Oxford Revise | Geography | Answers

Chapter 11

All exemplar answers given are worth full marks.

1.1 The low rainfall means that there is not enough water for people to live or for activities like agriculture that require a lot of water.

1.2 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	• 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	• 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: *Extreme temperatures provide a challenge for development because daily temperatures that reach up to 50°C are extremely difficult for people to work in. In temperatures like this, people need regular breaks and access to shade. The hot temperatures also make it difficult for machinery to operate without overheating, which can lead to regular breakdowns, preventing development.*

1.3 Hot deserts often have limited transport infrastructure with many areas only accessible by camel. This provides a challenge to development because equipment and machinery cannot be easily transported to where it is needed.

1.4 This question is level-marked:

Level	Marks	Description
3 (detailed)	5–6	• 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	• 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

Level	Marks	Description
1 (basic)	1–2	• 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 think that extreme temperatures are a big challenge to development, but I do not think they are the biggest challenge. Extreme temperatures make it difficult for people to work for long hours outside and difficult for machinery to operate. This hinders economic development but is not an insurmountable problem because specialist machinery can be used and people can take regular breaks and protect themselves from the extreme heat.*

A bigger challenge is a lack of water supply. Large quantities of water are needed for large-scale human settlements and for any kind of industrial development. Hot deserts typically have less than 250 mm of rainfall a year and have few stores of water. This means that large-scale development is only possible with water transfer schemes. Without water, it is not possible to have development so this makes the low rainfall and water supply issues a bigger challenge than extreme temperatures.

1.5 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	• 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	• 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: *Energy production provides an opportunity for development because hot deserts receive large amounts of sunlight. This means they are ideal environments for developing solar farms. The captured solar energy can be used for industrial and domestic use. Hot deserts also offer opportunities for wind energy because the lack of urban development means there is space for wind farms. India's largest wind farm is in a hot desert environment at Jaisalmer.*

1.6 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	• 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	• 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: *Despite having the challenge of water supply, hot deserts can be developed through farming. Water transfer schemes bring water into hot deserts, where there is plenty of space for farming. In India, the Indira Gandhi canal supplies 3500km^2 of desert with water. This means many crops like wheat and cotton can be grown in the desert.*

1.7 This question is level-marked:

Level	Marks	Description
3 (detailed)	7–9	• 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	• 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	• 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	• Accurate spelling and punctuation • Rules of grammar followed • Effective control of meaning • Uses wide range of specialist terms

Marks	Description
2	• Generally accurate spelling and punctuation • Most rules of grammar followed • General control of meaning • Uses good range of specialist terms
1	• 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	• Writes nothing • Does not relate to question • Basic grasp of spelling, punctuation, and grammar prevents clear meaning

Example answer: *I partially agree with this statement. The images in Figure 1 show that there are opportunities for economic development in hot deserts. They provide good places for wind farm development, for example. The large spaces allow wind farms to be built and India's largest wind farm at Jaisalmer is one example of successful development. The energy created can then be used in other domestic and industrial developments.*

Tourism is also an opportunity for development. The unique environment in hot deserts attracts tourists wanting to experience things like camel rides and the large open and undeveloped spaces.

However, there are many challenges to successful economic development. The extreme temperatures limit the amount of time people can spend outside and problems with water supply mean that water transfer schemes are needed or that development can only take place near the limited number of water sources. These challenges mean that developments like energy production, tourism, or even agriculture will be more limited than in other places that do not have these challenges. So while there are some opportunities for development, I disagree that there are many opportunities. There are too many challenges for widespread economic development in hot deserts.

2.1 Desertification is the gradual change of fertile land into desert.

2.2 Areas at risk from desertification are next to existing desert and semi desert areas. South of the equator, they are mostly found between the equator and 30°S in Africa, the coastal regions of Australia and a band stretching across central South America. North of the equator, there is a band across central Africa and in the northern Middle East and central and southern Asia.

2.3 Over-farming of the land meaning that nutrients are lost from the soils turning it to dust.

Accept other suitable answers.

2.4 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	• 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

Level	Marks	Description
1 (basic)	1–2	• 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: *Areas on the fringes of hot deserts are often overpopulated. This means that demand for fuel wood is high and trees and other vegetation is removed at a faster rate than it is regrown. Trees help to bind the soil together and protect it from the wind and rain, so when trees are removed, the soil is more likely to erode. People also overgraze these areas. Animals eat vegetation that protected the soil. Their hooves cause erosion, turning the soil to dust and increasing desertification.*

2.5 This question is level-marked:

Level	Marks	Description
3 (detailed)	5–6	• 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	• 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	• 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: *Population growth is a significant cause of desertification. When the population living on the fringes of hot deserts grows, over-cultivation and overgrazing are more likely because there is a bigger population to support. Over-cultivation causes desertification because the land is farmed so much that the soils lose nutrients and begin to turn to dust. Furthermore, overgrazing will take place. When animals like goats eat the vegetation, soils are exposed to wind and rain erosion. Erosion caused by animal hooves helps turn soils to dust and further desertification.*

People also cut down natural vegetation to use for fuel wood. This also exposes the soils to wind and rain erosion. Population growth means these activities are more likely to take place, causing desertification on the fringes of hot deserts.

2.6 This question is level-marked:

Level	Marks	Description
3 (detailed)	5–6	• 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	• 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	• 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: *Physical factors cause desertification on the fringes of hot deserts by the actions of the wind and rain on the soil.*

However, physical erosion is mostly a problem because of human factors that expose the soil to erosion. For example, overgrazing exposes the soil to wind and rain erosion because animals eat the vegetation protecting the soil and binding it together. Similarly, population growth leading to cutting down vegetation for fuel wood also removes protective vegetation from the land and makes the soil more likely to be exposed to the weather.

So while the physical factors of wind and rain are mostly responsible for turning the land into desert, it is the removal of vegetation by overgrazing and gathering fuel wood that is exposing the soil in the first place. This means that human factors and not physical factors are the main cause of desertification.

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

3.1 Laying lines of stones along slope contours means that soil will not be washed away when it rains because it will be trapped by the stone lines. This means that the soil will remain intact and reduce the risk of desertification.

3.2 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	• 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	• 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: *Planting drought resistant trees like Acacia trees can reduce the risk of desertification because the trees' roots help to bind the soil together and shelter it from the effects of wind and rain. If exposed to wind and rain, the soil is more likely be blown and washed away, gradually turning into dust. Trees also provide shade, which keeps moisture in the soil. This means that other vegetation can grow, further binding the soil together and protecting it from erosion.*

3.3 This question is level-marked:

Level	Marks	Description
3 (detailed)	7–9	• 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	• 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	• 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	• Accurate spelling and punctuation • Rules of grammar followed • Effective control of meaning • Uses wide range of specialist terms
2	• Generally accurate spelling and punctuation • Most rules of grammar followed • General control of meaning • Uses good range of specialist terms
1	• 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	• Writes nothing • Does not relate to question • Basic grasp of spelling, punctuation, and grammar prevents clear meaning

Example answer: *Desertification is the gradual change of the land into desert. It is caused by soil becoming more exposed to wind and rain erosion, often through human activity like overgrazing and the removal of trees for fuel wood. Figure 2 shows two different strategies to manage desertification, which tackle different causes.*

Planting trees is important because the trees can help to bind the soil together and shelter it from the effects of wind and rain. They also provide shade, which keeps moisture in the soil and helps new vegetation to grow. However, trees take a long time to grow, and the soil must be kept in place while this is happening. The stone lines shown in Figure 2 help to do this by preventing soil from being washed away by the rain. Both strategies therefore work together to manage desertification.

Technology like solar ovens can also be used to reduce the need for firewood. This means that as vegetation is restored through tree planting it is less likely to be removed because people can cook in solar ovens rather than traditional wood-burning stoves. These three different strategies support each other because planting trees is only going to be effective if the demand for firewood is reduced.

4.1 Emergents

4.2 The forest floor is a very dark and wet environment with thick vegetation.

4.3 This question is level-marked:

Level	Marks	Description
2 (clear)	3–4	• 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

Level	Marks	Description
1 (basic)	1–2	• 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 rainforests have high biodiversity because the climate is hot and wet all the year round. It is hot because tropical rainforests are close to the equator where there is low solar insolation. It is wet because the heat from the Sun creates convectional rainfall when warm air rises, cools, and condenses to give heavy rain showers every day. These hot and wet conditions are the ideal environment for plant growth which is then able to support a huge variety of insects and animals.*

5.1 Hot deserts are found in bands east to west across the world mostly either side of the tropics. 30°N of the equator, there are desert areas in south-west USA, the Sahara Desert in Africa, and the Thar desert in southern Asia. Around 30°S, there are deserts in Australia, Southern Africa and the west coast of South America.