

## BEDOK VIEW SECONDARY SCHOOL PRELIMINARY EXAMINATION 2021

### HUMANITIES Secondary Four Normal (Academic) Paper 2 Geography

## 2175/02

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# MARK SCHEME

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This document consists of **23** printed pages including this cover page.

#### Section A

Answer **either** Question 1 **or** Question 2 from this section.

**1** A group of students wanted to understand the tourist profile of tourists who visited the Annapurna region in Nepal as part of their geographical investigation on niche tourism.

The Annapurna region is part of a mountain range which is a popular tourist trekking destination in Nepal. Aside from mountainous treks, it offers opportunities for interactions with the locals, lush forests and agriculture. One of its most popular treks is the Annapurna circuit trek.

(a) Fig. 1 shows the Annapurna circuit trek map, where tourists travel from Kathmandu to attempt it.



#### Annapurna circuit trek map

Fig. 1

(i) The students wanted to use a questionnaire to find out the age groups of tourists visiting the Annapurna circuit trek, and what they enjoyed about the trek.

State one question relevant to their investigation on tourist profiles which the students should include in their questionnaire. [1]

Award 1m for any of the following points.

- What is your age?
- Are you a domestic or international tourist?
- What activities did you enjoy during the trek?
- Accept any plausible answers related to the students' objective
- (ii) Describe other considerations the students should make in the design of their questionnaire before carrying it out. [2]

Award 1m for any of the following points.

- The questionnaire should begin with a few closed questions and end with a small number of open-ended questions.
- The length of the questionnaire should not exceed ten questions.
- Avoid questions which require plenty of thought, cause offence or misunderstanding.
- Use simple and clear language when crafting questions.
- Accept any plausible answers

(iii) The students decided to use random sampling to survey 50 tourists at Nayapul, which is the end point of the trek. Describe how random sampling is conducted.

Award 1m for each of the following points.

[2]

- Random sampling can be conducted with the use of a tool like a number generator which generates random numbers to determine which tourists should be selected for the survey.
- Students will then count and approach tourists who correspond to the generated numbers to conduct the survey with them.
- (b) Suggest one way the students could ensure their data collection method is reliable. [1]

Award 1m for any of the following suggestions.

- The students could collect data over an extended period of time like a few months to take into consideration any variations of tourists at different times of the year.
- The students could increase the sample size to attain more responses.
- (c) Study Photograph A (Insert), which shows the scenery along the Annapurna circuit trek.

In the box below, draw a field sketch of the scenery and annotate **two** features which provide tourist opportunities. [3]

Award 1m for a drawing which shows an outline of key features (mountains, agriculture, settlements) in the photograph.

Award 1m each for two appropriate annotations.







Fig. 2

I aple 1
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#### What tourists enjoyed during their trek by age groups

	Activity	21-30	31-40	41-50	Above 50
1	Interaction with locals and learning about local culture	6	2	0	0
2	Volunteering opportunities to help locals	5	1	1	0
3	Mountaineering sport	10	11	4	0
4	Scenery	3	3	2	2

For the purpose of their investigation, the students came up with the hypothesis 'The Annapurna circuit trek is more popular among tourists of 30 years and above, who enjoy mountaineering as a sport.'

Using evidence from Fig. 2 and Table 1, explain if the students' hypothesis is proven. [4]

Award 1m for each of the following points. Award a maximum of 2m if no evidence is seen in the answer.

- The students' hypothesis is proven. The Annapurna circuit trek is indeed more popular among tourists above the age of 30 and most of them enjoy mountaineering as a sport.
- Out of the 50 tourists, more than half (26) were above the age of 30, showing that the trek is more popular among tourists above the age of 30.
- Out of the activities for tourists above the age of 30, the highest number of responses (15) was for mountaineering. 11 tourists between 31-40 years and 4 tourists between 41-50 years selected this.
- However, an anomaly is seen among tourists in the age group above 50, who selected enjoying scenery as an activity and none of them selected mountaineering.

- 2 A group of students in Lanarkshire, Scotland, wanted to find out if cloud cover had an impact on temperature and relative humidity. They conducted a weather investigation over a period of 14 days.
  - (a) (i) Name an instrument aside from a weather tracker, which the students can use to measure temperature readings. [1]

Award 1m for any of the following instruments.

- Maximum and minimum thermometer
- Digital thermometer
- Analogue thermometer
- (ii) Briefly describe how the sling psychrometer can be used to accurately measure relative humidity. [3]

Award 1m for each of the following points. Award a maximum of 2m if no precautions for accuracy is seen.

- Dip the wick of the wet bulb thermometer in water.
- Swing the sling psychrometer at a steady pace for one minute, keeping it far from the body to avoid capturing temperature of body heat.
- Read and record both the wet and dry bulb thermometers at eye level to avoid parallax error.
- (b) The students collected data on temperature, relative humidity and cloud cover. The data is shown in Fig. 3 below.

Dav	Temperature	Relative Humidity	Cloud Cover
Day	(°C)	(%)	(%)
1	21	91	71
2	13	69	77
3	17	63	61
4	16	72	70
5	17	66	64
6	15	73	71
7	17	66	62
8	15	76	68
9	12	82	69
10	12	80	69
11	12	70	61
12	19	60	55
13	18	59	60
14	20	55	52

#### Weather data for Lanarkshire, Scotland

Using Fig. 3, state the day with the highest temperature and calculate the average temperature across all 14 days. [2]

Award 1m for state and 1m for calculate. No marks are awarded if working is not shown or no units seen.

State • Day 1

Calculate • (21+13+17+16+17+15+17+15+12+12+12+19+18+20) ÷ 14 = 16°C

(c) To test the guiding question 'Does cloud cover affect relative humidity?', the students used data from Fig. 3 to draw two graphs comparing cloud cover and relatively humidity shown in Fig. 4 below.



#### Cloud cover and relative humidity

(i) Using the data in Fig. 3, complete Fig. 4 to show cloud cover and relative humidity on Day 11. [2]

Award 1m each for accurate construction of cloud cover and relative humidity.

(ii) Using Figs. 3 and 4, state if the guiding question 'Does cloud cover affect relative humidity?' is answered.

Give reasons for your answer and state if there are any anomalies. [3]

Award 1m for each of the following points. Accept answers expressed in the form of a relationship. Do not award any mark if no evidence is provided.

- The guiding question 'Does cloud cover affect relative humidity?' is answered. Generally, it seems an increase in cloud cover leads to an increase in relative humidity.
- On Day 7 to Day 9, cloud cover increased by 7% (from 62% to 69%) and relative humidity increased by 16% (from 66% to 82%). On Day 3 to Day 4, cloud cover increased by 9% (from 61% to 70%) and relative humidity also increased by 9% (from 63% to 72%).
- However, there is an anomaly from Day 1 to Day 2, where cloud cover increased by 6% (from 71% to 77%) but relative humidity shows a sharp decrease by 22% (from 91% to 69%) instead.
- (d) Suggest some considerations the students should take into account in order to collect reliable data for Fig. 3. [2]

Award 1m for each of the following points.

- The students should collect the readings at fixed intervals multiple times a day to take into account weather changes throughout the day.
- The students should collect at least 3 readings at each measurement and calculate the average.

#### Section B

Answer Question 3 from this section.

**3 (a)** Study Fig. 5, a graph which shows percentage increase in international tourist arrivals in various regions of the world in 2017 and 2018.

#### Percentage increase in international tourist arrivals in 2017 and 2018



Source: World Tourism Organization (UNWTO) ©

Fig. 5

Using Fig. 5, compare the changes in international tourist arrivals from 2017 to 2018 between Europe, Americas and the Middle East. [3]

Award 1m for each comparison.

Accept alternative comparisons which fulfil the question requirements i.e., comparison of 2017 and 2018 data separately.

Award max 1m for only description of changes or no use of data.

- From 2017 to 2018, the percentage increase in international tourist arrivals dropped in both Europe and Americas. The decline in Europe was 0.9% more than the decline in Americas (Europe decline: 2.9% vs Americas decline: 2%).
- The percentage increase in international tourist arrivals dropped in Europe but rose in the Middle East. The decline in Europe was 2.9% (from 8.6 % to 5.7%). However, the increase in the Middle East was 6.2% (from 10.3% to 4.1%).
- The percentage increase in international tourist arrivals dropped in Americas but rose in the Middle East. The decline in Americas was 2% (from 4.9% to 2.9%). However, the increase in the Middle East was 6.2% (from 10.3 % to 4.1%).

(b) Study Fig. 6, a diagram on characteristics of film-induced tourism.



Characteristics of film-induced tourism

Fig. 6

Using Fig. 6 and your own studies, explain the characteristics of film-induced tourism. [3]

Award 1m for each of the following points. Award max 2m if Fig. 6 is not used. No marks awarded for mere lifting from Fig. 6.

- One characteristic of film-induced tourism involves tourists travelling to a film-themed attraction as the elements of the film like its scenery has made tourists want to visit the destination.
- Tourists can also tour the studio set or watch filming taking place to understand how certain scenes of the film were filmed.
- Tourists can also participate in an organised tour of the portrayed location to understand how these places inspired parts of a film.
- Accept any plausible answers.
- (c) 'Tourists prefer to participate in mass tourism than niche tourism opportunities.'

How far do you agree with this statement? Using examples, give reasons for your answer.

[6]

Level 1 (0-2)	At this level answers will be generalised or with minimal support if any stand were given at all. Reasoning rather weak and expression may be unclear. A basic answer that has little development.
	Award 1m for a brief description of mass or niche tourism.
	Award 2m for a brief description of reasons why tourists may participate in mass or niche tourism.

Level 2 (3-4)	Disagreement or agreement will be supported by appropriate details. Or, both agreement and disagreement are considered, but support is patchy so that the answer is not full. Good reasoning and logic in parts of the answer with good expression in places.
	Award 3m for an explanation which addresses the question with one reason why tourists prefer to participate in either mass or niche tourism.
	Award 4m for an explanation which addresses the question with two reasons why tourists prefer to participate in both mass <u>and</u> niche tourism with one place-specific example.
	Award a maximum of 3m for no use of examples in the answer, regardless of quality of explanation of factors.
Level 3 (5-6)	At this level answers will be comprehensive and supported by sound knowledge. Both agreement and disagreement are considered and well supported. Reasoning is clear and logical with good expression of language.
	Award 5m for an explanation which addresses the question with two reasons why tourists prefer to participate in both mass <u>and</u> niche tourism with two place-specific examples.
	Award 6m for L3-5m and a brief description of a third reason why tourists prefer to participate in either mass or niche tourism with a logical conclusion for the stand taken.

#### Sample Answer

I disagree that tourists prefer to participate in mass tourism than niche tourism opportunities as different tourists have different individual choices and niche tourism opportunities are also recently becoming more popular among tourists.

One reason why some tourists may prefer to participate in mass tourism is because it is convenient especially when one is unfamiliar with the destination. Mass tourism refers to travel that involves large numbers of tourists visiting a particular place together. It often takes the form of a package holiday. Such holidays involve a tour organised by a travel agent, with transportation, accommodation and most meals included in the package. For example, tour guides bring groups of tourists to popular locations like the Great Pyramids of Giza in Egypt yearly. These guides are usually knowledgeable about the sites, habits, culture and history of the location. Tourists may prefer to participate in such package holidays because the itinerary is planned on their behalf, all aspects of the tour are taken care of and they get to learn about the attraction. Such tourists, especially retirees and those with increased affluence, may prefer the convenience offered by mass tourism opportunities as they do not have to plan the itinerary on their own.

However, other tourists may prefer to participate in niche tourism which refers to special-interest tourism based on a particular area, interest or activity. Niche tourism appeals to travellers who seek 'new' destinations, activities and experiences. Such tourists prefer to participate in niche tourism opportunities because they like to customise their itineraries to suit their personal needs. For example, tourists may participate in adventure holidays like mountaineering, whitewater rafting

and bungee jumping in New Zealand. Such activities may not be suitable for the general profile of tourists as they appeal to those who have a particular interest in such adventure activities.

Some tourists may also prefer to participate in ecotourism which is a form of niche tourism. With increasing awareness of environmental conservation and cultures in the world, such tourists may choose to participate in responsible travel. This involves visiting relatively undisturbed natural areas to appreciate natural beauty and biodiversity and provide funds for ecological conservation. This includes visits to national parks, nature reserves and marine parks.

I disagree that tourists prefer to participate in mass tourism than niche tourism opportunities as tourists have varying reasons which influence their decision-making process on tourism opportunities they choose to participate in. While some prefer the convenience mass tourism offers, others may prefer the independence and unique experience niche tourism offers. Therefore, it is difficult to generalise that tourists prefer to participate in mass tourism than niche tourism opportunities.

#### **Section C**

Answer either Question 4 or Question 5 from this section.

**4 (a)** Explain how sea breeze is formed. You may illustrate your answer with an annotated diagram.

Award 1m for each complete point. Award full marks even if an annotated diagram is not used.

- During the day, the land heats up faster than the sea.
- The air over the land surface expands and rises, lowering air pressure over the land.
- The air then cools and sinks above the sea surface, forming an area of high pressure over the sea.

[4]

• Air moves from an area of high pressure over the sea to an area of low pressure over the land as a sea breeze.

Annotated diagram



(b) Using a named example, outline how maritime effect influences the temperature at coastal locations. [3]

Award 1m for each of the following points. Award max 2m if no named example is used.

- Maritime effect is the effect that large ocean bodies have on the climate of coastal areas. It causes coastal areas like Anchorage in Alaska to have cooler summers, warmer winters and a resultant smaller annual temperature range compared to inland areas.
- During summer, the air over the sea is cooler than the air over the land because land heats up faster than the sea. The cooler air over the sea lowers the temperature of coastal areas resulting in cooler summers.
- During winter, the air over the sea is warmer than the air over the land because land loses heat faster than the sea. The warmer air over the sea raises the temperature of coastal areas resulting in warmer winters.



Average precipitation in Darwin, Australia



Using Fig. 7, account for the precipitation pattern in Darwin, Australia.

[4]

Award 1m for each of the following points. Award max 2m if Fig. 7 is not used.

- Darwin has a distinct wet and dry season due to the presence of the northeast monsoon winds. At the end and beginning of the year, Central Asia experiences winter and becomes an area of high pressure while Australia experiences summer and becomes an area of low pressure.
- This creates a pressure gradient which causes the winds to move from an area of high pressure to low pressure from Central Asia to Australia as the northeast monsoon winds. As the winds cross the Equator, the Coriolis effect deflects the winds to the left.
- The winds pick up moisture as they travel over the Indian Ocean, bringing heavier rainfall to locations like Darwin, which has an approximate precipitation of 1060 mm from October to March.
- From April to September, Darwin experiences a dry season of approximately 180 mm in precipitation as the change in seasons results in the winds moving from Australia to Central Asia. These winds which move out from Australia are dry and cold and do not carry much moisture.
- (d) Study Figs. 8 and 9, which show the global climate change trend and roles of cities in climate change.



#### **Global climate change trend**

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#### The role of cities in climate change





Using Figs. 8 and 9, describe the global climate change trend from 1880 to 2010 and explain the role of cities in climate change. [5]

Award 2-3m for describe and explain.

#### Describe

- Generally, the global climate change trend has increased from 1880 to 2010 by about 1.55°C (from -0.25°C to 1.3°C).
- However, there is a sharp decline in global temperature change from 1940 to 1950 by about 0.75°C (from 0.45°C to -0.3°C).
- The highest period of increase is between 1950 and 2010, with an increase of about 1.6°C.

#### Explain

Reserve 1m for cause and 1m for a strategy in the explanation. Award max 1m if Fig. 9 is not used.

- As 55% of the global population lives in cities, urbanisation results in large amounts of fossil fuels being burnt to provide energy for household activities in urban areas.
- Other activities in cities like transportation have also contributed to 75% of global greenhouse gases derived from cities.
- 70% of cities are dealing with effects of climate change with strategies like constructing energy-efficient buildings to reduce the emissions of greenhouse gases.
- Accept any plausible answers.

(e) Study Fig. 10, which shows pressure systems around the United States of America (USA) and Mexico.



#### Pressure systems around USA and Mexico

Fig. 10

[3]

On Fig. 10, mark and name, using the appropriate letter, the following features:

- An area of highest pressure (H)
- An area where air pressure is 1010 mb (A)
- An area of low wind speed (B)

An example, an area of low pressure (L), has been completed for you.

Award 1m for each accurate marking and naming. Accept other plausible answers for A and B. (f) 'Extreme weather events are the greatest impact of climate change on people.'

How far do you agree with this statement? Using examples, give reasons for your answer.

[6]

Level 1 (0-2)	At this level answers will be generalised or with minimal support if any stand were given at all. Reasoning rather weak and expression may be unclear. A basic answer that has little development. Award 1m for a brief description of climate change. Award 2m for a brief description of extreme weather events.
Level 2 (3-4)	Disagreement or agreement will be supported by appropriate details. Or, both agreement and disagreement are considered, but support is patchy so that the answer is not full. Good reasoning and logic in parts of the answer with good expression in places. Award 3m for an explanation which addresses the question and shows how extreme weather events or one other cause of climate change impacts people. Award 4m for an explanation which addresses the question and shows how extreme weather events and one other cause of climate change impact people, with one place-specific example. Award a maximum of 3m for no use of examples in the answer, regardless of quality of explanation of factors.
Level 3 (5-6)	At this level answers will be comprehensive and supported by sound knowledge. Both agreement and disagreement are considered and well supported. Reasoning is clear and logical with good expression of language. Award 5m for an explanation which addresses the question and shows how extreme weather events and one other cause of climate change impact people, with two place-specific examples. Award 6m for L3-5m and a brief description of a third cause of climate change with a logical conclusion for the stand taken.

#### Sample Answer

I agree that extreme weather events are the greatest impact of climate change on people to a large extent. Other impacts of climate change affecting people are sea level rise and the spread of infectious insect-borne diseases.

Extreme weather events are severe and rare weather phenomenon which can result in severe economic losses and loss of lives. They include heat waves, tropical cyclones and torrential rains. For example, in August 2003, Europe experienced a heat wave which killed more than 70 000 people as their vital organs were at risk when subject to extreme heat. Death results when the

body cannot cool itself sufficiently. Young children and the elderly are particularly vulnerable to extreme weather events. Extreme weather events have a great impact on people because they can occur abruptly which provides little time for preparedness and result in large-scale loss of lives.

Another impact of climate change is sea level rise. Sea level rise is the increase in the mean height of the sea's surface between high and low tide relative to land. Rising sea levels have a negative impact on places where humans live. Over 600 million people worldwide live in areas less than 10 metres above sea level, including two-thirds of the world's largest cities. Low-lying areas and islands are threatened by sea level rise. For example, Majuro Atoll in the Pacific Ocean will lose 80 percent of its land if the sea level rises by half a metre. This will have a great impact on coastal communities because they will end up being homeless and have their properties destroyed. People will have to move further inland where land space is already limited and be subjected to higher housing prices.

Another impact of climate change is the spread of infectious insect-borne diseases. As climate change results in increased temperatures and rainfall in various parts of the world, favourable conditions are created for insects to thrive in. This may lead to the spread of some insect-borne diseases like dengue fever which can threaten people's lives.

I agree that extreme weather events are the greatest impact of climate change on people to a large extent because they are unpredictable, leaving people often unprepared and have a severe impact on large numbers of people. Other impacts of climate change like sea level rise occur over a much longer period, allowing people to be sufficiently prepared for their impacts. Governments can also take measures to curb the spread of infectious insect-borne diseases through local community efforts to reduce the impact on people. 5 (a) Explain how the process of sea-floor spreading results in landforms at a divergent plate boundary. You may illustrate your answer with an annotated diagram. [4]

Award 1m for each valid point. Award full marks even if an annotated diagram is not used.

- Sea-floor spreading is a process when magma rises from the mantle to form new sea floor when two oceanic plates diverge due to convection currents in the mantle.
- As the lava flows onto the seafloor cools and solidifies, it builds up to form a rocky ridge of new ocean floor, known as a mid-oceanic ridge.
- The lava can also solidify layer by layer along the oceanic ridge to form cone-shaped landforms known as undersea volcanoes.
- When undersea volcanoes further build up and grow above the sea level, they become known as volcanic islands.

Annotated diagram



(b) Study Photograph B, which shows a rift valley in Iceland.



#### Photograph B

Using Photograph B, describe the appearance of the rift valley and explain its formation. [5]

Award 2m for description and 3m for explanation. No marks awarded for description if Photograph B is not used.

#### Describe

- The rift valley is a narrow linear depression with a stream running through it.
- It has steep, rocky vertical sides which have an uneven rock structure.
- Parts of the rock have jagged and sharp edges which protrude into the valley.

#### Explain

- A rift valley forms when heat from the earth's core results in two continental plates moving away from each other.
- Tensional forces cause fractures in the earth's crust in process known as faulting.
- Along these fractures, sections of the crust can extend and a central block of land subsides between a pair of parallel faults, forming a depression known as a rift valley.

(c) Study Fig. 11, which shows the structure of a volcano.



Structure of a volcano

Fig. 11

Name the parts of the volcano labelled A and B and describe two risks of living in volcanic regions. [4]

Award 2m for naming and 2m for description.

#### Name

- A: Magma chamber
- B: Vent / Crater

#### Describe

- One risk of living in volcanic regions is the loss of lives. Lava from an eruption has high temperatures of between 500°C and 1400°C and burns the areas it flows through, killing people. Inhaling hot ash and gases from an eruption can also lead to death.
- Another risk of living in volcanic regions is damage of properties. Volcanic bombs of heated rocks can fall in areas surrounding the volcano and cause damage to property due to their sheer size.
- Accept any plausible answer.
- (d) With the help of a named example, explain how altitude affects the temperature of a location. [3]

Award 1m for each of the following points. Reserve 1m for the use of a named example.

- As altitude increases, temperature decreases. Generally, temperature decreases by 6.5°C with every 1000 metres increase in altitude.
- The atmosphere is mostly heated by the earth's surface when shortwave radiation is absorbed and longwave radiation is emitted. The higher the altitude, the further it is from

the surface of the earth which is heated by the sun, leading to a decrease in temperatures.

- An example would be Genting highlands, a mountainous area in Malaysia where temperatures can be almost 8°C lower compared to other parts of Malaysia.
- Accept other plausible reasons.
- (e) Study Fig. 12, which shows sources of greenhouse gas emissions in several European Union (EU) countries in 1990 and 2018.



Greenhouse gas emissions in EU countries in 1990 and 2018

Fig. 12

Using Fig. 12, describe the changes in sources of greenhouse gas emissions from 1990 to 2018 in the EU countries. [3]

Award 1m for each of the following points.

- From 1990 to 2018, the greenhouse gas emissions from waste management fell by 1% (from 4% to 3%).
- The greenhouse gas emissions from fuel combustion and fugitive emissions from fuels also fell by 9% (from 62% to 53%).
- However, the greenhouse gas emissions from transport increased by 10% (from 15% to 25%).

(f) 'The time of occurrence is the most important factor influencing the extent of earthquake damage in a location.'

How far do you agree with this statement? Using examples, give reasons for your answer.

[6]

Level 1 (0-2)	At this level answers will be generalised or with minimal support if any stand were given at all. Reasoning rather weak and expression may be unclear. A basic answer that has little development. Award 1m for a brief description of earthquake damage. Award 2m for a brief description of time of occurrence.
Level 2 (3-4)	Disagreement or agreement will be supported by appropriate details. Or, both agreement and disagreement are considered, but support is patchy so that the answer is not full. Good reasoning and logic in parts of the answer with good expression in places. Award 3m for an explanation which addresses the question and explains how
	<ul> <li>one factor influences the extent of earthquake damage in a location.</li> <li>Award 4m for an explanation which addresses the question and explains how two factors (including time of occurrence) influence the extent of earthquake damage in a location, with one place-specific example.</li> <li>Award a maximum of 3m for no use of examples in the answer, regardless of quality of explanation of factors.</li> </ul>
Level 3 (5-6)	At this level answers will be comprehensive and supported by sound knowledge. Both agreement and disagreement are considered and well supported. Reasoning is clear and logical with good expression of language. Award 5m for an explanation which addresses the question and explains how two factors (including time of occurrence) influence the extent of earthquake damage in a location, with two place-specific examples. Award 6m for L3-5m and a brief description of how a third factor influences
	influence the extent of earthquake damage in a location with a logical conclusion for the stand taken.

#### Sample Answer

I disagree to a large extent that the time of occurrence is the most important factor influencing the extent of earthquake damage in a location. I feel that the most important factor influencing the extent of earthquake damage in a location is actually its magnitude. Another factor which can also be rather significant is the distance from the epicentre of the earthquake.

The time of occurrence of an earthquake determines where people are and what they are doing, which will affect their chances of survival in an earthquake. If an earthquake occurs when people

are sleeping or in a business district during office hours, there is a higher chance that people will be trapped in their homes and offices during the earthquake. For example, more than 2400 people died when an earthquake occurred in the wee hours of the morning in the Sun Moon Lake Region in Taiwan in 1999. The time of occurrence can affect the casualty rate of an earthquake but it may not be the most important factor.

Instead, the magnitude of an earthquake is the most important factor influencing the extent of earthquake damage in a location. The magnitude of an earthquake is the amount of energy released during the earthquake. For each increase in magnitude on the Richter Scale, the impact of the earthquake becomes ten times greater than the previous one. Earthquakes of greater magnitudes are more likely to cause extensive damage and destruction. For example, in 2004, the 9.2 magnitude earthquake in the Indian Ocean triggered a tsunami which caused damage to coastal communities in 12 countries and registered a death toll of almost 230 000. The magnitude of an earthquake is a key factor influencing the extent of earthquake damage because it directly determines its impact in a location.

Another factor which can influence the extent of earthquake damage in a location is the distance from the epicentre. The damage from an earthquake is more severe when the location is closer to the epicentre because such locations receive a greater impact of the seismic waves compared to locations which are further.

I disagree that the time of occurrence is the most important factor because there are other more significant factors like the earthquake's magnitude which will directly determine the strength of its seismic waves and impact. The time of occurrence may affect the number of casualties in an earthquake but properties and buildings can still face massive destruction when the earthquake magnitude is high. The damage from an earthquake further from the epicentre may also still be severe if the magnitude is high.

Copyright Acknowledgements:

Question 1(a)	© https://basecampadventure.com/annapurna-circuit-trek-map/
Question 2(b) Figure 3	© https://www.netweather.tv/weather-forecasts/uk/14-day/25321~Scotland
Question 3(a) Figure 5	© https://skift.com/2019/01/21/global-tourism-growth-slowed-in-2018-but-arrivals-still-hit-1-4-billion/
Question 3(b) Figure 6	© https://www.sciencedirect.com/science/article/abs/pii/S0261517712000404
Question 4(c) Figure 7	© https://weather-and-climate.com/average-monthly-precipitation-Rainfall,point-stuart-northern-territory-au,Australia
Question 4(d) Figure 8	© https://www.climatecentral.org/news/warming-hiatus-might-not-exist-19074
Question 4(d) Figure 9	© https://city2city.network/infographic-climate-change-and-cities
Question 4(e) Figure 10	© https://docplayer.net/41455926-Air-pressure-homework-a-b-c-d.html
Question 5(b) Photograph B	© https://www.locationscout.net/themes/rift-valley
Question 5(c) Figure 11	© http://getdrawings.com/volcano-drawing
Question 5(e) Figure 12	© https://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Greenhouse_gas_emissions,_analysis_

