

Oxford Revise | Geography | Answers

Chapter 4

All exemplar answers given are worth full marks.

1.1 D

1.2 72

1.3 A

1.4 One from: the sea temperature must be at least 27°C; the sea must be 50 m deep.

1.5 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> • Sound, organised and relevant throughout, using supporting evidence and examples • Communicates good knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives) • Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Explanations are partial • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *Tropical storms form when evaporating warm oceans of at least 27°C lead to rising air at the ocean's surface. As the air rises, it cools and condenses, forming storm clouds. Trade winds and the Coriolis effect start the storm spinning and it moves across the ocean, drawing in more warm moist air as it moves. Over a period of days, the storm draws more energy from the warm ocean and a tropical storm is formed.*

1.6 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> • Sound, organised and relevant throughout, using supporting evidence and examples • Communicates good knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives) • Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Explanations are partial • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *On the outer edge of a tropical storm, there are gusts of wind and showers. As you travel in toward the centre, there are bands of towering clouds. The wind speed increases up to 100 km an hour and there is very heavy rain and thunderstorms. As you approach the eye wall, there are winds of 120 km an hour and more intense rain, thunder, and lightning. At the very centre of the tropical storm is the eye, where the weather is calm with no clouds, and sometimes sunshine.*

2.1 90

2.2 29

2.3 90

2.4 15

Working:

Number of storms in ascending order: 75, 77, 83, 84, 88, 90, 94, 95, 98, 103, 104

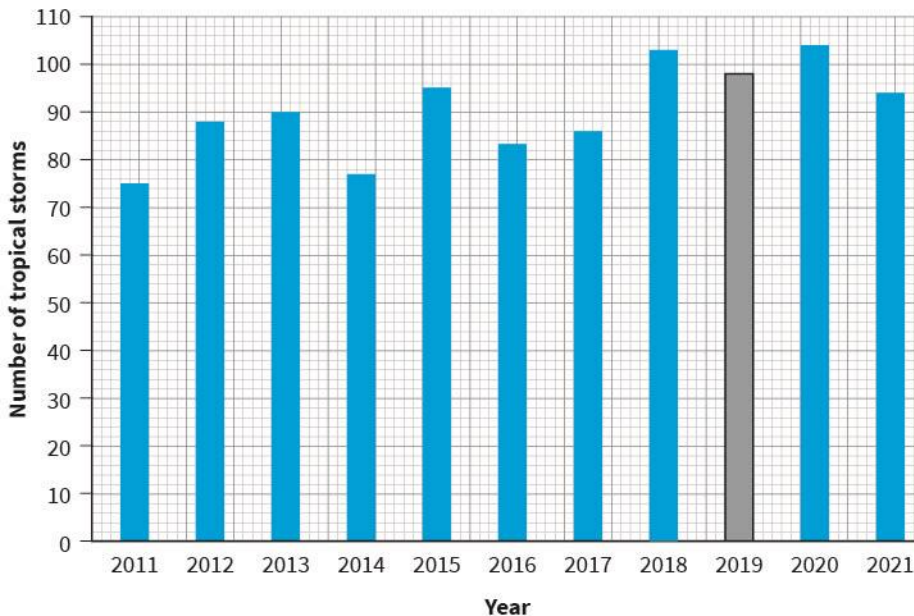
Median: 90

Median of bottom half: 83

Median of top half: 98

Inter-quartile range: $98 - 83 = 15$

2.5 The bar chart should be completed as below:



3.1 Primary effects are effects that are a direct result of the tropical storm.

3.2 C

3.3 A

3.4 **Accept any of the following:** electricity supply destroyed; water supply damaged; 33 million coconut trees washed away.

3.5 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> • Sound, organised and relevant throughout, using supporting evidence and examples • Communicates good knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives) • Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Explanations are partial • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *One secondary effect of a tropical storm might be homelessness. If a tropical storm flattened vast areas of a country, this would include destroying people's homes, which would leave them homeless. A second secondary effect might be illness from disease. Tropical storms cause flooding, which can mean raw sewage and waste in the water supply and cause diseases like typhoid and cholera.*

Accept other suitable answers.

3.6 Accept any two from: people could suffer from diseases like cholera; people may be made homeless; people would lose their jobs and income if their business was destroyed; people may die; people may be injured.

3.7 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> • Sound, organised and relevant throughout, using supporting evidence and examples • Communicates good knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives) • Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Explanations are partial • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *One reason why deaths might have occurred during the storm would be due to the storm surge. Tropical storms often bring a wall of water to the shore, which causes flooding, and it is possible that people will drown in the torrent of water. A reason why deaths might occur after the tropical storm would be disease. When water systems are damaged, flood water can wash out sewage systems, and deadly diseases like cholera, typhoid, or dysentery can flourish.*

3.8 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> • Sound, organised and relevant throughout, using supporting evidence and examples • Communicates good knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives) • Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Explanations are partial • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *One way the environment was affected was through the destruction of ecosystems and habitats. The storm surge would have flooded large areas of land and Figure 4 states that this destroyed 33 million coconut trees. The environment might also have been damaged through pollution. Flood water mixes with water in sewage systems and this means that large areas of land are covered in dirty, polluted water.*

3.9 This question is level-marked:

Level	Marks	Description
3 (detailed)	5–6	<ul style="list-style-type: none"> • Thorough, detailed, organised, and relevant throughout with supporting evidence and examples • Communicates detailed, clear knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas) • Good use of geographical terms and vocabulary
2 (clear)	3–4	<ul style="list-style-type: none"> • Sound throughout with some supporting evidence and examples • Communicates some knowledge and understanding • Communicates using linked statements and ideas (e.g. uses connectives, but needs further development) • Some use of geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Communicates using simple statements that are not developed • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *I slightly disagree with the statement. This is because secondary effects are much longer lasting than primary effects and impact people for many years making them more significant.*

Some people might argue that primary effects are more significant because they include deaths and injuries to people. However, secondary effects include things like hospitals being overcrowded, people being homeless and exposed to the elements, and the enormous costs of dealing with the aftermath of a tropical

storm. In the long run, the costs of tackling these issues can also lead to people dying. For example, countries might get into debt when something like the coconut industry is destroyed. This means the country cannot afford basic healthcare which leads to more infant mortality in the long run. After Typhoon Haiyan in the Philippines 6300 people were killed but 6 million people lost their jobs and repair costs were enormous. Short-term deaths are significant, but the secondary impacts would lead to many deaths in the future which is why I slightly disagree with the statement.

Arguments agreeing with the statement should be credited if they are supported with appropriate evidence.

3.10 This question is level-marked:

Level	Marks	Description
3 (detailed)	7–9	<ul style="list-style-type: none"> • Thorough, detailed, organised, and relevant throughout with supporting evidence and examples • Communicates detailed, clear knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas) • Good use of geographical terms and vocabulary
2 (clear)	4–6	<ul style="list-style-type: none"> • Sound throughout with some supporting evidence and examples • Communicates some knowledge and understanding • Communicates using linked statements and ideas (e.g. uses connectives, but needs further development) • Some use of geographical terms and vocabulary
1 (basic)	1–3	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Communicates using simple statements that are not developed • Little or no use of geographical terms and vocabulary
	0	No relevant content

3-marks: SPaG (spelling, punctuation, grammar, and specialist terminology)

Marks	Description
3	<ul style="list-style-type: none"> • Accurate spelling and punctuation • Rules of grammar followed • Effective control of meaning • Uses wide range of specialist terms
2	<ul style="list-style-type: none"> • Generally accurate spelling and punctuation • Most rules of grammar followed • General control of meaning • Uses good range of specialist terms
1	<ul style="list-style-type: none"> • Reasonably accurate spelling and punctuation • Some rules of grammar followed – errors do not hinder meaning • Some control of meaning • Limited use of specialist terms

Marks	Description
0	<ul style="list-style-type: none"> Writes nothing Does not relate to question Basic grasp of spelling, punctuation, and grammar prevents clear meaning

Example answer: *I slightly agree with the statement because the way a country responds in the long term will affect more people than immediate responses. However, immediate responses are still important.*

For example, after Typhoon Haiyan hit the Philippines in 2013, immediate responses like US helicopters completing search and rescue and the Red Cross supplying 1.1 million people with water were important in saving many lives because they provided essential lifesaving services when clean water was not available. However, the long-term response of planting mangrove forests and the 'Build Back Better' scheme building typhoon resistant housing will save many more lives in the future because the social and economic impact of future typhoons will be reduced. Mangrove forests will slow the storm surge and people will be safer in their houses and communities so the ability of the Philippines to cope with all future typhoons is improved.

Similarly, short-term temporary tents are important but so is the speed of long-term rehousing and getting people working again to provide food and shelter to their family in a sustainable way. Getting the economy back working means money is being earned that can pay for things like healthcare programmes. Therefore, while immediate responses are important, the effectiveness of long-term responses is more important to the overall impact of the tropical storm.

Arguments disagreeing with the statement should be credited if they are supported with appropriate evidence.

3.11 This question is level-marked:

Level	Marks	Description
3 (detailed)	7–9	<ul style="list-style-type: none"> Thorough, detailed, organised, and relevant throughout with supporting evidence and examples Communicates detailed, clear knowledge and understanding Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas) Good use of geographical terms and vocabulary
2 (clear)	4–6	<ul style="list-style-type: none"> Sound throughout with some supporting evidence and examples Communicates some knowledge and understanding Communicates using linked statements and ideas (e.g. uses connectives, but needs further development) Some use of geographical terms and vocabulary
1 (basic)	1–3	<ul style="list-style-type: none"> Basic throughout with limited supporting evidence and/or examples Communicates limited knowledge and understanding Communicates using simple statements that are not developed Little or no use of geographical terms and vocabulary
	0	No relevant content

3-marks: SPaG (spelling, punctuation, grammar, and specialist terminology)

Marks	Description
3	<ul style="list-style-type: none"> • Accurate spelling and punctuation • Rules of grammar followed • Effective control of meaning • Uses wide range of specialist terms
2	<ul style="list-style-type: none"> • Generally accurate spelling and punctuation • Most rules of grammar followed • General control of meaning • Uses good range of specialist terms
1	<ul style="list-style-type: none"> • Reasonably accurate spelling and punctuation • Some rules of grammar followed – errors do not hinder meaning • Some control of meaning • Limited use of specialist terms
0	<ul style="list-style-type: none"> • Writes nothing • Does not relate to question • Basic grasp of spelling, punctuation, and grammar prevents clear meaning

Example answer: *Typhoon Haiyan, which struck the Philippines in November 2013, was one of the strongest and most devastating tropical storms in history. One million homes were destroyed, essential infrastructure was damaged and 6300 people were killed. The USA helped with search and rescue and the Red Cross supplied a million people with clean water. This was effective because it meant that diseases like cholera that often follow tropical storms were effectively managed and many lives were saved by people not drinking dirty water. 1 200 evacuation centres were set up, which meant that aid could be effectively targeted at particular places and more people were able to receive it quickly and efficiently.*

Long-term responses were also effective. Many people had lost their source of income, but the UN 'Cash for Work' program paid people to clean up debris. This meant the clean-up operation was quicker (reducing the spread of disease). It also meant that people were able to earn money to spend in the businesses that did survive, which reduced the long-term impact on the economy.

Long-term planning also took place with mangrove forests planted to act as a barrier against future storm surges and better planning took place to ensure new buildings were not placed in vulnerable areas. This is effective because it means that the impact of future typhoons will be more manageable.

Overall, the immediate responses were effective in saving lives and restoring the economy and the long-term responses helped better protect the Philippines for the future.

3.12 This question is level-marked:

Level	Marks	Description
3 (detailed)	5–6	<ul style="list-style-type: none"> • Thorough, detailed, organised, and relevant throughout with supporting evidence and examples • Communicates detailed, clear knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas) • Good use of geographical terms and vocabulary

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> • Sound throughout with some supporting evidence and examples • Communicates some knowledge and understanding • Communicates using linked statements and ideas (e.g. uses connectives, but needs further development) • Some use of geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Communicates using simple statements that are not developed • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *I strongly agree with the statement. This is because people are affected through serious consequences like death while environmental damage is often temporary and can be restored. Typhoon Haiyan in the Philippines in 2013 killed 6 300 people, which is clearly a serious consequence for those individuals, including consequences for family members such as children being orphaned. People also lose their homes and their sources of income which means that their health and chances of a good quality of life suffers over a long period of time.*

Typhoon Haiyan did have environmental impacts, such as the pollution of land and water supplies, but there were consequences for people from this with the spread of diseases like dysentery. In the long run, the land can be cleaned and decontaminated but the short-term impact on people is more significant.

Similarly, 33 million coconut trees were destroyed. These trees can be replanted, and the ecosystem regenerated, but in the meantime hundreds of people have lost a source of income. This might mean that they are not able to afford to send their children to school or eat a healthy diet, causing illness and higher mortality rates. Therefore I think that the impact is more significant for people than for the environment.

Arguments disagreeing with the statement should be credited if they are supported with appropriate evidence.

4.1 This would be effective because it is on stilts, which would protect people from flooding. It is also large enough to provide shelter for a high number of people.

4.2 This question is level-marked:

Level	Marks	Description
3 (detailed)	5–6	<ul style="list-style-type: none"> • Thorough, detailed, organised, and relevant throughout with supporting evidence and examples • Communicates detailed, clear knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas) • Good use of geographical terms and vocabulary

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> • Sound throughout with some supporting evidence and examples • Communicates some knowledge and understanding • Communicates using linked statements and ideas (e.g. uses connectives, but needs further development) • Some use of geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Communicates using simple statements that are not developed • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *The impact of tropical storms can be reduced by protection methods like building special storm shelters shown in Figure 5. These are effective because they are built of strong materials like concrete and raised above ground level to protect people from flooding. They are also relatively cheap to build, which is especially important in LICs like Bangladesh*

Planning can also be used to prepare for future tropical storms. In the Philippines after Typhoon Haiyan, they planted mangrove forests along the coastline. These forests will provide a natural barrier against storm surges in future tropical storms. This is important because storm surges and the rapid flooding they bring are one of the most destructive impacts of tropical storms.

4.3 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> • Sound, organised and relevant throughout, using supporting evidence and examples • Communicates good knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives) • Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Explanations are partial • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *Prediction allows people to be evacuated away from where the tropical storm will hit. This can take place in the days before the tropical storm hits and saves many lives because people are moved away from the most dangerous areas. Prediction also allows people to make preparations such as boarding up their property. This reduces the impacts because there will be less damage and fewer repairs will need to be made.*

4.4 This question is level-marked:

Level	Marks	Description
3 (detailed)	5–6	<ul style="list-style-type: none"> • Thorough, detailed, organised, and relevant throughout with supporting evidence and examples • Communicates detailed, clear knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas) • Good use of geographical terms and vocabulary
2 (clear)	3–4	<ul style="list-style-type: none"> • Sound throughout with some supporting evidence and examples • Communicates some knowledge and understanding • Communicates using linked statements and ideas (e.g. uses connectives, but needs further development) • Some use of geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Communicates using simple statements that are not developed • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *Planning can help reduce the effects of tropical storms because it allows people to be prepared and know what to do when a tropical storm approaches. For example, education can inform people how to keep an emergency supply kit with basic medical equipment and water purification tablets. Understanding that water is often polluted by flooding from tropical storms and needs to be treated before it is safe can save lives through preventing diseases like typhoid and cholera.*

Protection is also important. Sea walls can be built to prevent storm surges from flooding settlements. This is important because storm surges are one of the most devastating impacts of tropical storms and preventing the rapid flooding these bring can save lives and protect against property damage. This reduces the social impacts like death and disease spread by flood water and also the economic impacts because there are fewer rebuilding and clean-up costs.

4.5 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> • Sound, organised and relevant throughout, using supporting evidence and examples • Communicates good knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives) • Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Explanations are partial • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *Satellite images can be used to respond to tropical storms because they allow the storm to be tracked. This means that a projected path can be established, and predictions made about where the tropical storm will hit land. Doing this means that preparations can be made to save lives, either through early evacuations to remove people from the danger zone, or through ensuring people have sufficient supplies and a safe shelter for when the tropical storm hits.*

5.1 Hot deserts are found here because this is where the Hadley and Ferrel cells meet. There is sinking air and high pressure, leading to clear skies and low precipitation. It is hot because it is still quite close to the equator, so the Sun is directly overhead and there is high insolation.

5.2 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	<ul style="list-style-type: none"> • Sound, organised and relevant throughout, using supporting evidence and examples • Communicates good knowledge and understanding • Communicates using developed statements and ideas (e.g. uses connectives) • Uses geographical terms and vocabulary
1 (basic)	1–2	<ul style="list-style-type: none"> • Basic throughout with limited supporting evidence and/or examples • Communicates limited knowledge and understanding • Explanations are partial • Little or no use of geographical terms and vocabulary
	0	No relevant content

Example answer: *Planning can reduce the impacts because people can undergo earthquake drills. This means that they will know to shelter under tables or evacuate the building quickly, which means it is less likely they will be injured from falling objects.*

Protection can reduce the impacts by building earthquake-proof buildings. These have seismic isolators in their foundation so that the building sways with the earthquake and does not collapse. This means that people are not killed and injured by collapsing buildings and falling debris.