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CONVENT OF THE HOLY INFANT JESUS SECONDARY
Preliminary Examination in preparation for
the General Certificate of Education Ordinary Level 2018

GEOGRAPHY

2236/01

Paper 1

29 August 2018

1 hour 40 minutes

Additional Materials: Answer Paper
Insert

READ THESE INSTRUCTIONS FIRST

Write your name, class and register number in the spaces provided on the work you hand in.
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, glue, correction fluid or correction tape.

Section A
Answer all parts of Question 1.

Section B
Answer one question.

Write all answers on the Answer Paper provided.
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.
Insert contains Photograph A and Fig. 1 for Question 1, Photographs B, C and D for Question 2, and Photographs E, F and Fig. 3 for Question 3.

At the end of the examination, fasten your work for each section together.
Submit your work for Section A and Section B **separately**.
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 carried out a fieldwork investigation on a length of coastline. Photograph A (Insert) shows the area of the coast where the students conducted their investigation. Fig. 1 (Insert) shows the aerial view of the same stretch of coast with the students' position marked 'X'.

(a) The students wanted to find out how wind conditions can influence the distance travelled by the coastal sediments along the coast during the process of longshore drift. They decided to work in small groups and carried out the investigation over a span of five days during their school holiday. Each group was responsible for collecting the data for each day at X.

The results from their investigation are shown in Table 1.

Day	Time	Prevailing wind direction	Sustained wind speed (km/h)	Distance travelled by orange within 10 minutes (m)
1	10:00	SW	38.4	7.0
2	09:50	SW	40.5	9.5
3	18:00	S	39.6	1.4
4	10:40	SW	41.4	9.7
5	16:30	S	35.6	0.6

Table 1

(i) Outline how the students collected the data shown in Table 1. [4]

(ii) To what extent does the data shown in Table 1 support the hypothesis 'The faster the wind speed, the greater the distance travelled by the sediments along the coast.'? [3]

(iii) The teacher commented that there are flaws in their investigation which will compromise the validity of their conclusion.

Identify the flaws in their investigation and explain why the validity of the students' conclusion may be compromised. [4]

(b) On the last day of their fieldwork, the students decided to extend their investigation to find out the opinions of the locals from the nearby town about the environmental impact of tourism development.

They devised a bi-polar survey, shown on Fig. 2, which asked locals to give each statement a score ranging from -3 to +3. They obtained 100 completed surveys, and the results of which are shown on Fig. 2.

Results of bi-polar survey

Negative aspects	-3	-2	-1	0	+1	+2	+3	Positive aspects
Much litter	8	13	36	20	14	8	1	Little litter
High level of noise	30	25	16	27	2	0	0	Low level of noise
High traffic count	41	26	23	10	0	0	0	Low traffic count
Unpleasant surroundings	0	1	3	15	26	27	28	Pleasant surroundings
Poorly maintained infrastructures	0	0	5	5	14	32	44	Well-maintained infrastructures

Fig. 2

(i) What is the main positive environmental impact of tourism? [1]

(ii) The students concluded that tourism development has a negative impact on the local environment. Comment on the validity of their conclusion. [4]

(iii) Suggest the advantages and disadvantages of using bi-polar surveys. [3]

(c) Explain how the students would collect and present data to answer the guiding question 'How does the age group of tourists affect the type of accommodation they stay in?' [6]

Section B

Answer **one** question from this section.

2 **(a)** Study Photographs B and C (Insert), which show part of a coastline during low and high tide respectively.

(i) Describe the features of the coastal environment shown in Photograph B. [3]

(ii) Use Photographs B and C to help you suggest how wave action and tide conditions at the coastline can account for the formation of the coastal landforms shown. [4]

(b) Study Photograph D (Insert), which shows an aerial view of a coastline.

Identify the coastal features X and Y, and compare the coastal processes occurring at both features on Photograph D. [5]

(c) Using example(s), explain how governments can manage coastal areas in a sustainable manner. [5]

(d) 'Human activities will only bring about irreversible impact to the global coral reef ecosystem.'

To what extent do you agree with this statement? Use examples to support your answer. [8]

3 **(a)** Study Photographs E and F (Insert). Photograph E shows a coastal feature during low tide and Photograph F is an aerial view of the same feature during high tide. Point X shows the location where Photograph E was taken.

(i) Describe the features of the coastal environment shown in Photographs E and F. [3]

(ii) Use Photographs E and F to suggest how the wind and wave conditions can account for the formation of the coastal landform shown. [4]

(b) Study Fig. 3 (Insert), which shows information about China's tourist arrival rates to Nepal.

Account for the number of China's tourist arrival to Nepal from 2007 to 2016 as shown in Fig. 3. [5]

(c) Using example(s), explain how governments can minimise leakages from tourist revenues to facilitate sustainable tourism. [5]

(d) 'Tourism will only bring about irreversible impact to the environment.'

To what extent do you agree with this statement? Use examples to support your answer. [8]

---End of paper---

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the General Certificate of Education Ordinary Level 2018

GEOGRAPHY

2236/01

Paper 1

29 August 2018

INSERT

1 hour 40 minutes

READ THESE INSTRUCTIONS FIRST

This Insert contains Photograph A and Fig. 1 for Question 1, Photographs B, C and D for Question 2, and Photographs E, F and Fig. 3 for Question 3.

[Turn over

Photograph A for Question 1

Site of fieldwork investigation

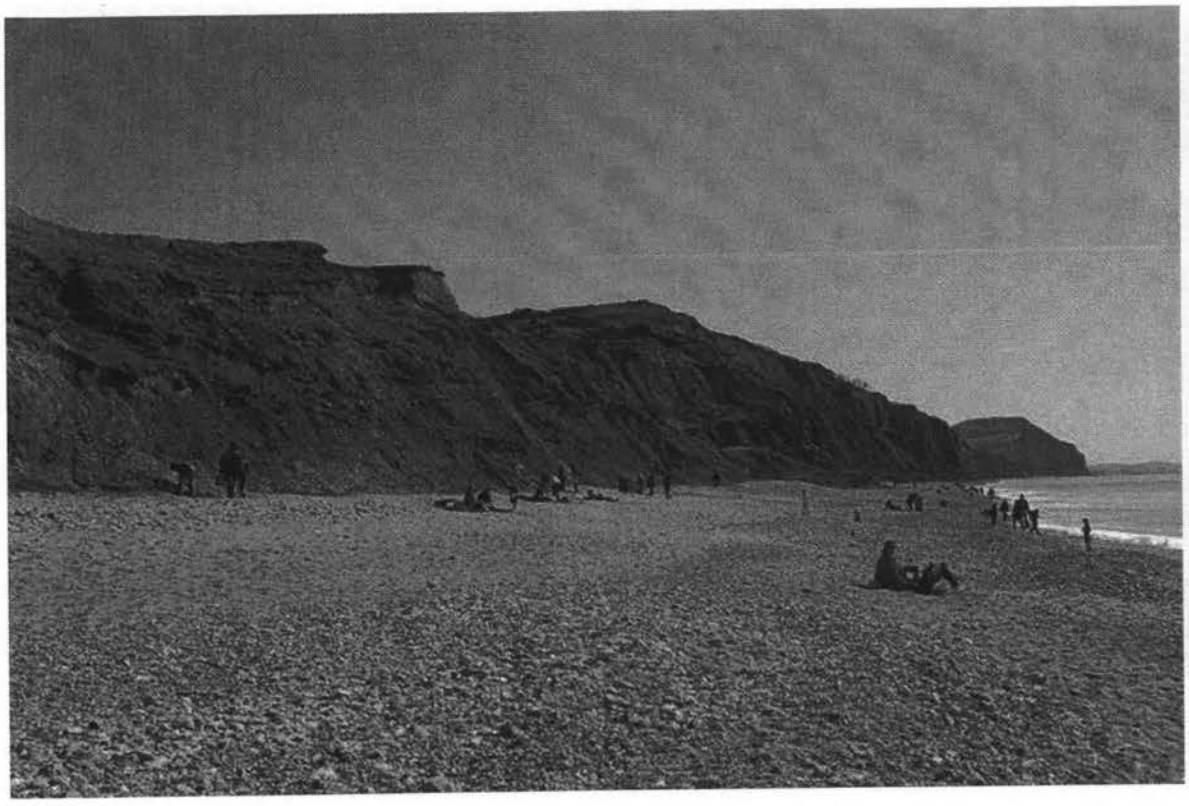
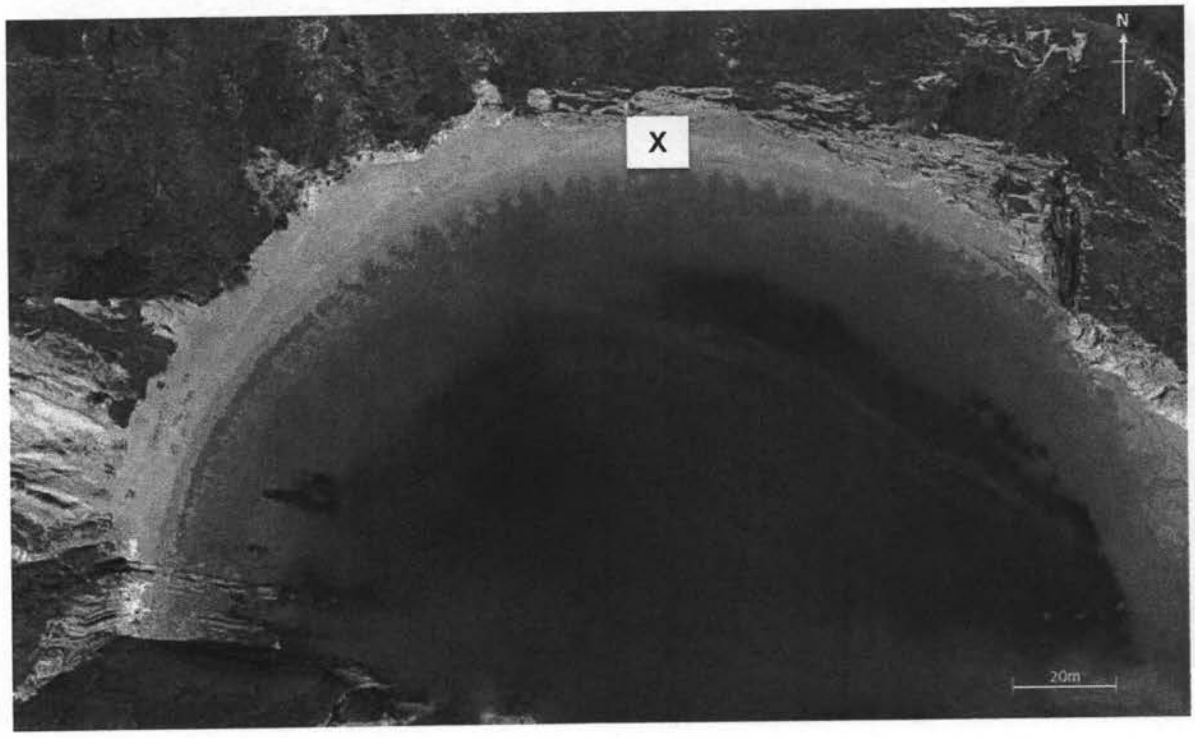


Fig. 1 for Question 1



Photograph B for Question 2

Coastline during low tide

Photograph C for Question 2

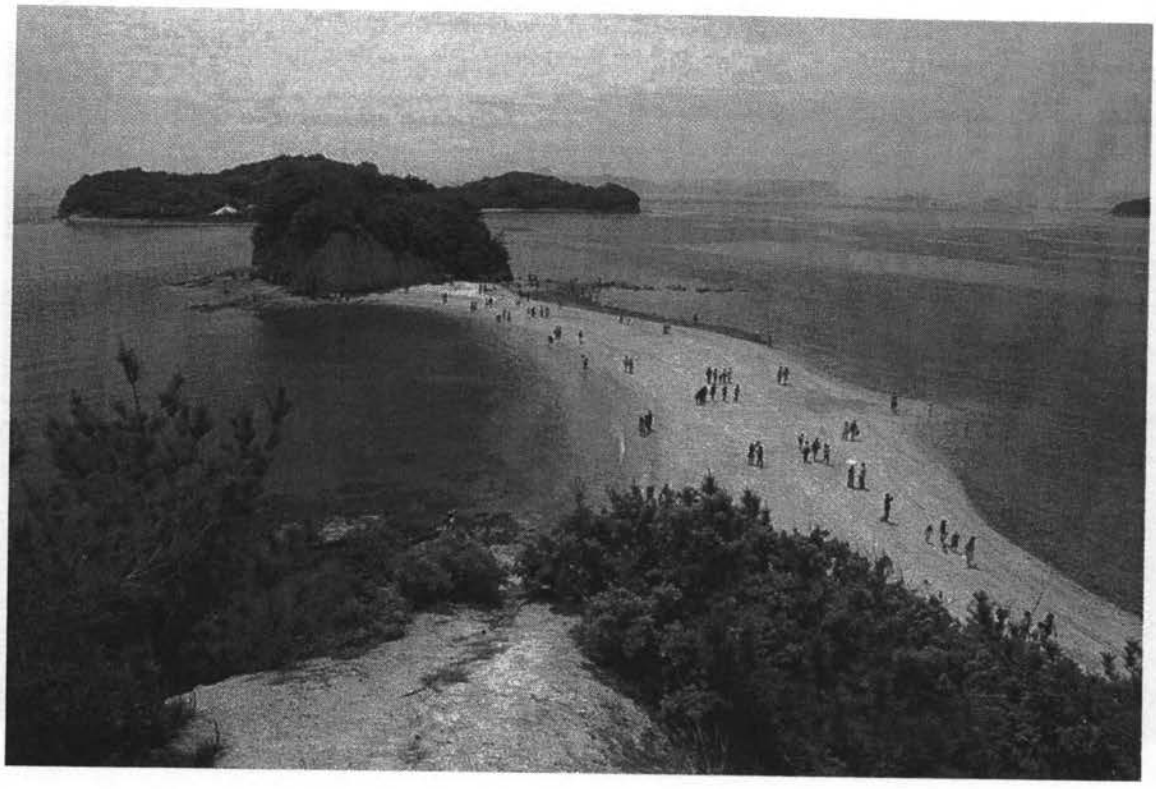
Coastline during high tide

Photograph D for Question 2

Aerial view of a coastline

Photograph E for Question 3

Coastal feature during low tide



Photograph F for Question 3

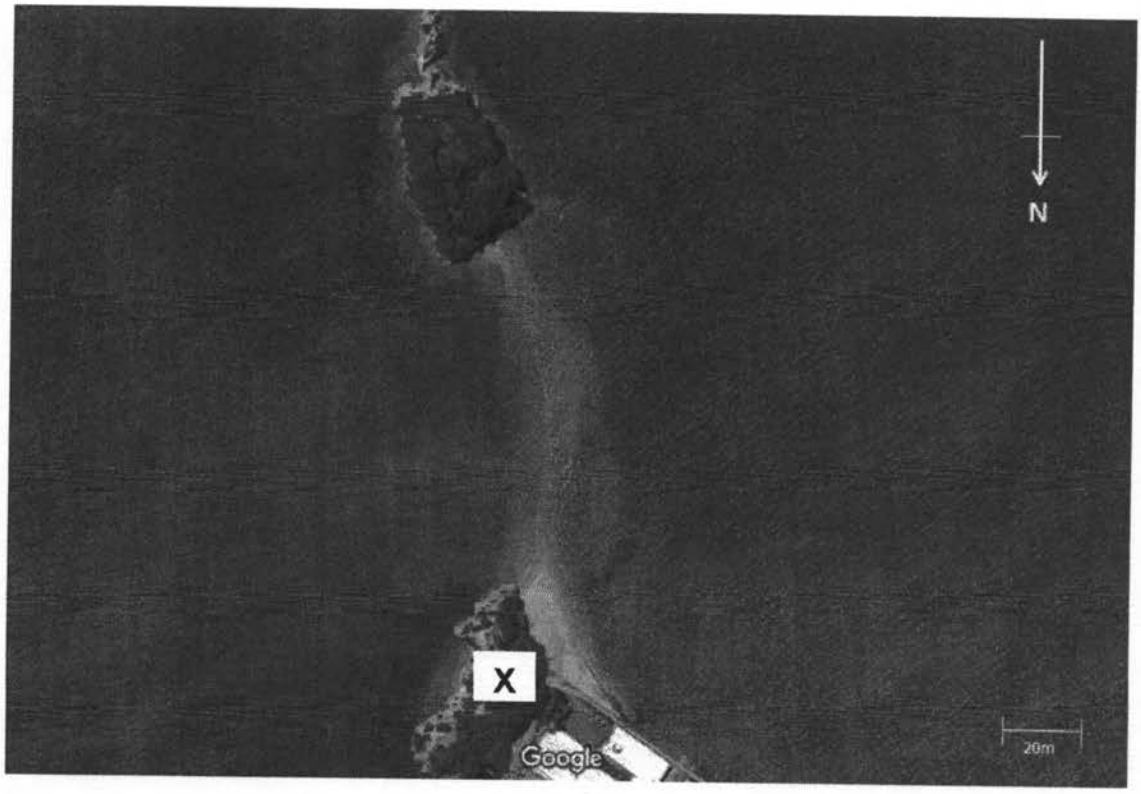
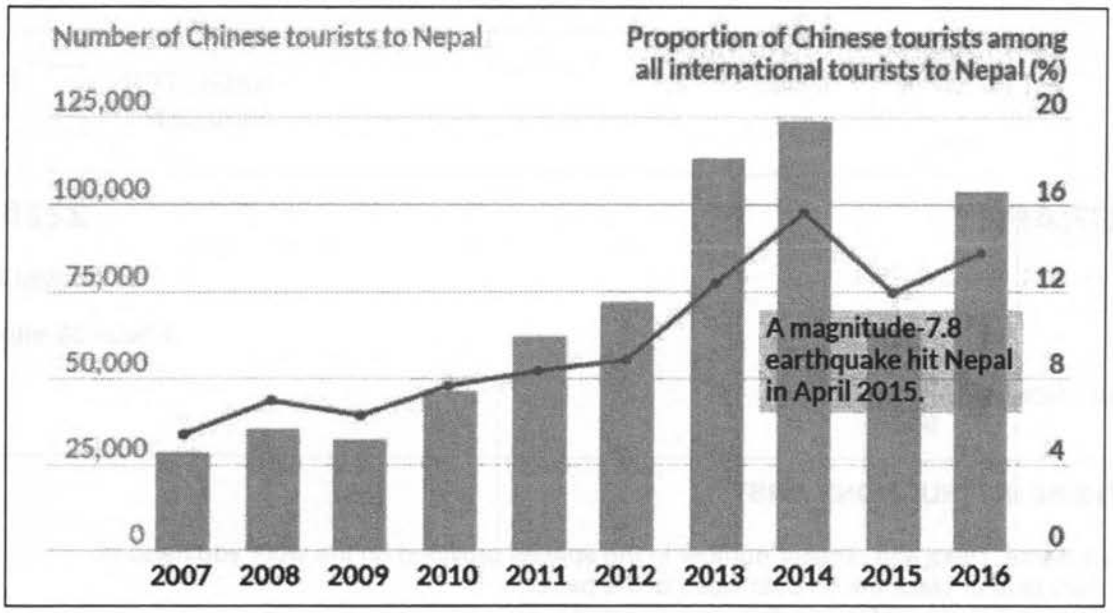


Fig. 3 for Question 3

China tourist arrival to Nepal



CONVENT OF THE HOLY INFANT JESUS SECONDARY
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CANDIDATE NAME

CLASS

REGISTER NUMBER

GEOGRAPHY

2236/02

Paper 2

24 August 2018

1 hour 30 minutes

Additional Materials: Answer Paper
Insert

READ THESE INSTRUCTIONS FIRST

Write your name, class and register number in the spaces provided on the work you hand in.
Write in dark blue or black ink on both sides of the paper.
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Section A
Answer **one** question.

Section B
Answer **one** question.

Write all answers on the Answer Paper provided.
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 Insert contains Fig. 3 for Question 1, Figs. 4 and 5 for Question 2, and Fig. 10 for Question 4.

At the end of the examination, submit answers for **Sections A and B separately** and fasten each part securely together.
The number of marks is given in brackets [ ] at the end of each question or part question.

Section A

Answer **one** question from this section.

1 (a) Study Fig. 1, which shows tectonic hazards in the Bay of Naples, Italy. Fig. 2 shows eight measures that are implemented to protect the people who are living around the Bay of Naples from tectonic hazards.

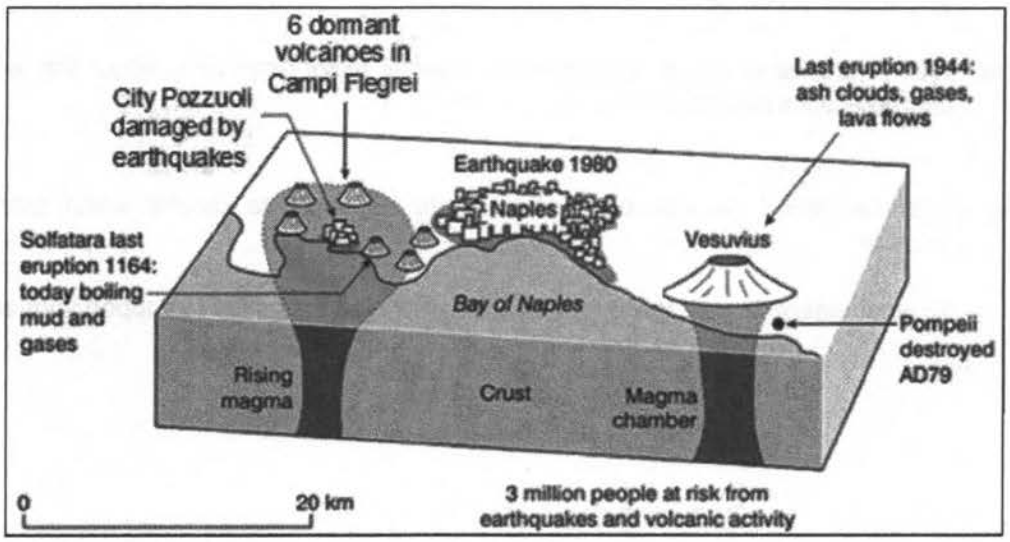

Fig. 1

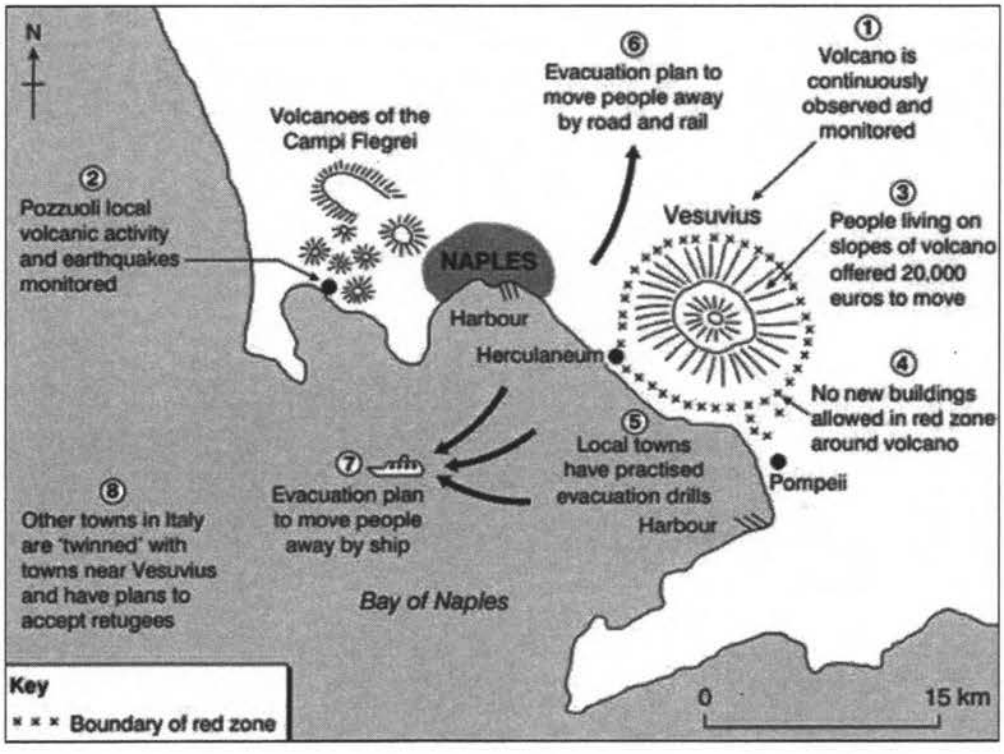

Fig. 2

Use the information in Fig. 1 to justify the importance of the measures implemented in Fig. 2. [5]

1 **(b)** Use examples to explain why climate change is a cause of concern. [5]

(c) Study Fig. 3 (Insert), which shows the location of Anchorage and Mount McKinley. Mount McKinley has the highest mountain peak in North America.

(i) With reference to Fig. 3, compare the temperature characteristics between Anchorage and Mount McKinley. [3]

(ii) With reference to Fig. 3, suggest how physical factors can bring about the temperature characteristics mentioned in (c) (i). [4]

(d) 'Climate-related hazards bring about more damages to coastal areas than tectonic hazards.'

To what extent do you agree to the statement? Use examples to support your answer. [8]

2 (a) Study Figs. 4 and 5 (Insert), which show how tsunami waves approach coastlines without and with an offshore breakwater respectively.

Use the information in Figs. 4 and 5 to discuss the effectiveness of offshore breakwater in protecting coastal properties and inhabitants from tsunamis. [5]

(b) Use examples to explain why people continue to live near volcanoes. [5]

(c) Study Fig. 6, which shows information about the eruptions of Mount Etna, an active volcano in Sicily, Italy.

Eruptions of Mount Etna

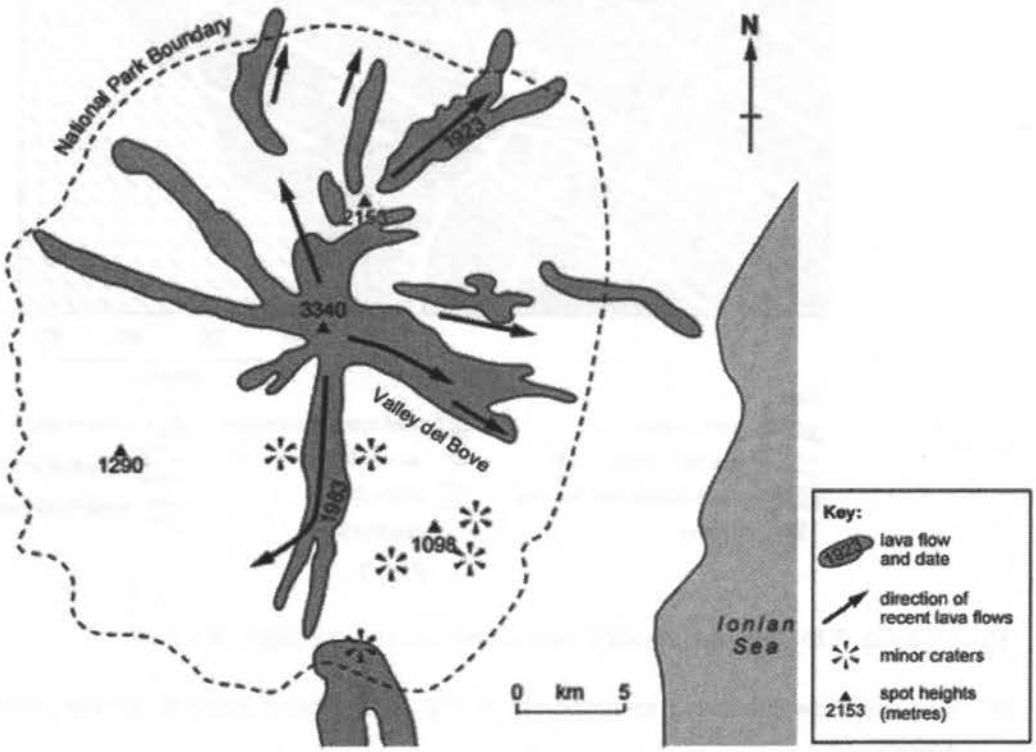

Fig. 6

(i) With reference to Fig. 6, compare the lava flows of 1923 and 1983. [3]

(ii) Explain the possible environmental impacts from the eruptions of Mount Etna. [4]

(d) 'Immediate rescue efforts are more important than preparedness measures in reducing casualties caused by earthquakes.'

To what extent do you agree to the statement? Use examples to support your answer. [8]

Section B

Answer **one** question from this section.

3 **(a)** Study Fig. 7, which shows a map of the urban settlement of Dhaka, Bangladesh.

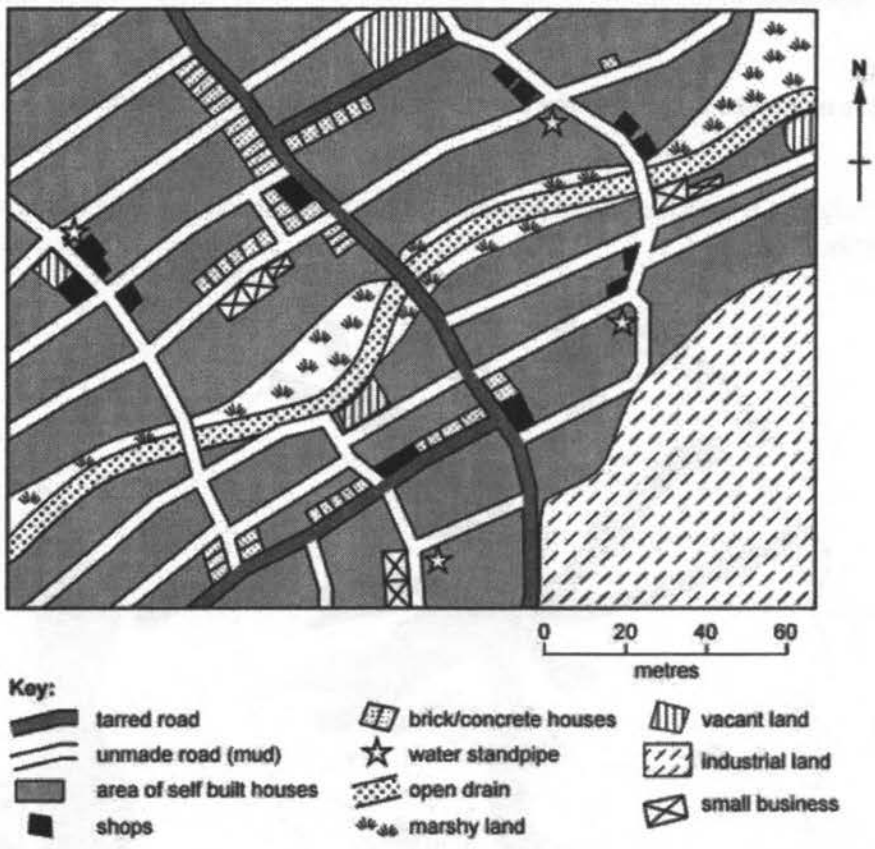

Fig. 7

(i) Use Fig. 7 to describe the locations where water standpipes are built. [3]

(ii) Suggest how the living environment in Fig. 7 can have impacts on the health of the people. [4]

(b) Discuss the effectiveness of developing countries in managing the spread of endemic diseases such as malaria. [5]

3 **(c)** The Sahel region of Africa experiences semi-arid conditions marked by high temperatures and very little rainfall throughout the year. Countries in this region often experience widespread famine.

Study Fig. 8, which shows countries in the Sahel region of Africa and the contributing factor(s) that led to the widespread famine.

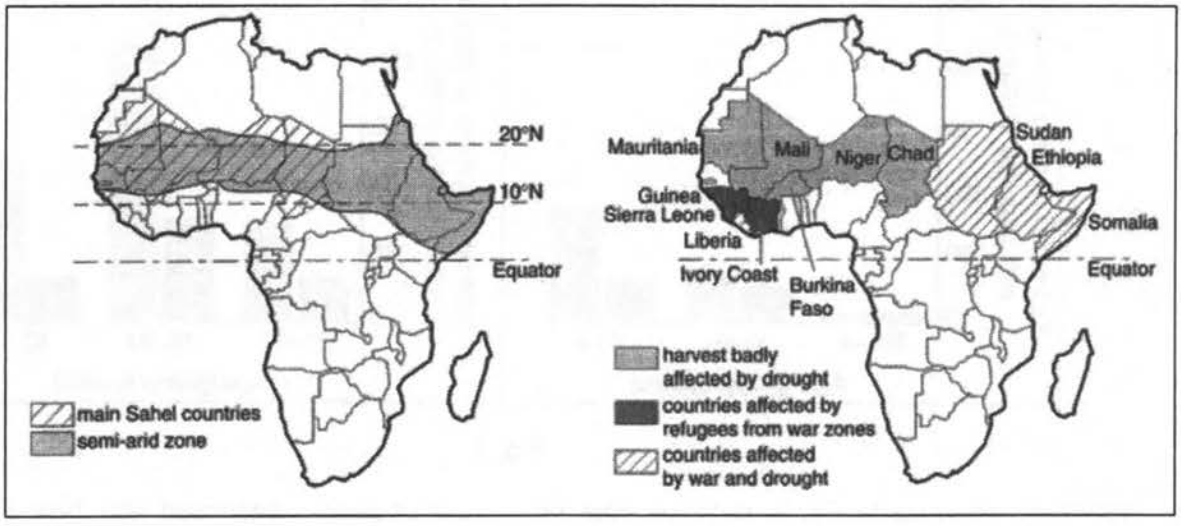

Fig. 8

Explain how physical and human factors can impact food security in the semi-arid zones shown in Fig. 8. [5]

(d) 'Government intervention is the most effective strategy to overcome the problem of food shortages.'

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

4 **(a)** Type-2 diabetes occurs when the body produces insufficent amounts of insulin. Study Fig. 9, which shows the estimated number of people diagnosed with Type-2 diabetes in 2000 and that projected in 2030.

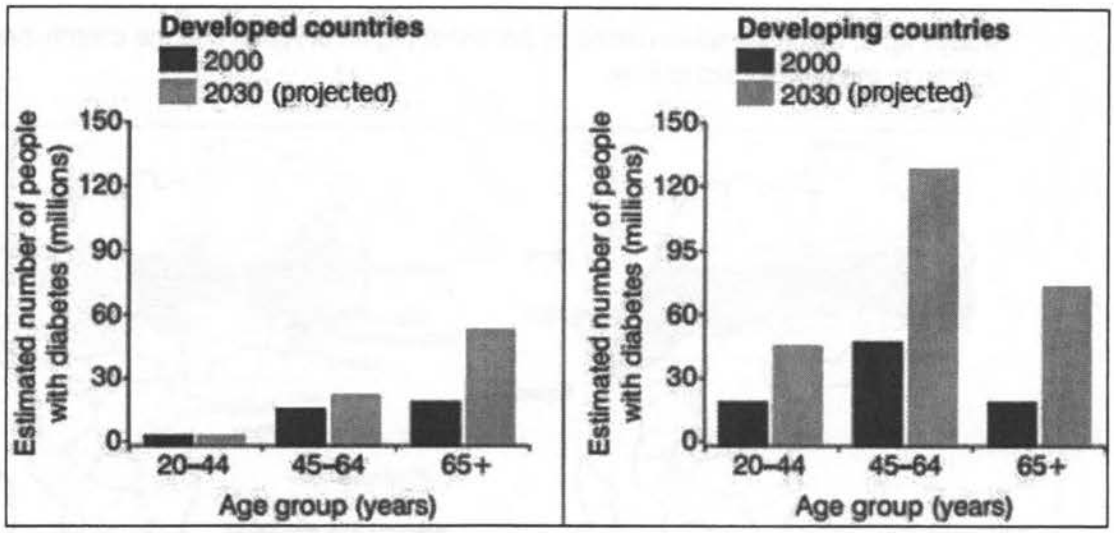

Fig. 9

(i) With reference to Fig. 9, describe how the number of people diagnosed with Type-2 diabetes vary with age group and level of economic development. [3]

(ii) Explain why governments of developing countries should be concerned about the growing number of diabetes cases. [4]

(b) Discuss how technological advancements have influenced the pace at which infectious diseases are transmitted. [5]

(c) Study Fig. 10 (Insert), which shows the global urbanisation rates from 1900 to 2050 (projected) and the photograph of a typical urban area.

Use Fig. 10 to suggest how the change in global urbanisation rates can have impacts on the health of urban dwellers. [5]

(d) 'Social stigma is the main factor that prevents HIV/AIDS from being contained in developed countries.'

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

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GEOGRAPHY

2236/02

Paper 2

24 August 2018

INSERT

1 hour 30 minutes

READ THESE INSTRUCTIONS FIRST

The Insert contains Fig. 3 for Question 1, Figs. 4 and 5 for Question 2, and Fig. 10 for Question 4.

Fig. 3 for Question 1

Locations of Anchorage and Mt. McKinley

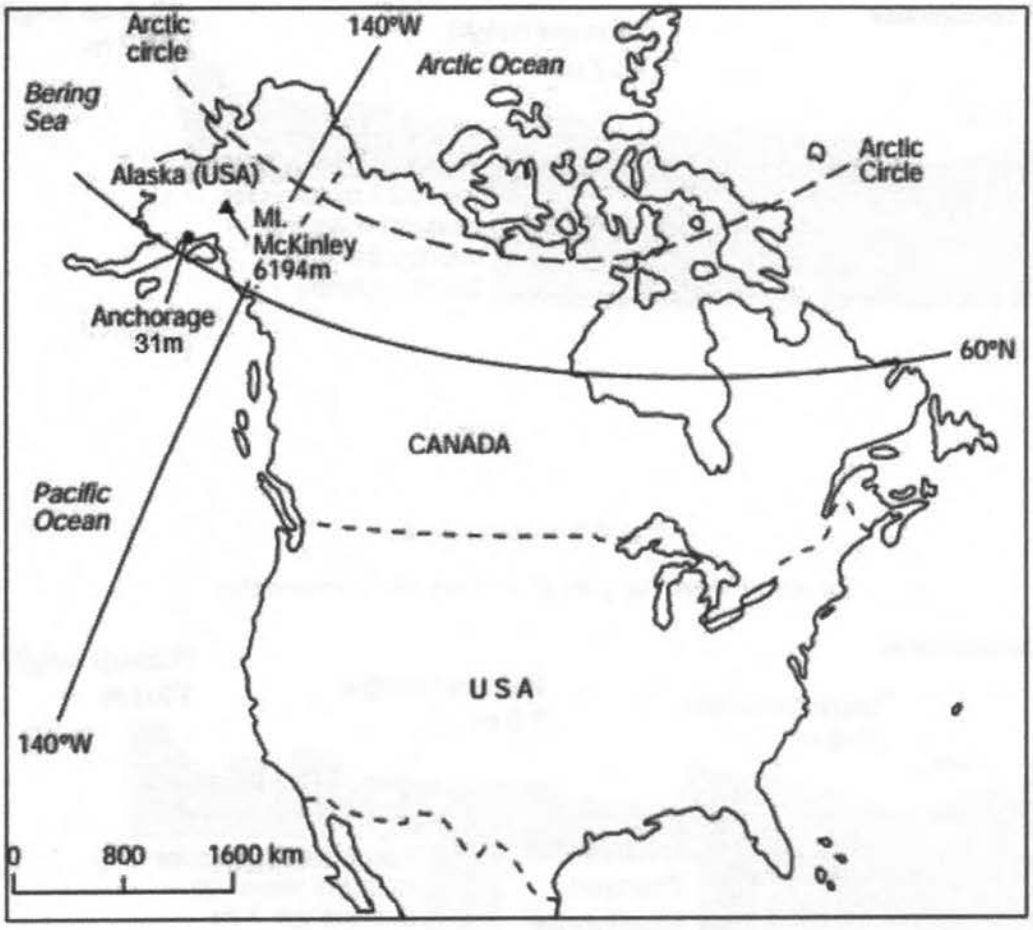


Fig. 4 for Question 2

Tsunami wave heights at a coast without breakwater

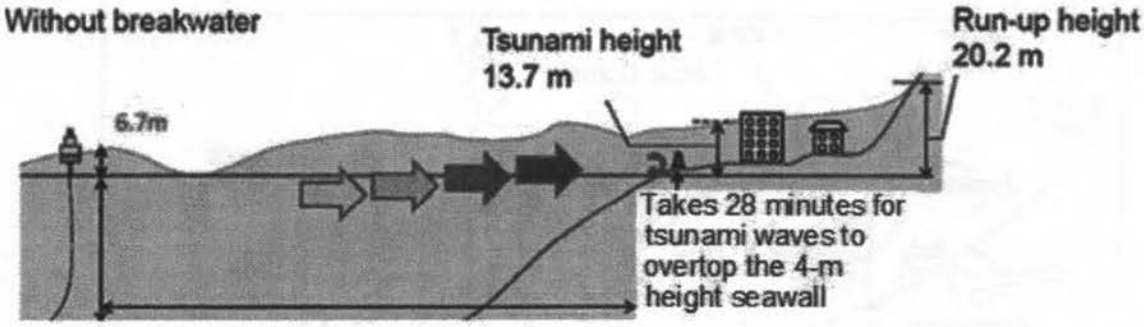


Fig. 5 for Question 2

Tsunami wave heights at a coast with breakwater

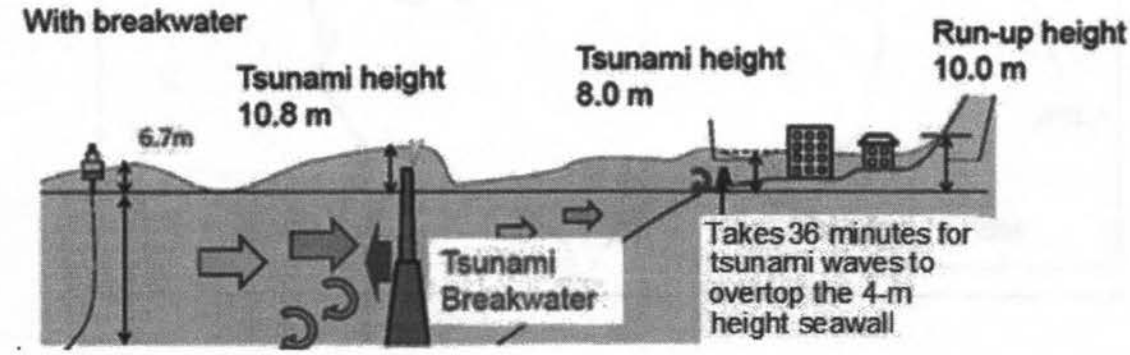
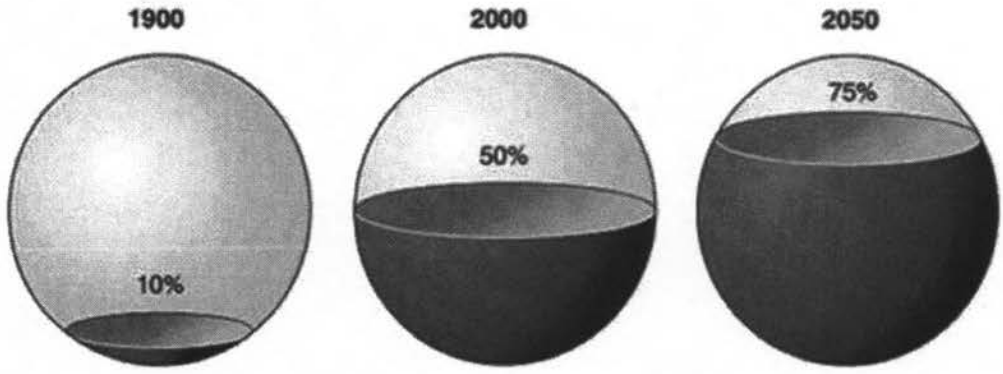


Fig. 10 for Question 4

Global Urbanisation Rates



Photograph of a typical urban area

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GEOGRAPHY

2236/01

Paper 1

29 August 2018

1 hour 40 minutes

MARK SCHEME

Section A

This question is compulsory.

1 A group of students carried out a fieldwork investigation on a length of coastline. Photograph A (Insert) shows the area of the coast where the students conducted their investigation. Fig. 1 (Insert) shows the aerial view of the same stretch of coast with the students' position marked 'X'.

(a) The students wanted to find out how wind conditions can influence the distance travelled by the coastal sediments along the coast during the process of longshore drift. They decided to work in small groups and carried out the investigation over a span of five days during their school holiday. Each group was responsible for collecting the data for each day at X.

The results from their investigation are shown in Table 1.

Day	Time	Prevailing wind direction	Sustained wind speed (km/h)	Distance travelled by orange within 10 minutes (m)
1	10:00	SW	38.4	7.0
2	09:50	SW	40.5	9.5
3	18:00	S	39.6	1.4
4	10:40	SW	41.4	9.7
5	16:30	S	35.6	0.6

Table 1

(i) Outline how the students collected the data shown in Table 1. [4]

- The students recorded the time of data collection every day.
- The students used a wind vane to record the direction where the wind is blowing from.
- The students also used an anemometer to measure the wind speed.
- Using a ranging pole, the students mark out the start point where they will throw the orange into the swash zone.

(ii) To what extent does the data shown in Table 1 support the hypothesis 'The faster the wind speed, the greater the distance travelled by the sediments along the coast.'? [3]

- The hypothesis is accepted to a large extent as the distance travelled by the orange is the longest when the sustained wind speed is highest.
- This is observed on days 2 and 4 where the orange was transported for the longest distance of 9.5m and 9.7m along the coast within 10 minutes when the sustained wind speed is highest at more than 40km/h.
- There is an anomaly where the orange is transported for a short distance of only 1.4m when the sustained wind speed is relatively high at 39.6km/h.

(iii) The teacher commented that there are flaws in their investigation which will compromise the validity of their conclusion.

Identify the flaws in their investigation and explain why the validity of the students' conclusion may be compromised. [4]

- The students carried out their investigation at different timings every day. [1m] This may affect the reliability of data collected as the wind and wave conditions at the data collection site may vary according to the time of the day. [1m]
- The students took into account the distance travelled by the orange when the prevailing winds and waves are approaching the coast from the South, parallel to the coastline. [1m] As the transportation of the sediments through longshore drift is most significant when the waves approach the coast at an oblique angle, the distance travelled by the orange will vary significantly when the prevailing winds and waves approach the coast from the South-west (at an oblique angle) and from the South (at an angle parallel to the coastline). [1m]

(b) On the last day of their fieldwork, the students decided to extend their investigation to find out the opinions of the locals from the nearby town about the environmental impact of tourism development.

They devised a bi-polar survey, shown on Fig. 2, which asked locals to give each statement a score ranging from -3 to +3. They obtained 100 completed surveys, and the results of which are shown on Fig. 2.

Results of bi-polar survey

Negative aspects	-3	-2	-1	0	+1	+2	+3	Positive aspects
Much litter	8	13	36	20	14	8	1	Little litter
High level of noise	30	25	16	27	2	0	0	Low level of noise
High traffic count	41	26	23	10	0	0	0	Low traffic count
Unpleasant surroundings	0	1	3	15	26	27	28	Pleasant surroundings
Poorly maintained infrastructures	0	0	5	5	14	32	44	Well-maintained infrastructures

Fig. 2

(i) What is the main positive environmental impact of tourism? [1]

- The main positive environmental impact of tourism is the presence of well-maintained infrastructures.

(ii) The students concluded that tourism development has a negative impact on the local environment. Comment on the validity of their conclusion. [4]

The conclusion is valid
- Three out of five/ majority of the environmental aspects registered negative scores.
- The tallied scores for the environmental aspects such as the amount of litter, the level of noise, and the traffic count are all negative at -53, -154, and -198.

The conclusion is invalid
- Despite having a majority of negative scores, many of the locals felt that the tourists brought about positive impact to two out of five environmental aspects.
- The highest score of positive 205 is accounted for the level of maintenance of infrastructures, while the pleasantness of surrounding registered a positive score of 159.

(iii) Suggest the advantages and disadvantages of using bi-polar surveys. [3]

Advantages
- Bi-polar surveys allow for a range of responses from the respondents to provide greater accuracy in terms of their perception towards the given aspect.
- The use of bi-polar surveys would allow a series of factors to be considered about a particular subject, thereby allowing the data analysis to be extensive.

Disadvantages
- Some of the statements within the bi-polar survey may be difficult for the respondents to understand as they may not have the geographical understanding about context of the investigation that frames the bi-polar survey.

Accept other plausible answers.

(c) Explain how the students would collect and present data to answer the guiding question 'How does the age group of tourists affect the type of accommodation they stay in?' [6]

- Conduct an online research about the type of accommodation available at the nearby town, and categorise them accordingly.
- Devise a questionnaire to survey 100 tourists with the questions "Are you a tourist?", "Please select your age group", "Which type of accommodation are you staying in?".
- Decide on the location to conduct the questionnaire survey and avoid choosing locations where there is a concentration of people of a certain age group.
- Decide on the time to conduct the questionnaire survey when most tourists will be out on the streets.
- Systematic sampling method where they would interview every 5th tourist who passes by them
  OR
  Random sampling method where they would generate at least 100 random numbers using a dice, and interview the tourists according to the numbers generated

- Collate the responses and present the data onto a series of pie charts according to the age group

Section B

Answer one question from this section.

2 (a) Study Photographs B and C (Insert), which show part of a coastline during low and high tide respectively.

(i) Describe the features of the coastal environment shown in Photograph B. [3]

- Long stretch of steep and near-vertical cliff face along the coastline
- Gently-sloping shore platform (wave-cut platform) that extends from the base of the cliff towards the sea
- Large accumulation of fine sediment at the base of cliff on the middle foreground of Photograph B

(ii) Use Photographs B and C to help you suggest how wave action and tide conditions at the coastline can account for the formation of the coastal landforms shown. [4]

- The strong destructive waves approaching the coast can facilitate the erosional process of hydraulic action and abrasion. [1m] As the waves break violently on the coast, air can be compressed within the rock joints, and sediments can be hurled against the exposed coastal rock. This weakens and breaks down the rock overtime, leaving behind a steep cliff face as seen in the Photographs B and C. [1m]

- The high tide conditions allow the erosional processes to take place at the base of the cliff. [1m] As the waves erode and undercut the base of the cliff, the overhanging cliff may collapse overtime and retreat inland, leaving behind a steep and exposed cliff face, as well as a shore platform that may be exposed during low tide conditions. [1m]

(b) Study Photograph D (Insert), which shows an aerial view of a coastline.

Identify the coastal features X and Y, and compare the coastal processes occurring at both features on Photograph D. [5]

- X – Headland
  Y – Bay

- Both features experience the process of wave refraction, by which the waves change direction as they approach the coast. [1m] Through wave refraction, the waves will converge on the headland and diverge when they approach the bay. [1m]

- The headland (Feature X) is experiencing the process of erosion as the waves that converge give rise to increased wave height and greater erosive energy, [1m] while the bay (Feature Y) is formed through the process of deposition as the waves that diverge decreased in wave height and wave energy is reduced and spread out. [1m]

(c) Using example(s), explain how governments can manage coastal areas in a sustainable manner. [5]

- Governments can manage coastal areas by implementing policies to limit damaging activities such as destruction of coral reefs and mangroves to make way for coastal development. [1m] Through such policy implementation, the natural features of the coast can be retained and little deterioration will be observed in the long run. [1m]
- One example would be limiting the damage to grasses planted to stabilise sand dunes on Port Philip in Melbourne, Australia. To encourage the growth of vegetation on sand dunes, the local authorities built fences, access paths, and walkovers to prevent beachcombers from trampling on the grass that are anchored to the sand dunes.
- Governments can implement laws and policies to minimise the threat of natural hazards in coastal areas. They can restrict developments on low-lying areas or build coastal defence measures in areas that are prone to natural hazards such as storm surges and tsunamis. [1m] Through such measures, the damages brought about by natural hazards can be greatly reduced and the quality of the environment can be restored and not be compromised for present and future generations. [1m]

(d) 'Human activities will only bring about irreversible impact to the global coral reef ecosystem.'

To what extent do you agree with this statement? Use examples to support your answer. [8]

Agree: The impact of human activities on the global coral reef ecosystem are irreversible.	• Coastal development such as reclamation and extension of land areas can cause coral reefs to be suffocated by the sediments that were deposited onto the seabed. • For instance, land reclamation which increased Singapore's land area by 17% has buried over 60 per cent of its coral reefs. • The expansion of coastal resorts and urban housing can increase the discharge of sewage waste into the waters. The pollutants suspended in the sea may stress the coral reefs and lead to their eventual death. • The development of coastal areas on a large scale is putting pressure on the global coral reef ecosystems. • In addition, agricultural activities which are heavily reliant on the use of pesticides and fertilizers can pose a threat to the survival of coral reef habitats when the top soil is washed into the river systems and out to sea. The polluted waters can increase the stress levels for the coral reefs which in turn poses immediate devastating impact on these corals. • The global coral reef ecosystems are also vulnerable to pressures from economic activities such as the overcollection of corals for sale and destructive fishing methods, which disrupts the coral ecosystem, making them more vulnerable to threats.

Disagree: The impact of human activities on the global coral reef ecosystem can be reversed.	• Despite the human activities that may impose significant impact on the global coral reef ecosystems, there are multiples efforts taken by various countries to protect the existing coral reef ecosystems around the world. • Governments have introduced the imposition of fines for fishermen who practice destructive fishing methods such as bottom trawling, cyanide fishing and dynamite blasting. • In response to the warning issued by the European Union to regulate its fishing activities, the Philippines produced a new fisheries code that called for stricter measures against illegal methods and commercial overfishing in 2014. • Governments and local communities may also introduce coral regrowth programmes to replant reefs with coral grown in offshore nurseries. Baby corals may be attached to underwater scaffolding for several years until they are ready to be attached to a denuded reef.
Conclusion: Stating and justifying your stand	• In conclusion, I agree with this statement to a large extent as human activity is the main cause of threat to around 60% of the Earth's coral reefs. • With the scale of destruction far outweighing the rate of coral replanting efforts around the world, it is predicted that all corals will be threatened by 2050, with 75 percent facing high to critical threat levels.

3 (a) Study Photographs E and F (Insert). Photograph E shows a coastal feature during low tide and Photograph F is an aerial view of the same feature during high tide. Point X shows the location where Photograph E was taken.

(i) Describe the features of the coastal environment shown in Photographs E and F. [3]

- Long narrow ridge of sand that extends from the mainland where coastline changes abruptly
- The other end is connected to an offshore island
- Exposed above the water surface during low tide

(ii) Use Photographs E and F to suggest how the wind and wave conditions can account for the formation of the coastal landform shown. [4]

- The prevailing wind blowing from the North-west direction [1m] facilitates the longshore drift process which transports sediments southwards. As the spit continues to extend seawards towards the south, it connects with the offshore island to form a tombolo. [1m]

- The presence of constructive waves facilitates the transportation of sediments through longshore drift as sediments are transported with a stronger swash and a weaker backwash. [1m] This process enables the sediments to be transported southwards towards the offshore island, forming a tombolo overtime. [1m]

(b) Study Fig. 3, which shows information about the China's tourist arrival rates to Nepal.

Account for the number of China's tourist arrival to Nepal from 2007 to 2016 as shown in Fig. 3. [5]

- China tourist arrival rates to Nepal have observed a general increase from around 30,000 tourists in 2007 to 110,000 tourists in 2016. [1m]
- This general increase can be explained by the rapid economic development of China which increased the disposable income of the citizens. [1m] With an increased number of people within the affluent middle class, this has allowed more people to have the financial capability to travel to locations such as Nepal. [1m]
- The decline in tourist arrival in 2009 can be explained with the 2008 financial crisis that affected China's economic development. [1m] As the disposable income of the citizens is lowered, this lowers their inclination to travel as the citizens cut back on their spending on leisure and recreation activities such as travelling. [1m]
- The decline in tourist arrival in 2015 can be explained by the 2015 Nepal earthquake that deterred tourists from visiting Nepal due to safety concerns. [1m] This is especially so when the earthquake has resulted in the destruction of tourist infrastructures and disruption of essential tourist services. [1m]

(c) Using example(s), explain how governments can minimise leakages from tourist revenues to facilitate sustainable tourism. [5]

- Countries can adopt the strategy of training locals to perform skilled tourism jobs in order to minimise the loss of job opportunities for locals to better qualified foreign workers. [1m] With more locals hired in the tourism industry,

this will help to increase their income while minimising the leakages from tourist revenues to foreign-owned companies. With a regular and viable stream of income from tourism, the locals will be motivated to better care for the sites that tourists visit. [1m] • Countries can also adopt the strategy of encouraging locals to provide homestay accommodations where tourists can pay the locals directly for their accommodation. [1m] • One example is the introduction of community-based tourism in Candirejo Village near Borobudur in Central Java, Indonesia. With the support of the government, the villagers set up a cooperative in 2003 to develop homestay accommodations, develop organic farms, and organise local transport for tourists, which significantly increased the income of locals by an average of 12.5%, while reducing the leakages.

(d) 'Tourism will only bring about irreversible impact to the environment.'

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

[8]

Agree: The impact of tourism on the environment can be irreversible	• Tourism can bring about irreversible impact to the environment as the high influx of tourists to various destinations and the increase of inconsiderate tourist behaviour such as littering may pollute the environment and cause long term destruction to habitats. • For instance, the Wider Caribbean Region receives 63,000 port calls from ships each year. Of the 82,000 tons of garbage generated, about 77% comes from cruise vessels. On average, passengers on a cruise ship each account for 3.5 kilograms of garbage daily. Such high volumes of waste generated can lead to long term degradation to the environment as many islands in the Caribbean have limited space on land to treat the waste accumulated. This results in the waste sometimes being disposed into the Caribbean Sea by ships, polluting the waters. • With a lack of strong political willpower to ensure that measures are implemented to facilitate proper waste disposal, as well as to manage the influx of high volumes of tourists, the degradation of the environment can accelerate and impacts may subsequently be deemed as irreversible. • In addition, with the increase of international and domestic tourism due to various factors such as higher disposable income of tourists and the increased availability and affordability of air travel, this drastically increases the carbon footprint of tourists.

Disagree: The impact of tourism on the environment can be reversed	• Despite the possible negative impact that tourism may bring to the environment, the increase in global tourism can facilitate the protection and conservation of the environment and the habitats. • Revenue from entrance fees to national parks and diving sites, or even levies on nearby accommodations can be used to fund various conservation efforts that will be beneficial to the environment. • For instance, in Kenya, the survival of animals in the country's nature reserves and national parks relies on funding received from international tourists who want to see these animals in the wild. According to estimates by Kenyan tourist authorities, a single lion can generate US$7000 a year in tourist revenue and a herd of elephants around US$600 000 a year. The money raised from wildlife tourism becomes a way to continue to preserve the animals and their habitats. • A well-protected environment attracts more tourists to visit it and previous tourists to return. The repeated, steady arrival of tourists will continue to benefit the locals economically. In turn, the income from tourism motivates locals to care properly for the sites that tourists visit, ensuring a regular and viable stream of income from tourism in the future.
Conclusion	• In conclusion, tourism do not only bring about irreversible impact to the environment as there have been significant efforts by the local authorities to promote forms of sustainable tourism or ecotourism, and to ensure that tourist numbers and behaviour are properly managed. • Furthermore, the United Nations World Tourism Organization (UNWTO) also recommended measures to combat tourism-related emissions, such as encouraging travellers to avoid long-haul flights and incentivising tourism operators to improve their energy and carbon efficiency. • Even though such efforts can significantly reduce the negative impact that tourism can bring to the environment, it requires the close cooperation of the different stakeholders such as the visitors, the local communities, the planning authorities, as well as the tour operators.

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CONVENT OF THE HOLY INFANT JESUS SECONDARY
Preliminary Examination in preparation for
the General Certificate of Education Ordinary Level 2018

GEOGRAPHY 2236/02

Paper 2 24 August 2018

1 hour 30 minutes

MARK SCHEME

Section A

Answer one question from this section.

1 (a) Study Fig. 1, which shows tectonic hazards in the Bay of Naples, Italy. Fig. 2 shows eight measures that are implemented to protect the people who are living around the Bay of Naples from tectonic hazards.

Use the information in Fig. 1 to justify the importance of the measures implemented in Fig. 2. [5]

- As the area in the Bay of Naples is highly populated with at least 3 million inhabitants, it is critical for the presence of different modes of evacuation via road, rail and ship. This enables the inhabitants to evacuate quickly and efficiently in the event of a volcanic eruption.
- Different modes of evacuation are helpful in diverting the crowd, which can help to reduce stampedes and chaos when the people evacuate when a tectonic hazard occurs. This again contributes to the reduction of casualties and deaths.
- As it is possible for the Bay of Naples to experience tectonic hazards volcanic eruptions, earthquakes and even tsunamis, the range of measures are necessary to respond to the different tectonic hazards that can hit the area.
- Measures such as 'twinning' with other towns of Italy is important, especially when there are up to 6 dormant volcanoes at Campi Flegrel, which can subject the area to highly explosive volcanic eruptions. Thus, it is necessary for the people to evacuate quickly to neighbouring Italian towns as the lava flows and ash clouds can be extensive and affect large numbers of inhabitants.
- There were historical records of towns (Pompeii and Herculaneum in AD79) being buried or devastated by catastrophic volcanic eruptions. This necessitates the demarcation of the highly risky red boundary and relocation of inhabitants to other safer zones to prevent the calamity of high death tolls if Mount Vesuvius erupts again.

1 (b) Use examples to explain why climate change is a cause of concern. [5]

- Climate change can bring about sea level rise, which can cause the coast to retreat landwards and frequent coastal flooding to be experienced during high tides.
- This can cause coastal inhabitants who are living at the coastal margins to incur costs to repair or rebuild their homes when they are inundated by the seawater.
- Farmlands located close to the coastal areas can be subject to saltwater intrusion with the rising sea levels, which damages crop yields and possibly threaten these farmlands to become non-arable lands due to the high salt content.
- Climate change can also trigger increased frequency and intensity of extreme weather events, which can be threatening to human lives and properties.
- For instance, the 2003 European heat wave saw record high temperature that soared to

more than 20% above the average summer temperature. This was disastrous to the then unprepared European population, which took away more than 30,000 lives from severe dehydration and heat-related stress.

(c) Study Fig. 3 (Insert), which shows the location of Anchorage and Mount McKinley. Mount McKinley has the highest mountain peak in North America.

(i) With reference to Fig. 3, compare the temperature characteristics between Anchorage and Mount McKinley. [3]

Similarity
- Both Anchorage and Mount McKinley are expected to have low annual mean temperatures of less than 10°C.

Differences
- The annual temperature range of Anchorage will be significantly smaller than that at Mount McKinley.
- Mount McKinley is expected to register a much lower annual mean temperature than Anchorage.

(ii) With reference to Fig. 3, suggest how physical factors can bring about the temperature characteristics mentioned in (c) (i). [4]

Distance from sea

- Due to its coastal location, Anchorage experiences the maritime effect in which summer and winter temperatures are milder due to the temperature regulatory effect of the Pacific Ocean.
- The higher specific heat capacity of the Pacific Ocean enables it to retain and lose heat at a slower rate, relative to an inland location where Mount McKinley is located. Thus, this contributes to the smaller annual temperature range of Anchorage.

Altitude

- As Mount McKinley is located at more than 6,000 m above sea level, the environmental lapse rate sets in, where temperature dips at a rate of 6.5°C with every 1,000 m increase in altitude.
- The less dense air at higher altitudes makes it less able to absorb as much longwave radiation, resulting in the increasingly lowered temperature at higher altitudes. Thus, Mount McKinley's mean annual temperature is expected to be more than 39°C lower than that at Anchorage.

(d) 'Climate-related hazards bring about more damages to coastal areas than tectonic hazards.'

To what extent do you agree to the statement? Use examples to support your answer. [8]

Agree with the statement	Climate-related hazards can bring more damages to coastal areas since atmospheric phenomena such as tropical cyclones can develop on an annual basis and frequently hit coastal areas in subtropical locations. The cyclone season typically spans across the summer and fall months when sea surface temperature at subtropical locations are as warm as 26.5°C or above. When these cyclones make their landfalls, coastal areas will be hit by storm surges with wave heights of several metres. They then experience flooding and are deposited with large amounts of sediments and debris. For instance, about 20 cyclones typically enter the boundary of the Philippines every June to September. Such storms frequently make their landfall at the coastal locations of Eastern Visayas, Bicol region and Luzon. From 2010 to 2015, there were more than 20 destructive tropical cyclones that entered the Philippines. This clearly exhibits how coastal areas can be repeatedly damaged by storm surges, even before the previous deposits of sediments and debris are cleared from the beaches. On the other hand, tectonic hazards such as high- magnitude offshore earthquakes that trigger tsunamis do not occur as frequently. From 2004 to 2017, there were about 20 tsunamis that were triggered by tectonic hazards. The towering height of tsunami waves ranged between 2.5 and 38 metres, bringing about inundation of the coastal areas that extend up to several kilometres inland.
Disagree with the statement:	However, tectonic hazards can bring more damages to coastal areas than climate-related hazards. Coastal locations that are vulnerable to tectonic hazards span across a large area of the world, as long as they are in close proximity to plate boundaries. On the other hand, tropical cyclones are largely limited to specific regions since they tend to hit coastal areas in the subtropical locations. In the 2004 Indian Ocean earthquake-tsunami, the high energy tsunami waves radiated from the epicentre in Banda Aceh and travelled extensively long distances, attacking the coastal areas of up to 12 countries that were in Asia and Africa. Coastal areas that were devastated by sedimentation and flooding involved countries included India, Myanmar, the Maldives, South Africa, Somalia and even Kenya. The high energy tsunami waves caused huge debris such as vessels and boats to be swept into coastal areas. In extreme cases, tectonic hazards are capable of altering the shape of the coastline and/or sink some coastal strips of lands. For instance, the magnitude 9.0 earthquake-tsunami in Tohoku, Japan, led to the shift of main island of Japan by 2.4 metres. On the other hand, the impacts caused by climate-related hazards experienced at coastal areas tend to be localised or hit several coastal areas that are in the vicinity of the affected countries. Although cyclones frequently occur during the summer and fall months of countries in subtropical locations, coastal areas that may be devastated by inundation and sedimentation caused by storm surges will only be confined to either the northern or southern hemisphere. The scale at which coastal locations can be devastated by climate-related hazards is clearly smaller than those caused by tectonic hazards.
Conclusion	Thus, it can be observed that although tectonic hazards may not occur as frequently as climate-related hazards, the devastation experienced at these coastal areas can

	be worse off since the scale at which coastal lands are larger, and even span across both hemispheres. Tsunami waves travel at a speed of 800 km/h in the deep waters, which is at least four times greater than the speed at which the strong winds of cyclones are travelling at. The greater power and energy of tsunami waves naturally translate to a wider area of coastal lands being attacked by these waves in the form of flooding and sedimentation.

2 (a) Study Figs. 4 and 5 (Insert), which show how tsunami waves approach coastlines, without and with an offshore breakwater respectively.

Use the information in Figs. 4 and 5 to discuss the effectiveness of offshore breakwater in protecting coastal properties and inhabitants from tsunamis. [5]

Effective
- The presence of the offshore breakwater can protect more coastal inhabitants as there is an additional 8 minutes for the coastal inhabitants to evacuate to higher grounds.
- This can effectively reduce the number of people who are swept off or drowned by the overtopping tsunami waves.
- The presence of the offshore breakwater can significantly reduce tsunami height from 13.7 m to 8.0 m. The reduced tsunami height can effectively reduce death tolls as fewer people will lose their lives to drowning or get swept out into the open sea.

Ineffective
- With a run-up height of 10.0 m, the tsunami waves can still reach far inland, sweeping off properties and uprooting vegetation that are along its track.
- This makes the offshore breakwater an ineffective measure as coastal inhabitants who did not successfully evacuate to higher grounds within the 36 minutes will still drown or be swept out into the open sea.

(b) Use examples to explain why people continue to live near volcanoes. [5]

- Farming communities continue to live near volcanoes to tap on increased economic revenue from the sale of surplus crops that are grown on the nutrient-rich volcanic soils.
- In Java and Bali of Indonesia, the fertile volcanic soils can support the cultivation of crops such as tea, coffee and rice.
- The high crop yields enable the farmers to sell them to the local market or be exported for revenue.
- The scenic beauty offered by volcanic areas make them popular tourist destinations.
- For example, the Roman town of Pompeii, Italy, which sits in the vicinity of Mount Vesuvius welcomes almost 3 million visitors annually. The locals can enjoy increased incomes when the visitors utilise services rendered by locals who live near the volcano.

2 (c) Study Fig. 6, which shows information about the eruptions of Mount Etna, an active volcano in Sicily, Italy.

(i) With reference to Fig. 6, compare the lava flows of 1923 and 1983. [3]

Differences
- In 1923, the lava flows were flowing from the spot height of 2,153 metres towards the northeast area of Fig. 6, whereas the 1983 flows were flowing from around the spot height of 3,340 metres towards the southwest area of Fig. 6.

Similarities
- The lava flows of 1923 and 1983 were similar as both episodes of lava flows travelled beyond the demarcated national park boundary of Mount Etna.
- Both episodes of the 1923 and 1983 flows originated from the crater(s) on the upper flanks of Mount Etna, instead of the minor craters on the lower flanks of the volcano.

(ii) Explain the possible environmental impacts from the eruptions of Mount Etna. [4]

- The volcanic eruptions spewed out large amounts of ash particles and other fine glass shards, which can remain suspended in the atmosphere for prolonged periods.
- This brings about air pollution and reduced visibility for extended periods of time.
- Volcanic gases such as sulfur dioxide, carbon dioxide and carbon dioxide that are emitted during volcanic eruptions can contribute towards global warming. The increased amounts of greenhouse gases are capable of trapping more longwave radiation, bringing about the enhanced greenhouse effect.
- In the process, lava haze (laze) is produced, air pollution is generated as the laze steam is high in hydrochloric acid gas and minute volcanic particles.

2 (d) 'Immediate rescue efforts are more important than preparedness measures in reducing casualties caused by earthquakes.'

To what extent do you agree to the statement? Use examples to support your answer. [8]

Agree with the statement:	Immediate rescue efforts can be more important than preparedness measures as the former aims to extricate as many survivors from beneath the rubble and offer immediate medical attention within the Golden 72 Hours. Immediate rescue efforts are usually executed by trained local and international rescue squads. They are equipped with heat sensors, sniff dogs and excavation tools that aim to quickly and effectively comb earthquake-hit areas for survivors who are trapped beneath the rubble. This is especially critical within the Golden 72 Hours since these survivors are likely to be wounded or deprived of air, food and water. Appropriate counselling can also be given to traumatised survivors and at times help them to better manage their emotions from the loss of their loved ones. This is important in reducing further casualties when traumatised or agitated survivors engage in irrational behaviours that may threaten their lives. Even though preparedness measures may be in place, the people may not be able to react well to the earthquake and will fail to apply what they have learnt from emergency drills to evacuate efficiently or seek safe shelters. Less developed countries that may face constraints in trained rescue workers and advanced technology to facilitate the extrication of survivors from the rubble, they are still able to effectively reduce casualties by gaining manpower and technological support offered by developed countries that offer assistance to such earthquake-hit countries.
Disagree with the statement:	However, preparedness measures can be more important in reducing casualties as they prepare the people and buildings for earthquakes. Earthquake-resistant technology in buildings can minimise building collapses, which subsequently reduces the number of people who are trapped beneath the rubble. Despite the magnitude 9.0 earthquake that struck Japan in 2011, none of its skyscrapers or buildings collapsed. This does not necessitate the deployment of search and rescue teams to extricate people from collapsed buildings. Although important in reducing casualties, these preparedness measures may still fail in their ways. This may be especially so when populations experience record-setting catastrophic earthquakes. The shock and panic may result in delayed responses to the earthquake, which can bring about mayhem. This may increase the probability of stampedes when people rush to evacuate out of the buildings, which instead increase the casualties in the earthquake. During these circumstances, there is an urgency to rope in search and rescue teams to locate survivors and enable them to seek medical attention.
Conclusion	Hence, search and rescue teams can in fact be more important than preparedness measures in reducing casualties. This is especially for developing countries that lack in monetary and financial resources to develop earthquake-proof buildings, and/ or lack of political willpower to implement strict land use regulations to prevent developments in highly risky lands.

Section B

Answer one question from this section.

3 (a) Study Fig. 7, which shows a map of the urban settlement of Dhaka, Bangladesh.

(i) Use Fig. 7 to describe the locations where water standpipes are built. [3]

- The four water standpipes are all built at the junctions of unmade mud roads.
- The water standpipes are well spaced out in Fig. 7 as the nearest water standpipe is usually located 60 m in radius or less from the area of self-built houses.
- Some of these water standpipes are less than 20 metres away from some shops.

(ii) Suggest how the living environment in Fig. 7 can have impacts on the health of the people. [4]

- The people may be vulnerable to water-borne diseases such as cholera.
- With many of the self-built houses located next to and alongside. the marshy land, the pools of stagnant waters can promote the breeding of mosquitoes.
- This can make the dwellers of these self-built houses to be vulnerable to mosquito-borne diseases such as malaria, dengue fever and chikungunya.
- Upon contracting these diseases, they can suffer from fever, drop in platelet counts, vomiting, etc. Under severe cases, they can suffer from complications that result in deaths.

(b) Discuss the effectiveness of developing countries in managing the spread of endemic diseases such as malaria. [5]

Effective
- Developing countries can better manage the spread of endemic diseases as they are recurring on a regular basis.
- The government and relevant authorities can effectively coordinate and allocate relevant resources to reduce the populations of infected Anopheles mosquitoes, which are the vectors that transmit malaria.
- This can effectively contain the spread of malaria as the population of infected female Anopheles mosquitoes can be controlled by measures such as thermal fogging and draining puddles of still water.

Ineffective
- With climate change altering rainfall patterns, developing countries may find it increasingly challenging to control the breeding of Anopheles mosquitoes at puddles of stagnant water left behind by storms and flooding rains.
- The problem is further worsened when the warmer temperature increases the lifespan of mosquitoes and increases the chances of infection as the warmer air incubates viruses faster in mosquitoes.

3 (c) The Sahel region of Africa experiences semi-arid conditions marked by high temperatures and very little rainfall throughout the year. Countries in this region often experience widespread famine.
Study Fig. 8, which shows countries in the Sahel region of Africa and the contributing factor(s) that led to the widespread famine.

Explain how physical and human factors can impact **food security** in the semi-arid zones shown in Fig. 8. [5]

Physical factors
- Main Sahel countries such as Mali, Niger and Chad can experience serious food insecurity as they lie in the semi-arid zone, which could mean that they have very little arable land as these countries receive very low levels of annual precipitation.
- This is further aggravated by droughts that bring about very poor harvests as prolonged dryness lead to the withering of crops before they are even harvested.

Human factors
- Countries such as Sudan, Ethiopia and Somalia, which are located in the eastern Sahel zone are expected to be worst off and suffer from flagrant food security.
- During wars, national food supply can become very low when landmines planted on farmlands are triggered. Such explosions incinerate the food crops, bringing about a reduction or halt in food supply.
- For fear of their own safety, the people are not keen to continue with agricultural activities even after the war as they are wary of fields that have yet to be demined. This again leads to meagre amounts of agricultural output.

3 (d) 'Government intervention is the most effective strategy to overcome the problem of food shortages.'

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

Agree with the statement:	Government intervention is the most effective strategy to overcome food shortages as they are able to make changes to current agricultural policies and/or allocate monetary resources to import more food to intensify the level of food production and ensure that there is sufficient food available for its people. Countries that practise stockpiling can have their governments intervene by drawing supplies from food reserves. Staples such as rice and wheat can be distributed to the population via food rationing, which is effective in temporarily and almost immediately alleviating food shortages as the people are able to gain access to staples. For instance, Singapore's government stockpiles a three-month supply of rice and two months' worth of imports in government warehouses for up to a year. Such a measure can be effective in helping its people ride over reduced food supplies caused by a cut in the amount of imports available for its people. However, the perishable nature of food can make such a measure ineffective if they were to rot before being distributed to the people. This brings about food loss, which can aggravate the food shortage situation.
Disagree with the statement:	There are also other measures such as technological advances that can be effective in overcoming food shortages. Such a measure target the intensification of food production and with increased food supplies, it may cushion against the hike in food prices. Crop yields can be boosted when countries invest in farming technology in the form of chemical usage, irrigation and the use of large machineries such as combined harvesters. This can be effective in raising the plots of arable lands since the application of irrigation technology now makes it possible for cultivation of crops in semi-arid lands. For example, in the North African continent of Libya, the Great Man-Made River project has made it possible for crop cultivation in the Sahara Desert by ensuring a reliable and regular supply of water to prevent the withering of crops. This has boosted crop yields and is effective in overcoming food shortages since this buffers against continued rise in food prices. This then helps the low income groups to be able to purchase sufficient food to meet their daily recommended calorie intake. Developing countries may not be able to afford the hefty costs involved in setting up such farms, making such a measure ineffective in overcoming food shortages as adopting of farming technologies is beyond their reach. Crop yields continue to persist at low levels as the crops may have withered before they are harvested. With the limited food supplies, the people may have to face upward pressure on food prices, causing the low income groups to purchase increasingly smaller quantities of food for the entire household. Over time, this can aggravate the food shortage situation.
Conclusion	To be effective in overcoming food shortages, measures have to target the establishment of an equilibrium between the demand and supply of food. This calls for a variety of measures that range from political, social and technological measures to ensure that food supply is able to keep up with the pace of increased demand for food. In addition, the rate of growth in the global population can be dampened so that other the increased crop yields can then be sufficient to feed the people.

4 (a) Type-2 diabetes occurs when the body produces insufficent amounts of insulin. Study Fig. 9, which shows the estimated number of people diagnosed with Type-2 diabetes in 2000 and

that projected in 2030.

(i) With reference to Fig. 9, describe how the number of people diagnosed with Type-2 diabetes vary with age group and level of economic development. [3]

- It is evident that across all age groups, there are significantly more people suffering from diabetes in countries with lower economic development.
- In 2000, the estimated number of people with diabetes in the 20-44 and 45-64 years old age group in developing countries was about 4 to 5 times more than that in the developed countries.
- Low economic development brings about the premature onset of diabetes, as observed by the substantially higher number of people aged 20-64 years diagnosed with diabetes in 2000 and 2030.
- In 2000 and 2030, countries with high economic development, the elderly (aged 65+) are most vulnerable to diabetes. However, the middle-aged (45-64 years old) are most vulnerable in countries with lower economic development.

(ii) Explain why governments of developing countries should be concerned about the growing number of diabetes cases. [4]

- The premature onset of diabetes in the 20-44 years old age group is an area of concern as the people are suffering from diabetes during the phase of life when they are the most economically productive.
- This would mean that the large number of people who suffer from diabetes have to constantly take leave from school/ work to seek medical treatments and/or procedures, which brings about a dip in national productivity.
- The unhealthy population can cause resources from other sectors (e.g. defence, education, tourism, etc.) to be diverted to healthcare instead, slowing down the economic growth of these developing countries.
- Over time, this can cause developing countries to lose its appeal to foreign investments, which concomitantly results in the dip in national income and further strains the national budget.

(b) Discuss how technological advancements have influenced the pace at which infectious diseases are transmitted. [5]

Accelerate the pace of transmission of diseases

- Technological advancements in the form of aircraft technology has increased the porosity of national borders and greatly reduced travelling time.
- This can accelerate the pace at which infectious diseases are transmitted, especially via air travel where people are able to travel out of their national boundaries and not show any symptoms of illnesses only until they have returned to their country of origin.
- During this process, these people may have transmitted the disease to more people along the way, especially if such diseases are air-borne.

Slow down the pace of transmission of diseases

- The advent of technology can also greatly slow down the pace at which diseases are transmitted and enable infectious diseases to be contained within a short period of time.
- With technology such as geographic information and remote sensing systems to speed up contact tracing, pathogen carriers can be quickly quarantined to prevent them from coming into contact and infecting more people.

4 (c) Study Fig. 10 (Insert), which shows the global urbanisation rates from 1990 to 2050 (projected) and the photograph of a typical urban area.

Use Fig. 10 to suggest how the change in global urbanisation rates can have impacts on the health of urban dwellers. [5]

• The rapid growth in global urbanisation rates from 10% in 1990 to a projected 75% in 2050 (increased five-fold within a century) can have detrimental impacts on the health of urban dwellers.
• They may become increasingly prone to obesity and obesity-related diseases/ degenerative diseases as their lifestyles are made up of high calorie intake and low physical activity. • Frequent use of motor vehicles in urban areas and lack of safe, open spaces to exercise can further limit the level of physical activities among urban dwellers, which further promotes the accumulation of fats in their bodies, resulting in burgeoning numbers of overweight or obese urban dwellers. • The ease in access to globalised brands of fast foods and highly sweetened beverages such as McDonald's and Coca Cola, which tend to be high in calorie content, can bring about the premature onset of diabetes and coronary heart diseases among the urban dwellers. • Engaging in physical activities like watching movies such as Spiderman involve little exertion, causing excess fats to be accumulated in the bodies of many urban dwellers and increase their vulnerability to obesity-related diseases.

(d) 'Social stigma is the main factor that prevents HIV/AIDS from being contained in developed countries.'

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

Agree with the statement	Social stigma is the main factor that prevents the containing of HIV/AIDS in developed countries as HIV-positive carriers are not transparent about their medical conditions for fear of being rejected by the society. Thus, they continue with their daily activities, which may in the process proliferate the spread of HIV/AIDS. In order to avoid being ostracised by the society, potential HIV-positive carriers in developed countries refrain from being tested and avoid the receipt of medical treatment. This can potentially lead to the spread of HIV/AIDS as they continue to lead their lives like a normal person. For instance, HIV-positive carriers may get married and possibly transmit the virus to their spouses during sexual contact. The spread of the disease continues to be proliferated when infected women are unaware and fail to undergo HIV-testing when they become pregnant. This can lead to a further spread of HIV/AIDS when the pregnant mothers transmit to their children during pregnancy, childbirth or breastfeeding. This makes it an uphill task to contain the spread of the disease since HIV-positive carriers are afraid of being discriminated by medical professionals who refuse to treat these patients with antiretroviral therapy and in the process the disease can continue to spread to more people.
Disagree with the statement	The fast-paced and hectic lifestyle in developed countries may drive some groups of people to be involved in vices such as drug abuse and alcoholism, which increases their risks to coming into contact with infected drug abusers and/or commercial sex workers. In developed countries such as United States of America (USA), one third of the 1.2 million people who is diagnosed with HIV/AIDS are involved in drug abuse. When people are involved in intravenous drug abuse, they can become infected with HIV/AIDS when they share needles with an infected HIV/AIDS drug abuser. This can lead to a rapid spread of HIV/AIDS among the ring of drug abusers. Furthermore, people who are involved in binge alcoholism are likely to experience clouded judgments and possibly have multiple sexual partners and engage in unprotected sex. This increases their vulnerability to be infected with HIV/AIDS when they become infected upon having sexual contact with an infected sex worker. This can accelerate the spread of HIV/AIDS among the clients of infected commercial sexual workers. It is challenging to contain HIV/AIDS in developed countries as people who engage in risky lifestyle behaviours can promote the spread among drug abusers, commercial sex workers and their clients.
Conclusion	It is indeed agreeable that social stigma is one of the main factors that prevents HIV/AIDS from being contained in developed countries. The fear of facing disapproval and rejection by the society upon being diagnosed as HIV-positive carriers drives these people to keep mum about their medical conditions. Trained medical professionals in countries such as USA and United Kingdom shun treating HIV patients, which makes it even more challenging to contain HIV/AIDS. Despite advances in medical technology and knowledge in developed countries, prejudice and social stigma towards HIV/AIDS patients is undeniably the main factor that prevents HIV/AIDS from being contained.