# Oxford Revise | Geography | Answers

## Chapter 9

**All exemplar answers given are worth full marks.**

**1.1** B

**1.2** **One of:** commercial farming, subsistence farming, logging, road building, mineral extraction, road building or settlement and population growth.

**Similar statements to the following are also creditable:** Because countries are trying to develop.

**1.3** Commercial farming causes deforestation because large areas of trees are cleared in order to have land to rear cattle on to supply the beef and leather industries.

**1.4** This question is level-marked:

| Level | Marks | Description |
|---|---|---|
| 2 (clear) | 3–4 | • Sound, organised and relevant throughout, using supporting evidence and examples<br>• Communicates good knowledge and understanding<br>• Communicates using developed statements and ideas (e.g. uses connectives)<br>• Uses geographical terms and vocabulary |
| 1 (basic) | 1–2 | • Basic throughout with limited supporting evidence and/or examples<br>• Communicates limited knowledge and understanding<br>• Explanations are partial<br>• Little or no use of geographical terms and vocabulary |
|  | 0 | No relevant content |

Example answer: *Road building causes deforestation because trees are cut down to create space for roads. However, this only accounts for a small amount of deforestation. The biggest impact of road building is the way they open the rainforest up to other causes of deforestation. For example, subsistence farmers are only able to access the rainforest when roads are built. The roads therefore start the process of more widespread deforestation.*

**1.5** 993.9 million hectares

**1.6** Brazil % decrease = (343.2 − 318.7) ÷ 343.2 × 100 = 7%

Indonesia % decrease = (93.8 − 84.4) ÷ 93.8 × 100 = 10%

Indonesia had the largest percentage decrease.

**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<br>• Communicates detailed, clear knowledge and understanding<br>• Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas)<br>• Good use of geographical terms and vocabulary |
| 2 (clear) | 4–6 | • Sound throughout with some supporting evidence and examples<br>• Communicates some knowledge and understanding<br>• Communicates using linked statements and ideas (e.g. uses connectives, but needs further development)<br>• Some use of geographical terms and vocabulary |
| 1 (basic) | 1–3 | • Basic throughout with limited supporting evidence and/or examples<br>• Communicates limited knowledge and understanding<br>• Communicates using simple statements that are not developed<br>• 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<br>• Rules of grammar followed<br>• Effective control of meaning<br>• Uses wide range of specialist terms |
| 2 | • Generally accurate spelling and punctuation<br>• Most rules of grammar followed<br>• General control of meaning<br>• Uses good range of specialist terms |
| 1 | • Reasonably accurate spelling and punctuation<br>• Some rules of grammar followed – errors do not hinder meaning<br>• Some control of meaning<br>• Limited use of specialist terms |
| 0 | • Writes nothing<br>• Does not relate to question<br>• Basic grasp of spelling, punctuation, and grammar prevents clear meaning |

Example answer: *There are many reasons for deforestation in the Amazon rainforest. One of these is the building of hydroelectric dams, which involves clearing and flooding a large amount of rainforest. Another is mining for resources and minerals like coal and iron ore. While both are important factors in deforestation, in percentage terms they account for a relatively small amount of the loss of rainforest at less than 3%.*

*The biggest cause of deforestation is commercial farming, when forest is cleared for cattle ranching or growing cash crops like soy. This is a significant cause because the rainforest soils quickly lose nutrients and more land needs to be cleared to continue agricultural practices.*

*However, it could be argued that road building the most significant cause because without roads activities like mining, commercial farming and subsistence farming would not take place. Road building starts all the other activities of deforestation and for this reason it is the most important cause of deforestation.*

**2.1**   They reduce drought by creating local water cycles.

**Accept other suitable answers.**

**2.2**   This question is level-marked:

| Level | Marks | Description |
|---|---|---|
| 2 (clear) | 3–4 | • Sound, organised and relevant throughout, using supporting evidence and examples<br>• Communicates good knowledge and understanding<br>• Communicates using developed statements and ideas (e.g. uses connectives)<br>• Uses geographical terms and vocabulary |
| 1 (basic) | 1–2 | • Basic throughout with limited supporting evidence and/or examples<br>• Communicates limited knowledge and understanding<br>• Explanations are partial<br>• Little or no use of geographical terms and vocabulary |
| | 0 | No relevant content |

Example answer: *At a local scale, rainforests are important to indigenous people because it is their home. Indigenous people have been living sustainably in the rainforests for thousands of years with rainforests providing them with the food, materials, and medicines they need to survive. At a global scale, rainforests are important in reducing global warming. Rainforests remove $CO_2$ from atmosphere, which is a greenhouse gas. Reducing quantities of greenhouse gases is important in mitigating climate change.*

**2.3**   Deforestation exposes soils to the actions of the rain and the wind. Vegetation binds soil together, so without this, heavy rain will wash soils and nutrients away. Wind will also erode the soils.

**2.4**   This question is level-marked:

| Level | Marks | Description |
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| 1 (basic) | 1–2 | • Basic throughout with limited supporting evidence and/or examples<br>• Communicates limited knowledge and understanding<br>• Explanations are partial<br>• Little or no use of geographical terms and vocabulary |
| | 0 | No relevant content |

Example answer: *Deforestation could change the climate by reducing the quantity of rainfall and even creating drought conditions. Before deforestation, transpiration from vegetation and evaporation of water sitting on leaves mean that rainforests release large quantities of water vapour during the day. As the water*

*vapour rises, it condenses and falls as rain. If the trees are removed, the source of moisture is removed, which leads to much drier conditions.*

**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<br>• Communicates detailed, clear knowledge and understanding<br>• Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas)<br>• Good use of geographical terms and vocabulary |
| 2 (clear) | 3–4 | • Sound throughout with some supporting evidence and examples<br>• Communicates some knowledge and understanding<br>• Communicates using linked statements and ideas (e.g. uses connectives, but needs further development)<br>• Some use of geographical terms and vocabulary |
| 1 (basic) | 1–2 | • Basic throughout with limited supporting evidence and/or examples<br>• Communicates limited knowledge and understanding<br>• Communicates using simple statements that are not developed<br>• Little or no use of geographical terms and vocabulary |
| | 0 | No relevant content |

Example answer: *Deforestation contributes to global climate change because trees remove $CO_2$ from the atmosphere through the process of photosynthesis. They then store this $CO_2$. Cutting trees down therefore adds to the $CO_2$ in the atmosphere in two ways. Firstly, trees are no longer able to remove $CO_2$ from the atmosphere and secondly, the stored carbon in the trees is released back into the atmosphere.*

*The Amazon rainforest absorbs 25% of global $CO_2$ and also stores 150 billion tonnes of carbon. $CO_2$ is a greenhouse gas that traps long wave radiation from the sun as it returns to space. By putting more $CO_2$ in the atmosphere, more radiation is trapped, contributing to climate change.*

**2.6** This question is level-marked:

| Level | Marks | Description |
|---|---|---|
| 3 (detailed) | 7–9 | • Thorough, detailed, organised, and relevant throughout with supporting evidence and examples<br>• Communicates detailed, clear knowledge and understanding<br>• Communicates using developed statements and ideas (e.g. uses connectives to fully explore ideas)<br>• Good use of geographical terms and vocabulary |
| 2 (clear) | 4–6 | • Sound throughout with some supporting evidence and examples<br>• Communicates some knowledge and understanding<br>• Communicates using linked statements and ideas (e.g. uses connectives, but needs further development)<br>• Some use of geographical terms and vocabulary |

| Level | Marks | Description |
|---|---|---|
| 1 (basic) | 1–3 | • Basic throughout with limited supporting evidence and/or examples<br>• Communicates limited knowledge and understanding<br>• Communicates using simple statements that are not developed<br>• Little or no use of geographical terms and vocabulary |
| | 0 | No relevant content |

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

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Example answer: *I strongly disagree with the statement. For countries like Brazil, the benefits of using resources in the rainforest to develop are enormous. Activities like commercial logging and agriculture provide jobs and create wealth for the Brazilian economy. Activities like this in the Amazon contribute 8% of Brazil's GDP. This means that many people are lifted out of poverty and the government has money to invest in health and education.*

*However, the environmental consequences of deforestation are devastating on a global scale. The rainforest's role in absorbing 25% of global $CO_2$ and mitigating global climate change means that deforestation will worsen sea level rise, coastal flooding, droughts, species extinction and all the other negative consequences of global warming. The economic costs of addressing these issues outweigh any economic benefits of exploiting the rainforest. For example, the cost of global reduced crop yields alone caused by Amazon deforestation is $3.6 trillion over the next 30 years.*

*While individual countries may benefit economically in the short term from deforestation, I disagree with the statement because the long term and global costs are worse.*

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

3.1     **One of:** selective logging; replanting; conservation; education; ecotourism; international tropical hardwood agreements; debt reduction.

**3.2** International tropical hardwood agreements stop widespread deforestation by only allowing the sales of timber from sustainable forestry using selective logging.

**3.3** This question is level-marked:

| Level | Marks | Description |
|---|---|---|
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| 1 (basic) | 1–2 | • Basic throughout with limited supporting evidence and/or examples<br>• Communicates limited knowledge and understanding<br>• Explanations are partial<br>• Little or no use of geographical terms and vocabulary |
| | 0 | No relevant content |

Example answer: *Selective logging helps manage the rainforest sustainably because only particular trees are removed. Before it was introduced, all trees and vegetation would be removed to access hardwood trees like mahogany, but selective logging targets the mahogany trees and removes them without disturbing the surrounding vegetation. Replanting involves sowing a variety of seeds in nurseries. When areas of the rainforest are cleared, the new trees grown in nurseries are replanted. This allows the forest to regenerate over a long period of time.*

**3.4** Conservation means that economic opportunities of developing the rainforest are reduced. Educating people about methods such as sustainable farming does not carry any legal force and relies on goodwill to have an impact.

**3.5** This question is level-marked:

| Level | Marks | Description |
|---|---|---|
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| 1 (basic) | 1–2 | • Basic throughout with limited supporting evidence and/or examples<br>• Communicates limited knowledge and understanding<br>• Explanations are partial<br>• Little or no use of geographical terms and vocabulary |
| | 0 | No relevant content |

Example answer: *One of the underlying reasons for deforestation is that some countries (such as Brazil and Malaysia) need to develop their economies to create wealth to develop and pay off their debts. Debt reduction involves cancelling debt in exchange for conservation. Cancelling the debt means that there is less*

*economic need to use the rainforest to generate wealth, which can encourage sustainable rainforest management.*

**3.6**   This question is level-marked:

| Level | Marks | Description |
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| 2 (clear) | 3–4 | • Sound throughout with some supporting evidence and examples<br>• Communicates some knowledge and understanding<br>• Communicates using linked statements and ideas (e.g. uses connectives, but needs further development)<br>• Some use of geographical terms and vocabulary |
| 1 (basic) | 1–2 | • Basic throughout with limited supporting evidence and/or examples<br>• Communicates limited knowledge and understanding<br>• Communicates using simple statements that are not developed<br>• Little or no use of geographical terms and vocabulary |
|  | 0 | No relevant content |

Example answer: *Ecotourism has many benefits. It allows using the rainforest to generate wealth but in a way that does not damage the environment. The advert illustrates this because tourists can only arrive by boat, meaning there has been no large-scale road development. They also stay in accommodation that does not have electricity. This is sustainable because the environment is not being damaged.*

*A disadvantage is that it is a small-scale strategy, meaning less money can be made. Although tourists often pay more money to avoid damaging the environment, the number of tourists is limited. However, because the environment is being preserved, it means ecotourism can continue in a sustainable way in the long term. In my opinion, the advantages of this strategy outweigh the disadvantages.*

**4.1**   The very heavy rainfall means that nutrients are washed out of the soil through leaching.

**Accept other suitable answers.**

**4.2**   **Accept** 31.8°C or 32°C

**4.3**   224 mm

**4.4**   164 mm

Working:

Rainfall values in ascending order: 38, 46, 58, 84, 107, 142, 170, 203, 221, 231, 249, 262

Median: (142 + 170) ÷ 2 = 156                    Median of upper half: (221 + 231) ÷ 2 = 235

Median of lower half: (58 + 84) ÷ 2 = 71         Inter-quartile range: 235 – 71 = 164 mm