1]

- (b) Study Figs. 2 and 3, which show the climate graphs of Darwin and Alice Springs, Australia. The locations of these two cities are shown on Fig. 4, a map of Australia.

Climate graph of Darwin, Australia**Fig. 3****Climate graph of Alice Springs, Australia****Fig. 4**

A map of Australia

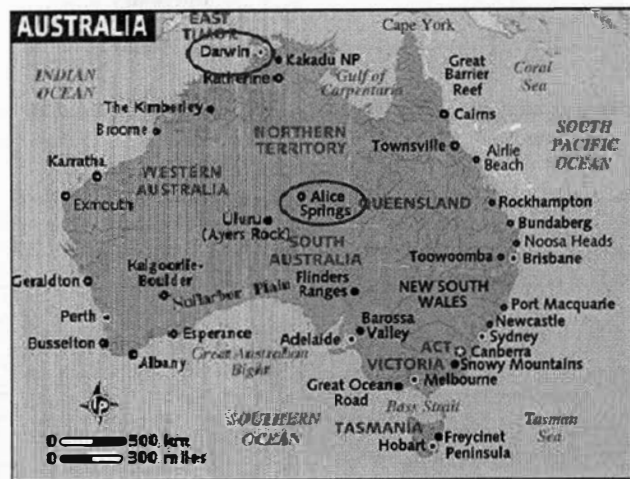


Fig. 5

Use Figs. 3, 4 and 5 to compare the climate of the two cities, and explain for the climate. [6]

Compare [Max=3m].

- Darwin has a smaller annual temperature range as compared to Alice Springs (AS). Darwin's annual temperature range is 2°C but AS is 16°C. [1]
- Darwin has a higher annual rainfall than AS. Annual rainfall in Darwin is approximately 1500mm while the annual rainfall in AS is approximately 280mm. [1]
- The temperature in the winter months in Darwin are higher than AS. The winter months in Darwin is about 26°C while the winter months in AS is between 14-16°C. [1]

Explain [Max=3m].

- Darwin has a smaller temperature range due to maritime effect since it is near the Indian Ocean. [1]
- During winter, the air over the land cools down quickly, while the air over the sea remains relatively warm because the sea takes a longer time to lose heat. The warmer air over the sea helps to raise the temperatures of the areas along the coast. [1]
- As a result of the maritime effect, coastal areas like Darwin experience cooler summers and warmer winters as compared to AS. Hence, there is a smaller difference between summer and winter temperatures. [1]
- Darwin has a higher annual rainfall than AS also because it is nearer the coast. Water evaporates from the surrounding seas and falls over Darwin. AS which is further inland remains drier. [1]

(c) Explain how the lack of cloud cover can affect the daily temperature range. [4]

- The lack of cloud cover allows large amounts of solar radiation to reach the Earth's surface in the day, causing the temperature of the ground to rise quickly. [1]

- In the night, the lack of cloud cover allows heat from the Earth to escape into outer space easily, leading to a drastic drop in the temperature of the ground. [1]
- This allows that places with less cloud cover experience a larger difference in day and night temperatures. [1]
- Places with a lack of cloud cover will therefore have a higher daily temperature range compared to places with clouds. [1]

(d) 'The main concern of climate change is the rise in the sea level.'

How far do you agree with this statement? Give evidence to support your answer. [8]

Candidates may include the following material:

Agree with the statement to a large extent because there are other impact of climate change such as more extreme weather events, lengthening the growing season and spread of infectious-borne diseases.

Rising sea level

- Rising sea levels have a negative impact on places where people reside.
- The worst affected areas are the low-lying areas and islands. 2/3 of the world's largest cities are located in coastal areas and they are at risk due to the rising sea levels. It has been projected that 33% of coastal land and wetland habitats are likely to be lost in the next 100 years if the current rate of increase in sea levels continues.
- The places facing serious risks are the coastal areas of India, Pakistan, Bangladesh, SEA and Africa.

Extreme weather conditions

- Global warming has caused significant changes in the weather conditions in various regions around the world. Regions with wetter climates like China, SEA and the western US experience higher relative humidity as higher global temperatures have increased evaporation rates.
- This increases rainfall in these places, which causes floods.
- Warmer ocean temperatures cause more intense tropical storms to form. For eg, from Sept to Oct 2005 alone, there were 3 major hurricanes that devastated the southeastern region of the USA, which is an increase from the long-term average of one and half major hurricanes yearly.
- The hurricanes resulted in large-scale flooding and destruction of homes, industries and infrastructure. The strong winds also disrupted economic activities like tourism and caused heavy economic losses as property, crops and businesses were destroyed.

Lengthening the growing season

- Higher temperatures may also result in longer growing seasons in some regions. This is a challenge for areas like the Yunnan province in China, where the production of fruits and nuts is reduced as they require cool weather conditions. In Canada, the average wheat grain yield has reduced.
- However, the lengthened growing seasons have advantages as well. In the UK, new crops such as blackberries and maize can be cultivated. In Canada, it has been projected that the production of crops like wheat and potatoes will increase.

Spread of some infectious-borne diseases

- Spread of some infectious insect-borne diseases like malaria and dengue fever. This is because heavy rainfall may allow mosquitoes to breed. Regions with

moderate temperatures, such as North America, are now prone to diseases to the tropics.

- However, preventive measures can be taken to reduce the spread of diseases.

To conclude, the sea level rise is the main challenge as the other challenges are not as serious. For example, the lengthening of growing season can have advantages as well.

Level 1 (0–3 marks)

- At this level, answers will be generalised or with minimal support if any stand were given at all.
- Reasoning rather weak and expression may be unclear.
- A basic answer that has little development.
- No or vague examples only

Level 2 (4–6 marks)

- Disagreement or agreement will be supported by appropriate detail.
- Both agreement and disagreement are considered, but support is patchy so that the answer is not full.
- Good reasoning and logic in parts of the answer with good expression in places.
- Some general examples are presented to support answers in at least one place in the answer.

Level 3 (7–8 marks)

- At this level, answers will be comprehensive and supported by sound knowledge.
- Both agreement and disagreement are considered and well supported.
- Reasoning is clear and logical with good expression of language.
- Specific examples are used extensively to support answers.

- 2 (a) Describe the effects of tropical cyclone upon the lives of people in areas where they are experienced. [4]

- Damage to infrastructure such as bridges and roads, making it difficult to transport food, clean water and medicine to the areas that need these items eg. Typhoon Ketsuna caused serious damage to the road networks in Philippines. [1]
- The damage to property and infrastructure caused by tropical cyclones can be expensive to repair eg. The damage caused by Hurricane Katrina in 2005 cost an estimated US\$81 billion to USA. [1]
- Great economic costs are also incurred from damaged crops eg. Tropical Cyclone Yasi (2011) has caused about US\$350 million banana crop was lost. [1]
- Food shortages can also occur due to destroyed crops and farmlands. [1]
- Flooding caused by tropical cyclones may cause sewage from burst sewage pipes to flow into and contaminate existing water supplies, leading to the spread of water-borne diseases such as cholera and typhoid fever. [1]
- Flooding may also result in the spread of diseases transmitted by insects eg. Cases of dengue fever and malaria increased in Guatemala and Nicaragua after Hurricane Mitch struck in 1998. [1]
- Displacement of people from their homes. [1]

Any 4 points. Accept other plausible answer that shows the effect of cyclones on the people.

- (b) Study Fig. 6, which shows the characteristics of the climate of Singapore.

The following are the features of the climate of Singapore:

- annual rainfall 2353mm,
- rainfall distributed throughout the year,
- rainfall maximum from November to January,
- average daily relative humidity 84%.

Fig. 6

With the help of Fig. 6, explain for the climate of Singapore. [6]

- Singapore is located near the equator and experiences an equatorial climate [1]
- Temperature is high throughout the year due to high insolation. [1]
- Due to the high temperature and coastal location of Singapore, the rate of evaporation is high. [1]
- This causes a lot of water vapour to be present in the air resulting in high humidity of 84%. [1]
- The water vapour in the air eventually cools and condenses to form cumulonimbus clouds resulting in convectional rain. This explains the high annual rainfall of 2353mm which is distributed throughout the year. [1]
- The higher rainfall from Nov-Jan is due to the North-east monsoon which blows from Central Asia to Indonesia [1] and carries along with it rain as it blows over the South China Sea. [1]

- (c) Study Fig. 7, which shows the formation of fold mountains. [3]

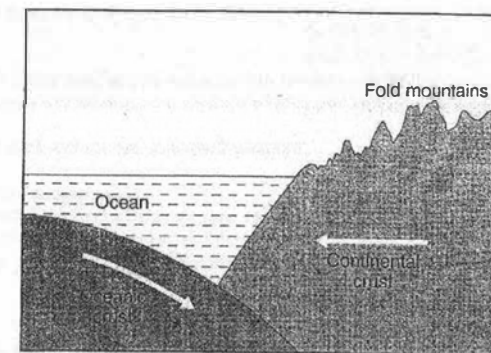


Fig. 7

Use Fig. 7 to explain how fold mountains have been formed.

- When the oceanic plate and continental plate converge, the denser oceanic plate is forced under the continental plate into the subduction zone. [1]
- The continental plate goes over the oceanic plate but is not able to converge much due to the great amount of friction between the plates. As a result, the crust is compressed, buckles and folds. [1]
- This great pressure causes the crust to be lifted and folded back. These folds of the crust are known as fold mountains. [1]

- (d) Study Fig. 8, which shows information of a major earthquake which occurred in Los Angeles, a large urban area in California, USA.

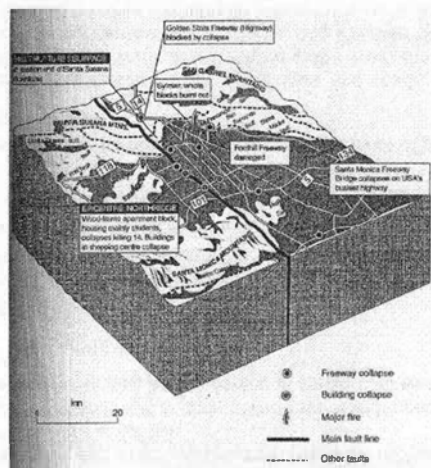


Fig. 8

Use Fig. 8 to help you explain why earthquakes are a severe hazard when they affect a large urban area, such as Los Angeles. [4]

- Los Angeles, an urban city, is a highly built up city and consists of a high population density. Earthquakes (EQs) in this city will cause great damage and property loss and also loss of lives.
- These EQs occur at random, occurring at just any time thus causes many dwellings to be damaged or destroyed. The cost of damage may also amount to several billion dollars.
- For example, the collapse of the wood-frame apartment block and shopping centres killed 14 people.
- These EQs cause fire to break out as seen in Sylmar whereby whole blocks burnt out.

- The EQ also caused transportation to be disrupted as can be seen by the collapsed of Golden State Freeway, Foothill Freeway and Santa Monica Freeway, which will result a slowdown of the economy.

Accept any plausible answer from the figure. Any 4 points.

- (e) "Immediate post-earthquake responses are more crucial than preparedness measures to cope with threat of earthquakes." To what extent do you consider this statement to be true? Give evidence to support your answer. [8]

Candidates may include the following material:

Agree with the statement to a certain extent because preparedness measures are equally important in coping with the threat of EQs.

Immediate post-earthquake measures :

Handling the status of the affected area After affected areas are declared as emergency zones, a specialized authority is assigned to provide immediate aid to people and restore emergency services to the affected areas. The basic humanitarian needs of the affected people are taken care of. They are provided food, water and shelter. E.g. in Turkey, the Crisis Management Centre led by the Ministry of Interior mobilized and coordinated relief effectively within the first few hours of the EQ in Afyon, Turkey, in 2002. Searching for and rescuing casualties People trapped under collapsed buildings are quickly located and freed. Some survivors are found after being trapped for a couple of weeks without food. E.g. after the EQ in Tohoku, Japan in 2011, sniffer dogs and heat sensors were deployed and successfully rescued many who were trapped. Providing medical aid, food and water The injured are treated and clean drinking water is provided to survivors to prevent dehydration and the spread of diseases. The provision of immediate aid helps survivors continue with their lives. E.g. after the EQ in Afyon in 2002, The Turkish Red Crescent Society immediately responded by delivering 20,000 tents, 50,000 blankets and 3,000 heaters to the region.

Setting up emergency shelters

- Tent cities are set up as temporary housing for those who have lost their homes in the EQ.
- Temporary shelters provide a place for survivors to carry on with their lives.
- E.g. tents accommodated thousands of homeless people after the major EQ of Afyon, Turkey in 2002. They also helped to re-establish a sense of community amongst survivors.

Calling for Humanitarian aid

- Foreign and local governments may offer money, medical or food aid to an affected area.
- Affected areas can be rebuilt with the aid provided.
- E.g. 2 months after the EQ in Haiti in 2010, governments around the world donated US\$ 2.5 billion and pledged another US\$ 1.3 billion.
- NGOs such as the International Red Cross and World Vision International rapidly moved into affected areas and began their work.

Preparedness measures :

Planning the location of infrastructure

- Infrastructure that is built further away from earthquake prone areas will lower the number of deaths.
- Local authorities could take into consideration the location of these structures and implement guidelines on where they can be constructed.
- For example, the authorities in Memphis, USA, regulate the use of land which is prone to liquefaction.
- Information about the population distribution, type of building construction and technological hazards contribute to the assessing the risk of earthquakes.

Strengthening existing infrastructure /Infrastructure development

- Existing infrastructure can be strengthened by using wrapping steel frames round pillars of buildings and bridges and placing steel rods in existing structures.
- Fire proof materials and automatic shut-off valves can be installed into gas pipes and electricity supplies to minimize the risk of fires in the event of an earthquake.
- However, the effectiveness of strengthening infrastructure to reduce damage is limited. The strengthened infrastructure may not be as strong as the new infrastructure that is designed to withstand earthquakes.
- For example, large underground water tanks are emergency reservoirs for possible fire fighting after an earthquake in Tokyo, Kyoto and Kobe in Japan.
- Hence, there may be a need to demolish old infrastructure and build new ones instead of just strengthening them even though the cost can be high.

Installing earthquake monitoring and warning system

- In earthquake prone areas, sensitive instruments, such as the seismometer and computers, are used to measure movements of the Earth's surface.
- The information produced by these instruments is evaluated to determine if an earthquake is likely to occur. If signs of an earthquake are detected, the authorities are immediately alerted.
- In turn, the authorities will inform the people staying in the affected areas through the use of sirens or media broadcasts. Such a planned system of detecting earthquakes and preparing people can help prevent deaths and reduce the damage caused in the event of an earthquake.
- However, the effectiveness of an earthquake warning and monitoring system is limited as authorities may choose to ignore the warnings to avoid disruption to business and tourism.
- This may be because the predictions of the scientists are not always accurate and may turn out to be false alarms.

Education/Emergency Drills

- Drills conducted regularly to educate and familiarize people
- Eg in Japan, students have to crouch under nearest table when earthquake warning signal goes off. Japan conducts emergency drills on 1st Sept.
- To prepare the people mentally on how to react to a disaster.
- Government in earthquake prone areas uses posters and signs to warn people about areas prone to earthquake.
- However, people tend to be complacent about earthquake education, if earthquake has not occurred in the region for a long time.
- Eg. Residents in Tokyo are aware that the city is in an earthquake prone area, but are less prepared compared to people from other areas as the last quake occurred 80 years ago in 1923.

Suggested conclusion :

Preparedness is more important in coping with threats from earthquakes as this will help to minimise deaths and casualties. However, as it is not possible to predict the timing and the severity of an earthquake, one can never be prepared enough. Hence, a prompt and efficient response after an earthquake event is necessary as there would be casualties that need immediate attention. This will also help the locals to regain normalcy and carry on with life as soon as possible.

Level 1 (0–3 marks)

- At this level, answers will be generalised or with minimal support if any stand were given at all.
- Reasoning rather weak and expression may be unclear.
- A basic answer that has little development.
- No or vague examples only

Level 2 (4–6 marks)

- Disagreement or agreement will be supported by appropriate detail.
- Both agreement and disagreement are considered, but support is patchy so that the answer is not full.
- Good reasoning and logic in parts of the answer with good expression in places.
- Some general examples are presented to support answers in at least one place in the answer.

Level 3 (7–8 marks)

- At this level, answers will be comprehensive and supported by sound knowledge.
- Both agreement and disagreement are considered and well supported.
- Reasoning is clear and logical with good expression of language.
- Specific examples are used extensively to support answers.

- 3 (a) Study Fig. 9, which shows the food preferences of 3 countries, A, B and C.

Triangular Graph on Food Preferences in 3 Countries

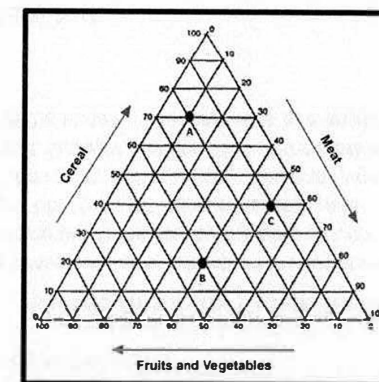


Fig. 9

- (i) Compare the consumption of cereal, meat, fruits and vegetables in the three countries as shown in Fig. 9. [3]

- Country A consumes the most cereal (70%), followed by fruits and vegs (20%) and the least is meat (10%). [1]
- This is in contrast to C'try B which consumed the least cereal (20%) followed by both fruits and vegs and meat (40% respectively). [1]
- C'try C on the other hand, consumed the most meat (50%) followed by cereal (40%) and the least fruits and vegs (10%). [1]

OR

- In terms of cereals, Country A consumed the largest amount (70%). This was followed by C (40%), then B (20%).
- In terms of fruits and vegetables, Country A consumed the largest amount (90%), followed by B (60%) and C (50%).
- In terms of meat, Country C consumed the largest amount (50%), followed by B (40%) and A (10%).

Answer must use evidence from the graph. If not, max=1m.

- (ii) Use Fig. 2 to rank and account for the level of development in the three countries. [4]

1m for correct rank

- B most developed followed by C, A [1]

3m for explanation

- A is the least developed because it consumes the most amount of cereal which is considered an inferior good. It also consumes least amount of meat which is considered a sign of wealth. [1]
- C is 2nd as while it has 2nd amount of cereal and the most meat which is a sign of its wealth. [1]
- B is most developed because on top of low amount of cereal, it also consumes a relatively high amount of meat but slightly lesser as compared to C. It also consumes a high amount of fruits and vegetables and low cereals. This is a sign of a healthier diet among a more educated population. [1]

- (b) Study Fig. 10, which shows an extract of an article citing a possible impact on future food supply of California. [5]

Historic Droughts Create Havoc

The Golden State's massive water infrastructure system — the most extensive in the world — is being put to the test by the epic drought. California's drought has brought unprecedented water shortages, increased threats to wildlife and crops, higher electric bills and huge economic losses. As of Thursday's U.S. Drought Monitor, 97% of the state is enduring some level of drought. Each of the state's 12 reservoirs is at a level far below average, as are streams.

By ABC NEWS

PUBLISHED: 27 July 2015

Fig. 10

With the help of Fig. 10, account for the possible causes of future food shortages in California. [5]

- Droughts may cause existing farmland to become unsuitable for farming.
- California will see its current food production decrease.
- Droughts would reduce the water supply available for crops to grow.
- Lower levels of water the reservoirs will reduce the effectiveness of irrigation systems.
- This is especially so if California is unable to recover from the loss of crops as it is already experiencing "huge economic losses".
- Such extreme weather events are likely to become more frequent as a result of climate change.

Award 1m for each point. Accept other plausible answers. Max 5m.

- (c) Using examples, explain the negative impacts of malaria on the economy. [5]

- Burden of malaria on the household due to increased medical expenses [1] e.g. in Ghana, West Africa, the burden can be as high as 34% of the household's income [1]
- Cost of healthcare because countries affected has to set aside funds for the provision of healthcare [1] e.g. Malaria can account to 40% of public health spending [1]
- Loss of Productivity due to not being able to work as of poor health [1] e.g. in Africa, economy slowed by up to 1.3% each year [1]

- (d) 'The Singapore government has been successful in managing the outbreak and spread of infectious diseases in Singapore.'

How far do you agree with this statement? Give examples to support your answer. [8]

Candidates may include the following materials:

Agree with the statement to a large extent although there are limitations to the strategies.

Strategy	Successes	Limitations
Providing vaccinations against H1N1 - more than 400 family clinics island-wide was stocked with the H1N1 vaccines	- most cases are mild although 18 deaths was reported in 2009 - In 2013, Singapore's 1 st H1N1 flu vaccine has reached the first phase of clinical trials	- vaccination takes up to 2 weeks to take effect - not compulsory - imported vaccines may take up to 3months
Control measures during SARS outbreak in 2003 - detecting and isolating infected ppl - dedicated private ambulance service - prevented and controlled spread within hospitals - potential patients are subjected to home quarantine by law	- prompt following the detection - WHO praised Singapore for prompt handling and open reporting of cases - stringent measures by Singapore had contained the spread	- some patients do not show symptoms commonly associated w SARS - detection of the diseases is difficult and hard to contain
NEA's approach to vector - 5-pronged approach - community outreach to raise awareness - colour coded alert system	- WHO cited Singapore as good role model in preventing and measuring dengue cases - number of cases with more serious dengue cases has decrease since 2005 outbreak	- most ppl are unaware/ complacent about Aedes - mosquitoes breed faster at higher temperature - more ppl infected with den-1, an new dominant strain - no immunity against new various

To conclude, it was relatively easy for S'pore to contain the spread of infectious diseases due to its small size. Furthermore, S'pore has the resources to handle the outbreak of the diseases even though there are limitations to the measures.

Level 1 (0–3 marks)

- At this level, answers will be generalised or with minimal support if any stand were given at all.
- Reasoning rather weak and expression may be unclear.
- A basic answer that has little development.
- No or vague examples only

Level 2 (4–6 marks)

- Disagreement or agreement will be supported by appropriate detail.
- Both agreement and disagreement are considered, but support is patchy so that the answer is not full.

- Good reasoning and logic in parts of the answer with good expression in places.
- Some general examples are presented to support answers in at least one place in the answer.

Level 3 (7–8 marks)

- At this level, answers will be comprehensive and supported by sound knowledge.
- Both agreement and disagreement are considered and well supported.
- Reasoning is clear and logical with good expression of language.
- Specific examples are used extensively to support answers.

- 4 (a) Study Fig. 11, which shows the causes of death based on 3 income types in Botswana, Africa.

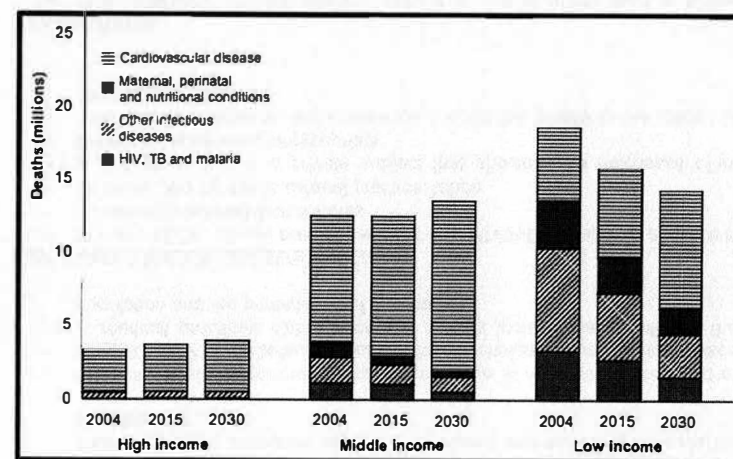


Fig. 11

Use Fig. 11 to help you describe and suggest reasons for the relationship between income level and the prevalence of HIV/AIDS among the men and women in Botswana.

[6]

Describe the relationship [Max=3m]

- There is an inverse relationship between income level and the prevalence of HIV/AIDS. [1]
- HIV/AIDS is prevalent in the middle and low income groups and does not exist in the high income group. [1]
- However, there is a decrease in the prevalence of HIV/AIDS for both middle and low income groups from 2004 to 2030.

Explanation [Max=3m]

- The spread of HIV/AIDS is higher for the low and lower middle income because of the living conditions and diet that they have [1]

- They are poor so they do not have the money to seek treatment and prevent the disease from spreading. [1]
- The higher income people are most likely educated thus they have greater ability to understand the consequences of certain actions. [1]

Accept any plausible answer.

- (b) Study Fig. 12, which shows how the educating of girls can lead to a better learning/education.

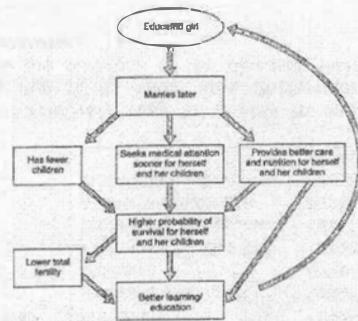


Fig. 12

With reference to Fig. 12, explain how the educating of girls can lead to a lower infant mortality rate.

[6]

- Girls who are better educated tend to marry later because they need time to study and pursue their career. [1]
- As such, they would not want to have many children, which allow them to pay closer attention to their children thus lowering the IMR.
- Girls who are educated realise the importance of immediate medical attention [1] and good nutrition to ensure the healthy survival of her children. [1]
- She would know how to plan the meals so that her child gets a well-balanced diet. [1]
- She would also know how to take care of them when they fall sick and ensure they are vaccinated. [1]
- She would be able to administer the prescriptions from the doctor. [1]
- She would know how to react during emergencies thus saving the lives of her children and lowering the infant mortality rate (IMR). [1]

Any 6 points.

- (c) Describe the economic impacts of high HIV/AIDS infection rates.

[5]

- It will cause an increase in healthcare expenditure due to the cost of antiretroviral medicine. [1]
- High cost for research and identification of disease, for cost of care by doctors/nurses/in hospitals/clinics. [1]
- Higher cost in educating the population in how to avoid the disease. [1]

- There is a reduction in the speed of economic growth because the money not available to invest in other aspects of economy/infrastructure. [1]
- The labour is also less productive due to illness. [1]

- (d) 'Social stigma faced by HIV/AIDS patients is the main cause of the spread of HIV/AIDS.'

[8]

How far do you agree with this statement? Give examples to support your answer.

- True to some extent.

Social Stigma

- HIV/ AIDS patients often discriminated and have no access to healthcare facilities, face rejection by family members, expelled from school
- People are ignorant and prejudiced about the disease
- Hence this lack of awareness can lead to a worsening of the HIV/AIDS problem in many countries, especially traditional and conservative societies like Myanmar.
- Changing social stigma is one social challenge in managing the spread of HIV/AIDS. Other social factors include lifestyle choices, education and lapses in medical practices. Other economic factors include the mobility of the population and the persistence of vice trades.

Poor literacy standards/ lack of education

- In many LDCs, people are not aware of how HIV/AIDS is spread as there is no sexuality education in schools
- Or could also be due to cultural practice, taboo
- E.g. Nigeria: Sex is a private subject that shouldn't be discussed often because it is seen as inappropriate.
- This lack of awareness and knowledge contributes greatly to the spread of HIV/AIDS in LDCs

Lifestyle choices

- Drug injections, sharing needles, refusal to use condoms lead to higher chances of contracting HIV/AIDS
- Intoxication (drug/alcohol) can also impair judgement and lead to unsafe sexual practices
- This is common in both DCs and LDCs

Lapses in medical practice

- Sometimes mistakes, corruption, negligence can spread HIV/AIDS
- E.g. 5-10% of blood transfusions tainted with HIV/AIDS due to no screening of donors

Vice Trades

- Refer to illegal business activities in drugs or commercial sex work that increases the likelihood for HIV/AIDS

- E.g. China – uneducated women from rural areas who move to the city cannot find jobs thus become commercial sex workers and put themselves at risk of contracting HIV/AIDS
- Common in LDCs like Thailand, Cambodia and many countries in Africa and South America

Mobility of populations

- Today, it is common for people who move from city to city, country to country, to find better jobs
- They become separated from families and may feel socially-excluded in new work environment
- This may lead them to get involved in vice or high risk activities and make them more prone to contracting HIV/AIDS
- E.g. common for long-distance truck drivers and miners who spend long periods of time away from home and families to seek out commercial sex workers
- Also with improved air travel, easier for HIV/AIDS to spread across the world

Level 1 (0–3 marks)

- At this level, answers will be generalised or with minimal support if any stand were given at all.
- Reasoning rather weak and expression may be unclear.
- A basic answer that has little development.
- No or vague examples only

Level 2 (4–6 marks)

- Disagreement or agreement will be supported by appropriate detail.
- Both agreement and disagreement are considered, but support is patchy so that the answer is not full.
- Good reasoning and logic in parts of the answer with good expression in places.
- Some general examples are presented to support answers in at least one place in the answer.

Level 3 (7–8 marks)

- At this level, answers will be comprehensive and supported by sound knowledge.
- Both agreement and disagreement are considered and well supported.
- Reasoning is clear and logical with good expression of language.
- Specific examples are used extensively to support answers.

4E Core Geography P2 Prelim 2016 - Table of Specifications

PAPER 1	Question	AO1 + 2	AO1 + 3
Section A	1(a)		3
	1(b)		4
	1(c))		6
	1(d)	4	
	1(e)	8	
	SUB-TOTAL	12	13
	2(a)	4	
	2(b)		6
	2(c)		3
	2(d)		4
	2(e)	8	
	SUB-TOTAL	12	13
Section B	3(a)(i)		3
	3(a)(ii)		4
	3(b)		5
	3(c)	5	
	3(d)	8	
	SUB-TOTAL	13	12
	4(a)		6
	4(b)		6
	4(c)	5	
	4(d)	8	
	SUB-TOTAL	13	12
	TOTAL	25	25