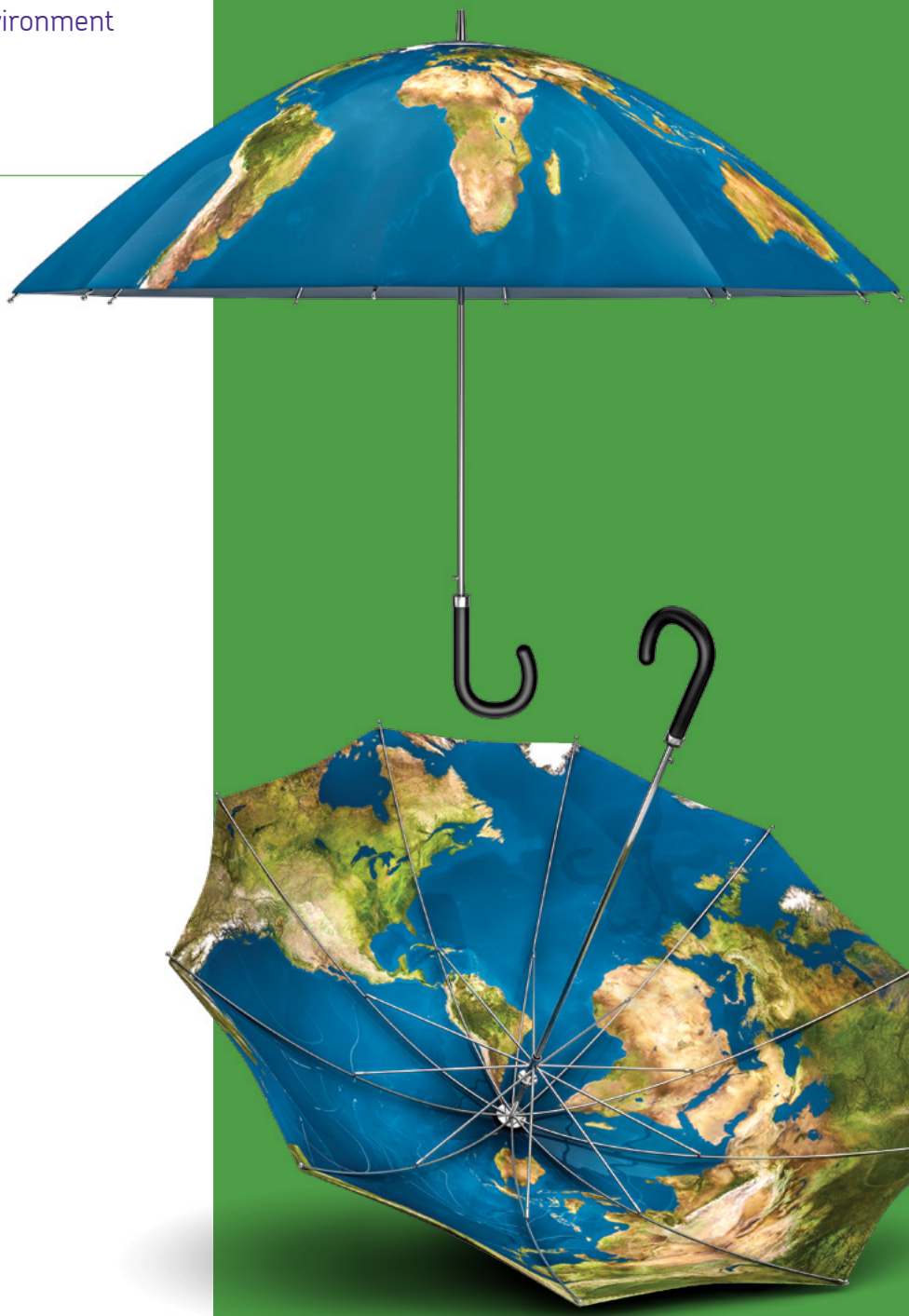
AQA
Realising potential

GCSE GEOGRAPHY
(8035)

EXAMPLE RESPONSE

Answers and commentaries
Paper 1: Living with the Physical Environment



Version 1.0 September 2021

Paper 1: Living with the Physical Environment

The following exam answers are all taken from the Autumn 2020 series.

Question 01.3

Give one reason why tropical storms have a seasonal pattern.

[1 mark]

Student A

Response

they require water temp to be 27°C or over to occur ∴ more will occur in the summer

Commentary

The answer gives a specific reason for the seasonal pattern.

1 mark

Student B

Response

different temperatures throughout the year

Commentary

The response is too vague to be credited.

0 marks

Student C

Response

The temperature needs to be high enough for the tropical storm to occur, which only happens during some months of the year.

Commentary

No credit for this response. There is no reference to high water temperatures.

0 marks

Questions 04.2 and 04.3

04.2 Using figure 17, describe the relief (height and shape of the land) on either side of the straightened river.

[1 mark]

04.3 Suggest how the strategy shown in Figure 17 helps to manage the river.

[1 mark]

Student A

Response

04.2 Both sides of the river is flat suggesting it is a flood plain

04.3 This reduce the risk of flooding as water travels faster.

Commentary

04.2. The answer uses the source (photograph) to accurately describe the relief of the land on both sides of the river.

1 mark

04.3. This response applies knowledge to the source, recognising that the straightened river helps to reduce flood risk.

1 mark

Student B

Response

04.2 It is a hilly area that points down towards the river

04.3 It means that the river is much less likely to flood if water has more potential energy on the out edge of meanders

Commentary

04.2 The answer misinterprets evidence from the photograph.

0 marks

04.3 The first part of the answer is credited, even though the second part is not correct.

1 mark

Student C

Response

04.2 on one side its all weaving in and out because of the hard and soft rock.

04.3 It stops it from erosion and creating an oxbow lake

Commentary

04.2 The answer fails to engage with the question and misunderstands the term relief.

0 marks

04.3 This response makes no reference to river management and cannot be given credit.

0 marks

Question 2.8

Outline one reason why wildfires are a threat to global climate.

[2 marks]

Student A

Response

Wildfires burn down trees. Trees store and capture carbon, when they are burned the release this carbon to the atmosphere as carbon dioxide, which is a greenhouse gas, and if emmited it can contribute the global warming which changes the pattern of global climate making it more extreme threat to human life.

Commentary

This answer makes an initial point, referring to stored carbon, which is released when trees are burnt. The idea is more fully developed, explaining the link to global warming.

2 marks

Student B

Response

They burn trees which give oxygen and the smoke gets trapped in the earths atmosphere

Commentary

This response is inaccurate and there is no clear link to global climate.

0 marks

Student C

Response

hundreds of wildfires a day will mean an extreme amount of carbon dioxide will get released into the atmosphere.

Commentary

A simple but valid point is made about carbon dioxide being released. However, this is not developed and the connection with global climate is unclear.

1 mark

Question 02.4

Using figure 7, state two differences between the climate in Place A and Place B.

[2 marks]

Student A

Response

1 place A has much higher temperatures than place B, so has a hotter climate

2 place B is more rainy than place A as the average rainfall is much higher

Commentary

This answer states two clear differences in climate between the two places, generalising from the data provided.

2 marks

Student B

Response

1 place A has warm temperatures all year round

2 place B has a much higher rain fall all year round

Commentary

This response is only awarded 1 mark as the first statement fails to state a difference in climate between the two places. The implied difference in the second statement is credited.

1 mark

Student C

Response

1 The rainfall has gone up a lot

2. The temperature has dropped a lot

Commentary

There is no direct reference to the data, and no attempt to state differences in climate between the two places.

0 marks

Extended writing questions

Extended writing questions are levels marked, where the marks are in bands, with equal numbers of marks for each level. The mark scheme provides a descriptor of the requirements for each level, starting with the highest level. The descriptor is linked to the Assessment Objective(s) being addressed. The mark scheme includes detailed indicative content/creditworthy material and types of response for which there is no credit. If the answer meets the criteria, then it should be awarded full marks: it doesn't have to be perfect. In deciding which level of response to award, examiners look for the best fit bearing in mind that weakness in one area may be compensated for by strength in another.

Question 1.9

Explain how the risks of a tectonic hazard can be reduced.

[4 marks]

Student A

Response

A tectonic hazard's risk can reduced by monitoring, prediction, protection and planning. Monitoring can be done through monitoring GPS, seismometers and radon gas bottles for signs of a tectonic hazard. Prediction of an earthquake is extremely difficult but volcanic eruptions give advice warning signs. Protection can be through building earthquake resilient housing and sea walls to prevent tsunamis caused by earthquakes moving inland. Planning can be done by practicing earthquake drills and securing objects and furniture in buildings.

Commentary

This answer is developed and shows a clear understanding of four different approaches that can be taken to reduce the risks of a tectonic hazard. The answer goes beyond what is required to achieve maximum marks.

Level 2, 4 marks

Student B

Response

Ways tectonic hazards can have the effects of them reduced is through planning, prediction and protection.

A way to protect against hazards are by building infrastructure that can take the force of a hazard. For example you could build strong foundations in buildings so it is harder for them to collapse.

Another way is through prediction, and this will help cities and countries evacuate the affected area, preventing loss of life and injuries.

Commentary

This response shows some accurate knowledge about approaches taken to reduce hazard risks. Statements are linked with clear development of one strategy relating to protection.

Level 2, 3 marks

Student C

Response

The risks of a tectonic hazard can be reduced if you prepare for them. For example you could build earthquake proof buildings which will stop the buildings from collapsing. Another way to reduce risk is by using technology. You can use technology to predict tectonic hazards eg: earthquakes. This will give you time to prepare of maybe move to a different place in order to be safe from tectonic hazards.

Commentary

This answer includes basic but valid points about reducing the risks of a tectonic hazard. These show a limited understanding, with only partial explanation.

Level 1, 2 marks

Student D

Response

The risk of a tectonic hazard can be reduced by learning how to control the hazards. Tectonic hazards are tropical storms and earthquakes which can be controlled by watching the forecast of the weather, and they could use technology which can predict the change of weather and hazard

Commentary

This answer is not creditworthy. There is some confusion about the nature of a tectonic hazard and the strategies proposed are vague or irrelevant.

Level 0, 0 marks

Question 04.5

Explain how river levees are formed.

[4 marks]

Student A

Response

When a river floods, the water deposits sediment, the heaviest sediment is deposited closes to the river banks as this takes the most energy to transport. This area begins to build up as the river floods repeatedly, leaving levees natural embankments at either side of the river.

Commentary

This answer shows some understanding of the processes involved and the sequence of formation. Statements are linked and developed.

Level 2, 3 marks

Student B

Response

Sediment is carried through the river and then dropped on the edged. This is called deposition. Once it is dropped it begins to build up on the edge of the river. This deposited sediment begins to build up and forms a river levee.

Commentary

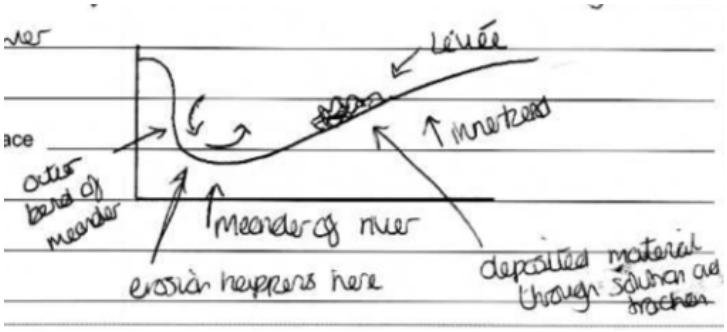
Basic points are made about deposition and the build-up of sediment. However, the explanation is incomplete and there is little understanding of either the processes or the sequence of formation.

Level 1, 1 mark

Student C

Response

River levees are formed through deposition and processes like traction etc as when a river meanders and rocks and sediment are carried across the riverbed and deposited in shallow areas of the inner bend of the meander as the velocity is lower.



Commentary

This response appears to confuse meanders with levees, implying that a levee forms on the slip off slope of a meander. No relevant content.

Level 0, 0 marks

Question 01.5

Suggest why some tropical storms have severe primary **and** secondary effects.

Use **Figure 3** and your own understanding.

[4 marks]

Student A

Response

Some tropical storms have severe primary and secondary effects such as the one shown in figure 3 (Cyclone Idai). Cyclone Idai's primery effects where that it cause 150mm of precipitation in 24 hours which lead to extreme flooding, it caused 1300 deaths it left over 1 million people homeless, 90% of the city Beira damaged or destroyed.

The secondary effects of Cyclone Idai were that due to the flooding and over 1 million people being left homeless it caused a cholera outbreak which affected 5000 people. It also cost US $2.2 billion dollers to repair the damage.

Commentary

This answer distinguishes between primary and secondary effects and provides some evidence for both. However, there is little development, and the source is quoted more or less word for word. Limited understanding of the effects of tropical storms (AO2). Basic application of knowledge and understanding, relying on lifted information from Figure 3 (AO3).

Level 1, 2 marks

Student B

Response

Both primary and secondary effects can cause devastation in a country. Some of the primary effects of Cyclone Idai include: flooding (as seen in figure 3). This may be due to the 150mm of rain in 24 hours. A total of 1300 fatalities with over 1 million displaced this can cause severe impacts as people have little resources or houses that they can go back to. Some of the secondary impact were – cholera outbreak affecting 5000 people and a total damage of US$2.2 billion for an LIC can mean the country isn't rebuilt for an extremely long time.

These devastating effects are similar to those in Typhoon Haiyan which occurred in November 2013 in the Philippeanes. Primary effects included: Flooding due to 400mm of rainfall and 5m storm surge. The typhoon caused 6000 fatalities and 2 million people were made homeless. This is devastating as so many houses and families were destroyed. Secondary effects included: Cholera outbreaks due to contaminated water supplies. The overall cost of rehousing was 6 billion with 10 billion in damage overall, which again for an LIC is devastating and can take many years to rebuild.

Commentary

This is a detailed response, demonstrating a thorough understanding of both primary and secondary effects (AO2). All aspects of the question are answered and there is full use of Figure 3 with elaboration and own understanding. There is a clear evaluation of the severity of some tropical storms (AO3). Additional support is provided in the form of a further example, Typhoon Haiyan, demonstrating an understanding of how storm damage for some LICs can be devastating and long lasting.

Level 3, 6 marks

Student C

Response

Using figure 3 it is clear that tropical storms have severe impacts. Figure 3 shows primary impact of 1900 deats and over 1 million displaced. These primary impacts show to be devastating. Cyclone Idai also had a terrible following when 5000 people were affected by cholera in result of un-sanitary conditions after the storm.

Another tropical storm to show devastating impacts is Typhone Hayain. Primary impacts include 6340 dead, 130000 homeless. These impacts are severe as they cause. The secondary impacts include; looting and violence and water contamination. This impacts would prove to be a great challenge. Thus storms have severe impacts

Commentary

This response shows some understanding of the primary and secondary effects of tropical storms, making the distinction between the two types. There is further support, making reference to an additional named example, Typhoon Haiyan, which demonstrates some specific geographical understanding. In the first paragraph the answer makes reasonable use of the source and states the nature of the primary and

secondary impacts resulting from Cyclone Idai. Brief reference is made to the severity of tropical storms although this is not developed.

Level 2, 4 marks

Question 03.6

Explain the formation of the physical features of the coastline shown in **Figure 15.**

[6 marks]

Student A

Response

Firstly the coast line's headlands and bays are formed as it is a discordant coastline with alternating bands of harder and softer rock. Softer rocks are eroded first (faster) creating (calm areas) bays and headlands are made of harder rock (land just left jutting out in the sea, vulnerable to further erosion). The wave-cut platforms are formed at the headlands as the base of the headland are exposed to erosion (processes such as hydraulic action and abrasion) causes a wave-cut notch. The material above the wave cut notch weakens and collapses causing the headland to retreat. The collapsed material is then transported away eventually the cycles starts again as a new wave cut notch forms. Eventually a wafte cut platforms is formed from the after many cycles.

A beach is formed in the bay areas. These areas are calm and sheltered, so the swash is stronger than backwash, this leads to a deposition of sediments building up a beach as the waves have low energy.

Commentary

This answer provides a thorough understanding of the processes and landforms associated with a changing coastline. Processes are named and integrated into the explanation of formation. A full sequence of development is explained for headlands and bays and wave cut platforms. (AO2). The response analyses evidence from the photograph and maps and shows an awareness of a range of the landforms (AO3). Appropriate terminology used throughout.

Level 3, 6 marks

Student B

Response

Headlands and a bay have formed due to the fact that the rock in the middle is made of softer rock, like clay, which the rock of the headlands is made of harder rock. The softer rock erodes faster while the harder rock does not, meand the soft rock erodes to form a bay, leaving the headlands. A beach has formed where the constructive waves have lost energy and deposited sediments. Wave cut platforms form where a patch of rock erodes creating a notch at the bottom of the rock while more rock remains above it. This rock looses its support, and eventually collapses, leaving a wave cut platform, this process repeats, and the wave cut platform grows.

Commentary

This response recognises a number of different landforms evident in the photograph and diagram, namely headlands and bays, beaches and wave cut platforms. The sequence of formation is understood, and the answer shows some clarity. There is some explanation of the relevant processes involved, but this is not developed (AO2). The answer demonstrates reasonable application of understanding in analysing the landforms depicted in Figure 15 (AO3).

Level 2, 4 marks

Student C

Response

The sea will use abrasion, solution and attrition to break large volumes of rock into sand.

The waves will bash off the cliffs and make the hard rock erode away whilst this is happening the same had been happening to the softer rock at a faster pace. And all the debris from the cliffs will be deposited at the bay to form a beach. Leaving two headlands of harder rock and one bay of softer rock

Commentary

This response consists of basic ideas and random statements, with limited or partial sequence and little reference to the processes involved, apart from a list of processes at the beginning (AO2). There is some understanding of how headlands and bays evolve, using implied evidence from the maps and photograph (AO3).

Level 1, 2 marks

Question 01.12

'Managing climate change involves both reducing causes (mitigation) and responding to change (adaptation).'

Do you agree?

Explain your answer.

Use **Figure 6** and your own understanding.

[9 marks]

[+3 SPaG marks]

Student A

Response

One mitigations strategy shown in figure 6 is alternative energy. This can manage climate change as green energy production (such as solar panels, wind turbines and nuclear fission) can reduce the amount of energy produced through burning fossil fuels (This means less greenhouse gases emitted to the atmosphere)

This reduces the cause of climate change. However this does not prevent people being affected when the consequences eventually strike, it only reduces the level of consequence so just mitigation is not enough.

One adaptation strategy shown in figure 6 is adjusting to sea levels. This raises houses levels so when sea levels do rise the houses are less likely to be submerged under water, protecting people and posessions in the house from the effects of flooding. This helps to manage climate change by protecting people from its effects. However a downside to adaptation is that it cannot reduce the effects of climate change.

Another adaptation strategy shown in figure 6 is growing drought resistant crops This allows crops to be grown even in the changing climates due to climate change. These crops would be bioengineered to withstand the effects of climate change (starvation and malnutrition could be reduced) but does not reduce the rate of climate change causing the problems (eg droughts).

In conclusion, I think mitigation is required to reduce the effects of climate change and adaptation is required to keep people safe from these effects, they are both required to help with managing and responding climate change for humanity's future survival.

Commentary

This script demonstrates understanding of both mitigation and adaptation strategies. The response is well developed and is supported by appropriate geographical information. The student displays own understanding (AO2) and some specific geographical knowledge (AO1). Judgement and evaluation are embedded in each paragraph, and in a well-considered conclusion (AO3). This answer shows relevant knowledge, demonstrates clear geographical understanding, and applies knowledge and understanding effectively to Figure 6. Evaluation is particularly strong throughout, but knowledge and understanding are slightly less convincing, hence 8 rather than 9 marks.

Level 3, 8 marks (+3 marks SPaG)

Student B

Response

Climate change is the constant change in climate due to changes in human and physical activities. Managing climate change is very important so that the world is not damaged.

One method is through mitigation, which reduces the impacts of climate change. In Figure 6, one strategy shown is using renewable sources of energy, rather than using up fossil fuels that will increase the impact of the greenhouse affect. In the Paris agreement, many countries agreed that they would start using more renewable sources of energy and governments subsides people to use solar panels for a form of energy.

Adaptation is another method, and this helps to world change as climate changes. In figure 6, houses are built on stilts so that as sea levels rise houses and other buildings aren't flooded. In India the same occurs as some houses are built in areas at risk of flooding.

Commentary

This answer shows some development beyond the source provided. There are linked or elaborated statements and some accurate use of geographical terms. The student introduces information about the Paris Agreement and government subsidies for solar energy that are not in the source material, and therefore displays some relevant knowledge (AO1). There is reasonable understanding of how different strategies help to reduce causes and respond to climate change (AO2). However, evaluation is limited to a brief generic comment at the beginning (AO3).

Level 2, 5 marks

Student C

Response

I agree with that statement because if you live somewhere that is prone to flooding then putting your house on stilts would be a good idea so the water can just pass by without damaging your house.

Pumping the CO_2 into the ground is a good idea as it isnt being put into the atmosphere

Reducing causes would mean that the adaptation strategies would not be as necessary but its always better to be prepared

Commentary

This script is a basic response with limited understanding or support. The student comes to a view and makes a series of simple observations about two of the strategies shown in Figure 6. The points made are random, brief and over simplified.

Level 1, 2 marks

Question 02.9

‘Some economic activities in tropical rainforests have major environmental impact.’

Do you agree?

Use **Figure 11** and a case study to explain your answer.

[9 marks]

Student A

Response

I partially agree with the statement. Cultivations for plantations such as palm oil and forming and introducing HEP dams such as in Brazil can destroy vast swathes of the land. However ecotourism resourts, such as Sacha Lodge and Taman Negara can have a positive impacts on the environment. Cultivation, as seen by burning trees for agricultural land and plantations can cause many problems by destroying the local water cycle (which was maintained by the rainforest) and causes an increase in temperature of the area and soil erosion of an area with few nutrients contained in latosols will make plant growth increasingly more difficult and causes land to become barren, which stops cultivation in the area. HEP dams while making use of the environment such as Bakun Dam in Malaysias, has flooded large areas of rainforests causing increased soil erosion (by water). However Taman Negara, an ecotourism resort helps to educate tourists on rainforest conservation and the money collected from tourists is used to protect the rainforest (4343 km^2) from exploitation and has a positive environmental impact (protects the natural habitat for wildlife and the local climate).

Commentary

A detailed response covering a range of economic activities and locations to evaluate the extent of impacts, making appropriate use of three of the photographs in Figure 11. Although there is not a summative conclusion, evaluative comments are made in the body of the text and the student demonstrates an informed view of the relative effect of different activities. The answer shows detailed knowledge (AO1) and thorough understanding of the links between economic activities and their environmental impacts (AO2). There is developed case study support, with evidence of accurate and specific geographical information. The student makes a reasoned judgement about the degree to which different activities have variable impacts (AO3).

Level 3, 9 marks

Student B

Response

I agree that some economic activitys cause environmental damage in my case study of the amazon and in figure 11 this is shown, in ecotourism lodges such as the one in the amazon these have less of an environmental impact as they use local materials and help reduce the need of local employees to deforest to have an income of farm.

However economics activity such as mining in Brazil cause large scars in the landscape and the cutting down of trees for activitys such as mining, farming or for hard woods has a large environmental impact because when it rains there are no

leaves or roots to reduce the impact. So in many areas the soil is washed away and stripped of nutrients almost perminately damaging the landscape.

In conclusion some economic activity doe cause major impacts on the environment but others such as eco tourism cause very little and best local economys and people.

Commentary

Elaborated statements are used to support judgements about some of the economic activities illustrated in Figure 11 (AO3), without specific reference to the Amazon case study information suggested in the introduction. Shows some geographical understanding of the links between economic activities and their environmental impacts (AO2).

Level 2, 5 marks

Student C

Response

I agree with the statement above. This is because some economic activities will negatively impact the environment because they are destroying the forest and causing rare animals to go extinct. As shown in Figure 11, hydro-electric power means that a large area of the tropical rainforest will be flooded for energy. This causes habitats in the rainforest to be destroyed leading to the extinction of animals and tribes.

In addition Ecotourism can also be positive and negative for the tropical rainforest. It is good because it means that area of the rainforest can not be destroyed and animals can remain to live there safetly. However the animals there will be disturbed and change the way they adapt. Tribes will also still start to disappear.

Commentary

This script shows a limited knowledge of economic activities in the tropical rainforest (AO1) and shows basic understanding of the impacts on the environment (AO2). There is some reference to Figure 11 and simple judgements are made (AO3). The answer is limited to generic statements, with some inaccuracies.

Level 1, 2 marks

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