

Visit
FREETESTPAPER.com
for more papers



Website: freetestpaper.com



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



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



TEMASEK SECONDARY SCHOOL
O Level Preliminary Examinations 2017
Secondary Four Express

GEOGRAPHY

2236/01

Paper 1

1 hour 40 minutes

Question Booklet

Additional Material: 5 pieces of writing paper, 1 piece of graph paper and 1 Insert

READ THESE INSTRUCTIONS FIRST

Do not open the booklet until you are told to do so.

You are not required to submit this booklet at the end of the paper.

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

Write in dark blue or black pen on both sides of the paper.

You may use a soft pencil for any diagrams or rough working.

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

Section A

This question is compulsory.

Section B

Answer **one** question.

The Insert contains Map 1 for Question 1, Fig. 1 for Question 2a, Map 2 for Question 2d and Fig. 2 for Question 3b.

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.

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.

This document consists of 5 printed pages and 1 blank page.

Section A

This question is compulsory.

- 1 A group of students are interested in the reasons why tourists visit Cheung Chau, Hong Kong. They decided to collect information for a day at the Cheung Chau ferry pier during the Cheung Chau's bun festival in May. Study Map 1 (Insert), which shows the fieldwork site.
- (a) State a possible hypothesis and describe how the data can be collected. [4]
- (b) Study Table 1, which shows the reasons why tourists visit Cheung

Chau.

Interested in the bun festival	35
Interested to visit the Cheung Po Tsai's Cave	10
Interested in the scenic views	15

Table 1

(i) Comment on the reliability of the data collected. [3]

(ii) Plot a pie chart to represent the data shown in Table 1. [3]

(c) Students are also interested to investigate the environmental impacts of tourism on Cheung Chau. Study Table 2, which shows the data collected from the perception survey conducted.

Negative aspects	-2	-1	0	1	2	Positive aspects
A lot of litter	2	3	1	4	0	No litter
High pedestrian count	1	4	2	2	1	Low pedestrian count
Buildings in poor state of repair	1	3	0	6	0	Well-tended buildings
Unpleasant surroundings	2	2	0	3	3	Pleasant surroundings

Table 2

(i) Describe the advantages and disadvantages of conducting a perception survey. [4]

(ii) The students concluded that tourism has resulted in negative impacts on the environment. Does the data in Table 2 support the conclusion? Explain your answer. [3]

(d) The group of students decided to visit a beach near the Cheung Chau ferry pier to investigate if deposition is more prominent than erosion. The students measured the wave frequency at a location. Study Table 3, which shows the data collected.

Reading	Time (Waves/min)
1 st	12
2 nd	10
3 rd	7
4 th	11
5 th	13

Table 3

- | | | |
|-------|---|-----|
| (i) | Describe how the students measure wave frequency. | [2] |
| (ii) | What are some possible safety precautions the students had to take when measuring the wave frequency? | [2] |
| (iii) | Suggest one possible factor that may affect the accuracy of the data collected. | [1] |
| (iv) | What conclusion(s) can the students make? | [3] |

Section B

Answer one question from this section.

- 2 (a) Study Fig. 1 (Insert), which shows the distribution of coral reefs in the world.
)

With reference to Fig. 1, describe the distribution of coral reefs and explain its importance. [5]

- (b) Study Photograph A, which shows a form of coastal protection measure implemented.
)



Photograph A

With reference to Photograph A, identify X and assess its effectiveness in protecting the coastline. [3]

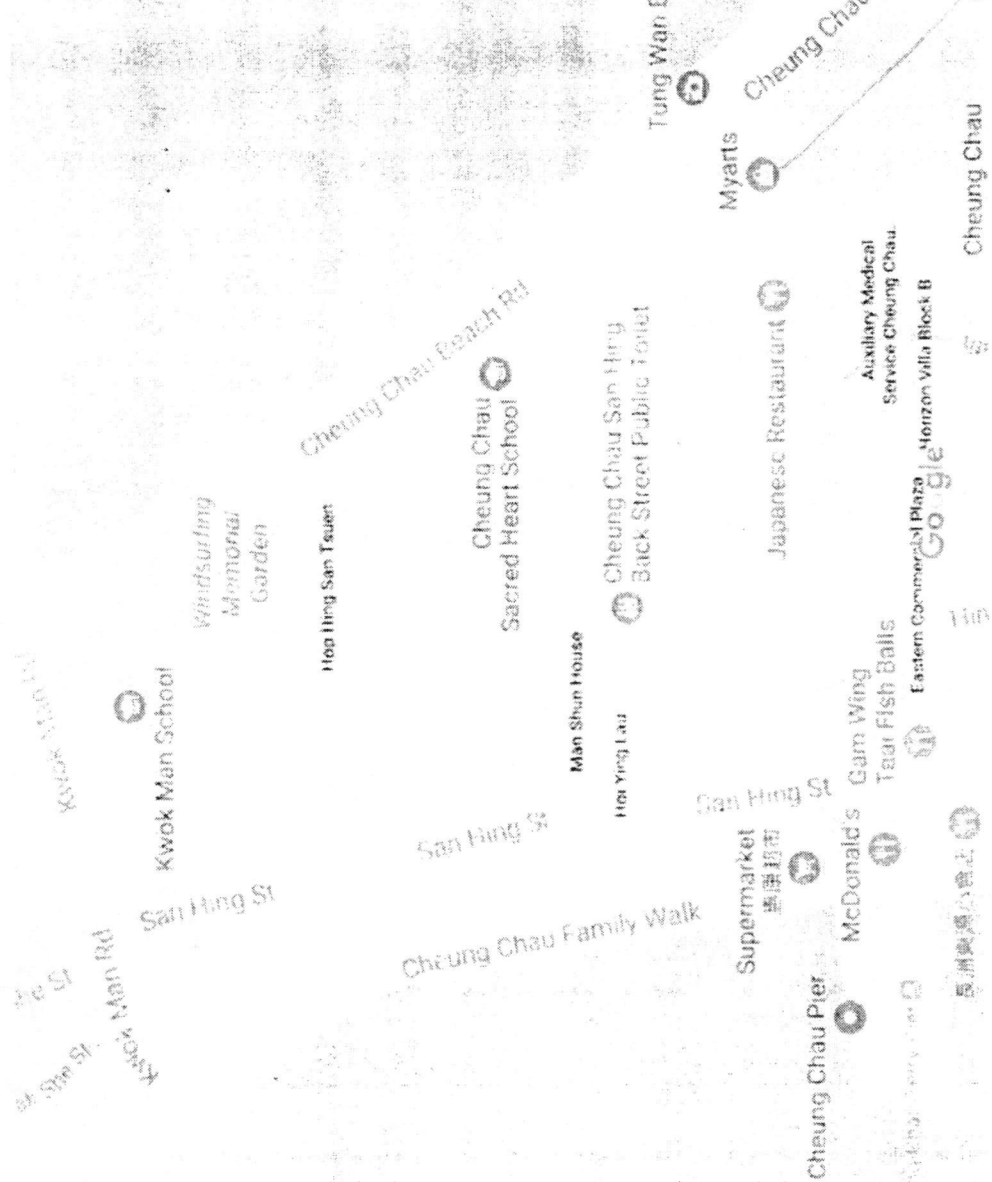
- (c) With reference to examples, comment on the effectiveness of non-governmental organisations and the local communities in ensuring sustainable tourism. [5]
)

- (d) Study Map 2 (Insert), which shows a map of the Grand Canyon National Park in the USA.
)

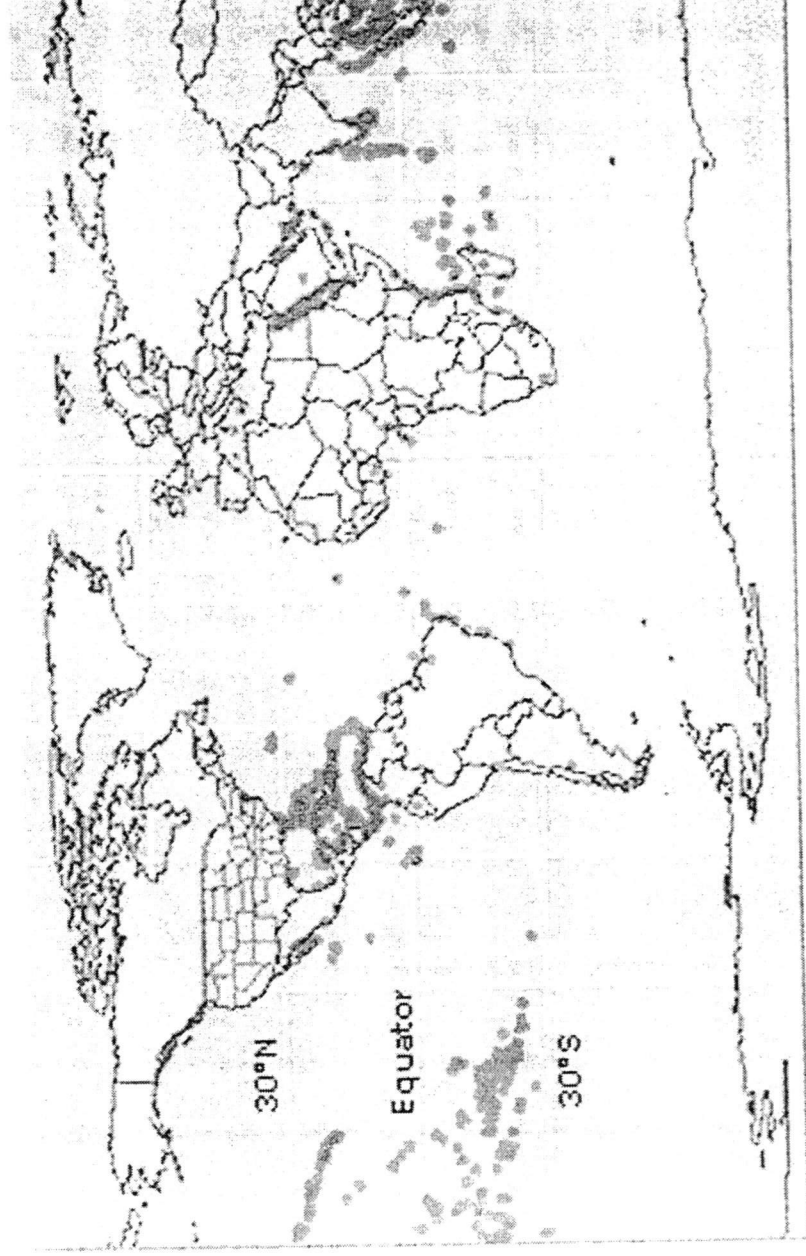
With reference to Map 2, explain how creating a National Park helps to conserve the quality of the natural environment. [4]

- (e) 'International tourism encourages the development of a country's

Map 1 for Question 1

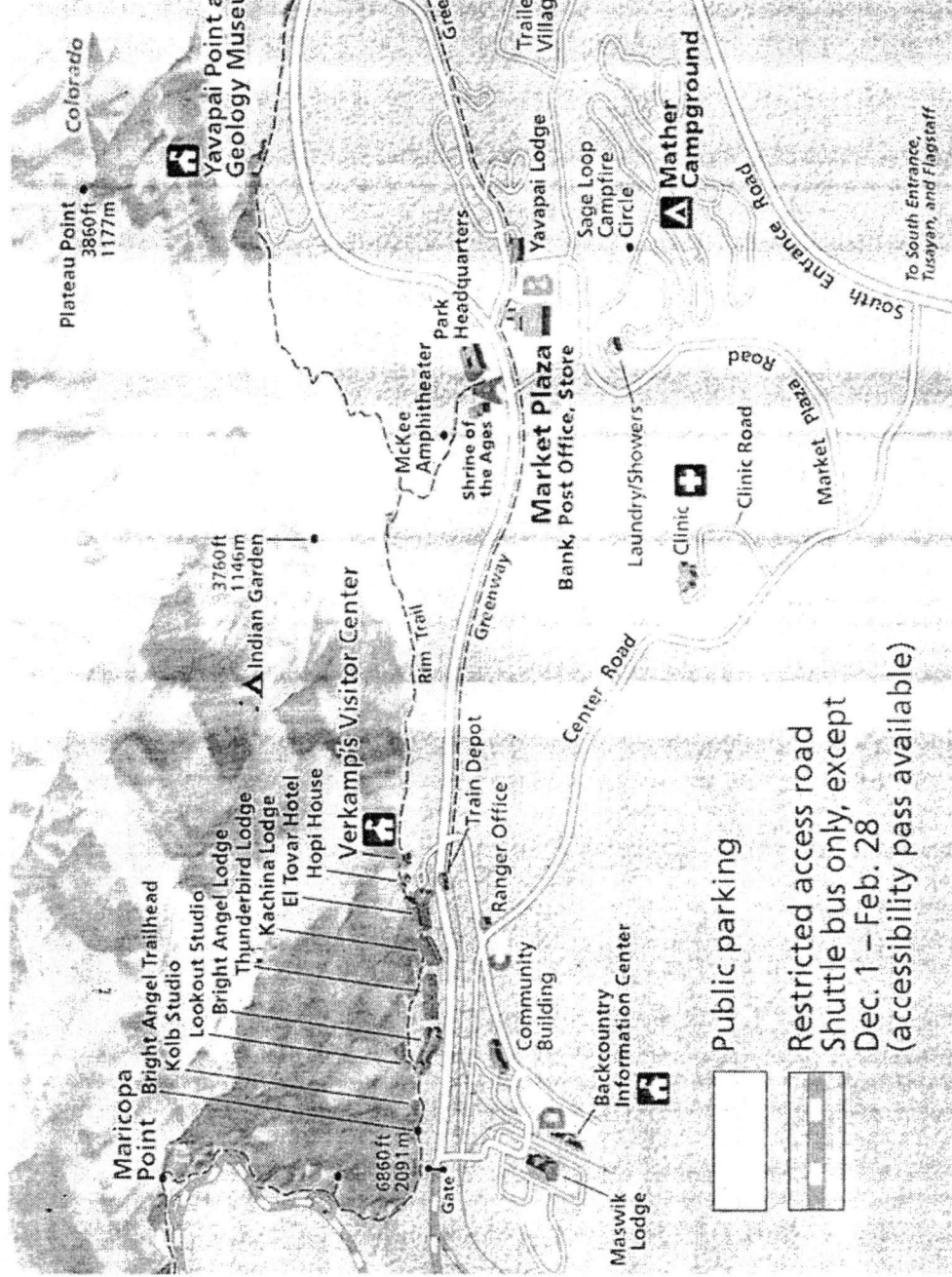


Map 1
Figure 1 for Question 2a

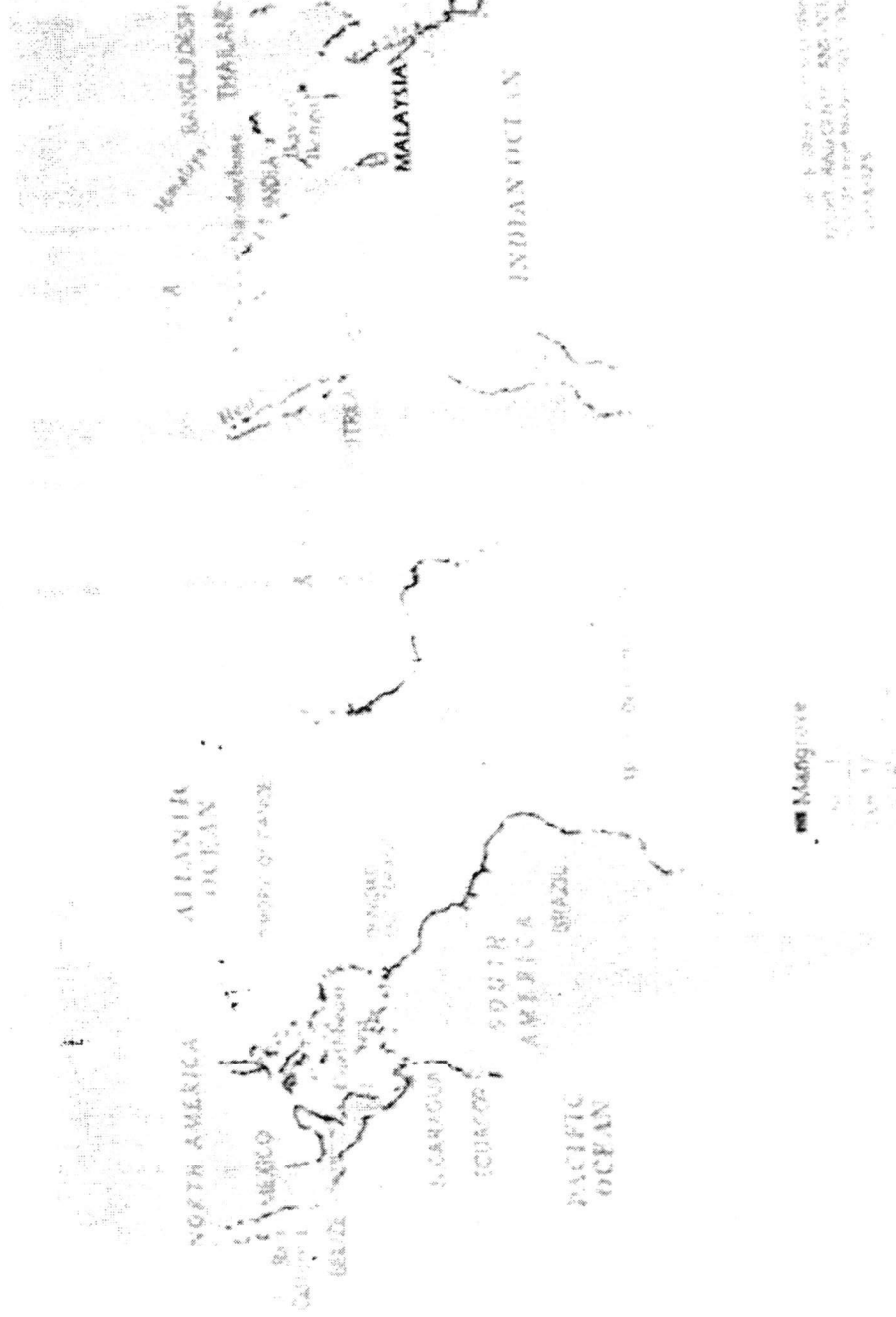


■ Areas in which coral reefs are found

Map 2 for Question 2d



Map 2
Figure 2 for Question 3b





TEMASEK SECONDARY SCHOOL
O Level Preliminary Examinations 2017
Secondary Four Express

GEOGRAPHY

2236/01

Paper 1

1 hour 40 minutes

Answer Scheme

This document consists of **10** printed pages.

No part of the paper is to be reproduced without the approval of the Principal of Temasek Secondary School.

Section A

Answer one question from this section.

1	A group of students are interested in the reasons why tourists visit Cheung Chau, Hong Kong. They decided to collect information for a day at the Cheung Chau ferry pier during the Cheung Chau's bun festival in May. Study Map 1 (Insert), which shows the fieldwork site.							
(a)	State a possible hypothesis and describe how the data can be collected.	[4]						
	• Tourists visit Cheung Chau because of the bun festival. *compulsory • Students to conduct stratified sampling to differentiate between locals and tourists. • Systematic sampling to be conducted. • Sample size of 30 tourists • Interview questions such as why did you visit Cheung Chau can be asked <i>Award 1m for any 1 point</i>							
(b)	Study Table 1, which shows the reasons why tourists visit Cheung Chau. <table border="1" data-bbox="446 1164 1121 1339"> <tr> <td>Interested in the bun festival</td> <td>35</td> </tr> <tr> <td>Interested to visit the Cheung Po Tsai's Cave</td> <td>10</td> </tr> <tr> <td>Interested in the scenic views</td> <td>15</td> </tr> </table> Table 1	Interested in the bun festival	35	Interested to visit the Cheung Po Tsai's Cave	10	Interested in the scenic views	15	
Interested in the bun festival	35							
Interested to visit the Cheung Po Tsai's Cave	10							
Interested in the scenic views	15							
(i)	Comment on the reliability of the data collected. • Students conducted the survey during the bun festival which resulted in many respondents indicated that as their reason for visiting. • Students only conducted the survey for a day. • Students can conduct the survey for a longer period of time i.e. every weekend for a month. <i>Award 1m for any 1 point</i>	[3]						
(ii)	Plot a pie chart to represent the data shown in Table 1. • Title • Accurate plotting • Legend	[3]						
(c)	Students are also interested to investigate the environmental impacts							

of tourism on Cheung Chau. Study Table 2, which shows the data collected from the perception survey conducted.

Negative aspects	-2	-1	0	1	2	Positive aspects
A lot of litter	2	3	1	4	0	No litter
High pedestrian count	1	4	2	2	1	Low pedestrian count
Buildings in poor state of repair	1	3	0	6	0	Well-tended buildings
Unpleasant surroundings	2	2	0	3	3	Pleasant surroundings

Table 2

(i) Describe the advantages and disadvantages of conducting a perception survey. [4]

Advantages:

- Easy to administer
- Easy to represent data collected in a bipolar graph

Disadvantages:

- The different criteria in the bipolar survey form are subjective
- Visitors may not know the areas well /long time effectively
- Thus, these visitors may not be able to comment on the points effectively and can only rely on guessing.

Reserve 2m for advantages

Reserve 2m for disadvantages

(ii) The students concluded that tourism has resulted in negative impacts on the environment. Does the data in Table 2 support the conclusion? Explain your answer. [3]

- The data does not support the conclusion fully.
- In terms of amount of litter (-7) and pedestrian count (-6), there seems to be more negative responses.
- However, there are more positive responses for maintenance of buildings (+6) and surroundings (+9).

Award 1m for any 1 point

(d)	The group of students decided to visit a beach near the Cheung Chau ferry pier to investigate if deposition is more prominent than erosion. The students measured the wave frequency at a location. Study Table 3, which shows the data collected.														
		<table><tr><th>Reading</th><th>Time (Waves/min)</th></tr><tr><td>1st</td><td>12</td></tr><tr><td>2nd</td><td>10</td></tr><tr><td>3rd</td><td>7</td></tr><tr><td>4th</td><td>11</td></tr><tr><td>5th</td><td>14</td></tr></table> Table 3	Reading	Time (Waves/min)	1 st	12	2 nd	10	3 rd	7	4 th	11	5 th	14	
Reading	Time (Waves/min)														
1 st	12														
2 nd	10														
3 rd	7														
4 th	11														
5 th	14														
(i)	Describe how the students measure wave frequency.		[2]												
	1. Place a ruler into the water and count the number of times the crest of the waves hit the ruler at in a minute. 2. Repeat the step 5 times to collect 5 readings. <i>Award 1m for any 1 point</i>														
(ii)	What are some possible safety precautions the students had to take when measuring the wave frequency?		[2]												
	• Ensure that everyone wears cover shoes – protection against sharp objects in the water • Ensure that students keep to the water's edge and not go beyond shin-deep water • Ensure that students do not have their back facing the sea • Students should not go to near to the pier to avoid the boats <i>Award 1m for any 1 point</i>														
(iii)	Suggest one possible factor that may affect the accuracy of the data collected.		[1]												
	• Movements of the boats at the ferry pier may increase the wave frequency. • Increase in wind speed may increase the wave frequency. <i>Award 1m for any 1 point</i>														

	(iv)	What conclusion(s) can the students make?	[3]
		- Erosion is more prominent / Destructive waves - EV: 4 of the readings fall within the range of 10 to 14 waves per min - Anomaly: 3rd reading whereby wave frequency was only 7 waves per min <i>Award 1m for any 1 point</i>	

Section B

Answer one question from this section.

2	(a)	Study Fig. 1 (Insert), which shows the distribution of coral reefs in the world.	
		With reference to Fig. 1, describe the distribution of coral reefs and explain its importance.	[5]
		Distribution: - Mostly found between Tropics of Cancer and Capricorn / 30°N to 30°S - It is located on the coastal regions of Central America, Western coasts of Africa and in most parts of Southeast Asia. Importance: - Stabilising shoreline – dissipate wave energy which prevents erosion and encourage deposition - Breeding ground for marine animals – marine animals live around the corals and larger animals prey on smaller creatures. - Jewellery and ornaments – corals can be sold as souvenirs to tourists, generating income for locals - Wood for fuel – charcoal for burning to produce heat for households - Tourism – ideal diving spots for tourists which generates jobs and income for locals <i>Reserve 2m for distribution (Award 1m for any 1 point)</i> <i>Reserve 3m for importance (Award 1m for any 1 point)</i>	

	(b)	Study Photograph A, which shows a form of coastal protection measure implemented.	
		 Photograph A	
		With reference to Photograph A, identify X and assess its effectiveness in protecting the coastline.	[3]
		• Breakwater • Benefit: dissipate the force of oncoming waves, creating a zone of calm water behind it for deposition to occur • Limitation: protects the coast unevenly, <i>Award 1m for any 1 point</i> <i>Answer must include both benefits and limitations to award full marks</i>	
	(c)	With reference to examples, comment on the effectiveness of non-governmental organisations and the local communities in ensuring sustainable tourism.	[5]
		<u>Non-governmental organisations (The International Ecotourism Society TIES)</u> Strengths: • NGOs are able to facilitate communications between various stakeholders by providing channels for communication / encouraging other stakeholders to actively participate in managing the impacts of tourism. • NGOs can provide manpower and expertise support, or marketing campaigns to manage the impacts of tourism. Limitations: • NGOs may face difficulties obtaining external funding, hampering efforts to manage the impacts of tourism. <u>Locals (e.g. Candirejo Village in Indonesia)</u>	

	Strengths: - Locals are directly involved in decision making, will be more mindful in ensuring that the policies implemented will not harm the environment and put the community at a disadvantage. - Locals often prioritise the community by ensuring that the people gain employment Limitations: - NGOs may face difficulties obtaining external funding / shortage of skilled labour <i>Award 1m for each strength / limitation</i> <i>Reserve 2m for local communities strength and limitation</i> <i>Reserve 2m for NGOs strength and limitation</i> <i>Reserve 1m for examples from local communities and NGOs</i>	
(d)	Study Map 2 (Insert), which shows a map of the Grand Canyon National Park in the USA. With reference to Map 2, explain how creating a National Park helps to conserve the quality of the natural environment.	[4]
	[1] Restricted access roads limit the number of visitors to the area [1] Presence of rangers to help protect the area [1] Yavapai Point and Geology Museum educate visitors on the area [1] Presence of trails such as the Rim Trail protects vegetation / less damage to the environment *Compulsory to identify elements from the map to match explanation	
(e)	'International tourism encourages the development of a country's economy.' How far do you agree with this statement? Support your answer using examples.	[8]
	- Agree – Economic development due to job opportunities / income growth / infrastructure development - Disagree – Underuse of facilities / shortage of services / leakage Level 1 At this level, answers will lack detail and may be general in nature. A basic answer that has little development. This will most likely be naming or brief descriptions of impacts. Level 2 At this level, answers will contain some appropriate detail. The content will lack balance and some relevant detail. This means that only economic impact is mentioned. Or impacts are considered, but support is patchy so that the answer is not full. Evaluation may be given but may be limited or general in nature. Level 3 At this level, answers will be comprehensive and supported by	

		sound knowledge. There will be evaluations of the extent to how far the statement is true. Examples will be well used to support answer.	
--	--	--	--



TEMASEK SECONDARY SCHOOL
Preliminary Examination 2017
Secondary Four Express

GEOGRAPHY

2236/02

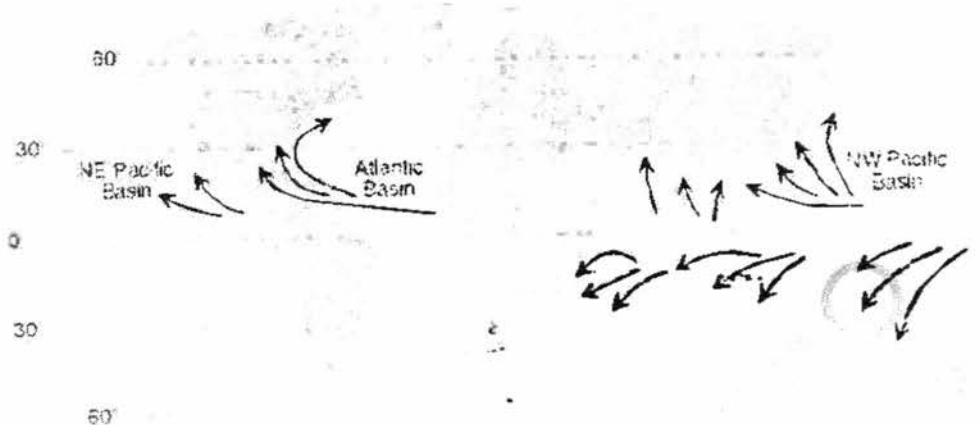
Paper 2

1 hour 45 minutes

Answer Scheme

Section A

Answer one question from this section.

1	(a) Study Fig. 1, which shows the distribution and movement of cyclones.	
	 Fig. 1	
	With reference to Fig. 1, describe and account for the distribution and movement of cyclones. • Tropical cyclones are often developed between latitudes of 8° and 45° north and south of the equator [1] as Coriolis effect is the strongest [1] or / Cyclones do not develop at the equator [1] as Coriolis effect is the weakest [1] • Cyclones deflect to the right and left in the northern and southern hemisphere respectively [1] – due to Coriolis effect [1] • Developed over warm oceans in the tropics [1] – Warm surface temperature of the sea (above 26.5°C) needed for heat and moisture to sustain the energy of the cyclones [1] Reserve 2m for description (1m for each point) Reserve 2m for account (1m for each point)	[5]

(b) Study Fig. 2, which shows a climograph of a country.

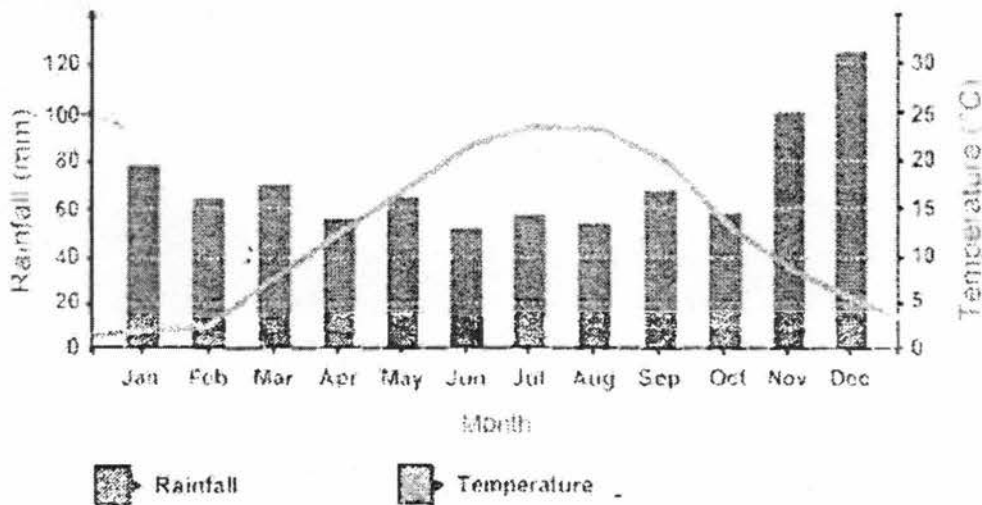


Fig. 2

Identify the climatic type and describe its temperature and rainfall patterns.

[5]

- Cool temperate climate
- Moderate total annual rainfall (about 810mm)
- Even distribution of rainfall throughout the year with the exception of Nov and Dec
- Large annual temperature range (20°C)
- High mean annual temperature (26.7°C)

Award 1m for each point (description must be accompanied with EV)

(c) Study Fig. 3 (Insert), which shows a before and after satellite image of the 2004 Banda Aceh tsunami.

(i) With reference to Fig. 3, describe the changes to Banda Aceh before and after the tsunami.

[3]

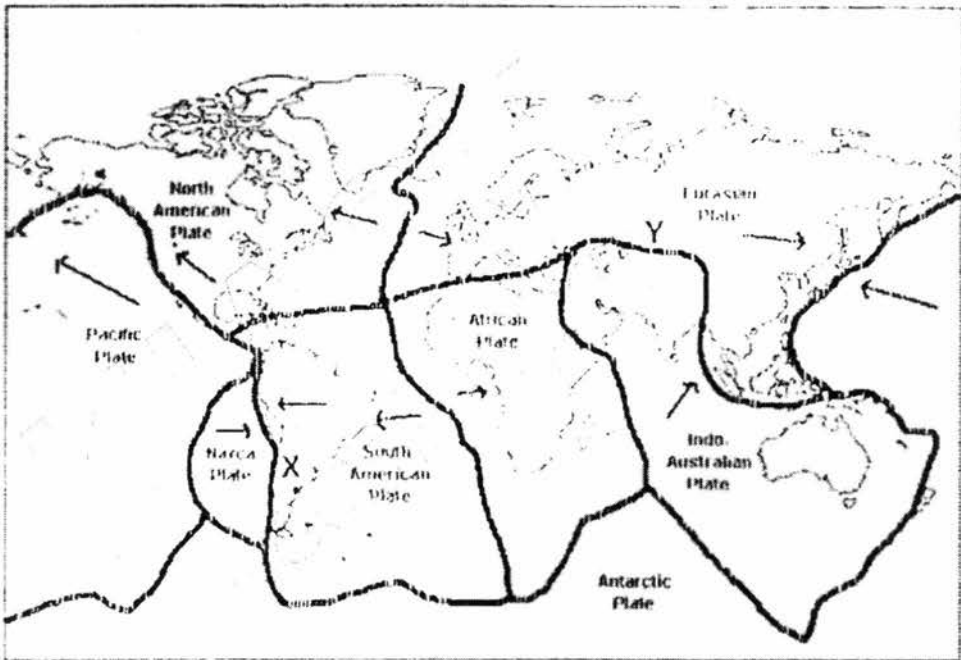
- Banda Aceh has shrunk/reduced in size
- The northern shoreline used to be straight. After the tsunami, the shoreline has become highly irregular.
- The northern coast and south-eastern coast experienced the greatest destruction due to flooding / road and building are destroyed.
- The trees / forests along the South coastline has been destroyed.

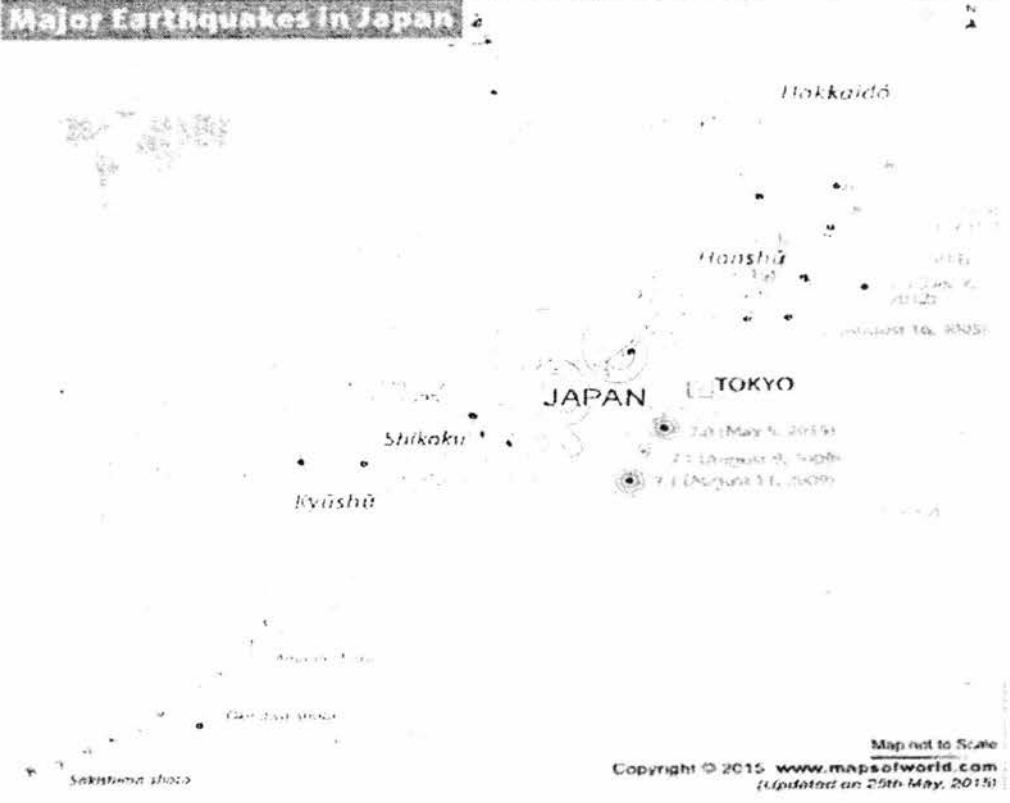
Award 1m for any 1 point

(ii) Outline the social and economic impacts of a tsunami.

[4]

		<u>Social:</u> • Destruction of settlements ⑦ people become homeless • Contamination of drinking water due to damaged water and sewage pipes ⑦ people contract water-borne diseases and fall ill • Damaging infrastructure such as communication networks ⑦ Disruption hinders rescue efforts ⑦ Increasing death toll due to delays • Flooding resulting in loss of crops ⑦ Decrease in food supply leading to starvation <u>Economic:</u> • Delay in businesses as shops and offices are destroyed ⑦ loss of income for locals / hinder economic growth • Destruction of infrastructure ⑦ costly for government to rebuild, diverting financial resources away from other areas such as education • Flooding resulting in loss of crops ⑦ Loss of income for farmers <i>Reserve 2m for social impacts (1m for each point)</i> <i>Reserve 2m for economic impacts (1 mark for each point)</i> <i>Accept any plausible impacts</i>	
(d)	"Prediction and early warning is the most important factor in ensuring the survival of people during a natural disaster." Do you agree with this statement? Support your answer with evidences.		[8]
	• Prediction and early warning • Emergency drills • Land use controls • Building design • Provision of aid (medical, food and water) • Search and rescue Level 1/ 0 - 3 marks At this level answers will be generalized or with minimal support if any stand was given at all. Reasoning rather weak and expression may be unclear. A basic answer that has little development. Level 2/ 4 - 6 marks At this level answers will contain some appropriate detail. The content will lack balance and some relevant detail. This means that only one side of the issue is explored. Or other factors are considered, but support and patchy so that the answer is not full. Assessment may be given but may be general in nature. An example will be 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. There will be assessment of the extent to which the statement is true. Examples to support answers can be found in most places in the answer.		

2	(a)	[5]
	Outline the dangers a volcanic eruption may pose. • Destruction by volcanic materials ⑦ Lava and pyroclasts can destroy properties • Landslides due to structural collapse of volcanic cone ⑦ obstruct roads • Landslides due to structural collapse of volcanic cone ⑦ block the flow of river and lead to flooding • Pollution ⑦ dust particles can cause severe respiratory problems to people • Pollution ⑦ dust particles pose dangers to aircraft engines and structures ⑦ cancelling and delaying flights <i>Award 1m for each point</i> <i>Accept any plausible impacts</i>	
	(b)	
	Study Fig. 4, which shows the location of two fold mountains, X and Y.  Fig. 4	
	(i)	[1]
	With reference to Fig. 4, identify the names of the fold mountains, X and Y. X: Andes and Y: Himalayas	
	(ii)	[5]
	Compare the tectonic processes taking place at X and Y, and suggest why one landform is taller than the other. • Y is taller	

	• Both occur along convergent plate boundaries • Mountains at area X are formed by <u>2 continental plates, Eurasian and Indo-Australian plates</u>, while that at Y, involves <u>continental South American and oceanic Nazca plate</u>. • Only folding of the continental places take place at X. As continental plates are both light and buoyant, they continue to push against one another and become taller. • At Y, South American plate rides over the subducting Nazca plate so only the edges of the continental crust of the South American plate folds to forms Y which are shorter.	
(c)	Study Figs. 5 and 6, which shows the distribution of earthquakes and plate boundaries in Japan respectively.	
	Major Earthquakes In Japan  Fig. 5	

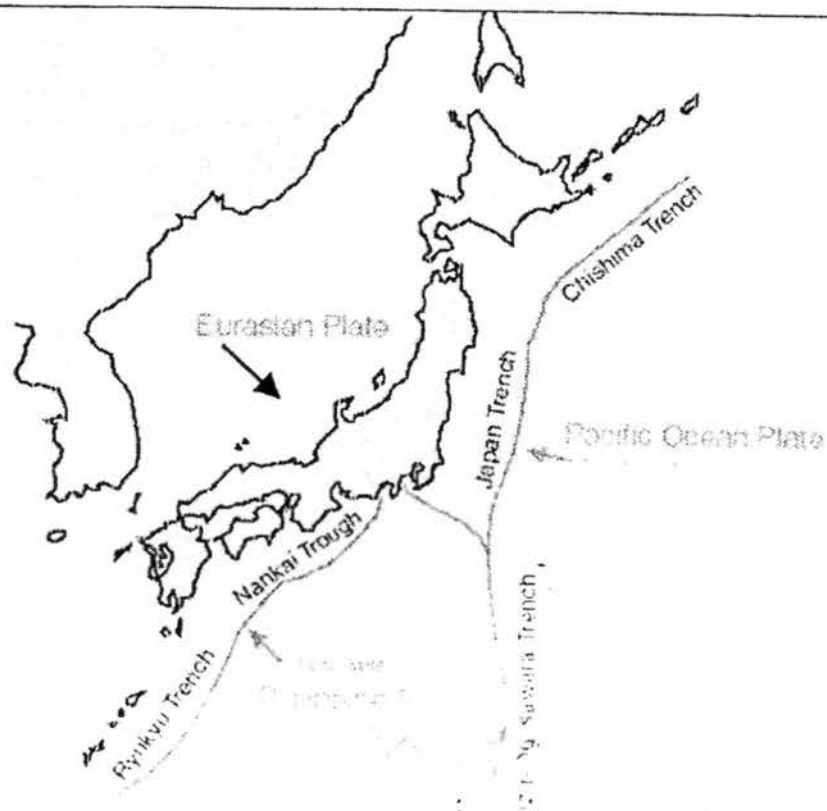


Fig. 6

With the help of Fig 5 and 6, describe and explain the distribution of earthquakes of different magnitudes in Japan.

[6]

Distribution:

- Most of the earthquakes occurred in close proximity to the plate boundary
- Earthquakes of higher magnitude (above 7.1) are found closer to the plate boundary while earthquakes of lower magnitude (about 6) are found further away.
- Earthquakes of higher magnitude (above 7.1) are found in the water / at the eastern coast of Japan.

Explanation:

- Converging movement of the Eurasian and Pacific Plate is not smooth/ encounters a lot of friction
- Pressure/stress builds up
- Energy is released as seismic waves
- Further away from plate boundaries ⑦ Greater energy is loss as seismic waves have to take a longer time to reach

Reserve 2m for distribution (Award 1m each)

Reserve 4m for explanation (Award 1m each)

(d) "Liquefaction is the most important factor in determining the extent of

	damage caused by earthquakes." To what extent do you agree with this statement? Support your answer with evidences.	[8]
	• Liquefaction • Time of occurrence • Level of preparedness • Population density • Time to occurrence • Magnitude Level 1/ 0 - 3 marks At this level answers will be generalized or with minimal support if any stand was given at all. Reasoning rather weak and expression may be unclear. A basic answer that has little development Level 2/ 4 - 6 marks At this level answers will contain some appropriate detail. The content will lack balance and some relevant detail. This means that only one side of the issue is explored. Or other factors are considered, but support and patchy so that the answer is not full. Assessment may be given but may be general in nature. An Example, will be 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. There will be assessment of the extent to which the statement is true. Examples to support answers can be found in most places in the answer.	

This question is compulsory

- 3 (a) Study Fig. 7, which shows the relationship between infant mortality rate and gross domestic product (GDP) per capita.

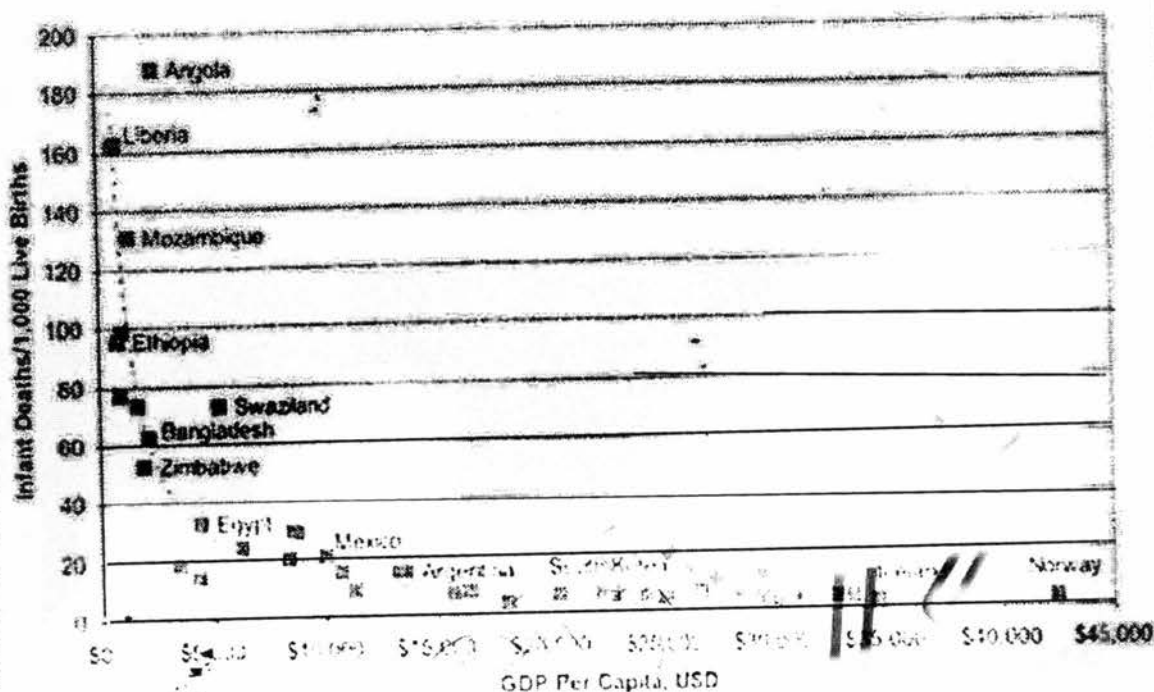


Fig. 7

With reference to Fig. 7, account for the relationship between infant mortality rate and GDP per capita.

[6]

Trend:

- The higher the GDP per capita, the lower the infant mortality rate
Evidence – Norway has a higher GDP per capita (about USD \$43,000) and lower infant mortality rate (about 5 infant deaths for every 1000 live births) while Liberia has a lower GDP per capita (about USD \$500) and higher infant mortality rate (about 163 infant deaths for every 1000 live births)
- Anomaly – Swaziland has a higher GDP per capita (about USD \$5,000) and higher infant mortality rate (about 75 infant deaths for every 1000 live births) than Bangladesh which has a lower GDP per capita (about USD \$2,000) and lower infant mortality rate (about 62 infant deaths for every 1000 live births).

Account:

- Affluence – people able to afford to seek better quality medical treatments / receive vaccinations against diseases and boost the immunity of infants
- Affluence – better living conditions – access to clean drinking water / proper sanitation which prevents infants from contracting water-borne diseases

Parents are informed about how to properly care

	for their child to prevent them from falling ill - Investment in healthcare in developed countries – higher doctor-patient ratio / bed-patient ratio thereby increasing the accessibility of healthcare - Investment in healthcare in developed countries – advanced medical treatments available <i>Reserve 2m for description (1m for each trend and 1m for accompanying EV)</i> <i>Reserve 4m for account (1m for any point) – accept any plausible reasons</i>	
(b)	With the use of examples, explain why authorities are unable to eradicate malaria.	[5]
	- Lack of access to education – lack of knowledge on how take preventive measures against malaria - Limited healthcare – shortage of doctors and healthcare services (E.g. critical shortage of doctors in India: 6 doctors for every 10,000 people) / high cost of malaria treatments hence the poor are unable to afford treatment - Population movement – parasites can be transported to new areas (E.g. Malaria reported in Southern France in areas non-endemic to malaria and amongst people who had not travelled nor received blood transfusion) - Climate change* - Increase in temperature – increase the lifespan, and the frequency of bites, by mosquitoes (E.g. temperatures in the range of 22°C to 30°C) / shorten development time of parasites in the mosquito host resulting in mosquitoes become active and infectious sooner / Aquatic life cycle of mosquitoes (E.g. reduce from 20 day to 7 days) - Or - Increase in precipitation (explanation similar to monsoon) and poor drainage / poor sanitation – stagnant water provide breeding ground for mosquitoes - Or - Increase in relative humidity – increase the lifespan of mosquitoes (E.g. relative humidity between 50% to 60% is needed for the survival and activity of mosquitoes) - Overcrowding living conditions – disease can be transmitted easily as mosquitoes can go easily from person to person - Insecticide-resistant mosquitoes - Mosquitoes were able to build resistance in a short period of time (E.g. build resistance to pyrethroids) - Resistance to anti-malaria drugs – due to rise in use of counterfeit or incomplete doses of anti-malaria drugs, allowing malaria parasites to build resistance to the drugs (E.g. Indian migrant workers brought home surviving malaria parasites in their bodies that were resistant to the drugs, causing existing malaria treatments to be ineffective) <i>Reserve 3m for reasons (1m for each point)</i> <i>Reserve 2m for examples (1m for each example)</i>	

**Max 2m for explanation of climate change if students provide 2 reasons
Accept any plausible reasons*

(c) Study Fig. 8, which shows the problems malaria pose.

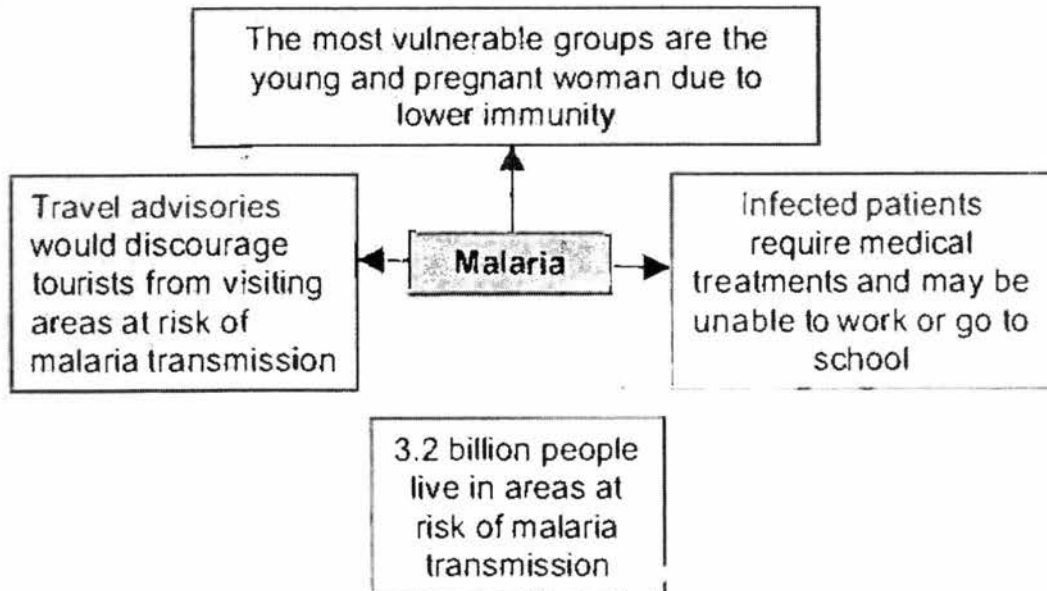


Fig. 8

With reference to Fig. 8, suggest problems malaria can pose to the citizens and government.

[6]

Citizens:

- People may fall in and die
- Financial burden – people require high healthcare treatments which are expensive
- Loss of income – unable to work / school when they fall ill

Government:

- Decrease in productivity - slower economic growth
- Increase cost of healthcare – Increase in financial burden and diversion of resources from other areas such as education
- Decrease in tourism as tourists fear contracting malaria – decrease in tourist earnings / income
- Difficulty to manage this problem as many people are at risk of malaria transmission

Reserve 3m for problems citizens faces (1m for each point)

Reserve 3m for problems government faces (1m for each point)

Accept any plausible reasons

(d) "Lapses in medical practices is the main reason for the spread of Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS)." How far do you agree with this statement? Support

		your answer with evidence.	[8]
		• Lapses in medical practices – Compulsory point • Social stigma • Education • Lifestyle choices • Vice trades • Mobility Level 1/ 0 - 3 marks At this level answers will be generalized or with minimal support if any stand was given at all. Reasoning rather weak and expression may be unclear. A basic answer that has little development. Level 2/ 4 - 6 marks At this level answers will contain some appropriate detail. The content will lack balance and some relevant detail. This means that only one side of the issue is explored. Or other factors are considered, but support and patchy so that the answer is not full. Assessment may be given but may be general in nature. An example will be 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. There will be assessment of the extent to which the statement is true. Examples to support answers can be found in most places in the answer.	
4	(a)	Study Fig. 9, which shows cotton yield in Arizona before and after the introduction of Bt cotton, a genetically modified crop.	

Fig. 9

With reference to Fig. 9, describe and account for the trend.

[6]

Trend:

- Before 1996, Arizona produced non-Bt cotton increased gradually (by about 100lbs/A)
- However, after 1996, there is a sharp increase in the production on Bt cotton, by about 400 lbs/acre in 2013.

Account:

- Bt cotton has a shorter growing season, thus farmers are able to earn money within a shorter period of time
- They are more resistant to pests and diseases compared to non-Bt cotton, resulting in less damage to the crop
- Bt cotton is more resistant to extreme weather conditions, thus boosting productivity
- The government is able to increase export of Bt cotton to other countries, thus earning more foreign revenue which can be used for the development of the country / farmers increase Bt cotton production as it is an easier alternative to earn higher income

Reserve 2m for description (1m for point) – no marks for EV with no units

Reserve 4m for account (1m for any point) – accept any plausible reasons

(b) Explain how education can help improve the level of health in a country.

[5]

• Increase in knowledge – people become aware of safety precautions

	measures to <u>prevent the spread of disease</u> [1] • Improvement in lifestyle – people lead a healthier lifestyle with proper diet and exercise to <u>prevent themselves from falling ill</u> [1] • Educated workforce resulting is better economic development – government able to invest more in healthcare [1] *by developing vaccinations / increasing doctor – patient ratio / increasing bed-patient ratio [1] • People are able to increase their income – better afford healthcare / able to live in better living conditions and prevent themselves from falling ill [1] <i>Accept any plausible reasons</i>	
(c)	Study Fig. 10, which shows the projected effects of AIDS on the major age groups in Botswana in 2025.	
	Fig. 10	
	Describe the projected effects of AIDS on the major age groups and predict the impacts it may have on Botswana's economy.	[6]
	Trend: • Generally, the older age groups (age 30 and above) will tend to die from AIDS • More females will die from AIDS (about 100,000 more woman die from AIDS between ages 30 and 64). • AIDS will result in fewer children / babies (300,000 children age 0-14 will die from AIDS) Economic impacts: • Higher death rate – shrinking of workforce and decrease in economic	

	development • People are unable to work / go to school – decrease in productivity • High proportion of people falling ill / less skilled and productive workforce – decrease in FDI • Treatments for AIDS is expensive – increase in healthcare expenditure for government and diverting funds away from other areas such as education and improving infrastructure <i>Reserve 2m for trends (1m for point)</i> <i>Reserve 4m for account (1m for any point) – accept any plausible reasons</i>	
(c)	Explain how education can help improve the level of health in a country. • Increase in knowledge – people become aware of safety precaution measures to <u>prevent the spread of disease</u> [1] • Improvement in lifestyle – people lead a healthier lifestyle with proper diet and exercise to <u>prevent themselves from falling ill</u> [1] • Educated workforce resulting is better economic development – government able to invest more in <u>healthcare</u> [1] by developing vaccinations / increasing doctor – <u>patient ratio</u> / increasing bed-patient ratio [1] • People are able to increase their income – better afford healthcare / <u>able to live in better living conditions and prevent themselves from falling ill</u> [1] <i>Accept any plausible reasons</i>	[5]
(d)	"The government plays the most important role in managing the spread of infectious diseases." How far do you agree with this statement? Support your answer with evidences. • Government – Compulsory point • Individuals • Community • International organisations Level 1/ 0 - 3 marks At this level answers will be generalized or with minimal support if any stand was given at all. Reasoning rather weak and expression may be unclear. A basic answer that has little development. Level 2/ 4 - 6 marks At this level answers will contain some appropriate detail. The content will lack balance and some relevant detail. This means that only one side of the issue is explored. Or other factors are considered, but support and patchy so that the answer is not full. Assessment may be given but may be general in nature. An example will be presented to support answers in at least one place in the answer. Level 3/ 7-8 marks	[8]

	At this level answers will be comprehensive and supported by sound knowledge. There will be assessment of the extent to which the statement is true. Examples to support answers can be found in most places in the answer.	
--	---	--