



GCSE

Geography

8035/1: Living with the physical environment

Report on the exam

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Summary

This Examiner's report offers insights into performance on Paper 1: Living with the Physical Environment. It focuses on analysing most questions to identify areas of strength, as well as common mistakes and instances of underperformance. Examples from actual student scripts are included to illustrate effective responses and highlight challenges faced by students.

It was encouraging to observe that the majority of questions were suitably accessible to students across the full spectrum of abilities. Overall performance reflected an improvement in attainment, with students making full use of the 88 available marks and yielding a higher mean score across the cohort. The broad distribution of marks suggests that effective differentiation was achieved both within individual questions and throughout the various sections of the paper.

The allocated time for completion proved appropriate, and numerous high-quality scripts were submitted from centres nationwide. This examination sustained the positive trajectory of recent years, offering a comprehensive assessment of the specification's breadth of content. Adherence to the rubric for question selection was good, and instances of unanswered questions were rare. The most popular options in Section C were Questions 3 and 4 (as usual), with preference shown for hot desert environments in Section B.

Areas where students excelled

- Many students produced strong scripts, with high-ability students showing depth of knowledge, detailed analysis, and evaluation.
- Low-tariff questions, especially multiple-choice items, supported less confident students in gaining marks.
- Many students supported their extended-writing answers by analysing and interpreting data taken from figures. They were required to work with information in data-based questions such as **01.4, 01.5, 03.2, 03.3, 04.2, and 04.**
- Graphical and photographic analysis showed improved precision in questions such as **02.10, 03.6, 04.6, and 05.6.**
- Increasing numbers of students used relevant case studies effectively in questions such as **01.4, 01.12, 02.6, and 02.10**, boosting response quality even when not specifically requested in the question.
- Students demonstrated good knowledge across topics like climate change, tropical storms, tectonics, rainforests, and water/coastal management.
- Centres are successfully preparing students to approach extended responses analytically, as seen in Question **01.12.**
- Many wrote clearly about named locations and processes.
- High-achieving students gave concise, structured answers to lower-tariff questions and well-developed responses to 9-mark items, using appropriate terminology and balanced argument.

- The paper offered accessible entry points for less able students, who generally applied their understanding confidently in shorter and numerical questions.

Areas where students struggled

- A minority across ability levels failed to complete map or graph tasks (**01.9, 03.4, 04.2**).
- Some students copied stimulus material with little explanation (e.g. **01.4, 02.6**).
- Items requiring spatial or numerical skills (e.g. **03.2, 03.3**) revealed gaps in data interpretation; precision in rounding was sometimes lacking.
- Graphing accuracy varied—some drew bars instead of line graphs (**04.2**), or missed directional arrows in map tasks (**01.9**).
- Lower-attaining students often left parts of Questions **3–5** incomplete.
- Time management issues caused some capable students to focus too long on early questions and not finish the paper.
- Lack of place-specific detail in questions like **02.6** reduced analytical depth.
- Some included case study content (e.g. **01.12**) without applying it meaningfully.
- Misunderstanding of physical processes was common in diagram tasks (**03.5, 04.5, 06.5**); some students lacked clear conceptual understanding.
- There was confusion over command words like explain, compare, suggest, and discuss. It sometimes impacted negatively on marks and outcomes for students.
- Key terms such as carbon capture (**01.8**), hydraulic power (**03.1**), saltation (**04.1**), and bulldozing (**05.1**) were sometimes incorrectly used.
- Responses often lacked logical flow; some were fragmented or superficial, with repetitive openings.
- Extended answers (**01.4, 02.6, 02.10, 04.6**) lacked depth or application of stimulus material, limiting performance in AO2 and AO3.
- Many 2-mark answers lacked development—typically offering a single point without explanation (e.g. **01.8**).

Recommendations for teachers and students

- Greater focus on explicit teaching of command words, especially "discuss" and "to what extent", to improve AO3 responses.
- Increased practice using figures in context, not just as sources to quote from, but to interpret and integrate with existing knowledge.
- Continued emphasis on process-based understanding in landform formation questions and on developing explanations beyond listing.

- Targeted work on climate change strategies, particularly mitigation, where understanding is more conceptual and often underdeveloped.
- Regular low-stakes assessment of geographical skills like graph reading, data analysis, and spatial interpretation to reinforce AO4 capabilities.
- Allocate time to reviewing the specification and past examination papers to ensure familiarity with the key vocabulary featured in assessment items, including geographical terminology, core concepts, and essential processes.

Point marked questions

1-, 2- and 3-mark questions are point marked, where a mark may be awarded where a student makes a single point and subsequent marks awarded (if applicable) where the student develops those points.

Levels marked questions

4-, 6- and 9-mark questions are levels marked where the response is holistically marked against the relevant assessment objectives.

Assessment Objectives (AOs)

AO1: Demonstrate knowledge of locations, places, processes, environments and different scales (15%).

AO2: Demonstrate geographical understanding of concepts and how they are used in relation to places, environments and processes and interrelationships between places, environments and processes (25%).

AO3: Apply knowledge and understanding to interpret, analyse and evaluate geographical information and issues to make judgements (35%, including 10% applied to fieldwork context(s)).

AO4: Select, adapt and use a variety of skills and techniques to investigate questions and issues and communicate findings (25%, including 5% used to respond to fieldwork data and context(s)).

Point marked questions

Multiple choice questions – MCQs

Multiple choice questions can assess a variety of the assessment objectives (AOs), but they most commonly target AO1 and AO4.

Areas of success

There were eight MCQs included in this examination paper. Three were skills questions addressing AO4, based on a table (01.3) or graph (02.8, 04.3) stimulus, while five were knowledge-based AO1 questions. While the AO4 skills questions were generally handled competently by most students, a notable proportion struggled to respond accurately to the AO1 definition-style questions.

In **question 01.1 (AO1) (1 mark)** the vast majority of students were able to select earthquakes as the tectonic event.

In **question 01.2 (AO4) (1 mark)** students made good use of Figure 1 to identify the correct statement about the number of heatwaves in the UK.

In **question 02.8 (AO4) (1 mark)** responses were generally correct, although a significant minority misinterpreted the graphical information relating to monthly temperatures and precipitation.

In **question 04.3 (AO4) (1 mark)** most students could interpret the flood hydrograph accurately, selecting the correct answer for the lag time.

Areas of challenge

In **question 01.7 (AO1) (1 mark)**, a significant proportion of students couldn't select the correct reason (option D) and mistakenly thought that greenhouse gases release heat into the atmosphere (option C).

In **question 04.1 (AO1) (1 mark)** the transportation processes were not understood, with traction often being confused with saltation.

Students struggled with the definition questions in section C, **04.1, 05.1** and **0.61**, with a sizeable minority of students selecting the wrong option.

Short answer questions – 1- and 2-mark questions

Qualities seen in more successful responses

Low tariff questions can assess any of the four assessment objectives. Of the 21 questions in this category, two assessed AO1, two assessed AO2, one assessed AO3, and sixteen assessed AO4. These shorter-mark questions typically assess students' ability to recognise key terminology, demonstrate conceptual understanding, and apply geographical and mathematical skills.

Many of the skills-based questions had successful outcomes, particularly those requiring mathematical calculation, photo interpretation and engagement with other types of visual stimulus. Some AO2 and AO3 questions were also answered well.

In **question 01.5 (AO4) (2 marks)**, many students showed awareness of the decline in greenhouse gas emissions, and this was frequently supported by figures including some data manipulation. This shows strong centre-level teaching of data-driven questions.

0 1 . 5 Using **Figure 3a**, describe changes in the UK's greenhouse gas emissions between 1990 and 2020. [2 marks]

Overall, between 1990 and 2020, the greenhouse gas emission has decreased steadily, for example from 800 MtCO₂e to around 400 MtCO₂e. However, there are some anomalies as in 1996, there was a slight increase in greenhouse gas emissions.

This response identifies the decline in emissions and quotes figures from the graph to show the extent of the decline. Although the allocation for this question was only 2 marks, this answer makes 3 credit worthy points, as it also identifies an anomaly.

(2 marks)

0 1 . 5 Using **Figure 3a**, describe changes in the UK's greenhouse gas emissions between 1990 and 2020. [2 marks]

in Figure 3a i can see that from 1990 gas emissions ~~was~~ have started to decrease reaching a low at 400mtco₂e in 2020

Only 1 mark is awarded for this response. The idea of decrease in emissions is recognised, but just stating one figure in isolation is not enough to clarify the extent of the change.

(1 mark)

In **Question 01.6 (AO4) (1 mark)** a high proportion of students were successful in answering this question making use of the pie chart data. A small minority made an error or wasted time needlessly explaining why these changes took place.

Question 01.10 (AO4) (1 mark) required the use of the text stimulus in Figure 4. A wide range of answers was accepted, based on the source, including reasonable inferences about displacement of people, homelessness, injuries and possible fatalities. Those who simply stated the loss of power or the flooding of communities, taken directly from the source, were awarded a mark.

0 1 . 1 0

Using **Figure 4**, state **one** social effect of Hurricane Ian on the local population.

[1 mark]

Their power was off so individuals wouldn't be able to watch tv to get updates or charge their phones to contact family.

This response makes use of the source but goes on needlessly to explain how the loss of power might affect people caught up in the hurricane.

(1 mark)

0 1 . 1 0

Using **Figure 4**, state **one** social effect of Hurricane Ian on the local population.

[1 mark]

The hurricane caused communities to flood so homes and belongings could of got destroyed or damaged

This response refers to a social effect of flooding, making a reasonable inference from Figure 4.

(1 mark)

Question 2.3 (AO3) (2 marks) was answered successfully by most students. Most mentioned 'buttress roots' and 'drip tips' and often developed their answers to show the nature of the adaptation to gain full marks. The height of the trees, lianas and various comments related to the roots as thick or long also recurred frequently. Some did elaborate well beyond what was needed.

0 2 . 3 Using **Figure 6** and your own knowledge, outline **two** ways that plants in the tropical rainforest are adapted to their environment. [2 marks]

- 1 Buttress Roots are wide and strong to support the tall trees that are growing for sunlight.
- 2 Drip tip leaves have a drip tip shape and waxy cuticle so the heavy rainfall falls off them so they don't get infected with fungi or mould.

This response states two appropriate adaptations of plants to the environment, drawing on Figure 6 as well as demonstrating knowledge of tropical rainforest trees. Identification of buttress roots and drip tip shaped leaves would be sufficient to gain 2 marks when answering this question.

(2 marks)

0 2 . 3 Using **Figure 6** and your own knowledge, outline **two** ways that plants in the tropical rainforest are adapted to their environment. [2 marks]

- 1 Lianas are like vines on the trees. They use the trees almost like a ladder to ^{reach} ~~grow~~ up for sunlight.
- 2 Buttress roots are thick roots which help give strength and support to a tall tree. They also take in a lot of water.

This response again outlines the way in which buttress roots give strength and support to the large trees but brings in knowledge of the adaptation shown by lianas to the rainforest environment.

(2 marks)

Question 02.9 (AO2) (2 marks) was partially answered, with most students successfully identifying the temperature variation between the two locations in relation to their distance from the Equator. A significant minority demonstrated greater understanding by explaining how proximity to the Equator influences the concentration of solar radiation. More rare answers suggested that ice and snow reflect more sunlight (rather than absorbing it) in Aklavik, which keeps temperatures lower. Some students referred to cold polar winds which reduce temperatures in Aklavik compared with warmer (subtropical) air masses in Cairo. However, less able students frequently focused on precipitation, while many simply noted that equatorial regions are hotter, without providing an explanation for this phenomenon. A significant minority mistakenly thought that relative distance from the sun was the main explanation for differences in temperature.

0 2 . 9 Suggest **one** reason for the difference in temperature between Cairo and Aklavik. [2 marks]

Cairo is closer to the equator, the the sun rays are more concentration on that area due to the tilt of the Earth.

This response provides a developed point, awarded 2 marks, which clarifies why Cairo's position closer to the Equator leads to higher temperatures.

(2 marks)

0 2 . 9 Suggest **one** reason for the difference in temperature between Cairo and Aklavik. [2 marks]

Cairo is closer to the equator than Aklavik which is closer to the pole north pole. This causes Cairo to have more humidity and warmer temperatures.

This response is awarded 1 mark for the idea that Cairo is closer to the Equator/Aklavik is closer to the North Pole. There is no further development or explanation for the difference in temperature between the two places.

(1 mark)

Question 4.4 (AO4) (2 marks) was answered effectively by most students, who displayed understanding of differences in lag time and peak discharge. More rarely, answers referred to rising and falling limbs and some identified two valid numerical differences from the Figure. A minority failed to compare the two hydrographs, and some wrote about rainfall instead of river discharge.

0 4 . 4

Using **Figure 14**, describe **two** differences in the river discharge between **River A** and **River B**.

[2 marks]

- 1 River B has a longer lag time ✓ between peak rainfall and peak discharge compared to A.
- 2 River A has a higher peak discharge ✓ compared to B.

This response correctly makes valid comparisons between the lag times and peak discharge figures shown in the graph.

(2 marks)

0 4 . 4

Using **Figure 14**, describe **two** differences in the river discharge between **River A** and **River B**.

[2 marks]

- 1 The discharge in River A is higher than River B ✓
- 2 The amount of rainfall in River A is higher than river B

The response gains 1 mark for making a comparative statement about the overall difference in discharge between the two rivers, but the description of rainfall difference is not relevant to the question.

(1 mark)

Question 05.4 (AO4) (2 marks). Most could identify the nature of conflict, and explained how this created tension, such as walking on farmer's land versus rearing sheep, or in terms of footpath erosion as walkers stray off the path and damage pasture or crops.

0 5 . 4 Outline **one** possible conflict between tourists and farmers in the area shown in **Figure 16**. [2 marks]

Many farmers may be against tourists such as hikers using fields used for farming as routes as it may disturb farming processes and livestock such as sheep.

This response uses the source to suggest a possible conflict between farmers and tourists, indicating how hikers might disturb sheep.

(2 marks)

0 5 . 4 Outline **one** possible conflict between tourists and farmers in the area shown in **Figure 16**. [2 marks]

One conflict between tourist and farmers is that tourist can disturb or cause ~~animals~~ to unsettle. This means farmers are disturbed as they need to fix the problem.

This response is more ambiguous. 1 mark is awarded for the idea of disturbing animals but there is no indication of why this might happen.

(1 mark)

Limitations of less successful responses

Several of the 2-mark questions were only partially addressed, especially those that required students to provide a developed point to access full marks.

Question 01.8 (AO2) (2 marks). Many students demonstrated an understanding of the importance of reducing atmospheric carbon dioxide as a means of mitigating climate change. However, relatively few were able to make the explicit connection to carbon capture and storage. The strongest responses reflected a clear grasp of the CCS process, including the extraction of carbon dioxide from the atmosphere and power stations, followed by its secure underground storage. Additionally, several students identified afforestation as an alternative strategy for carbon reduction.

0 1 . 8 Explain how carbon capture may help to reduce the causes of climate change. [2 marks]

By capturing Carbon (by planting more trees for an example) we will reduce the amount of CO₂ being put into the atmosphere ~~and will~~. Since it is the largest greenhouse gas emitted, we can hopefully mitigate the ~~expected~~ rate of global warming, which is a cause for climate change.

This response describes how carbon capture can take place by planting trees and makes the link to a reduced amount of carbon dioxide being released into the atmosphere.

(2 marks)

0 1 . 8 Explain how carbon capture may help to reduce the causes of climate change. [2 marks]

Carbon capture reduces the amount of carbon dioxide (CO₂) in the air, meaning there are fewer greenhouse gases in the atmosphere. This allows more heat that 'reflected' off the Earth (from the sun) to ^{release} ~~release~~ back to the atmosphere, cooling the Earth's temperature slightly.

This response is typical of most, in that the reduction of greenhouse gases is recognised. However, how this reduction is achieved is not stated, and the carbon capture process is not made clear, so only one mark can be awarded.

(1 mark)

0 1 . 8 Explain how carbon capture may help to reduce the causes of climate change. [2 marks]

This reduces the amount of harmful pollutants in the ~~atmosphere~~ atmosphere, reducing the amount of heat that will be trapped as there are less gases, reducing the increase in global temperatures.

In this response, the student refers to the reduction of harmful pollutants, and the trapped gases are not specified. The process of carbon capture is unclear, so no credit can be given for the answer.

(0 marks)

Question 02.4 (AO2) (1 mark). A significant number of students appeared to struggle with establishing a clear connection between rainforest vegetation and its role in supporting large populations of animals. Many responses were overly generic and could have referred to any type of forest. Marks were typically awarded when students identified specific ecological features such as the stratified structure of the canopy, the presence of multiple vegetation layers, or the diverse availability of food sources and elements essential to sustaining biodiversity within rainforest ecosystems.

0 2 . 4 Give one way rainforest vegetation can support large numbers of animals. [1 mark]

They provide many habitats like the ~~the~~ forest floor or even the canopy layer.

This response makes a clear link to rainforest vegetation, recognising the presence of diverse habitats which sustain large populations of animal species.

(1 mark)

0 2 . 4 Give one way rainforest vegetation can support large numbers of animals. [1 mark]

Some plants are very low to the ground, meaning most animals can access them.

This response is not specifically linked to rainforest vegetation, so is not creditworthy.

(0 marks)

Question 02.5 (AO1) (1 mark). Students encountered difficulty in establishing clear connections between climatic conditions and their influence on soil characteristics. Few successfully recognised the role of heavy rainfall in contributing to leaching or soil erosion or simply identified the presence of saturated soils. Misconceptions were apparent among those who incorrectly attributed soil dryness to high temperatures or who inaccurately described rainforest soils as fertile. As with 02.4, generic answers were common. Many missed the need to link to specific rainforest characteristics.

0 2 . 5 Give **one** way climate affects the soils in tropical rainforests.

[1 mark]

The climate is very wet due to lots of rain and the near constant rain causes leaching, where nutrients get washed out/drain.

This response effectively connects the high, constant rainfall characteristic of tropical rainforests to the process of leaching, providing a clear explanation of how it occurs.

(1 mark)

0 2 . 5 Give **one** way climate affects the soils in tropical rainforests.

[1 mark]

the soil in the tropical rainforests is typically infertile due to the climate.

The response acknowledges the poor fertility of tropical rainforest soils; however, it does not clearly establish a connection to climatic factors such as high levels of rainfall.

(0 marks)

Question 03.3 (AO4) (2 marks). Some students focused on the dunes rather than the vegetation cover, as specified by the question. Uncreditworthy responses included outlining how the dune had changed in height, or the pH had changed rather than the vegetation, which were incorrect. In contrast, students who found the right focus were credited for accurate observations of both the extent and type of vegetation. This was either addressed as distinct elements or described through the transitional stages, such as the progression from embryo dune to grey dune, and eventually to mature dune. The best responses used Figure 11 and outlined the vegetation coverage % and number of species or the type of vegetation (grasses to trees) on the embryo dune and mature dune.

0 3 . 3 Using **Figure 11**, describe changes in vegetation from the embryo dune to the mature dune.

[2 marks]

Embryo dunes have no vegetation
yellow and fore dunes have pioneer
plants (e.g. marram grass) and grey and
mature dunes have more organic matter
and nutrients so can grow vegetation such
as trees & shrubs.

The response clearly outlines the progression of plant cover across a sand dune, earning 1 mark for identifying the transition from bare ground to marram grass, and 1 mark for recognising the further development into trees and shrubs.

(2 marks)

0 3 . 3 Using **Figure 11**, describe changes in vegetation from the embryo dune to the mature dune.

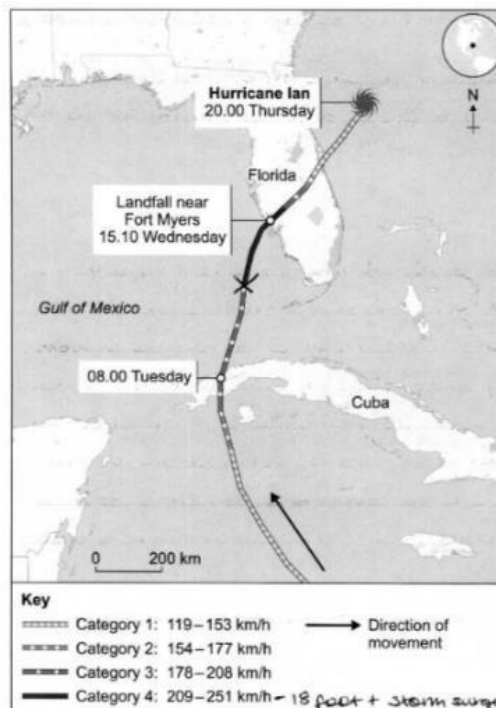
[2 marks]

As a dune gets further back from the sea, the
level of vegetation increases. As the dune becomes
more mature, the vegetation increases. Embryo
dunes have less vegetation than mature dunes.

1 mark is awarded in the following answer for recognising the increase in vegetation across the sand dunes. Although the concept is reiterated in two additional ways, these repetitions do not introduce new information.

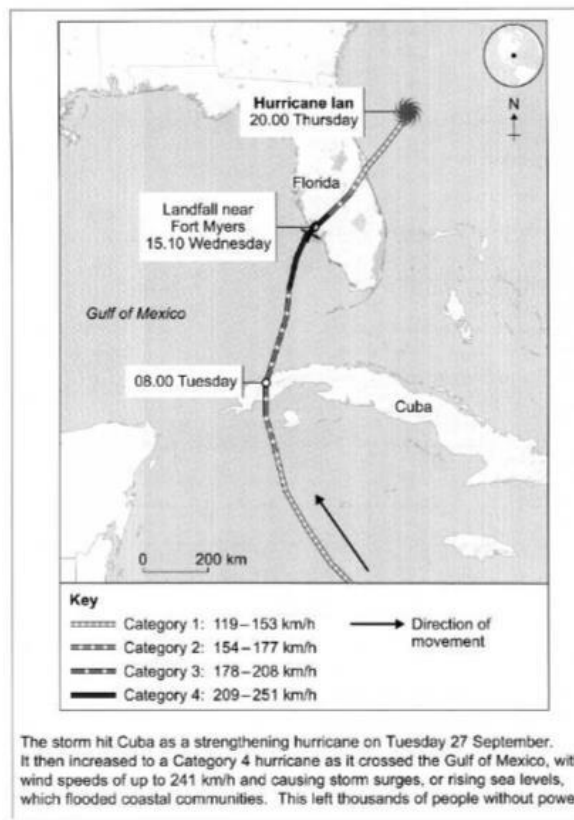
(1 mark)

Question 01.9 (AO4) (1 mark). A large number of students omitted this question; some were inaccurate as the position was placed at the landfall mark or at the opposite end where it had been downgraded.



This response shows the point at which Hurricane Ian became a category 4 hurricane and is correctly marked.

(1 mark)



By contrast, this response shows the location is marked incorrectly, as the student has selected the point where the hurricane reached land.

(0 marks)

Levels marked questions

4-mark questions

These questions have two levels of response and can assess a variety of combinations of assessment objectives.

In this examination, a 4-mark question appeared in question 1 (addressing AO1 and AO2), and in optional questions 3, 4 and 5 (similarly addressing AO1 and AO2).

Question 01.11 (AO1 & AO2) (4 marks). Some responses mistakenly emphasised climate change mitigation, perceiving the potential link between global warming and the increased frequency of tropical storms. In the basic answers students referred to the three Ps (prediction, protection and planning), but limited their responses to a sentence on each. Some responses mistakenly emphasised climate change mitigation, perceiving the potential link between global warming and the increased frequency of tropical storms.

However, there were many strong, specific, and logically sequenced answers that effectively addressed the role of monitoring and forecasting systems. These systems, when paired with early warning mechanisms, were credited with enabling large-scale evacuations that substantially reduced casualties and injuries.

Similarly, other responses convincingly discussed protective measures, such as the construction of buildings on stilts, which can reduce the impact of storm surges and flooding, thereby minimising property damage and the financial burden associated with reconstruction. Most responses were able to access Level 2 marks because the points were developed with some clarity.

01.11

Explain how the effects of tropical storms can be reduced.

[4 marks]

The effects can be reduced by prediction. The use of forecasts, models and satellite imagery allows tropical storms to be tracked ~~this means~~ and monitored. This means warnings can be given ~~after~~ 3-5 days in advance allowing evacuation, which in turn reduces the impact. Additionally, the effects can be reduced by preparation. This can mean blocking/hurricane shelters and windows, building houses on stilts and giving extra space ~~chairs and activities~~ so you aren't at risk. This preparation saves lives and reduces damage to buildings, therefore limiting the effects.

L2

This response to 01.11 (AO1 & AO2) (4 marks) demonstrates a sound understanding of two strategies for reducing the impacts of tropical storms: prediction and preparation. The student develops each point with clear and logical explanation, maintaining consistent focus on the question. The response reflects clear geographical knowledge and engagement with the topic.

Level 2 (4 marks)

0 1 . 1 1

Explain how the effects of tropical storms can be reduced.

[4 marks]

L1

It can be reduced through planning.
Planning beforehand in case it was to actually
happen for example having evacuation systems,
would help a lot of people. Having things like
extra food, water and temporary electric and
gas supplies, would be extremely helpful to
reduce effect as humans would still have
the basic affect necessities

This response to **01.11 (AO1 & AO2) (4 marks)** presents a basic understanding of planning strategies aimed at mitigating the impacts of tropical storms. The explanation lacks depth and demonstrates limited geographical insight into how such management approaches are implemented and contribute to reducing the effects.

Level 1 (2 marks)

Question 03.5 (AO1 & AO2) (4 marks). The diagram box prompted students to engage more confidently with the question, although the accuracy and coherence of their representations of sequential landform development varied significantly.

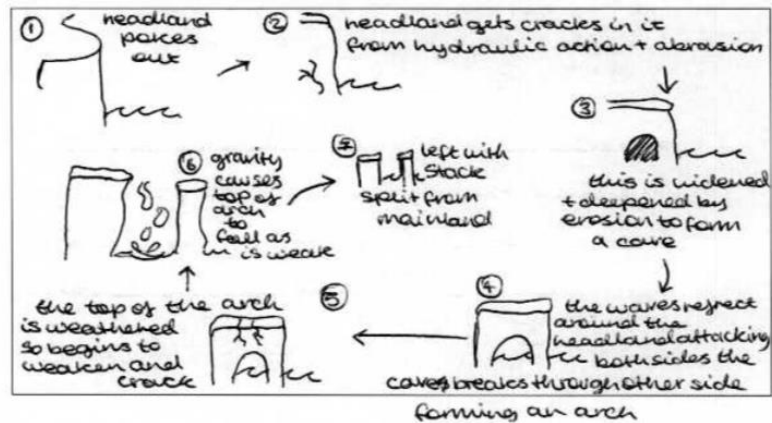
Some responses showed only a partial understanding of the processes involved and the sequence of change over time was incomplete, with gaps. Some of the diagrams lacked sufficient contextual clarity, making them difficult to interpret. The weakest responses reflected a fundamental misunderstanding of the concept of a "stack," with some inaccurately interpreting it as a mere accumulation of rocks.

In contrast, higher-quality responses demonstrated a sound grasp of key geomorphological processes and successfully depicted a clear sequence of landform evolution across several frames. Most students accessed Level 2 marks by presenting well-structured and logically progressive accounts, starting with the formation of a headland and tracing the development of features including cracks, caves, arches, and stacks. These answers were further strengthened by the inclusion of erosional and weathering processes, such as such as abrasion and hydraulic action, and the gravitational collapse of arches, adding depth and precision to their analysis. Some attained all 4 marks by drawing one or more well annotated diagrams.

03.5 Explain how a stack is formed in a coastal landscape.

Use one or more labelled diagrams.

[4 marks]



L2

⑤ types of weathering - carbonation, freeze thaw, salt

The diagram is well-annotated in response to question 03.5 (A01 & A02) (4 marks). This answer shows how it was possible to achieve full marks by drawing well annotated diagrams with no further written explanation. The series of numbered sketches clearly illustrates the landform's development over time, with annotations effectively integrating relevant erosional and weathering processes. Labels are clear and accurate, supported by appropriate geographical terminology. The response matches the Level 2 descriptor, demonstrates a strong understanding of both the processes involved and the order of formation.

Level 2 (4 marks)

03.5 Explain how a stack is formed in a coastal landscape.

Use one or more labelled diagrams.

[4 marks]



L1

A stack is formed when the top of an arch becomes weak and starts to erode by hydraulic action and abrasion causing the arch to collapse which leaves behind a spit

Some responses to 03.5 (A01 & A02) (4 marks) showed only a partial understanding of the processes involved and the sequence of changes over time was incomplete, with gaps. This response attempts to show the collapse of an arch to form a stack, with a list of processes to the left of the diagram. The formation of the landform is not clearly understood, and there is confusion between stack and spit at the end of the answer.

Level 1 (2 marks)

Question 04.5 (AO1 & AO2) (4 marks)

As in Question 03.5, the addition of a diagram box seemed to help stimulate students' engagement, but the accuracy of how they showed the landform sequence varied a great deal.

Some weaker responses revealed fundamental misconceptions about waterfall formation, confusing it with coastal processes such as water falling over a cliff, suggesting a lack of understanding of fluvial geomorphology.

Misconceptions were evident in several answers, particularly around the geological structure necessary for waterfall development. The diagrams were inconsistent in quality. Some lacked contextual clarity and proved challenging to interpret, while others offered a well-organised visual sequence. Labelling varied, with some using annotations and others incorporating numerical markers tied to explanatory notes.

Stronger answers demonstrated a clear grasp of key erosional mechanisms, notably abrasion and hydraulic action, which helped clarify how waterfalls develop. These responses recognised the geological configuration involving alternating hard and soft rock layers, referencing differential erosion and the formation of a plunge pool to support Level 2 criteria.

The highest-scoring responses displayed coherent explanations that traced the progression from resistant cap rock to undercutting, leading to an overhang, plunge pool formation, and eventual structural collapse followed by retreat.

04.5 Explain how a waterfall is formed.
Use one or more labelled diagrams. [4 marks]

* Layered hard and soft rock is eroded to create a step via hydraulic action and abrasion

* plunge pool is created which weakens the rock above and falls in, causing waterfall to retreat and also form a gorge.

L2

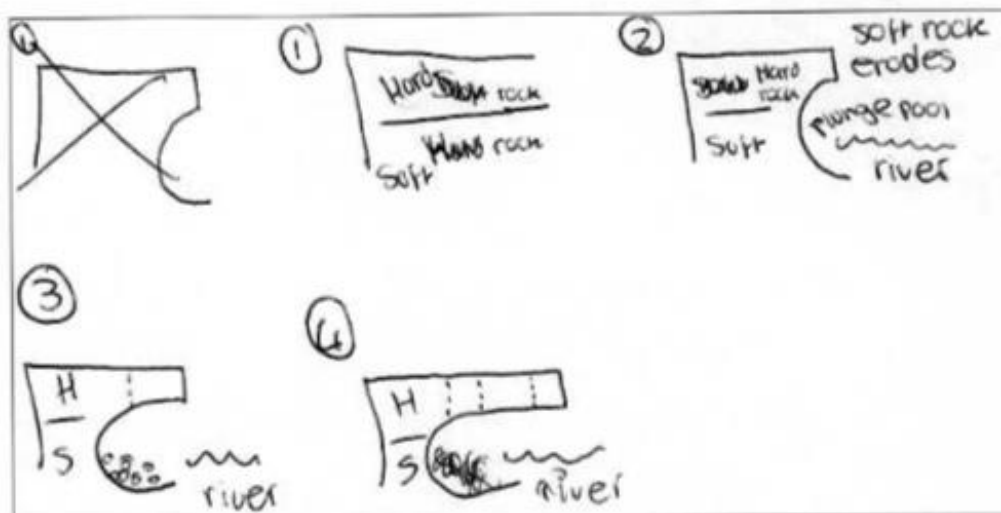
This response to **04.5 (AO1 & AO2) (4 marks)** shows the arrangement of alternating horizontal layers of harder and softer rock and effectively illustrates how the waterfall develops over time. Some aspects are glossed over, such as how the initial step is created, but the answer is clear, and it integrates processes into the sequence of formation. The text under the diagrams helps to explain the different stages of landform development, using appropriate terminology.

Level 2 (4 marks)

0 4 . 5 Explain how a waterfall is formed.

Use one or more labelled diagrams.

[4 marks]



Stage 3 the hard rock become unstable and collapses. The soft rock erodes ~~and~~ creating a Plunge pool. This keeps happening and eroding creating a gorge.

L1

This response to 04.5 (A01 & A02) (4 marks) offers a partial explanation of how waterfalls form. It accurately depicts the layers of hard and soft rock and illustrates the concept of waterfall retreat through its diagrams. The text demonstrates some understanding of the processes of undercutting and the collapse of harder rock, which subsequently lead to the formation of a gorge. However, there are several key elements missing from the explanation and the position of the waterfall is not shown.

Level 1 (2 marks)

Question 05.5 (A01 & A02) (4 marks)

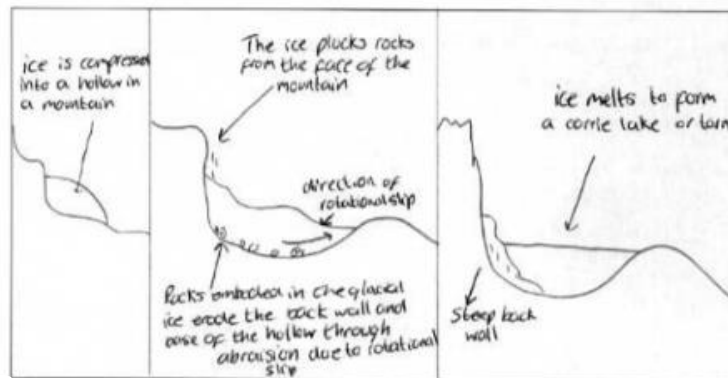
This task appeared to be less successfully completed than questions 03.5 and 04.5. Diagrams were often unclear or difficult to interpret. There was a large misconception about the formation, including the idea that fluvial processes were responsible for the development of corries.

The strongest responses included detailed cross-sectional representations, effectively identifying and locating the geomorphological processes at work within the diagram. Illustrations were supplemented with well-developed written explanations, highlighting the significance of freeze-thaw weathering at the backwall of the corrie and snow accumulation and compression in hollows facing away from the sun. They correctly identified plucking as a key mechanism in both supplying material for abrasion and contributing to the deepening of the hollow. This was further linked to rotational slip, which shapes the characteristic armchair-like profile and creates the depression where the tarn eventually forms.

05.5 Explain how a corrie is formed.

Use one or more labelled diagrams.

[4 marks]



Clear explanation and diagrams

L2

Corries are formed as glacial ice plucks sediment from the rock and through abrasion erodes the base and back wall of a hollow - movement occurs due to rotational slip. This creates a steep-backed, flat-bottomed corrie.

This response to **05.5 (A01 & A02) (4 marks)** shows a series of diagrams showing the corrie at three different stages. The diagrams are fully labelled, and the text underneath explains the formation of the landform clearly and accurately, using appropriate geographical terminology.

Level 2 (4 marks)

05.5 Explain how a corrie is formed.

Use one or more labelled diagrams.

[4 marks]



Partial explanation/diagram

L1

A corrie is formed when ice on a mountain goes through a rotational slip and pushes material in front of it along as gravity pulls it forward. The round dip left in the side of the mountain is a corrie.

This basic response to **05.5 (A01 & A02) (4 marks)** gives a limited explanation with significant omissions. While the sketches suggest the corrie's shape and indicate ice movement, and rotational slip is shown, other key processes are missing. The formation sequence is not fully explained.

Level 1 (2 marks)

6-mark questions

These questions have three levels of response and can assess a variety of combinations of assessment objectives.

In this year's exam series, 6-mark questions were set in Section A, B and C, assessing AO2/AO3.

Section A: The challenge of natural hazards

Question 01.4 (AO2 & AO3) (6 marks). In response to this question exploring the social and economic impacts of extreme weather, students were prompted to use the two photographic stimuli alongside their own understanding. While some drew heavily from the provided text with minimal expansion; others effectively utilised the images of Brighton and the reservoir to develop thoughtful and relevant points. Several students identified positive outcomes linked to tourism, such as increased family and social interaction at the beach and economic gains for local businesses like restaurants.

In contrast, negative consequences often emphasised the issue of water scarcity at the reservoir. Several responses followed a clear, logical progression, connecting reduced agricultural yields with financial losses for farmers, subsequent supply shortages, inflation in consumer prices, and increased reliance on imports. However, a few responses exaggerated the severity of outcomes, citing malnutrition and famine in contexts lacking sufficient justification.

The strongest answers incorporated case study material beyond the provided resources, referencing named events such as the Somerset floods and the Beast from the East. These responses successfully elaborated on specific social and economic effects, including infrastructural costs, transportation disruption (e.g. motorists stranded on motorways), and widespread school closures.

Overall, this question was well tackled, with most students achieving marks at Level 2 and above. Most students made effective links to the figure, often focusing on heatwaves and identifying both social and economic dimensions. Top level answers were distinguished by their integration of independent case study knowledge and nuanced application of personal understanding.

0 1 4 Suggest how extreme weather in the UK can have social and economic impacts.

Use Figure 2 and your own understanding.

[6 marks]

Figure 2 shows Brighton Beach, which is very crowded with people. This suggests that heatwaves encourage people to take holidays and be less productive at work, which reduces personal income, which is an economic impact. People may be less productive due to dehydration and heat stroke, which elderly people are more likely to suffer from - this puts pressure on medical services, costing large amounts of money. This is a social and economic impact.

Another type of extreme weather is large amounts of rainfall. This occurred in Somerset in 2014 - 350mm of rain fell in January and February, 100mm over the average. This caused widespread flooding, which destroyed power lines. Villages such as Ilminster were cut off and had to use boats. Looting and crime increased. There were also economic impacts - 14000 hectares of agricultural land was underwater, so crops failed and farmers could not profit. Businesses such as the Taunton railway closed, so the local economy suffered.

This response to 01.4 (AO2 & AO3) (6 marks) engages with the resource, makes a direct reference to Figure 2, the photograph of Brighton beach, providing a clear, logical explanation of several social and economic impacts linked to heatwave conditions. It introduces the Somerset floods of 2014 as an additional example, illustrating how different types of extreme weather can produce similar consequences. The response includes specific geographical detail and demonstrates sufficient depth and understanding to warrant lower Level 3. To achieve 6 marks, the student might have analysed the second image in Figure 2 and provided a more detailed interpretation of both social and economic impacts.

Level 3 (5 marks)

01.4

Suggest how extreme weather in the UK can have social and economic impacts.

Use **Figure 2** and your own understanding.

[6 marks]

Extreme weather can have **social impacts** as people may have **health problems such as dehydration**. In Figure 2 many people went to Brighton Beach on the 18th July 2022. This [?] could show how ~~the~~ many people may have suffered from **heatstroke** as a result of the **high temperatures** and lack of rainfall.

Extreme weather in the UK can also have **economic impacts** as there may be a **shortage of water or land** to use for **selling crops, water** etc. For example in Figure 2 the Colliford Reservoir is shown in August 2022. You can see the land drying up due to a lack of water. This means the reservoir **may not** **had enough water** to sell.

L2

This less sophisticated response to **01.4 (A02 & A03) (6 marks)** shows the minimum needed for a Level 2 response. The student develops ideas beyond the resource and refers to both social and economic effects, considering health issues arising from heatwave conditions as well as water security problems. Both photographs are used to support the points made.

Level 2 (3 marks)

01.4 Suggest how extreme weather in the UK can have social and economic impacts.

Use Figure 2 and your own understanding.

[6 marks]

extreme weather in the UK has been either to extremely hot temperatures or very cold temperatures. This extreme dynamic of the ~~at~~ constant change in weather can have a impact on ~~recessing~~ the economic state of the UK as individuals will less likely want to go out as it could be dangerous, overall this would effect business and overall economy, leading to a recession. This weather can also cause social impacts as people are less likely to leave the house and see friends and family. another way extreme weather can cause economic impacts is by people moving out the country which can affect population, businesses and economy.

Question 1 continues on the next page

This simple response to 01.4 (AO2 & AO3) (6 marks) presents a few general points with only weak connections to the economic and social impacts of extreme weather. It lacks direct engagement with Figure 2, and elements of the explanation are overstated or not supported by evidence.

Level 1 (1 mark)

Section B: The living world

Question 02.6 (AO2 & AO3) (6 marks). As in Question 01.4, some lower achieving students engaged superficially with Figure 7, merely rephrasing or repeating the wording without demonstrating meaningful understanding. Stronger responses successfully extrapolated from the resource, exploring key concepts such as the rainforest's contribution to medical research, particularly its role in the development of cancer treatments, and the fact that approximately 25% of pharmaceutical products are derived from rainforest biodiversity. A small number of students recognised the significance of preserving indigenous cultures and ways of life.

Environmental aspects were well addressed by higher-scoring responses, referencing carbon absorption via photosynthesis, the rainforest's function as a vital carbon sink, and its ecological importance in sustaining an estimated 50% of the planet's biodiversity within just 6% of Earth's land surface.

Most responses were awarded Level 2 or above, demonstrating competent use of the source material and offering balanced consideration of both human and environmental factors. Some students further enhanced their answers by incorporating relevant case studies, such as the Amazon and Malaysia, and drawing on independent knowledge related to farming, cattle ranching and other drivers of deforestation.

0 2 . 6 'Tropical rainforests are of value to people and the environment.'

- Discuss this statement.

+ Use Figure 7 and your own understanding.

[6 marks]

EG

They are very useful as in the Amazon ~~the~~ rainforest there is over 25% of world species and medicine ingredient so is great for biodiversity and healthcare. The Amazon also stores 600 million tonnes of CO₂ acting as a carbon sink helping to

reduce green house gases emitted helping reduce ~~with~~ climate change, it also produces 1/5 of the world's oxygen supporting all forms of life. However, it is located in Brazil which has 30% of its population in poverty so its also valuable when its being destroyed. For example the Grata Rica gold mine which provides jobs to Extra space Lots of locals and contributes to the economy or cattle ranching. There are also sustainable ways to profit from it such as ecotourism which provides jobs to workers of lodges, cleaners, builders etc so brings the multiplier effect, it also is the number 1 source of income in ~~the~~ Costa Rica.

L3

This response to 02.6 (AO2 & AO3) (6 marks) attains Level 3 due to its discursive nature and detailed geographical understanding. Although place-specific information was not required, its presence strengthens the analysis. The answer effectively explores various ways in which tropical rainforests impact both people and the environment, addressing biodiversity, climate regulation, health benefits and economic value derived from exploitation. It demonstrates detailed understanding (AO2) and a well-developed ability to apply this understanding to evaluate the significance of rainforests for both human and environmental systems (AO3). It might have been awarded 6 marks if the response had shown more detailed understanding of the environmental value of the rainforest ecosystem.

Level 3 (5 marks)

02.6 'Tropical rainforests are of value to people and the environment.'

Discuss this statement.

Use Figure 7 and your own understanding.

[6 marks]

As seen in Figure 7, tropical rainforests can provide many many benefits to the people in the area. It can provide homes for indigenous people such as the Pemon tribe in Brazil but also can attract tourists which help to boost the area's economy. Medical research is

also valuable using the large biodiversity in rainforests.

However, tropical rainforests also take up valuable land which can be used for infrastructure, cattle farming or agriculture such as palm oil which has huge economic value for the people there.

Tropical rainforests are also beneficial for the environment. As seen in Figure 7, they can provide homes for as extra space carbon sinks to reduce the effects of climate change and also are homes to hundreds of thousands of rare species that depend upon the rainforest to survive. Furthermore, as in Figure 7, it says it maintains the water cycle which is hugely important for the surrounding area.

outside
box

L2

This response to 02.6 (AO2 & AO3) (6 marks) demonstrates reasonable clarity and achieves Level 2 by applying knowledge and understanding clearly to Figure 7. While many students struggled to progress beyond Level 1 due to limited development beyond the source, often offering brief, isolated comments on elements of Figure 7, this answer goes further. It engages directly with the resource, while showing broader understanding of the environmental significance of tropical rainforests, including their role in maintaining biodiversity and mitigating climate change. The answer recognises the economic importance of activities such as cattle farming and palm oil production to national economies. Although the reasoning lacks full development and place-specific detail, the response reflects a sound grasp of key concepts.

Level 2 (4 marks)

0 2 . 6 'Tropical rainforests are of value to people and the environment.'

Discuss this statement.

Use **Figure 7** and your own understanding.

[6 marks]

Many agree with this statement as they and or they largely believe ~~human it~~ value to humans because of the resources they provide us with the most obviously being wood which is used more paper used everyday.

Others being medicines and Palm oil etc

Many also agree Tropical Rainforests are important to the environment, not only because they hold large amounts of ecosystems and wildlife but because they release large amounts of carbon

Extra space dioxide and oxygen

L1

This response to **02.6 (AO2 & AO3) (6 marks)** makes use of figure 7 and briefly acknowledges the economic importance of tropical rainforests, citing resources such as timber for paper, palm oil production and medicinal uses. However, the environmental value is only vaguely addressed, with points lacking clarity and depth. The explanation remains underdeveloped and fails to demonstrate secure understanding.

Level 1 (2 marks)

Section C Physical landscapes in the UK

Question 03.6 (AO2 & AO3) (6 marks). Most students drew insight from the visual stimuli, referring to at least two of the four coastal management strategies shown- gabions, rock armour, groynes, and sea walls. Less developed responses tended to focus narrowly on superficial aspects like cost or visual impact. Others demonstrated a basic understanding by outlining how these interventions function or noting general pros and cons.

Level 1 responses typically named one or two strategies and made simplistic claims, such as reducing wave energy or preventing sand movement. Most students reached low Level 2, using the resource with some elaboration on how hard engineering techniques mitigate coastal erosion. Disadvantages were commonly cited, including financial cost and negative aesthetic impact.

Higher-level responses integrated visual and conceptual elements, effectively discussing the relative effectiveness of these measures. For instance, some students highlighted the role of groynes in interrupting longshore drift, acknowledging that while they retain sediment on specific beach areas, they can inadvertently accelerate erosion in adjacent stretches due to sediment starvation, or terminal groyne syndrome.

The most sophisticated answers examined two or three approaches in greater depth, incorporating evaluative comments and specific details, such as importing rocks from overseas, the expense of implementation (e.g., £5000 per metre), and the potential for increased erosion in unmanaged areas. Some students also referenced soft engineering, broadening their analysis.

Overall, Level 1 responses offered generalised commentary on cost, durability, and beach accessibility, while Level 2 showed clearer strategy identification and explanation. Level 3 responses were distinguished by detailed evaluation and contextualised examples, often citing locations like Lyme Regis and Mappleton to reinforce their analysis.

03.6

Discuss the effectiveness of using hard engineering strategies to manage the coastline.



Use Figure 13 and your own understanding.

[6 marks]

There are positives and negatives to all coastal management schemes. For example, groynes trap sediment from longshore drift, building up a larger beach, causing wave energy to be dissipated due to friction. The larger beach can also attract more tourists, boosting local economy. However, it can cause rapid erosion further down drift due to terminal groyne syndrome as places further down the coast have no sediment from longshore drift to dissipate wave energy. This can be seen in Mappletown where a \$2 million groyne caused erosion rates of 10+ meters further down. Another example

Extra space could be rock armour. As waves

enter the cracks in these large rocks their energy is dissipated. They are extremely versatile and can be placed in front of other hard engineering methods such as sea walls to extend their life span. However rocks are often imported from abroad, ^{this does} ~~making it~~ not support local quarries and makes them difficult and expensive to replace.

End of Question 3

L3

This response to **03.6 (A02 & A03) (6 marks)** demonstrates a detailed understanding, incorporates relevant geographical concepts and terminology, and makes effective use of Figure 13. The answer shows a clear grasp of how different hard engineering strategies are used to manage the coastline. Full marks were awarded despite not referencing all four strategies shown in the images, as this was not essential for achieving the highest level.

Level 3 (6 marks)

03.6

Discuss the effectiveness of using hard engineering strategies to manage the coastline.

Use **Figure 13** and your own understanding.

[6 marks]

Hard engineering strategies such as a sea wall can be effective. Seawalls are made up of rocks that reflect the wave energy which can be highly effective. However seawalls are extremely unattractive to the natural scenery and are extremely expensive.

Gabions are another form of hard engineering.

They are metal wire cages filled with rocks to reflect the wave energy off. However gabions are also extremely unattractive and the wires rust quickly so will have to be replaced

often.

Extra space

L2

This response to **03.6 (AO2 & AO3) (6 marks)** demonstrates an understanding of two hard engineering strategies employed along the coastline, namely, sea walls and gabions. While the student provides a clear identification of these approaches, the explanation lacks depth of analysis and shows limited use of geographical terminology. The answer just meets the criteria for Level 2.

Level 2 (3 marks)

Question 04.6 (AO2 & AO3) (6 marks). Most students referred to soft engineering strategies illustrated in the images, depicting afforestation and flood warnings. However, misconceptions were common: some viewed trees as physical flood barriers rather than recognising their role in interception, water uptake, and their influence on lag time—concepts more clearly understood by higher-achieving students. Flood warnings were broadly acknowledged for their role in offering time to respond, with stronger responses elaborating on their function in facilitating evacuation and safeguarding possessions. Several students demonstrated confusion between river and coastal management strategies, referencing hard engineering solutions such as dredging, dams, levées or even sea walls, which detracted from relevance.

Level 1 responses tended to list two strategies from the stimulus without deeper explanation, often oversimplifying concepts (e.g. “trees absorb water” or “warnings help people prepare”). A majority achieved Level 2 by using the resource and offering basic development, frequently mentioning advantages such as lower cost, aesthetic appeal, and minimal ecological disruption. Higher-level answers critically assessed limitations, recognising that flood warnings do not prevent flooding but can reduce casualties and damage. Students also noted that tree planting offers long-term mitigation and that access to warnings may be restricted, particularly when reliant on mobile devices.

Level 3 responses distinguished themselves through precise geographical terminology, such as interception, surface run-off, and lag time along with detailed understanding of mechanisms. The most sophisticated responses expanded beyond the images, discussing additional soft engineering approaches such as floodplain zoning and river restoration. These were often supported by named examples (e.g. Banbury, Boscastle), and accompanied by thoughtful evaluation of associated costs and social, economic and environmental benefits.

Overall, while most students identified key soft engineering methods and their functions, only the strongest were able to evaluate their effectiveness and provide detailed analysis with reference to case study knowledge.

0 4 . 6 Discuss the costs and benefits of using soft engineering to manage river flooding.
Use Figure 15 and your own understanding. [6 marks]

Soft engineering can be beneficial, for example planting trees as shown in Figure 15 increases interception of rainfall, and more rainwater will be taken up by tree roots, therefore decreasing the amount of rain entering the river. This therefore decreases the volume of discharge in the river, meaning it is less likely to flood over the riverbanks, however planting trees can clash with other land uses such as farming. On the other hand, flood warnings are a less effective technique at managing river flooding. They do provide people with time to evacuate, Extra space set out sand bags and move belongings upstairs, however they do not prevent floods from happening, so homes will still be damaged and there will still be the cost of insurance claims for local councils.

12

This response to **04.6 (AO2 & AO3) (6 marks)** is well structured and remains focused on the question throughout. While the answer places emphasis on the advantages of certain soft engineering strategies, it also considers the associated costs, demonstrating a balanced approach. The answer presents a clear and logical chain of reasoning and incorporates a broad range of relevant geographical terminology. Evaluative comments on the relative effectiveness of both approaches further strengthen the analysis. To fully meet the criteria for the top of Level 3, the response would benefit from discussion of additional flood management strategies not illustrated in the resource, such as flood plain zoning and river restoration, to provide a more comprehensive assessment.

Level 3 (5 marks)

04.6

Discuss the costs and benefits of using soft engineering to manage river flooding.

Use Figure 15 and your own understanding.

[6 marks]

L2

Afforestation (Fig 15) is effective as low cost, aesthetically pleasing, create permeable surfaces meaning less discharge in the river and more filtration meaning less flooding. Flood warning are decently cheap (technology expensive) but not very effective as don't manage flooding, only warn. Embankments are more expensive but effective in short term and long term as increase capacity of discharge but are an eyesore and not aesthetically pleasing. Planting trees only effective in long term. Extra space as trees take time to grow. Levees also more effective as cheap if natural and reduce flood risk by increasing capacity of discharge. Dredging is good too but expensive, — increase capacity for discharge. Overall soft engineering is good but expensive and only effective in long term.

This response to 04.6 (AO2 & AO3) (6 marks) just reaches Level 2 as it demonstrates an understanding of the two soft engineering strategies presented in Figure 15. The student briefly addresses both the associated costs and benefits, with some elaboration, reflecting some engagement with the question. However, the answer loses focus by introducing unrelated approaches such as dredging and levees, which do not fall under soft engineering. Nonetheless, the response is assessed positively, with credit awarded for the relevant and appropriate content.

Level 2 (3 marks)

Question 05.6 (AO2 & AO3) (6 marks)

Figure 18 was primarily referenced in relation to footpath improvement, with many students discussing the 'Fix the Fells' initiative in the Lake District. This scheme was recognised for its role in preventing further erosion of trails and sustaining visitor interest by maintaining access. Weaker answers often relied on generic affirmations of strategy effectiveness, lacking in detailed evaluation. Some responses placed excessive emphasis on litter, detracting from more complex issues.

The promotion of public transport, particularly through the 'Park and Sail' scheme, was also considered. While some students focused narrowly on climate-related benefits, more perceptive responses highlighted improvements in air quality and reductions in traffic congestion. Additional examples, including Snowdonia's use of Sherpa buses, were incorporated to explore wider applications of sustainable transport. Several students also addressed broader issues such as second home ownership and its implications for local communities.

Responses that discussed integrated transport systems and their environmental advantages, such as decreased pollution and congestion, demonstrated a stronger grasp of sustainable tourism management.

Those attaining Level 3 typically acknowledged the importance of controlling visitor numbers through zoning strategies, concentrating tourism in honeypot sites, and limiting pressure on more remote areas. References to quota systems and specific attractions, including Beatrix Potter's house, were used to support more developed points.

The Lake District was the most referenced example, although students also discussed other appropriate locations such as Snowdonia and the Scottish Highlands. Most responses adopted a broadly positive perspective, though some did acknowledge potential limitations associated with tourism management strategies. A small number of students misinterpreted the focus, introducing unrelated issues. Nonetheless, Figure 18 proved to be a valuable stimulus for encouraging thoughtful exploration of sustainable tourism practices.

0 5 . 6

Discuss how different strategies are used to manage the impacts of tourism in glaciated areas in the UK.

Use Figure 18 and your own understanding.

[6 marks]

In fig 18, repairing paths can be useful in managing the effects of footpath erosion, by using local materials such as sheep fleeces to repair damage to footpaths.

This is effective as it uses local resources and local materials and is not expensive, so can be continually maintained, which allows people to continue visit and spend money in the Lake District. However, this relies on local people to continually maintain it, which may not be possible in extreme winter conditions, so limits tourism to summer periods when paths are more accessible.

Also, in fig 18, the Park and Sail scheme is very effective in reducing erosion due to cars, which is important as 85% of journeys to the

Lake District is done by car. This scheme is effective in preserving the natural beauty of the Lake District, as well as providing employment for local people. However, there are some issues, as people are less likely to spend more money on a boat trip, which could reduce the effectiveness of the scheme.

This response to 05.6 (A02 & A03) (6 marks) focuses on the effectiveness of different management strategies, taking its cue from the images and descriptions on Figure 18. The student shows some background knowledge of the Lake District exemplar and attempts a detailed assessment. However, some developed points are not entirely clear.

Level 3 (5 marks)

05.6

Discuss how different strategies are used to manage the impacts of tourism in glaciated areas in the UK.

Use Figure 18 and your own understanding.

[6 marks]

In figure 18 I can see the park and sail scheme in the lake district that encourages people to travel by boat rather than by car. This helps manage car emissions released into the atmosphere by cars each year as tourism increases. As well as this the lake district also uses goathpath beams which can create goathpaths and enable people to stick within the inside of the ^{wooden} beams in order to protect the goathpaths from goathpath erosion. They do this in order to keep visiting tourists from ruining the land around the glaciated area.

L2

This response to 05.6 (A02 & A03) (6 marks) considers both management strategies illustrated in Figure 18. The student recognises the advantages of each and makes some simple statements about reducing car emissions and protection of the landscape.

Level 2 (3 marks)

9-mark questions

These questions are found in Section A and Section B and have three levels of response. 9-mark questions always assess AO1, AO2 & AO3.

The 9-mark question in Section A includes an additional 3 marks for spelling, punctuation and grammar. (SPaG).

Section A: The challenge of natural hazards

01.12 (AO1, AO2 & AO3) (9 marks)

While the question may have seemed challenging at first glance, most students responded with confidence and depth.

Countries such as Chile, Nepal, Haiti, Japan, Italy and New Zealand featured prominently in student responses. References to volcanic hazards were rare, but where they occurred, the case study material was often accurate and pertinent to the question.

Lower-level responses were often generic, even when examples were provided. Some students reversed their case studies (e.g., confusing LICs and HICs), and others focused excessively on background details, describing the events rather than analysing their effects or responses. Weaker answers frequently included unsubstantiated statistics or veered off-topic by discussing hurricanes or conflating them with tectonic hazards. A small number failed to engage with the question altogether. Level 1 answers were mostly generic. They either referenced LICs and HICs in the broadest terms and the ability to manage effects or produced a suitable response to a tectonic hazard. Some answers incorrectly made references to tropical storms as a chosen example, perhaps a legacy of previous questions. Others deviated into the cause of specific earthquakes or focused exclusively either on the impacts or the responses

Many answers were able to reach Level 2 by presenting basic facts from two earthquake case studies with some comparative and evaluative elements the extent to which the effects of a tectonic hazard vary between areas of contrasting levels of wealth. Overall, responses tended to address effects more clearly than responses, with a notable proportion assuming that HICs possess the capability to predict earthquakes, thereby weakening their analytical depth.

Many answers were thorough, focused, and supported by accurate case study knowledge. A substantial number of Level 3 responses explored both effects and responses in an integrated manner, referencing precise statistics, including fatalities, injuries, homelessness, infrastructure damage, economic cost, and the involvement of aid agencies and governments. These answers demonstrated an understanding of how factors such as national wealth, magnitude, population density, and preparedness influenced outcomes. These high-level responses were notably well-structured and demonstrated thoughtful reasoning. They drew clear comparisons, effectively interlinking consequence and response to tectonic hazards while incorporating AO3 terminology and evaluative statements, using their exemplars strategically to meet the demands of the question.

A note about SPaG. Although the overall quality of writing was good, many students were unaware of the need to use capital letters for place names. Some also failed to use paragraphs. Issues with the spelling of 'receive', 'destruction' and 'devastation' were particularly commonplace.

0 1 . 1 2

Suggest how the effects of, **and** the responses to, a tectonic hazard vary between areas of contrasting wealth.

Use **one or more** named examples in your answer.

[9 marks]
[+ 3 SPaG marks]

The effects of tectonic hazards vary, to a large extent, between areas of differing wealth. For example after the earthquake in Nepal, 9000 people were killed, whereas after the Chile earthquake only 500 people were killed, despite the Chile earthquake having more power - it was 8.8 on the Richter scale, compared to the Nepal earthquake at 7.9. This is because Chile, a HIC, would have a higher level of development and infrastructure, so buildings would be made from stronger materials so less likely to collapse, injure people, and cause death than in Nepal, a LIC, with a lower quality of infrastructure. Therefore, wealth has a large-scale

significant effect on the social primary effects of earthquakes.

The responses to earthquakes can also largely vary between areas of contrasting wealth. Extra space for example Chile, a HIC, was able to repair their main north-south highway within 24 hours, allowing emergency aid to be transported, and distribute medical aid

and food packs hastily. In contrast, Nepal, a
LIC, had to pledge emergency aid from foreign
countries, as due to being of lower wealth
were unable to find the funds to provide
emergency aid themselves, whereas Chile had
the economic resources available. Therefore,
wealth can largely effect ~~and~~ a country's
immediate responses to ear shquakes.

End of Section A



Turn over for Section B

Overall, I believe a country's wealth has
a significant impact on both its ability to
respond to ear shquakes, and the effects of
them, as Nepal, being unable to provide
medical aid due to their lower wealth,
further adds to the social effects of
earthquakes as there will be more
injuries and deaths.

A03

L3

This response to **01.12 (A01, A02 & A03) (9 marks)** fully meets the criteria for a top Level 3 mark. It presents detailed knowledge of two named examples (A01), shows a thorough understanding of the effects and responses to a tectonic event (A02), and offers clear discussion of the contrasts between countries at different levels of development (A03). The answer maintains a balanced approach throughout, demonstrating secure knowledge and analysis across varying contexts. Both examples are explored with depth and supported by accurate geographical detail. Comparative insights are woven throughout the answer, which strengthens the overall assessment. The student reaches a well-reasoned conclusion. Spelling, punctuation, and grammar (SPaG) are awarded 3 marks for accurate use, clear expression, and appropriate application of subject-specific terminology.

Level 3 (9 marks)
SPaG (3 marks)

0	1	.	1	2
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Use **one or more** named examples in your answer.

[9 marks]
[+ 3 SPaG marks]

The effects of an earthquake are the direct impacts it has, whereas responses are the strategies used to reduce the effects.

in 2009, a magnitude 6.5 earthquake struck
Aquila, Italy. It caused the death of over 300
people and many injuries. The death and injury toll
may have been low as population density in HIC's is
lower. moreover, Italy was able to quickly respond,
for example the red cross set up tent camps for the 40,000
homeless people. This could be due to because of
Italy's wealth they are able to effectively respond.

In 2015, a magnitude 7.8 earthquake struck Gorkha, Nepal. The death toll, at over 9000, was significantly higher than in Italy perhaps because population density is ^{higher} ~~very high~~ in Nepal. Moreover, Nepal had to rely on aid for responses to the Extra space earthquake which meant responses would have taken longer.

In Conclusion, a HIC has the facilities to quickly introduce responses and have lower impacts. Whereas an LIC takes longer to respond, and generally have worse effects (mainly socially).

A03

*This response to **01.12 (AO1, AO2 & AO3) (9 marks)** demonstrates a sound understanding of the topic, with some development supported by appropriate examples. It addresses both the effects and responses to the event. It's not entirely accurate, particularly in its reference to population density, and contains some generalised points that lack full justification, but the answer nonetheless meets the criteria for Level 2. It reflects clear knowledge and understanding, along with a reasonable application of geographical concepts when evaluating differences between areas of varying wealth.*

Level 2 (5 marks)
SPaG (3 marks)

0 1 2 Suggest how the effects of, and the responses to, a tectonic hazard vary between areas of contrasting wealth.

Use one or more named examples in your answer.

[9 marks]
[+ 3 SPaG marks]

The effects of a tectonic hazard can be extreme in a low income area, this is due to poor infrastructure that doesn't survive against storms, overall leading to extreme damage and destruction within that area which poses a high risk of the loss of lives. In contrast to this higher income areas suffer less damage as they have stronger structures/buildings which withstand the tectonic hazard overall leading to very minimum destruction. The responses to a

tectonic hazard in a low income area would be search and rescue a short term response. Search and rescue would be vital as there would be a increase in destruction. Extra space in contrast to other areas due to the destruction or buildings collapsing within a area, leading to a higher chance of individuals get injured or fatal injuries. This contrasts to wealthier areas as there short term response would be the necessities like food/water with minimum minimum loss of life.

General points relating to effects and responses.

L1

End of Section A

Turn over for Section B

This response to **01.12 (AO1, AO2 & AO3) (9 marks)** presents some general observations regarding the effects and responses to tectonic hazards and includes basic contrasts between countries of varying wealth. However, the absence of a named example significantly weakens the explanation and limits the depth of analysis. The content reflects limited subject knowledge (AO1), basic conceptual understanding (AO2), and minimal evaluative judgement (AO3). Much of the commentary is broad and could apply to a wide range of natural disasters rather than specifically to tectonic events. Spelling, punctuation and grammar is generally accurate with competent expression, though lacking precision in terminology.

Level 1 (3 marks)
SPaG (2 marks)

Section B: The living world

02.10 (AO1, AO2 & AO3) (9 marks). In section B, for question 02.10, students were required to answer the question on either hot deserts or cold environments. A greater number of students opted to address hot desert environments compared to cold ones, although the latter were generally more effectively handled.

Hot deserts

Responses discussing desertification varied in quality; weaker answers tended to list basic causes without analysis. They made limited reference to rainfall or misunderstood the task by focusing on adaptations rather than environmental degradation. Some students wrote answers for different questions such as challenges and opportunities in deserts.

Stronger answers drew on visual stimuli to explore issues such as overgrazing and fuelwood collection. These developed through the levels by tracing the impact of vegetation removal on soil vulnerability, leading to erosion and the encroachment of desert margins. High-scoring responses went further, evaluating mitigation efforts including the Great Green Wall and the use of stone bunds, discussing their effectiveness within a broader environmental context.

In relation to Figure 9, most students correctly identified causes of desertification such as deforestation, overgrazing, and overcultivation, earning Level 1 credit through straightforward statements or brief elaboration. Level 2 responses incorporated place-specific knowledge and referenced solutions like magic stones or afforestation schemes as part of the discussion. At Level 3 students showed a thorough understanding of a range of causes of desertification with some evaluation of the extent to which human activity is responsible. Many acknowledged natural causes, including climate change and drought, alongside human factors, or referred to specific schemes such as the Green Wall to show how human activity may have positive impacts on, or even reduce, rates of desertification.

Cold environments

Answers focusing on cold environments were generally better in quality. Weaker responses often relied heavily on image prompts and offered generalised comments about cold conditions or poor road access—more akin to UK extreme weather events.

However, better responses demonstrated understanding of harsh climates, including sub-zero temperatures below -30°C and the complications of permafrost. These were linked to infrastructure challenges such as housing construction and the need for elevated pipelines to transport water, energy, and valuable resources like oil via the Trans-Alaska Pipeline (TAP).

Strong answers also considered economic opportunities such as fishing and tourism, weighing these against physical challenges. Responses that showed a firm grasp of cold environment difficulties—such as accessibility, infrastructure limitations, and permafrost—were particularly well developed.

For cold environments, Level 1 responses generally commented on features like damaged roads or snow-covered landscapes and stated how this made transport difficult or that the cold temperatures made outdoor life a challenge. Level 2 answers introduced place-based examples, commonly Svalbard or Alaska, and explored how permafrost creates challenges for transportation and maintenance. Figure 10 was frequently used to highlight the need for elevated pipelines. At Level 3, students demonstrated a detailed understanding of environmental constraints and used the figure as a springboard for discussing broader issues, such as limited infrastructure, reduced daylight hours, and workplace adaptation to extreme cold.

02.10 (AO1, AO2 & AO3) (9 marks)

Hot deserts

Either (hot deserts)

To what extent does human activity contribute to desertification in areas on the fringes of hot deserts?

Use **Figure 9** and your own understanding.

[9 marks]

Or (cold environments)

To what extent does the physical environment create challenges for development in cold environments?

Use **Figure 10** and your own understanding.

[9 marks]

Tick (✓) the box to show which environment you have chosen.

Hot desert environment (**Figure 9**)

☒

Cold environment (**Figure 10**)

☐

Climate change
over cultivation
removal of
fuel wood
Population growth.

Human activity is the main cause of desertification on the fringes of hot deserts. Removal of fuel wood is a large issue (9c) as tree roots help to bind soil together, as well as soaking up any surface run off / interception they and receive in the desert. By removing the fuel wood you are exposing the unfertile soil to the wind where it can easily erode. However schemes, by humans are being put in place to reduce this issue such as the Great Green wall, an 8000km² stretch of trees along the Sahara desert, designed to combat this issue. Another example of human exploitation of the land is over cultivation / grazing. Farmers often do not rotate their crops

02.10 (AO1, AO2 & AO3) (9 marks)

Hot deserts

or cattle. Causing the land to be squashed under hooves or become infertile due to crops sucking all the nutrients out. Making the land more susceptible to being eroded ~~the way~~. These
Extra space issues are only being worsened by climate change which places further strain/pressure on the land. This is being combatted by implementing protection zones such as Joshua tree national Park, preventing it from being exploited. However, humans are not the only factor causing desertification, climate change and rising temps is leading to more droughts, therefore less infiltration and an increased risk of dry & ground being eroded. (although it could be argued humans are the cause of
L3 End of Section B rising earth temps)

This response clearly meets the criteria for Level 3. It demonstrates detailed knowledge of human-induced threats to desert fringe environments, such as vegetation loss and overgrazing, as illustrated in Figure 9 (AO1). The student shows a thorough understanding of both anthropogenic and physical causes of desertification (AO2), and applies this knowledge effectively to the resource, with insightful discussion of the issues presented (AO3). The answer also acknowledges wider factors like climate change and considers alternative perspectives, noting how human actions, such as the implementation of the Green Wall, can help mitigate the effects of desertification.

Level 3 (9 marks)

02.10 (A01, A02 & A03) (9 marks)

Hot deserts

Either (hot deserts)

To what extent does human activity contribute to desertification in areas on the fringes of hot deserts?

Use Figure 9 and your own understanding.

[9 marks]

Or (cold environments)

To what extent does the physical environment create challenges for development in cold environments?

Use Figure 10 and your own understanding.

[9 marks]

Tick (✓) the box to show which environment you have chosen.

Hot desert environment (Figure 9)

☒

Cold environment (Figure 10)

☐

Human activity contributes to desertification in areas on fringes of hot deserts. One way human activity contributes is cattle ranching. This causes desertification and droughts in the floor. We also see that in ~~Figure 9~~ Figure 9b the ground is very dry. This is because there is not a high rainfall in this area meaning not only is it humans who cause

02.10 (AO1, AO2 & AO3) (9 marks)

Hot deserts

desertification. This means
that also natural
A03 hazards cause desertification
such as a lack of
Extra space rainfall. Also
overall I would say
that ~~it~~ ~~disagree~~ human
activity does cause
desertification but also
things such as a lack
of rainfall cause
L1 desertification.

This limited response presents a few basic, and mostly generalised, ideas about the causes of desertification. While it refers to the visual content in Figure 9 and acknowledges natural factors, the explanation lacks depth. The student demonstrates limited understanding of human-induced threats (AO1), a basic grasp of geographical concepts (AO2), and only modest application of knowledge to the resource and broader context (AO3).

Level 1 (3 marks)

02.10 (A01,A02 & A03) (9 marks)

Cold environments

Do
01.

Either (hot deserts)

To what extent does human activity contribute to desertification in areas on the fringes of hot deserts?

Use Figure 9 and your own understanding.

[9 marks]

Or (cold environments)

To what extent does the physical environment create challenges for development in cold environments?

Use Figure 10 and your own understanding.

[9 marks]

Tick (✓) the box to show which environment you have chosen.

Hot desert environment (Figure 9)

☐

Cold environment (Figure 10)

☒

The physical environment in cold areas does create lots of challenges, however there are often ways to solve them.

In cold environments such as Alaska the temperatures can be very extreme dropping to around -40°C . This can create challenges such as thick ice and inaccessible roads or damaged ones like that in figure 10c*. However it can be good for development as it encourages data centers to relocate here as they can spend less on cooling such as the Luleå Facebook centre in Finland. This then brings jobs to these areas and the new influx of workers can bring about the

02.10 (AO1, AO2 & AO3) (9 marks)

Cold environments

multiplier effect. Cold environments often have great resources, for example in Alaska there is lots of oil in Prudhoe bay and the industry employs 110,000 people. Despite the difficulties of transporting extra space this technology has been used to fight the challenges. The Trans Alaskan pipeline which is 1300km long has sections built on stilts and zigzags as shown in Figure 10b allowing ^{animal} migration and reducing chances of breaking in earthquakes. // However, they are often wilderness areas which are very vulnerable to any form of human activity so it can be difficult managing them. I believe they bring lots of challenges but with modern technology many of these can be overcome.

End of Section B

L3

* This can make access very challenging for people however there are other options such as snowmobiles to get around.

This well-structured and detailed response effectively evaluates specific environmental constraints, exploring how the nature of these challenges influences a country's ability to overcome them and achieve development. Specific geographical support is evident throughout the answer. The answer a competent, discursive mini essay, incorporating thoughtful assessment and analysis throughout. All key aspects of the question are comprehensively addressed, with clear and well-reasoned judgement. Subject-specific terminology is used consistently and appropriately, enhancing the clarity and precision of the argument. Overall, the response presents a strong and persuasive case.

Level 3 (9 marks)

02.10 (AO1, AO2 & AO3) (9 marks)

Cold environments

Either (hot deserts)

To what extent does human activity contribute to desertification in areas on the fringes of hot deserts?

Use Figure 9 and your own understanding.

[9 marks]

Or (cold environments)

To what extent does the physical environment create challenges for development in cold environments?

Use Figure 10 and your own understanding.

[9 marks]

Tick (✓) the box to show which environment you have chosen.

Hot desert environment (Figure 9)

☐

Cold environment (Figure 10)

☒

in Figure 10, it shows a very
a very cold environment which
would make development extremely
hard to work in as the extreme
AO2 weathers would reduce the amount
of time you are able to work and
develop. It also shows how the

source of energy has to be taken
from a very long way away as
the energy would be hard to access
in cold environments. It also shows
the use of large vehicles that you
would have to use in the snow.
AO2 can damage the roads. An example.

Cold environments

of how the cold environment can affect development is in **Southern**. For example, the extreme weather would reduce the rate at which development could take place as you would need to **wear thick clothing** restricting movement and also the cold can affect how long you are outside for. There's also the accessibility due to **large mountains** and **deep snow** it's hard for large vehicles carrying materials to get to place that need it. Lastly the services are **less accessible** in rural areas such as **Spet** served the services are miles away making it difficult to transport food / water / materials.

End of Section B

L2

This response demonstrates an awareness of the physical challenges associated with cold environments, notably issues of inaccessibility and extreme temperatures. It applies a reasonable level of understanding to the source material. While an exemplar is referenced, the accompanying commentary remains largely generic and lacks depth. Overall, the response reflects a clear and relevant engagement with the topic.

Level 2 (4 marks)

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