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June 2023

Int GCSE Geography 4GE1 01R

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Introduction

Introduction

The first sitting of this specification for Pearson Edexcel International GCSE Geography took place in 2019. The series in 2023 was the first full series since 2019 with no adaptations or mitigations; this series was therefore the first since 2019 to include both familiar and unfamiliar fieldwork questions. This Examiner's report is intended to provide an insight into performance on Paper 1: Physical Geography, in particular, analysing the majority of questions in terms of what went well and where common mistakes and underperformance were evident.

This paper consists of two sections from which candidates answer two 25-mark questions from Section A and one 20-mark question from Section B. The total marks on the paper are 70.

The exam includes multiple-choice questions, short, open response, calculations and extended response questions. The exam command words which are used in the paper are defined in the specification. Each of the questions is mapped to one or more of the Assessment Objectives (AOs).

In **Section A**, River Environments, Coastal Environments and Hazardous Environments are covered. Candidates are required to select two out of three questions.

In **Section B**, candidates choose one out of three fieldwork related questions relating to River Environments, Coastal Environments and Hazardous Environments.

It is important that candidates focus on the requirements for each command word and the Assessment Objective (AO) distribution, particularly for the longer response 8-mark questions, to ensure they access the full range of marks available.

Question 1 (b)(ii)

In this question, candidates were required to state what is meant by the term drainage basin.

For these low tariff questions, candidates need to ensure that they have a clear understanding of key words and can provide a clear definition. This question was a challenge for candidates with few being awarded a mark for their response.

(ii) State what is meant by the term **drainage basin.**

(1)

drainage basin is where water moves out from rivers or seas into seas.

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Examiner Comments

Incorrect definition.

0 marks

(ii) State what is meant by the term **drainage basin.**

(1)

An open system and the structure of how water is stored, and transfered

ResultsPlus
Examiner Comments

This states a characteristic of a drainage basin rather than the definition.

0 marks

(ii) State what is meant by the term **drainage basin.**

(1)

Drainage basin is an area of land where precipitation is collected and delivered to a main river, it is outlined by the watershed

ResultsPlus
Examiner Comments

Correct definition.

1 mark

(ii) State what is meant by the term **drainage basin.**

(1)

An Area Drained by the river.

ResultsPlus
Examiner Comments

Accurate definition.

1 mark

Question 1 (b)(iii)

In this question, candidates were required to explain one reason for poor water quality in a river.

Most candidates achieved 1 mark for stating a correct factor; fewer responses demonstrated the development required for the second mark. Candidates were not rewarded for simply repeating part of the question stem 'reason for poor water quality'; they were required to give detail about how the initial factor identified lead to water quality declining.

(iii) Explain **one** reason for poor water quality in a river.

(2)

(Pollution or garbage.) pollution is very harmful and can prevent water quality to be dirty which lead to poor water quality.

ResultsPlus
Examiner Comments

Credit for pollution/garbage, but no clear development as 'poor water quality' is in the question stem.

1 mark

(iii) Explain **one** reason for poor water quality in a river.

(2)

Eutrophication due to the growth of algal blooms due to an excess in nitrates can cause poor water quality.

ResultsPlus
Examiner Comments

Eutrophication (1) leads to algal blooms (1).

2 marks

Question 1 (c)

This question required candidates to use Figure 1a, which showed a diagram of the hydrological cycle.

The credit for these type of 'explain' questions comes from correctly identifying a transfer in the hydrological cycle shown in the resource (AO3) and then developing this to explain how the water moves (AO2). Candidates were awarded for correctly identifying a transfer shown in the resource and developing this to explain how the water moves within the cycle.

A significant proportion of candidates gained full marks. Where candidates were awarded 2 or 3 marks, they failed to explain the process to show their understanding of how/why water molecules move from one location to another.

(c) Study Figure 1a in the Resource Booklet.

Explain **two** transfers in the hydrological cycle shown.

(4)

1 When water [illegible] from the ocean evaporates, the clouds starts to rain and fills up a curve on the ground.

2 [illegible] in the ocean, the ground gets softer because it dissolves with the water. And from that the occean connect with a curve underground or river it gives it water. from the occean to river

ResultsPlus
Examiner Comments

Water from the ocean evaporates (1). The development does not explain the process of the changing state of water and is not credited.

Second point is too unclearly expressed as groundwater flow for credit.

1 mark – 1+0

(c) Study Figure 1a in the Resource Booklet.

Explain **two** transfers in the hydrological cycle shown.

(4)

1 evaporation, from an area full of water (sea) the heat from the sun caused the water molecule to rise and collected in the cloud above.

this help control the water level in the sea

2 precipitation, when the cloud have collected enough water minerals inside the cloud help make rainfall then on it reined from a higher ground level to a lower ground level.

ResultsPlus
Examiner Comments

Evaporation (1) heat from sun causes water molecule to rise (1) = 2 marks

Precipitation (1). The development lacks clarity on the process that causes water droplets to fall from the cloud. There needs to be some idea of influence of gravity for credit.

3 marks – 2+1

(c) Study Figure 1a in the Resource Booklet.

Explain **two** transfers in the hydrological cycle shown.

(4)

1 transpiration - as plants respire, they release water in form of vapour into the air (atmosphere)

2 evaporation - water ~~to~~ turns into gas form on the surface ~~due to it either~~ (sped up by sunlight ~~that~~) and ~~turns~~ re turns to atmosphere

ResultsPlus
Examiner Comments

Transpiration (1) as plants respire they release water vapour (1) = 2 marks.

Evaporation (1) water turns into a gas (sped up by sunlight)(1) = 2 marks.

4 marks

Question 1 (d)

Candidates were asked to explain how one physical factor can affect river regimes.

There were variable responses to this question. Some candidates are unclear on the meaning of the term 'river regime' and this lead to some responses focusing on water quality rather than annual changes in discharge and were awarded zero marks.

Other candidates provided detailed answers about a human factor which was not the focus of this question and, again, were awarded zero marks.

Where candidates knew the term 'river regime' and focused on a physical factor, they were often awarded full marks as these were well developed.

(d) Explain how **one** physical factor can affect river regimes.

(3)

A physical factor affecting the rivers ~~could~~ regimes could be us humans polluting the water with our industrial work around it. Over fishing can also affect the rivers regimes.

ResultsPlus
Examiner Comments

This response focuses on water quality which is not relevant in a question focused on river regimes.

0 marks

(d) Explain how **one** physical factor can affect river regimes.

(3)

Human development surrounding rivers affects river regimes. During rainfall all the rain that hits the surrounding area floods straight into the river as development is done with non-permiable material. This prevents the water from being absorbed by the soil and causes it to flood the river

ResultsPlus
Examiner Comments

This response focuses on a human factor which is not the focus of the question.

0 marks

(d) Explain how **one** physical factor can affect river regimes.

(3)

If the land is impermeable, the water will take a shorter time to get back to the river. This will result in a shorter or decreased lag time in the river ~~reg~~ regime.

ResultsPlus
Examiner Comments

Impermeable land (1) will decrease lag time (1).

2 marks

(d) Explain how **one** physical factor can affect river regimes.

(3)

* Climate can affect river regimes
* During spring, glacier and snow melt and increase overland flow
* This increases river discharge in the spring months.

ResultsPlus
Examiner Comments

Climate (1) snowmelt during spring increases overland flow (1) this increases river discharge during spring months (1).

3 marks

(d) Explain how **one** physical factor can affect river regimes.

(3)

Vegetation can acts as Interception and prevents a lot of water entering a river or lake all at once. Vegetation can lower the chance of flooding by creating a longer lag time, affecting river regimes.

ResultsPlus
Examiner Comments

Vegetation (1) can act as interception (1) and prevents a lot of water entering a river all at once creating a longer lag time (1).

3 marks

Question 1 (e)

The majority of students were able to identify the river feature as a floodplain. Where candidates did not, they most often mistook the feature for a delta or river mouth.

Question 1 (f)

This question required candidates to explain why water shortages occur. As the question did not state the number of reasons required, there were a range of ways for candidates to achieve full marks, by offering two developed reasons or one well developed reason.

A significant proportion of responses achieved full marks demonstrating a strong subject knowledge in this part of the specification.

(f) Explain why water shortages can occur.

(4)

Water shortages can occur because of drought. The high temperatures means water will evaporate much more faster, leading to the river or a lake to be dried up.

ResultsPlus
Examiner Comments

High temperatures means water evaporates faster (1) leading to the river drying up (1).

2 marks

(f) Explain why water shortages can occur.

(4)

Water shortages occur when there is too little water resources. When the supply of water is too little, for example in deserts, water shortages occur as it is unable to meet its demand. However it may also be due to overpopulation. When the demand of water is too much because of too much population, it is unable to meet needs, hence also causing shortages. It may also be due to inadequate governmental management. Government may not be able to distribute water fairly and maximize its resources.

ResultsPlus
Examiner Comments

Overpopulation (1) leads to demand being too high and unable to meet needs (1) = 2 marks.

Inadequate government management (1) meaning water isn't fairly/efficiently distributed (1) = 2 marks.

4 marks

(f) Explain why water shortages can occur.

(4)

Water shortages could occur because of the increasing population, with an increasing population, more people would need access to water for different usages. Water shortages could also be due to the increasing demand of water, more water is needed for different purposes, whether it is for domestic use or agriculture, causing water shortage to occur.

ResultsPlus
Examiner Comments

Increasing population (1) as more people would need more water for different uses (1) = 2 marks.

There could be an increasing demand for water (1) more water is needed for domestic use causing water shortages (1) = 2 marks.

4 marks

Question 1 (g)

In these 8-mark extended writing questions, candidates are required to blend their use of the resource (AO4) with their own knowledge and understanding of the issue presented (AO3). Therefore, they are not case study questions, rather they require the candidates to apply their geographical understanding to the context shown in the resource.

In this instance, candidates were required to study Figure 1c, a graph showing actual and forecast rainfall, and Figure 1d, information about flooding in Brisbane.

Many candidates engaged with the resources well and were able to make a link between the challenges posed when rainfall forecasts are not accurate and the consequences this may have for preparation in an area. Often, when referring to Figure 1d, candidates focused on the impacts of the flood event. However, the question focus was on causes of the river flood and so the interpretation of this resource was less effective. There is a marked improvement in candidates engagement with the resources provided this series, which is pleasing to see.

The command word 'analyse' needs to be addressed to achieve full marks and many candidates found this challenging as there was often minimal judgement demonstrated in candidate responses.

(g) Study Figure 1c and Figure 1d in the Resource Booklet.

Analyse the causes of the river flood.

Refer to the resources in your answer.

(8)

River floods occur when the amount of water in the river is substantially more than it can ~~[illegible]~~ hold. One of the causes of this could be loose soil being washed away due to the increase of water capacity.

ResultsPlus
Examiner Comments

Basic idea linked to removal of soil being washed away.

1 mark

(g) Study Figure 1c and Figure 1d in the Resource Booklet.

Analyse the causes of the river flood.

Refer to the resources in your answer.

(8)

In figure 1c, we can see that the rainfall in the first few ~~days~~ days were little, with the forecast having similar predicted levels to the actual rainfall. However, on the 7th of January 2011, the sudden increase of actual rainfall (likely) flooded areas due to the little to no preparation as the forecast had predicted a much lower amount of rainfall. The same outcome happened the next day. However, on the 9th, there was a lower actual amount of rainfall compared to the predicted amount from the forecast. The amount of rainfall then reduced ~~for~~ for the next few days.

In figure 1d, it shows that the areas flooded were near water sources. The Flash flood in Toowoomba killed 12 likely due to the underestimation of rainfall during the 7th and 8th of January. The largest area that was flooded was near the ocean. The sudden large discharge of the rivers likely caused the sea levels to rise, causing the sea water to flood the areas near ~~near~~ Moreton Bay.

ResultsPlus
Examiner Comments

There is clear evidence from both resources and a basic development that the inaccurate forecast caused little preparation to reach top Level 1. The second paragraph focuses only on impacts, rather than causes, of the river flood.

This response has an unbalanced and incomplete argument, but contains elements of both AO4 and AO3.

3 marks

(g) Study Figure 1c and Figure 1d in the Resource Booklet.

Analyse the causes of the river flood.
breakdown
Refer to the resources in your answer.

(8)

In figure 1c, during first 12 days of January there was rainfall everyday except for the 2nd, 11th and 12th. As time increased there was a overall increase in the in the time that passed. On the first, there was around 5mm of rain but by Day 7 there was around 150mm of rain which eventually decreased back down to 0mm on the 12th. This was likely due to During January in Brisbane it was around Summer time. This meant increased evaporation and meant more precipitation leading to excess discharge in the river and therefore the river bursted it's bank leading to river flooding.

In figure 1d, there were multiple areas with floods that lead to danger. In Toowoomba the flood killed about 12 people, in Lockyer 50 People went missing. This showed the lack of risk management and how people got hurt/died in the flash-flood. These floods were also in cities with non-permeable materials meaning water was not absorbed into the ground and likely slowed down river movement. In brisbane, City centres were closed as it was estimated it would peak at 5.2m This meant that if any tropical cyclones were to happen,

Storm Surge that followed could greatly affect the City. In the Wivenhoe Dam, the water control may not have been fully in control leading to excess water being leaked out increasing risk of flooding.

ResultsPlus
Examiner Comments

This response describes the changes in Figure 1c with a basic AO3 comment at the end of the first paragraph. In the second paragraph, although several impacts are mentioned from Figure 1d, there are a couple of suggested reasons for the occurrence of flooding: lack of risk management in the area, area flooded being a city and so impermeable and a suggestion about the effectiveness of the dam. This demonstrates some geographical understanding based on the scenario provided.

5 marks

(g) Study Figure 1c and Figure 1d in the Resource Booklet.

Analyse the causes of the river flood.

Refer to the resources in your answer.

(8)

River Brisbane flooded in 2011 along with Bremer River, causing great devestation due to the people lost and the damage done.

First of all, a possible cause of the river flood could be the ~~different outcomes of the predicted~~ difference between the predicted and actual rainfall for 12 days in January, shown in Figure 1C. It can be seen that on the ~~4t~~ 7th of January, the forecasted rainfall was around 50mm, however, the actual rainfall recorded turns out to be around 150mm. In addition, on the 8th of January, the difference between the predicted and actual rainfall was around 50mm. This ~~dist~~ drastic amount of actual rainfall on these two days caused the flood, and because people did not expect that much rain, no one was prepared for a flood, 3000 homes were inundated in Ipswich, shown in Figure 1D. ~~Flashflo~~ Moreover, flash floods in Toowomba also killed 12 people and around 50 people went Missing around Lockyer valley. To contrd the flooding, they attempted controlled releases to relieve ~~swollend~~ swollen flood Storage in Wivenhoe Dam.

Furthermore, because ~~Brisbane is~~ the river is located in the city of Brisbane, in Australia, the land surrounding the river could have been covered in impermeable rock, not

allowing rainwater to infiltrate into the ground but just rush into the river causing the river forecast to peak at 5.2 m, putting 20 000 homes at risk not long after rainfall.

To conclude, one of the most significant river floods in Brisbane was due to the fact that there was a huge difference between the actual and predicted rainfall, causing a flood no one expected. **(Total for Question 1 = 25 marks)**

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Examiner Comments

This response is fully focused on the causes of the flood event shown in the resources. There is clear evidence of obtaining accurate information to support the three causes identified in the response. The candidate makes some logical connections and has evidence of judgement within their response and in the brief statement at the end to gain Level 3.

7 marks

(g) Study Figure 1c and Figure 1d in the Resource Booklet.

Analyse the causes of the river flood.

Refer to the resources in your answer.

(8)

In figure 1c, rainfall was normal until the 7th and 8th of January. On the 7th of January the predicted rainfall was 50mm of rainfall, whereas the actual rainfall turned out to be 150mm of rainfall which is 3 times of 50mm. This unexpected number could have shocked the Brisbane population with severe rains and floods. Because of the unreliable predicted rainfall this would have caused Brisbane to be highly unprepared to face this river hazard. Rainfall on the 8th of January 2021 was also quite high with 120mm of rainfall. In figure 1d, Brisbane is the highest flooded area because of their rapid urbanization. This results in the construction of building and sky-scrapers, stopping the water from getting intercepted by plants because of the abundance of them, therefore creating a flashy hydrograph. To add on Toowoomba is also effected by the floods because it is also a city with urbanisation. Not only the urbanisation will create floods but it will also reduce the lag time. Furthermore, Brisbane is suffering floods because it's near the Bremer river, where floods are peaking at 19.5 meters. Brisbane is also at a confluence where two or more rivers meet, therefore large bodies of water overlap correctly flowing to an urban area evidently causing huge floods.

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This response makes equal use of both resources to provide some balance and explains three main causes: the city being highly unprepared, urbanisation causing impermeability and the physical factor caused by Brisbane being at a river confluence. This response has some clear examples of 'analysis' language within the answer e.g. 'therefore', 'furthermore' to reach the top of Level 2.

6 marks

Question 2 (b)(ii)

In this question, candidates were required to state one abiotic factor of an ecosystem.

Candidates accessed this question and the majority stated a correct factor. A few responses stated a biotic factor and some stated a definition of the term abiotic rather than providing an example of an abiotic factor and these were awarded zero marks.

(ii) State **one** abiotic feature of an ecosystem.

(1)

high biodiversity

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Examiner Comments

Incorrect feature.

0 marks

(ii) State **one** abiotic feature of an ecosystem.

(1)

Coral

ResultsPlus
Examiner Comments

Living organism stated.

0 marks

(ii) State **one** abiotic feature of an ecosystem.

(1)

light

ResultsPlus
Examiner Comments

Correct feature stated.

1 mark

Question 2 (b)(iii)

In this question, candidates were required to explain one factor that can affect the distribution of mangrove ecosystems.

A broad range of responses were given to this question and a significant proportion of candidates were awarded two marks. However, there were examples where candidates clearly explained a factor relevant to a coral reef ecosystem and it is important for candidates to be aware not all coastal ecosystem questions are related to coral reefs as there are three other coastal ecosystems listed in the specification.

(iii) Explain **one** factor that can affect the distribution of mangrove ecosystems.

(2)

Temperature can affect the location of mangrove ecosystems as they seek optimum temperature

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Examiner Comments

Temperature (1). The development is too vague for credit.

1 mark

(iii) Explain **one** factor that can affect the distribution of mangrove ecosystems.

(2)

factor affecting distribution of mangrove ecosystems is the amount of salt water present in coast

ResultsPlus
Examiner Comments

Amount of salt water (1). No development.

1 mark

(iii) Explain **one** factor that can affect the distribution of mangrove ecosystems.

(2)

~~Timber~~ Deforestation ~~for~~ of timber for building ~~with~~ reduces mangrove habitat, thus affecting distribution of mangroves. High demand for timber means decline in mangrove distribution

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Deforestation of timber for building (1) reduces mangrove habitats (1).

2 marks

(iii) Explain **one** factor that can affect the distribution of mangrove ecosystems.

(2)

• One factor that can affect the ~~dist~~ distribution of mangrove ecosystems is water salinity. This is because mangroves grow and use salty waters as they can handle the salinity and filter the salt.

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Examiner Comments

Water salinity (1) because mangroves grow using salty water as they can handle the salinity and filter salt (1).

2 marks

(iii) Explain **one** factor that can affect the distribution of mangrove ecosystems.

(2)

Water depth. Mangroves cannot grow in deep waters. The water must only be deep enough to allow the special type of mangrove root to protrude out of the sea surface to absorb oxygen.

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Examiner Comments

Water depth (1) mangroves cannot grow in deep water as roots need access to sea surface (1).

2 marks

Question 2 (c)

This question required candidates to use Figure 2a, which showed a diagram of features caused by coastal deposition.

The credit for these type of 'explain' questions comes from correctly identifying a feature shown in the resource (AO3) and then developing this to explain how deposition can affect a coastline (AO2).

Candidates have a clear understanding of depositional landforms and their associated processes enabling candidates to access the resource provided. Where responses were not awarded full marks, often candidates had only described what was shown with no explanation offered. A very small proportion of candidates explained the formation of erosional features and were awarded zero marks.

(c) Study Figure 2a in the Resource Booklet.

Suggest **two** ways deposition can affect coastal landforms.

(4)

1 ~~hydr~~ Hydraulic action, ~~the~~ the power of wave hit the coast so causing the cliff break down.

2 Abrasion, it picks up the stone and hurl them to ~~coat~~ coast so wearing the cliff away.

ResultsPlus
Examiner Comments

Incorrect processes suggested.

0 marks

(c) Study Figure 2a in the Resource Booklet.

Suggest **two** ways deposition can affect coastal landforms.

(4)

1 Longshore drift will cause the sediment around / in the sea get push along the coastline. Rocks and sand might get push along the coastline and form new landforms.

2 The sand affects the shape of landforms by affecting the rate of longshore drift, sea water and sediments can't reach some parts of the coastline, causing different shapes or landforms.

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Examiner Comments

Longshore drift will move sediment along the coastline (1). This is plausible from the features shown in Figure 2a, but the development does not link to a specific landform.

The second point is very similar to the first and lacks clarity.

1 mark – 1+0

(c) Study Figure 2a in the Resource Booklet.

Suggest **two** ways deposition can affect coastal landforms.

(4)

1 Costal deposition can result in the formation of a spit as sediment being carried across the coast is deposited near a river-mouth to form a spit.

2 deposition can create bay's as spits create a barrier for the bay to form

ResultsPlus
Examiner Comments

Spits (1) as sediment being carried along is deposited near a river mouth (1) = 2 marks.

Deposition can create bars (1). The development lacks clarity.

3 marks – 2+1

(c) Study Figure 2a in the Resource Booklet.

Suggest **two** ways deposition can affect coastal landforms.

(4)

1 Deposition can often create coastal landforms, like a spit which forms from prevailing wind sending longshore drift along a direction and depositing sand along the way.

2 Another way is that it create a beach, if the waves are constructive, meaning strong swash and weak backwash this can mean the build up of sand will create a beach.

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Examiner Comments

Spit (1) forms from prevailing wind sending longshore drift along a direction depositing sand along the way (1) = 2 marks.

Beach (1) if the waves are constructive meaning strong swash and weak backwash this can mean the build up of sand (1) = 2 marks.

4 marks

(c) Study Figure 2a in the Resource Booklet.

Suggest **two** ways deposition can affect coastal landforms.

(4)

1 Deposited material can accumulate in a certain section building up beaches in more sheltered areas as the waves loose energy and the water becomes shallower

2 Deposited mabrial can build up new coastal features such as spits ~~which~~ or bars which can absorb wave energy ~~both~~ so that the coastline behind it is less prone to erosion

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Material accumulates building up a beach (1) in more sheltered areas as the waves lose energy (1) = 2 marks.

Spits (1) can absorb wave energy so that the coastline behind is less prone to erosion (1) = 2 marks.

4 marks

Question 2 (d)

Candidates were asked to explain one factor that affects the rate of coastal erosion. In this question, candidates were required to focus on one idea and develop it in detail to access the three marks available.

Many responses were awarded at least 2 marks, with the most common reason being linked to the role of geology. However, fewer candidates were awarded the full 3 marks as responses lacked the depth of explanation required.

(d) Explain **one** factor that affects the rate of coastal erosion.

(3)

Geology impacts rates of coastal erosion, because hard rock is more resistant/harder to erode than soft rock, which means that soft rock erodes faster than hard rock by hydraulic action for example, which is the sheer force of a wave.

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Geology (1) because hard rock is harder to erode than soft rock (1). No credit is given for defining a type of erosion.

2 marks

(d) Explain **one** factor that affects the rate of coastal erosion.

(3)

Strong wind and waves can speed up coastal erosion by making for example. abrasion / Attrition, hydrolyc action corrosion more vilorant which can increase the coastal erosion process

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Strong wind/waves (1) can speed up erosion making abrasion more violent which increases coastal erosion (1).

2 marks

(d) Explain **one** factor that affects the rate of coastal erosion.

(3)

Storm frequency and intesity, harsher storms mens stronger wind which increses the fequney and intensity of destructie waves which have a strong backwash therefore eroding ~~coasts and they~~ beaches and erode cliffs by heydraulic action and abrasion increas

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Examiner Comments

Storm frequency and intensity (1) harsher storms means stronger winds (1) which increases intensity/frequency of destructive waves which have a stronger backwash therefore eroding beaches (1).

3 marks

Question 2 (e)

The majority of candidates correctly identified the weathering process shown, in Figure 2b, as biological weathering. Where the incorrect process was stated, the most frequent incorrect response was freeze thaw weathering.

Question 2 (f)

This question required candidates to explain the formation of a coastal arch.

Candidates found this question accessible and the responses were often awarded full marks. Candidates were able to clearly explain the sequence of formation using correct geographical terminology.

(f) Explain the formation of a coastal arch.

(4)

An arch is frm when a cave start to break down more into a bigger gap leaving open an arch. The arch is a big hole in a coastline that only have the upper part connecting to one anot. Eventually the cave develop to an arch as the cracks get more open and wider from weathering.

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Examiner Comments

An arch forms from a cave when a cave starts to breakdown (1).

This is enough for an idea of an arch forming as a result of a cave enlarging in size.

1 mark

(f) Explain the formation of a coastal arch.

(4)

Coastal arches are formed when coastal cliffs begin to erode. A cave is formed from the cliff but is then eroded further causing the cave to collapse and then become an arch.

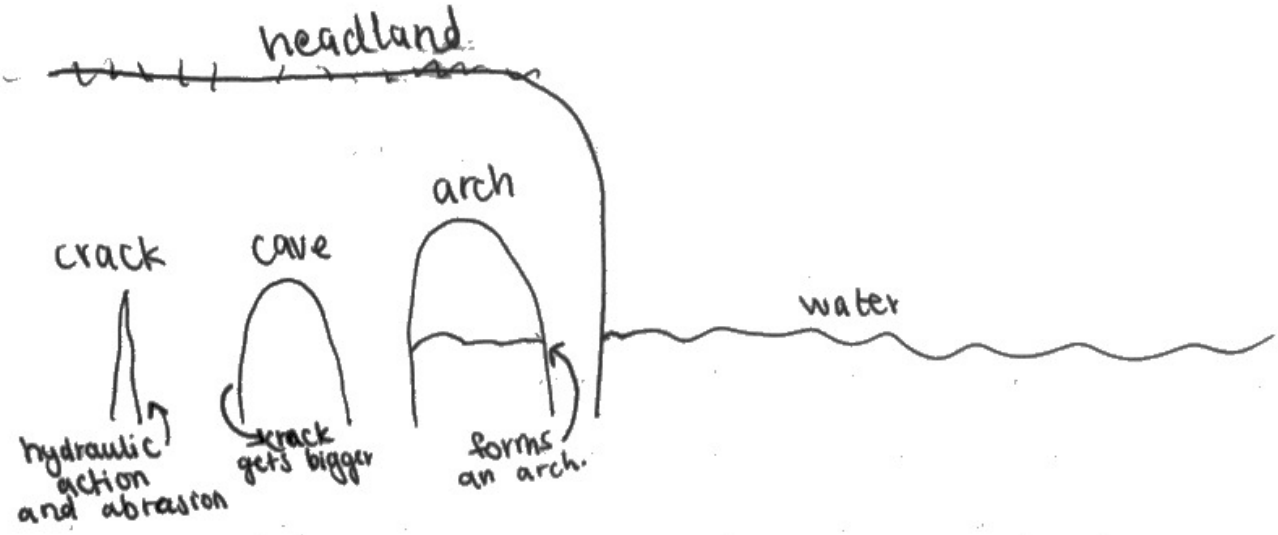
ResultsPlus
Examiner Comments

Cliffs erode (1) a cave is formed and further eroded (1).

2 marks

(f) Explain the formation of a coastal arch.

(4)



Strong powerful waves crash on the ~~land~~ headland ~~[illegible]~~ and hydraulic action and abrasion leads to a crack on the side of the headland. The crack then expands over time resulting in a cave. Due to further erosion the cave is fully gone through and an arch is formed as the cave is eroded all the way to the other side of the cave.

ResultsPlus
Examiner Comments

Fully explained formation process.

4 marks

Question 2 (g)

In these 8-mark extended writing questions, candidates are required to blend their use of the resource (AO4) with their own knowledge and understanding of the issue presented (AO3). Therefore, they are not case study questions, rather they require the candidates to apply their geographical understanding to the context shown in the resource.

In this instance, candidates were required to study Figure 2c, an image showing reasons for development of coastlines, and Figure 2d, an image showing reasons for conservation of coastlines.

Candidates were required to consider the conflicts between development and conservation in coastal areas. As the resources were primarily text-based, many candidates used facts in their responses. A few candidates purely listed direct lifts from the resource with no additional interpretation and this limited their responses to bottom of Level 1. Often candidates demonstrated some ability of the issue and used the information to add some detail on each side e.g. one side thinks this and the other thinks that. Fewer responses demonstrated a clear understanding of the issue of conflict between these users which limited many responses to mid-Level 2.

In order to achieve Level 3, candidates needed to clearly grasp the concept of conflict and why this makes managing a coastline a challenge.

The command word 'analyse' needs to be addressed to achieve full marks and many candidates found this challenging as there was often minimal judgement demonstrated in candidate responses.

(g) Study Figure 2c and Figure 2d in the Resource Booklet.

Analyse why conflicts between development and conservation occur in coastal areas.

Refer to the resources in your answer.

(8)

because those areas need the help of mangraves and other sea life to prated them from disasters inculuing water.

ResultsPlus
Examiner Comments

This response is too vague for credit based on the level descriptors.

0 marks

(g) Study Figure 2c and Figure 2d in the Resource Booklet.

Analyse why conflicts between development and conservation occur in coastal areas.

Refer to the resources in your answer.

(8)

Conflicts occur between the coastal areas because of many different things.

Development of coastlines all is aimed towards getting more money. By improving the coastal environment, more locals and tourists would start visiting the area and this would leave a bad exchange for the environment such as pollution in the sea by tourists.

Conservation of coastlines are aimed to protect the ecosystem and benefit in the natural given resource and protection. By allowing biomes like mangroves to grow, local erosion and flood risks have been decreased by 66%. Natural barriers from corals and oyster reefs saves the community on money and naturally prevents erosion.

ResultsPlus
Examiner Comments

This candidate demonstrates a basic understanding of the difference between developers and conservationists and uses an example of data from Figure 2d to support their point in their second paragraph to gain AO4 credit.

3 marks

(g) Study Figure 2c and Figure 2d in the Resource Booklet.

Analyse why conflicts between development and conservation occur in coastal areas.

Refer to the resources in your answer.

(8)

One conflict is between the tourism and the biologist that are planting coral reefs. In figure 2c it shows that there are 2000000 people in the island and 1 of 10 in the resident. This will create conflict because coral reef can be a habitat for animals and it also helps to attract the tourism but with the tourist activity such as using the boats it may create water pollution so the coral might die leading to a lack of biodiversity. Moreover some tourists might be stepping on the coral reef which may cause damage. This creates conflict because the coral reefs help to absorb the wave energy so there can be less flooding going further into the land. Another conflict be because of the mangroves. figure 2c shows that in recreational fishing ground mangroves contributes $ 1 Billion per year. This suggest that the mangrove's root system helps to absorb the wave energy and reduce flooding into the land. It can also be a habitat to animals such as crab. Therefore, this will create conflict because when there is more tourist more land is need which leads to deforestation and cutting down of mangrove. This means that there might be a increase in erosion and flooding.

ResultsPlus
Examiner Comments

This candidate explains two specific conflicts in some detail, using examples from both resources to support their argument. There is some idea of the issue of conflict particularly as they identify specific coastal users. The breadth of their argument is too narrow for top Level 2.

5 marks

(g) Study Figure 2c and Figure 2d in the Resource Booklet.

Analyse why conflicts between development and conservation occur in coastal areas.

Refer to the resources in your answer.

(8)

This occurs due to different wants. Tourists would like to enjoy the view of coastal areas while Conservationists would like to leave these areas alone. According to figure 2d coastal areas provide many benefits. Corel reefs provide a defence against coastal flooding and conservationists would like to protect them. Mass tourism increases pollution in reefs causing a loss of biodiversity and corel bleeching. Developers and industries would like tourism in corel reefs to continue as, according to figure 2c, they provide 30 billion per year in revenue and industries would like to capitalise on that. Corel reefs are able to reduce 97% of wave energy, states 2d, so they could aid in the hindering of coastal erosion, causing governments to spend less on management such as sea walls.

According to 2d, mangrove reduce wave height. this also stops flood risk and coastal erosion so governments and conservationists would like to keep them. However, 2d states that they contribute $1 billion to Florida's economy alone. Aquacultures of shrimp are common in

mangrove ecosystems as they provide great revenue. Mangroves are also cut down to make space for agricultural land or ports which upsets conservationists. Sport fishing is also a main income for coastal communities, says 2c, so locals would like to support this activity. They will also like tourism to continue as it employs many. Figure 2c states that it employs 2 million in the Caribbean Islands which is 10% of the population.

(Total for Question 2 = 25 marks)

ResultsPlus
Examiner Comments

This response has a greater breadth and clearly discusses the conflict between several different coastal users in each context (coral reefs and mangroves). There is a basic judgement statement at the start of the response to reach the top of Level 2.

6 marks

(g) Study Figure 2c and Figure 2d in the Resource Booklet.

Analyse why conflicts between development and conservation occur in coastal areas.

Refer to the resources in your answer.

(8)

Figure 2c and 2d are infographics that show the various reasons for development and conservation of coastlines respectively. It suggests that there are many different uses for coastlines and the opinions of some may be conflicting. For instance, as figure 2c states tourism employs 2 million people in the Caribbean Islands and that coral reefs drive up to $30 billion per year in tourism revenue. We can see that many countries rely on coastal ecosystems heavily to boost the economy and protect the livelihoods of residences. It is a large source of income and if reefs aren't developed people may become unemployed. This is conflicting to the reasons for conservation of coastlines, ~~that~~ the one being that coral reefs act as natural barriers ~~for~~ against storms and erosion, as stated in figure 2d. Tourism may cause ecosystems like sand dunes to be trampled on and activities like scuba-diving may affect coral reefs due to the increase in water pressure caused by snorkellors, which is removing this natural barrier of defence. However, without activities like scuba-diving the value of organisms like sharks will dip drastically, which according to figure 2c is extremely valuable at 1.9 million (shark, resulting in major financial loss.

Another reason for conservation as shown in figure 2d is that it is used in place of artificial breakwaters, saving ~~the~~ the government a lot of money - 85,000 per year per hectare. This may be

conflicting to the ~~reason~~ popularity of sport fishing as shown in figure 2c. *
Local councillors may wish to ~~go~~ earn more revenue from the
popular sport whereas conservationists may rather protect
the oyster reefs.
* Sport fishing disrupts marine food chains and reduce
~~ecosystem~~ biodiversity, ~~resulting~~ in damaging oyster reefs.

ResultsPlus
Examiner Comments

This response has a clearer idea of conflict and explains the links between factors and users in some detail. Accurate information is drawn from both resources to support the different points made. There are elements of judgement language used within the response, but this is too limited to be awarded full marks.

7 marks

(g) Study Figure 2c and Figure 2d in the Resource Booklet.

Analyse why conflicts between development and conservation occur in coastal areas.

Refer to the resources in your answer.

(8)

development of coastal areas often involves using manmade methods to help humans work with the coast for their own benefit. Coastal conservation focuses on ensuring that the nature remains left alone by humans and natural ecosystems are allowed to thrive.

One main reason conflicts between development and conservation occur is due to coral reefs being a source of revenue and also a natural barrier and ecosystem. In fig. 2c, it is stated that Coral Reefs drive 30 billion dollars per year in tourism revenue. In fig. 2d, it is stated that reefs act as a barrier against erosion and storms, reducing 97% of wave energy and saving 63 million people globally. Overall, the main reason conflicts arise here is due to the desire for both positive economical impacts during coastal development that help coastal cities thrive, and positive environmental impacts that save marine and human lives.

Another main reason for conflicts between development and conservation is due to the mangroves, once again, being both a source of income and also a coastal protector. In fig. 2c, it is stated that mangroves contribute 1 billion dollars to Florida's economy through fishing. In fig. 2d, Mangroves are said to reduce effects of erosion and flooding risk by 66%. Once more here,

we see that there is a conflict between desire to use the Mangroves as a source of income, providing positive economic impacts to coastal regions, and using them as a barrier against flooding and erosion, saving human and marine life and providing positive social and environmental impacts.

It seems that the primary source of conflicts between development and conservation arises due to the fact that development of coastlines provides huge amounts of money, whereas conservation saves marine and human life, as well as preserving ecosystems and plants. The desire for money as well as saving lives is what causes these conflicts, as each strategy only achieves one.

(Total for Question 2 = 25 marks)

ResultsPlus
Examiner Comments

This response has a clear idea of conflict running throughout the answer, the resources are used to support the arguments raised and there is clear judgement/analysis language used within the answer and in a concluding statement at the end of the response.

8 marks

(g) Study Figure 2c and Figure 2d in the Resource Booklet.

Analyse why conflicts between development and conservation occur in coastal areas.

Refer to the resources in your answer.

(8)

development and conservation often have opposing opinions leading to conflict. As shown in figure 2c coastal environments help local economies thrive as it attracts many people and employs over 2 million people. Part of this however means huge revenue to the 30 Billion in that coral reefs bring in. Conservationist may argue that even if it brings 30 billion it shouldn't be endorsed as tourists can often scubadive and damage/break coral reefs or pollute them leading to coral bleeching. This would not only be horrible to the huge biodiversity that depends on coral reefs but as figure 2d shows through the destruction of coral reefs it reduces a coastal flooding protection, as coral reefs reduce 97% of wave energy and act as a barrier to storms. Moreover as figure 2c shows that fishing around mangroves contributes to around one billion dollars to the florida economy, however over fishing in mangrove areas will damage mangrove ecosystems and as figure 2d shows increase flood risk. Moreover figure 2c states that "healthy ocean habitats attract tourists, divers, snorkellers and other tourists who drive coastal economies" however they contradict their statement by harming these coastal environments often leading to their demise. Moreover these tourists are often dependant to the coastal scenery however with the abuse to the natural scenery it could end up costing a lot of money to maintain the coastal scenery that brings in billions of dollars. This is often where the conservationists and developers but heads as conservationist state in figure 2d that "natural barriers save money and reduce impacts of storms, erosion and flooding to coastal communities" this

means that in future by protecting these natural barriers hard and soft engineering methods won't be necessary and these natural barriers will help keep coastal flooding impacts to minimum. Conflicts between them arise due to developers prioritizing profit over the conservation of the natural habitat. Whilst conservationists want to prevent hard engineering methods, and preserve the natural barriers.

ResultsPlus
Examiner Comments

This candidate demonstrates a thorough understanding of the issue of conflict and effectively selects evidence from both resources to support their arguments. The response has a balance between the two sides and has clear judgement language throughout the answer and in a final sentence at the end.

8 marks

Question 3 (b)(ii)

In this question, candidates were required to state one measure of tropical cyclone intensity.

The majority of candidates were awarded the mark for correctly identifying the Saffir-Simpson scale. Where candidates were incorrect, the most common error was to give an earthquake intensity measure, usually the Richter scale.

Question 3 (b)(iii)

In this question, candidates were required to explain how the Coriolis force affects tropical cyclones.

The majority of candidates found this question a challenge and often zero marks were awarded. It is clear candidates are less confident in this areas of the specification.

(iii) Explain how the Coriolis force affects tropical cyclones.

(2)

It limits the development of tropical cyclones as they need low wind shear and warm ocean temperatures of 23°C - 25°C.

ResultsPlus Examiner Comments

Answer not relevant to Coriolis force.

0 marks

(iii) Explain how the Coriolis force affects tropical cyclones.

(2)

It affects the direction of the cyclone. In the Northern hemisphere, the cyclones are anticlockwise while in the Southern hemisphere, they are clockwise. It changes wind direction due to hemisphere.

ResultsPlus Examiner Comments

This response provides detail about the direction tropical cyclones spin in each hemisphere, but does not explain the cause of this spin.

1 mark

(iii) Explain how the Coriolis force affects tropical cyclones.

(2)

The coriolis force affects which direction tropical cyclones spin in based on whether it is in the northern or southern hemisphere.

ResultsPlus
Examiner Comments

Basic idea about it affecting the spin and this direction being different in each hemisphere.

1 mark

(iii) Explain how the Coriolis force affects tropical cyclones.

(2)

The corlios force effects tropical storm clockby causing tropical storms to spin due to the spining of earth. The corlios effect which direction the tropical storm moves in northen hemisplere will move anticlockwise while southern with the turn clockwise

ResultsPlus
Examiner Comments

Causes tropical cyclones to spin due to the spin of the Earth (1) in the northern hemisphere they spin anticlockwise (1).

2 marks

(iii) Explain how the Coriolis force affects tropical cyclones.

(2)

Coriolis Force affects tropical cyclones as the Corriolis force is caused by rotation of earth. This causes air in tropical cyclones to spin (rotate), which influences their development and spinning direction depending on their hemisphere.

ResultsPlus
Examiner Comments

Caused by rotation of Earth (1) causes air to rotate which influences their spinning direction depending on their hemisphere (1).

2 marks

Question 3 (c)

Candidates were required to explain the formation of a constructive plate margin.

The majority of candidates achieved full marks for providing an accurate sequence of formation using correct geographical terminology. A minority of candidates were awarded zero marks as their response was focused on an incorrect plate margin.

(c) Explain the formation of a constructive plate margin.

(3)

Two oceanic Plates meet and collide and as they have the same amount of density they would move up Creating a mountain

ResultsPlus
Examiner Comments

Incorrect plate margin.

0 marks

(c) Explain the formation of a constructive plate margin.

(3)

plate moves away from each other

ResultsPlus
Examiner Comments

Plates move away from each other (1).

1 mark

(c) Explain the formation of a constructive plate margin.

(3)

The two plates move away from eachother. As they do this, they construct land. For examples they construct volcanos.

ResultsPlus
Examiner Comments

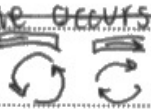
Two plates move away from each other (1) as they do this, they construct land (1).

2 marks

(c) Explain the formation of a constructive plate margin.

(3)

The convection current in the magma causes two plates to move away from each other. Convection current occurs when the core of the earth heats up the magma, this magma become less dense and rises up, ~~nor~~ the cooler magma at the top is ~~replaced~~ more dense, therefore sinks down. ~~This cycle occurs and form~~



ResultsPlus
Examiner Comments

Convection currents (1) causes plates to move away from each other (1) as warm magma rises and cool magma sinks (1).

3 marks

(c) Explain the formation of a constructive plate margin.

(3)

Plate boundaries move apart (away from eachother). This exposes magma to the surface. Magma/lava cools down. This creates new land.

ResultsPlus
Examiner Comments

Plate boundaries move apart (1) this exposes magma on the surface (1) magma cools down creating new land (1).

3 marks

Question 3 (d)

This question required candidates to use Figure 3a, which showed three photographs of different earthquake impacts, to suggest two short-term impacts of the earthquake shown.

The credit for these type of 'explain' questions comes from correctly identifying a possible short-term impact shown in the resource (AO3) and then developing this to explain the consequence (AO2). Candidates need to ensure they have used the resource in their response. Occasionally, candidates suggested impacts which were not shown in the resource and could not be plausibly inferred from the images and therefore, were awarded zero marks.

Most candidates achieved full marks for this question, correctly identifying a short-term image and going on to explain the consequence this might have. Where candidates did not achieve full marks, this was often as they gave two types of infrastructure damage and the question required the candidate to suggest two different short-term impacts.

(d) Study Figure 3a in the Resource Booklet.

Suggest **two** short-term impacts of the earthquake shown.

(4)

1 One short term impact is ~~building~~ infrastructure being destroyed as a result of the vibrations. In ~~the top and~~ Figure 3a, the road in the top image and the buildings in the bottom image collapsed.

2 Another short term impact is evacuation. In Figure 3a, water and medical attention is provided.

ResultsPlus
Examiner Comments

Infrastructure being destroyed (1). The development is a repeat of infrastructure damage.

No credit for evacuation as not shown in Figure 3a, but credit awarded for medical attention is provided (1).

2 marks – 1+1

(d) Study Figure 3a in the Resource Booklet.

Suggest **two** short-term impacts of the earthquake shown.

(4)

1 Infrastructure and buildings collapsing as that happens immediately after or during an earthquake. This causes death rates and injury rates to rise as people are crushed.

2 First aid. Rescuers are out immediately after an earthquake to provide food and water so ~~they~~ victims don't die from starvation.

ResultsPlus
Examiner Comments

Buildings collapsed (1) causes injury rates to rise (1) = 2 marks

Rescuers are there immediately with food/water (1) to prevent death from starvation (1) = 2 marks

4 marks

(d) Study Figure 3a in the Resource Booklet.

Suggest **two** short-term impacts of the earthquake shown.

(4)

1 Deaths and injuries. Caused by buildings and infrastructure falling and collapsing on top of people. Some might be stuck and buried under structures.

2 Collapsing and breaking of building and infrastructure such as roads and bridges. This makes it more difficult and less accessible for the emergency services to get to the injured.

ResultsPlus
Examiner Comments

Deaths and injuries (1) caused by collapsed infrastructure (1) = 2 marks.

Damaged roads/bridges (1) makes it less accessible for emergency services (1) = 2 marks.

4 marks

Question 3 (e)

The majority of candidates correctly identified the earthquake feature, in Figure 3b, as focus.

Question 3 (f)

This question required candidates to explain the long-term impacts of tropical cyclones. As the question did not state the number of reasons required, there were a range of ways for candidates to achieve full marks, by offering two developed reasons or one well developed reason.

The majority of candidates achieved full marks for this question demonstrating a strong understanding of hazard impacts.

(f) Explain the long-term impacts of tropical cyclones.

(4)

Also floodings is a long term impact this is because the strong wind will ~~be~~ forcing effect the wave length and also hieght so the wave will be very strong so they will be hitting the coast very hard. Also propperties ~~of~~ getting damaged because of the ~~&~~ strong winds that are hitting ~~the~~ the propperties.

* Electricity cut off

* floodings.
& propperties damage.

ResultsPlus
Examiner Comments

Property damage (1). Flooding is not a long-term impact and so not credited.

1 mark

(f) Explain the long-term impacts of tropical cyclones.

(4)

~~Destruction~~ large cost for government. After a tropical cyclone many buildings will have to be rebuilt and lots of debris will have to be removed. This will cause the government to have to invest millions maybe billions just to recover from a tropical cyclone.

ResultsPlus
Examiner Comments

Large cost for governments (1) as they will have to pay to rebuild (1).

The end of the response repeats the first half and so no further credit is awarded.

2 marks

(f) Explain the long-term impacts of tropical cyclones.

(4)

Tropical cyclone can cause the damage of airports and ports resulting in the country getting less support due to the damaged of these areas, planes and boats would be unable to part and deliver cargo from countries that wants to provide aid. Long term affects are the results that earthquake takes after it shakes.

ResultsPlus
Examiner Comments

Damage to ports and airports (1) resulting in less support and trade (1).

The second half of the response repeats the same idea as the first half and gains no further credit.

2 marks

(f) Explain the long-term impacts of tropical cyclones.

(4)

~~Rebuilding buil~~ Buildings ~~will be rebuilt~~ damaged by a tropical cyclone's winds and storm surges need to be rebuilt, which means people who lived in them will require temporary housing and the government must spend large amounts of money to repair the damage caused. Temporary housing arrangements may lead to disease outbreak due to lack of hygiene and close proximity to other people. Tropical cyclones can also have an effect on the economy as some people's work cannot proceed as usual which slows down economic growth and affects productivity.

ResultsPlus
Examiner Comments

Buildings will be damaged (1) resulting in government spending money to repair damage (1).

People's work cannot proceed as normal (1) which slows down economic growth and productivity (1).

4 marks

Question 3 (g)

In these 8-mark extended writing questions, candidates are required to blend their use of the resource (AO4) with their own knowledge and understanding of the issue presented (AO3). Therefore, they are not case study questions, rather they require the candidates to apply their geographical understanding to the context shown in the resource.

In this instance, candidates were required to study Figure 3c, two images of areas prone to volcanic eruptions, and Figure 3d, information from three locations about why people continue to live in areas prone to volcanic eruptions.

There is a marked improvement in candidates' engagement with the resources provided this series which is pleasing to see.

Candidates were required to consider the reasons why people live in areas prone to volcanic eruptions. The majority of responses were Level 2 as candidates could clearly describe several reasons for living near areas prone to volcanic eruptions, most often this involved working through the countries mentioned in Figure 3d. The better responses demonstrated an ability to make a judgement regarding which reason is most significant to meet the demands of the ‘analyse’ command word.

The command word ‘analyse’ needs to be addressed to achieve full marks and many candidates found this challenging as there was often minimal judgement demonstrated in candidate responses.

(g) Study Figure 3c and Figure 3d in the Resource Booklet.

Analyse the reasons why people continue to live in areas prone to volcanic eruptions.

Refer to the resources in your answer.

(8)

A large space where you build factories such as a geothermal energy production or a huge fide where you can grow crops. And in new zealand scientists said they can manage the volcanic risk so the volcano won't erupt. It also attracts tourists such as in Italy or different other countries such as hawaii where the volcano hasn't erupted since a long time ago

ResultsPlus
Examiner Comments

There is evidence of engaging with the resources and selecting relevant information for the question posed with an additional idea about tourism in Hawaii to gain 2 marks.

2 marks

(g) Study Figure 3c and Figure 3d in the Resource Booklet.

Analyse the reasons why people continue to live in areas prone to volcanic eruptions.

Refer to the resources in your answer.

(8)

One reason is that the farmers can get a high yield of crops / plants because there are good fertile soil ~~near the area~~ in areas prone to volcanic eruptions. Second reason is that the person can produce good geothermal energy from volcanic areas as there is hot magma under the ground and therefore the people can produce more geothermal energy. However, I can understand from Figure 3d that the fisherman from Papua New Guinea and the tourism guide from Italy are living in areas prone to volcanic eruptions because they don't have proper job to earn money and has no choice ~~for~~ to move to other safe areas. Also, they can't manage the volcanic risk which is really dangerous. However, some people are living in areas prone to volcanic eruptions to predict, prevent and manage the volcanic risks as they are scientist. It is good for them as they can earn money by investigating areas prone to volcanic ~~erups~~ eruptions and they have excellent prevention techniques for their safety.

ResultsPlus
Examiner Comments

There are four basic reasons provided in this response which uses evidence from both resources and begins to explain to gain AO3 credit.

4 marks

(g) Study Figure 3c and Figure 3d in the Resource Booklet.

Analyse the reasons why people continue to live in areas prone to volcanic eruptions.

Refer to the resources in your answer.

(8)

Volcanic ~~er~~ areas have various hazards like ash, lava, toxic gases and earthquakes associated to it but still people continue to live there due to economic & social reasons.

Volcanic areas have lot of opportunities because it brings out precious metals (gold, copper) and minerals to crust. Hence people are employed in mining. Ex. Sulfur mining in Ijen volcano Indonesia & Gold mining in Yanacocha, Peru is possible because the volcanic activity Volcanic ash is fertile and hence attracts farmers. This soil is extensively used in Columbia to produce world's best coffee, Naples (Mt. Vesuvius ash) to produce wines, citrus fruits olives etc. It is also shown in fig. 3C of Indonesia. It also shows how Iceland uses it to generate clean renewable energy as geothermal energy. Blue Lagoon in Iceland & Mt. Etna in Italy (3d) attract tourists for hot spring, trekking etc. This means tourist guides in Italy are able to 42,000$ & so do not have to hunt for jobs.

Modern prediction like in NZ allows people to evacuate beforehand. However in PNG people have no money and are unaware of the risks so cannot move as it is an LIC. Japan has advanced prediction systems for evacuation

(Total for Question 3 = 25 marks)

ResultsPlus
Examiner Comments

This response contains several reasons for living near volcanoes: minerals, farming, tourism and monitoring/preparation.

Each reason has some detail to explain why people make their choice including use of evidence from the resources. This response has some AO2 content which is not awarded in this question and there is a lack of judgement required for Level 3.

6 marks

(g) Study Figure 3c and Figure 3d in the Resource Booklet.

Analyse the reasons why people continue to live in areas prone to volcanic eruptions.

Refer to the resources in your answer.

adaptation
fatalistic

(8)

Figure 3c ~~reads~~ shows 2 different areas where volcanic eruptions ~~occur~~ commonly occur, yet people continue to settle and work in these areas. This is because the people have taken ~~an~~ the approach of believing the benefits outweigh the costs. For example, fertile soil and geothermal energy sources are more abundant near volcanoes. This helps farmers and energy production, so they believe that the benefit of the income generated from good crops and large amounts of geothermal energy is worth the risk of being near a volcano. They may also have a denial approach where they don't believe the volcano will affect them, ~~as they know~~ so they remain in these areas instead of moving elsewhere where their crops will be worse due to the lack of soil and where ~~the~~ less energy can be produced.

Figure 3d shows ~~a~~ the comments of a variety of people of different ~~wea~~ income / GDP per capita ~~and~~ on why they stay in volcanic eruption-prone areas. People from New Zealand, which is an HIC and quite developed have the technology and resources

to develop forecasting and prediction systems so that they can take an adaptative approach and remain in these areas to take advantage of the benefits while knowing when they need to evacuate. Their response to emptions are (likely to be) more efficient and effective so they don't have to worry about their lives being disrupted. However, for lower income people in these areas, such as the

(Total for Question 3 = 25 marks)

TOTAL FOR SECTION A = 50 MARKS

tourism guide in Italy and fisherman, these areas provide them with a job, so they have taken the fatalistic/acceptance approach of knowing that there is a high risk they may be affected. The two don't have a choice as their low income prevents them from moving away and it's ~~too high risk~~ not feasible for them to start a new life elsewhere..

In conclusion, people continue to live in high risk areas because the benefits outweigh the risk, they believe they are adapted to the situation and won't be affected, there are job opportunities, or they simply cannot afford to move.

ResultsPlus
Examiner Comments

This response has a clear understanding of the issue and explains several contrasting reasons for choosing to leave in volcanic areas. Both resources are used throughout the answer to support the arguments made and there is a clear judgement reached to gain full marks.

8 marks

Question 4 (a)

Please note that the comments made on Question 4 also apply to Question 5 and Question 6 as the questions are in parallel and the resources are very similar. Section B contained questions on both familiar and unfamiliar contexts this series.

It is important to remind candidates to write their responses under the correct enquiry context. A proportion of candidates wrote coastal enquiry responses in the river enquiry and hazardous environments enquiry questions. This limited their responses as only generic statements plausible to the enquiry context being answered could be credited.

This question required candidates to explain why their fieldwork location was suitable for their enquiry. The majority of candidates were awarded full marks on this question having a clear rationale for why the location was chosen.

4 Investigating river environments

You have studied a river environment as part of your own geographical enquiry.

Title of your geographical enquiry

(a) Explain why your fieldwork location was suitable for this enquiry.

(2)

it was suitable to be able to messure how long each side of a River is

ResultsPlus
Examiner Comments

Too vague for credit.

0 marks

4 Investigating river environments

You have studied a river environment as part of your own geographical enquiry.

Title of your geographical enquiry

Nile river.

(a) Explain why your fieldwork location was suitable for this enquiry.

(2)

we stayed upper course in knee depth water and measured ~~randomly~~ Stratifiedly to prevent biasness.

ResultsPlus
Examiner Comments

This response is focused on the sampling strategy used.

0 marks

4 Investigating river environments

You have studied a river environment as part of your own geographical enquiry.

Title of your geographical enquiry

~~The~~ Before the Ocean.

(a) Explain why your fieldwork location was suitable for this enquiry.

(2)

As there is enough water in the river, the size was great, suitable Place to measure what we want

ResultsPlus
Examiner Comments

This response has a list of several factors, but none are developed.

1 mark

4 Investigating river environments

You have studied a river environment as part of your own geographical enquiry.

Title of your geographical enquiry

How does Cikereng River change as it moves downstream?

(a) Explain why your fieldwork location was suitable for this enquiry.

(2)

Our fieldwork location had relatively shallow and slow moving water, so it was safe and suitable to enter.

ResultsPlus
Examiner Comments

Shallow/slow moving water (1) so it was safe to enter (1).

2 marks

4 Investigating river environments

You have studied a river environment as part of your own geographical enquiry.

Title of your geographical enquiry

How does the sediment mass and river width vary downstream?

(a) Explain why your fieldwork location was suitable for this enquiry.

(2)

Our fieldwork location was highly suitable for this enquiry ~~with~~ as the river was quite close to the school meaning we did not have to spend too much time travelling back and forth. This made it easier to collect data.

ResultsPlus
Examiner Comments

River was located close to school (1) meaning we did not have to spend too much time travelling (1).

2 marks

Question 4 (b)

Please note that the comments made on Question 4 also apply to Question 5 and Question 6 as the questions are in parallel and the resources are very similar. Section B contained questions on both familiar and unfamiliar contexts this series.

It is important to remind candidates to write their responses under the correct enquiry context. A proportion of candidates wrote coastal enquiry responses in the river enquiry and hazardous environments enquiry questions. This limited their responses as only generic statements plausible to the enquiry context being answered could be credited.

This question required candidates to explain one quantitative method chosen for their data collection. It was pleasing to see the majority of candidates know the difference between qualitative and quantitative data collection methods, resulting in many responses being awarded full marks. There are still a minority of candidates who provided a response focused on a qualitative data collection method and were awarded zero marks.

(b) Explain **one** quantitative method you chose for data collection.

(3)

Repeat. We repeat our data collection a few times and take the average so to eliminate abnormalous result and ensure accuracy. It reduce chances of error.

ResultsPlus
Examiner Comments

This response does not answer the question.

0 marks

(b) Explain **one** quantitative method you chose for data collection.

(3)

We used tables when calculating ~~the vel~~ and investigating the velocity, gradient and channel depth as the river flows downstream ~~to~~ be able to record the data more easily and ~~clearly can~~ easily compare the different results collected.

ResultsPlus
Examiner Comments

This response gives a list of variables, but does not go on to explain the method for any of them.

1 mark

(b) Explain **one** quantitative method you chose for data collection.

(3)

One quantitative method we chose was rock types. We saw that rocks were not angular at the upper course but rounder towards the lower course. This method is helpful as we can can see if erosion had taken place

ResultsPlus
Examiner Comments

Rock type (1). There is no explanation of the method used to collect the data, but detail about their results which does not answer the question.

1 mark

(b) Explain **one** quantitative method you chose for data collection.

(3)

depth of river going down course
Wea measured their depth every 100m
to see if it gets deeper or not

ResultsPlus
Examiner Comments

Depth of river (1) measured every 100m downstream to see if it gets deeper (1).

2 marks

(b) Explain **one** quantitative method you chose for data collection.

(3)

Finding out the dimensions of the rocks ~~accro~~ across the width of the river. In each part of the river, We measured the width of it and divided it into 3. At each third, We bent down and grabbed the first rock we touched and measured it. Lastly, we took an average size of ~~the 3 rocks~~. all 3 rocks.

ResultsPlus
Examiner Comments

Sediment size (1) measured width of channel and divided into 3 (1) at each third picked first rock touched and measured it (1).

3 marks

(b) Explain **one** quantitative method you chose for data collection.

(3)

One quantative method I chose for data collection method was to use a tape measure to measure river width at numerous sites (systematically chosen) across the river at different intervals. I made sure the tape was taut and not influenced by vegetation and asked a partner to record the width. This was carefully repeated for the other sites.

ResultsPlus
Examiner Comments

River width (1) I made sure the tape measure was pulled tight and not influenced by vegetation (1) and recorded the width at numerous sites along the river (1).

3 marks

Question 4 (c)

Please note that the comments made on Question 4 also apply to Question 5 and Question 6 as the questions are in parallel and the resources are very similar. Section B contained questions on both familiar and unfamiliar contexts this series.

It is important to remind candidates to write their responses under the correct enquiry context. A proportion of candidates wrote coastal enquiry responses in the river enquiry and hazardous environments enquiry questions. This limited their responses as only generic statements plausible to the enquiry context being answered could be credited.

Candidates need a clearer understanding of all the stages in the geographical enquiry process to avoid misinterpreting examination questions.

In this question, candidates were required to explain one advantage of a technique used to present their fieldwork data. A significant proportion of candidates achieved full marks correctly identifying an advantage and developing this in enough detail to gain 3 marks. Some candidates appeared less clear on the different stages of the geographical enquiry process and provided responses focused on a data collection method or data analysis method instead, resulting in zero marks being awarded.

(c) Explain **one** advantage of a technique you used to present your fieldwork data.

(3)

One advantage is that the space for human error is low as the measurments are all done using a measuring tape and time using a stopwatch. The quantitive ~~tellnitue~~ data is also useful in this investigation as it doesn't depend on other biological factors and can be accurately presented through measurments and data.

ResultsPlus
Examiner Comments

This response focuses on a data collection method and not a data presentation technique.

0 marks

(c) Explain **one** advantage of a technique you used to present your fieldwork data.

(3)

~~Pie~~ Graphs (pie charts + bar graphs) had the advantage of them being easily read and can easily see information of the data, is overall very simple and practical because they are easily read and can see the difference in data easily.

ResultsPlus
Examiner Comments

Pie charts/bar graphs were easy to read (1) because they are simple (1).

2 marks

(c) Explain **one** advantage of a technique you used to present your fieldwork data.

(3)

We used ~~bar~~ line graphs with our quantitive data. This was a good way to find anomolies, ~~and~~ and it was also good to see average trends

ResultsPlus
Examiner Comments

Used line graph with our quantitative data (1) which was good to find anomalies (1) and also good to see trends (1).

3 marks

Question 4 (d)

Please note that the comments made on Question 4 also apply to Question 5 and Question 6 as the questions are in parallel and the resources are very similar. Section B contained questions on both familiar and unfamiliar contexts this series.

It is important to remind candidates to write their responses under the correct enquiry context. A proportion of candidates wrote coastal enquiry responses in the river enquiry and hazardous environments enquiry questions. This limited their responses as only generic statements plausible to the enquiry context being answered could be credited.

Candidates need a clearer understanding of all the stages in the geographical enquiry process to avoid misinterpreting examination questions.

In this question, candidates were required to explain two techniques they used to analyse their data. Candidates found this question challenging as most provided a response focused on a data presentation technique which often resulted in zero marks awarded. Occasionally, these responses achieved 1 mark as 'compare' was credited as a very simplistic analysis technique. It is imperative candidates are aware of what each stage of the geographical enquiry process involves.

The better responses explained two specific data analysis techniques such as: central tendencies, interquartiles, interquartile range, percentages and, although not listed in the specification, some candidates provided responses explaining Spearman's rank or standard deviation.

(d) Explain **two** techniques you used to analyse your data.

(4)

1 Measuring, measuring river depth, and the and velocity. Helps to investigate about river.

2 ~~Random sampling~~ ~~systematic sampling~~, choosing sites to ~~measure and record~~, ~~help to investigate~~ Random sampling helps to ~~discover~~ discover area, and not being bias.

ResultsPlus
Examiner Comments

This response does not answer the question.

0 marks

(d) Explain **two** techniques you used to analyse your data.

(4)

1 Questionnaire we asked people at the beach about how they think

2 beach profile we knew how many different types of rocks was on the beach

ResultsPlus
Examiner Comments

This response provides data collection methods rather than data analysis techniques.

0 marks

(d) Explain **two** techniques you used to analyse your data.

(4)

1 We used a bar graph to analyse the velocity of the river at each from upper course to lower course to see how the velocity changes

2 We used a horizontal bar graph ~~table~~ to analyse the difference in width from the ~~lower~~ upper course to the lower course to compare the width of the river

ResultsPlus
Examiner Comments

The first part of the response describes a data presentation technique.

The second part is awarded credit for the idea of being able to compare as a very basic data analysis technique.

1 mark – 0+1

(d) Explain **two** techniques you used to analyse your data.

(4)

1 calculated the average we did this to conclude results in a more simple / clear way, to be able to easily identify and produce a comparison of data.

ResultsPlus
Examiner Comments

Average (1) to be able to easily compare (1).

2 marks

(d) Explain **two** techniques you used to analyse your data.

(4)

1 I ~~used~~ drew a field sketch to ~~any~~ analyze my data, as it is quick and simple, and easily to read and draw, and easy to locate different areas.

2 I calculated the mean of every statistic, to help notice the pattern ↑ Changes along the river.

ResultsPlus
Examiner Comments

Mean (1) to help notice the pattern/change (1).

2 marks – 0+2

(d) Explain **two** techniques you used to analyse your data.

(4)

1 One technique we used was using Spearman's rank test. It was scientifically accurate ~~and~~ data which allowed us to see if there was a correlation between the variables. We obtained a result of 0.43 when a result of 0.378 ensured our results were ~~@~~ 95% accurate

2 Another ~~or~~ technique was to compare the pie charts made for sedient angulocities at two different sites. This allowed us to compare the results and ~~see~~ use the data linked to the bradshaw model to make conclusions if ~~&~~ the data matches our hypotheses

ResultsPlus
Examiner Comments

Spearman's rank test (1) to see if there was a correlation between variables (1) = 2 marks.

Compare (1) data to see if it linked to the Bradshaw model to make a conclusion (1) = 2 marks.

4 marks

Question 4 (e)

Please note that the comments made on Question 4 also apply to Question 5 and Question 6 as the questions are in parallel and the resources are very similar. Section B contained questions on both familiar and unfamiliar contexts this series.

It is important to remind candidates to write their responses under the correct enquiry context. A proportion of candidates wrote coastal enquiry responses in the river enquiry and hazardous environments enquiry questions. This limited their responses as only generic statements plausible to the enquiry context being answered could be credited.

In these 8-mark extended writing questions, candidates are required to blend their use of the resource (AO4) with their own knowledge and understanding of the geographical enquiry stage presented (AO3). Therefore, they require the candidates to apply their geographical understanding to the context shown in the resource.

In this instance, candidates were required to study Figure 4/5/6a, some information on the student's data collection methods, and Figure 4/5/6b, a data collection sheet.

The focus of this question required an evaluation of how far the data collection methods supported the student in achieving their aim.

Candidates are more confident when questions are focused on data collection methods and, as a result, a significant proportion of candidates were awarded at Level 2 as there was frequent evidence used from the resources provided and strengths and limitations of the methods offered. However, most responses remained in Level 2 as often candidates did not link the pros/cons of each individual method back to the impact this could have on the student achieving their overarching enquiry aim.

To gain Level 3 credit, the command word 'evaluate' needs to be met which requires a concluding statement at the end of a response for full marks.

(e) Study Figure 4a and Figure 4b in the Resource Booklet. They show some information about data collection methods from a student's enquiry.

The aim of the student's enquiry was to determine the most important factor affecting river discharge.

Evaluate how far the data collection methods used supported the student in achieving their aim.

(8)

In figure A, it shows about the student data collecting methods. It says that choose 5 sites along a river, at 300M intervals. Then, measure river depth, width and velocity. After that record the sediment characteristics. Lastly, it tells about identifying land use and draw a field sketch.

Furthermore, figure B shows ~~tha~~ about the fieldwork recording sheet it shows the sketch ~~about~~ es then it shows about ~~de~~ the data for measuring river velocity, measure river depth and measure sediment size and roundness at each site. It also shows that it have a ~~titat~~ clear ~~tor titat tu~~ title which are site 1, site 2, site 3, site 4 and site 5.

However, the ~~most important factor is that~~ students did not tell which part of the rivers that they measure. This means that it would be hard to calculate the river discharge. As a result, the result will ~~be~~ not be reliable. Another thing is that they did not tell about the wheather when they are ~~taking the~~ doing the fieldwork. ~~b~~

ResultsPlus
Examiner Comments

The first two paragraphs describe what is shown in each resource and the final paragraph makes basics points about strengths/limitations to gain AO3 credit.

3 marks

(e) Study Figure 4a and Figure 4b in the Resource Booklet. They show some information about data collection methods from a student's enquiry.

The aim of the student's enquiry was to determine the most ~~important factor~~ affecting river discharge.

Evaluate how far the data collection methods used supported the student in achieving their aim.

(8)

In figure 1a, both qualitive and quantative data is used. The student measure the depth, width and velocity of the river which allows him to compare and contrast the difference between the upper and lower course. By choosing sites at 300 m intervals, systematic sampling is used. This helps to give a good coverage of the sampling data and make sure that there is no poor ~~prete~~ presentation as most area are covered. However, this method would be biased, ~~avoid~~

The student ~~use~~ draws a field sketch and identify the land use. This allow him to identify key factors ~~for~~ on the further studies ~~over~~ ~~topic~~ river form, however, this is not up too scale and not all features are written, ~~this cou~~ this could not fairly determine the most important factor.

The student measure the sediment size and roundness, this allows him to identify that deposition could be an important factor affect river discharge, ~~by measure~~ however measure the sediment roundness is not effective and time consuming ~~so it is~~ and not an important

source to deter the river discharge.

The student could By looking at the data, the important factor could not be determine, the student could focus more on the river process ~~and the~~ and to repeat his experiment in order to identify the important factor that affect river discharge.

ResultsPlus
Examiner Comments

This candidate works through each data collection method and provides one strength and limitation for each strategy. There is a basic evaluative statement at the end to meet the demands of the Level 2 descriptors.

5 marks

(e) Study Figure 4a and Figure 4b in the Resource Booklet. They show some information about data collection methods from a student's enquiry.

> The aim of the student's enquiry was to determine the most important factor affecting river discharge.

Evaluate how far the data collection methods used supported the student in achieving their aim.

(8)

The accuracy of the student's experiment relies on his/her abilities to perform experiment.

Firstly, the student uses systematic sampling at 300m intervals as seen in figure 4a, this is an excellent method as it avoids human bias.

However, there is no information of how depth is determined, the student should've used ranging pole and made sure it was perpendicular to river bed. The good point is that student measured four different depths to find mean which improves reliability of the measurement.

There is also no information on how sediment size in figure 4b is measured but cm was given as a unit so I reckon it is measured with measuring tape. A more accurate method might be finding sediment volume as sediments are unsymmetrical. Fill beaker with water then add sediment, after see change in water volume and that will be volume of sediment.

The phrase sediment roundness in figure 4b is also highly depend on student's judgements therefore it could be biased.

The student also uses field sketch ~~sketch~~ as mentioned in figure 4a which is good for visual presentation but only one sketch is shown so it doesn't represent the other sites. Since time is obviously a limiting factor student should've used photographs because it is the most accurate visual presentation method.

ResultsPlus
Examiner Comments

This candidate gives some detail to each data method used providing clear, specific evaluations of each strategy. The response includes clear judgement language within the answer using terms such as: 'however', 'therefore', 'excellent method' to reach top Level 2.

6 marks

(e) Study Figure 4a and Figure 4b in the Resource Booklet. They show some information about data collection methods from a student's enquiry.

The aim of the student's enquiry was to determine the most important factor affecting river discharge.

Evaluate how far the data collection methods used supported the student in achieving their aim.

(8)

The figures show that the student used a variety of methods such as measuring depth, width, velocity, and sediment characteristics.

Figure 4a shows that the student used systematic sampling which is effective because it allows a wide coverage of the area to be recorded. The student also uses quantitative data which is numerical values which is beneficial because trends and patterns can be easily spotted. Figure 4a also shows that the student did a field sketch which is beneficial because it is qualitative data which allows more detailed analysis and conclusions because it presents personal opinions. The figure 4b shows that the student also has a diagram to present river depth which is advantageous because it is a visual representation which allows patterns or anomalies to be spotted easily. The mean depth was also calculated which shows that their results are reliable because repeats were carried out.

However, there are some negatives to the students' approach. For instance, the systematic sampling method ~~was~~ meant that interesting pieces of data may have been missed. The ~~quantitative~~ qualitative data may have also been biased due to an inconsistency in personal opinions. Hence, it can lead to inaccurate conclusions. Figure 4b also shows that they measured river velocity

(Total for Question 4 = 20 marks)

be measuring how long it took for an object to travel a certain distance due to the subheadings: "distance" and "time". ~~However~~ This is bad because the object travelled on the water surface which meant that its speed could be affected by wind speed, hence making the measure of velocity inaccurate. Furthermore, figure 4b shows no evidence of repeats which meant that the results were unreliable.

In conclusion, in the future the student should use a flowmeter to record river velocity and carry out repeats to make their data reliable and accurate. The student should also focus on factors that will affect river discharge to answer the enquiry effectively. This is because a sediment ~~...~~ ~~...~~

ResultsPlus
Examiner Comments

This response has a detailed evaluation of all the data collection methods shown in the resources and these include well developed pros and cons to achieve both AO3 and AO4 credit. This candidate attempts to draw some evaluation of how successful the student was in achieving their aim. Although not done in detail, this is sufficient to reach the top of Level 3.

8 marks

(e) Study Figure 4a and Figure 4b in the Resource Booklet. They show some information about data collection methods from a student's enquiry.

The aim of the student's enquiry was to determine the most important factor affecting river discharge.

Evaluate how far the data collection methods used supported the student in achieving their aim.

(8)

In figure 4a we can see that the student records river depth, width and velocity every 300m in order to see how changes in these factors affects velocity. This is useful as it allows the student to see general trends and also systematically checks these data preventing bias in the enquiry.

However, in figure 4a we can see the student decided to do a field sketch to help them measure river velocity. This is an issue as field sketches can be highly inaccurate and are unable to depict factors such as velocity accurately.

Furthermore, in figure 4b we can see that the student has measured river depth across the width of the river, this is beneficial as it means that they are able to see how factors such as depth, rock levels ~~are~~ will affect river velocity as instead of going along the river they are going across it. However, this could also result in a survey bias as the region for this survey was not specified.

In conclusion the Students use of recording data on river width, depth and rock types across the length and width of the river

allows them to be able to see how these individual factors affect river velocity guiding their enquiry. However the use of fieldsketches is not very good for seeing what factors affect river velocity as they can be drawn very poorly and drawings are unable to provide ~~exact~~ information on factors that you physically can't see such as velocity mainly most but not all data collection methods were useful in the enquiry.

ResultsPlus
Examiner Comments

There is clear evaluation of each data collection method shown in the resources. The candidate demonstrates a clear understanding of the strengths and limitations of the methods used. Judgement language is used through the response and there is an attempt at the end to try and link the effectiveness of the methods in achieving the students aim. However, this aspect is fairly weak, therefore, achieving 7 marks.

7 marks

Paper Summary

Based on their performance on this paper, candidates are offered the following advice:

- When answering the 8-mark longer response questions, candidates need to be clear on the demands of the command word 'analyse'. This requires candidates to investigate an issue by breaking it down into different components and making logical, evidence-based connections between these components.
- Candidates need to recognise that the longer response 8-mark question is dominated by the AO distribution (4 marks for AO3 and 4 marks for AO4). Therefore, responses that are unbalanced or focus on one AO will be limited to a Level 1 response.
- In questions where candidates are asked to develop a single reason, it is important to ensure that the appropriate number of links in the explanatory chain are developed. The number of marks should be used as a guide. These questions usually have the command word, 'suggest' or 'explain', but may differ in depth depending on the expectation of the question. For example, a 4-mark, 'explain one reason why...' question requires greater depth than a 4-mark, 'explain two reasons for...' question.
- Candidates need to be secure in their understanding of geographical terminology e.g. drainage basin, abiotic, weathering, Coriolis force, river regime, transfer, cause.
- Candidates need to be able to explain the distribution and features of all coastal ecosystems listed in the specification. It is often the case that candidates are familiar which coral reef ecosystems, but less confident with mangrove, sand dune and saltmarsh ecosystems.
- Candidates need to be able to accurately explain the Coriolis force.
- Candidates need to ensure they complete the correct fieldwork question. There were a number of candidates answering questions based on a coasts enquiry in both the river and hazard enquiry questions. This limited responses as marks could only be awarded for generic ideas plausible for the enquiry context being answered.
- Candidates need to be confident in explaining different stages in the geographical enquiry process, not just fieldwork methods.
- Candidates need to be aware of the difference between sampling strategies and data collection methods.
- Candidates need to be aware of the difference between data presentation techniques and data analysis techniques.
- Candidates need to be confident in evaluating different presentation techniques.
- Some candidates do not follow the instructions on the front of the exam paper and attempt to answer all questions which often results in the candidate running out of time. It would be useful to spend time with candidates, using the SAMs materials to ensure they are familiar with the structure of the paper to avoid rubric infringements.

Grade boundaries

Grade boundaries for this, and all other papers, can be found on the website on this link:

https://qualifications.pearson.com/en/support/support-topics/results-certification/grade-boundaries.html

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