Pearson
Edexcel

Examiners' Report
June 2022

International GCSE Geography 4GE1 01R

ResultsPlus

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications come from Pearson, the UK's largest awarding body. We provide a wide range of qualifications including academic, vocational, occupational and specific programmes for employers. For further information visit our qualifications websites at www.edexcel.com or www.btec.co.uk.

Alternatively, you can get in touch with us using the details on our contact us page at www.edexcel.com/contactus.

ResultsPlus

Giving you insight to inform next steps

ResultsPlus is Pearson's free online service giving instant and detailed analysis of your students' exam results.

- See students' scores for every exam question.
- Understand how your students' performance compares with class and national averages.
- Identify potential topics, skills and types of question where students may need to develop their learning further.

For more information on ResultsPlus, or to log in, visit www.edexcel.com/resultsplus. Your exams officer will be able to set up your ResultsPlus account in minutes via Edexcel Online.

Pearson: helping people progress, everywhere

Pearson aspires to be the world's leading learning company. Our aim is to help everyone progress in their lives through education. We believe in every kind of learning, for all kinds of people, wherever they are in the world. We've been involved in education for over 150 years, and by working across 70 countries, in 100 languages, we have built an international reputation for our commitment to high standards and raising achievement through innovation in education. Find out more about how we can help you and your students at: www.pearson.com/uk.

June 2022

Publications Code 4GE1_01R_2206_ER

Introduction

The first sitting of this specification for Pearson Edexcel International GCSE Geography took place in 2019. Due to the pandemic, there were only small entries for this exam in 2020 and 2021. This Examiner's report is intended to provide an insight into performance on Paper 1: Physical Geography and, 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 12-mark question from Section B. This year the total mark for this paper was 62, as there were only questions focused on unfamiliar fieldwork contexts in Section B resulting in less marks awarded in the fieldwork section. However, the length of time for the exam remained the same.

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, students are required to state one store in the hydrological cycle.

For these low tariff questions, candidates need to ensure that they have a clear understanding of key words and what they relate too.

(ii) State **one** store in the hydrological cycle.

(1)

Ice caps

ResultsPlus
Examiner Comments

Correct store stated.

(ii) State **one** store in the hydrological cycle.

(1)

Atmosphere

ResultsPlus
Examiner Comments

Correct store in the hydrological cycle stated.

Question 1 (c)

This question required candidates to explain one weathering process in a river valley.

A considerable number of candidates were unfamiliar with the difference between erosion and weathering, which led to candidates achieving zero marks.

Candidates who knew weathering processes were often able to achieve the full two marks available.

It is important to ensure students have a clear knowledge of geographical terminology to avoid misinterpreting the question.

(c) Explain **one** weathering process in a river valley.

(2)

chemical weathering, which occurs when slightly acidic rain seeps through pourous rocks causing them to decay and disintegrate.

ResultsPlus
Examiner Comments

This response has given a specific form of weathering and explained how it operates for 2 marks.

ResultsPlus
Examiner Tip

Ensure candidates are familiar with geographical terminology to avoid misinterpreting the question.

(c) Explain **one** weathering process in a river valley.

(2)

Physical ~~weathering~~ weathering happens ~~as~~ because of temperature and rain. ~~a~~ When water ~~freezes~~ that ~~seps~~ seeps into the cracks of rocks ~~freezes~~ and expands and it splits the rocks apart. heating and cooling of rocks frequently can break them.

ResultsPlus
Examiner Comments

This response has given a specific form of weathering and explained how it operates for 2 marks.

(c) Explain **one** weathering process in a river valley.

(2)

Hydraulic action is ^when the sheer force of water ~~disloges~~ dislodges material into the river

ResultsPlus
Examiner Comments

This is an example, seen from a range of candidates, where they give an erosion process rather than a weathering process resulting in 0 marks being awarded.

(c) Explain **one** weathering process in a river valley.

(2)

erosion when sediment erodes away the sides of a valley vertically. creating a V - shaped valley.

ResultsPlus
Examiner Comments

This candidate has misunderstood the term 'weathering process' and was awarded 0 marks.

Question 1 (d)

This question required candidates to use Figure 1a, which showed human activities in a drainage basin, to explain two ways human activity can affect water quality.

The credit for these types of 'explain' questions comes from correctly identifying an impact humans have on water quality shown in the resource (AO3) and then developing this to explain its impact (AO2). Candidates were not awarded for just lifting text written in the resource. Candidates often engaged with the resource well and were able to make a specific link to the impact on water quality. A few candidates did not make use of the resource, often stating a human activity that could not be reasonably inferred from the resource for example, using rivers to wash clothes or runoff from factories which are not shown in the resource.

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

Explain **two** ways human activity can affect water quality.

(4)

1 Raw sewage output can affect water quality as this can cause eutrophication where the phosphates from detergents and nitrates from faeces and urine enter the river waterways which causes algal bloom and river is contaminated with toxic substances seen as urea resulting in the clogging of fishes

2 stormwater carrying sediments and rubbish flow into the rivers and sea will affect water quality as rubbish will contaminate the water and might also allow sea life to mistaken the rubbish as food causing it to choke and die

ResultsPlus
Examiner Comments

This response achieves 4 marks.

There is clear reference to the resource and both sections are developed to explain how the human activity affects water quality.

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

Explain **two** ways human activity can affect water quality.

(4)

1 Sewage, untreated, from urban areas wash into stormwater that flows into rivers and ~~atr~~ other waterways, causing water pollution and harming and ~~inj~~ killing ~~injuring~~ wildlife

2 water treatment stations can treat the water to purify it (making it ~~chean~~ cleaner), ~~and~~ ~~p~~ before sending it to urban areas and homes. This reduces the risk of water-~~bone~~ borne diseases to spread.

ResultsPlus
Examiner Comments

This response was awarded 4 marks.

There is specific reference to the resource and a clear explanation for the impact on water quality for both reducing and increasing water quality.

Question 1 (e)

Candidates were asked to explain one river flood prevention method.

Generally, this question was answered well with many candidates awarded full marks. Candidates are aware of different flood prevention methods and are able to clearly explain how they are able to prevent river flooding. A minority of candidates confused river flood prevention with coastal flood prevention methods in their responses.

(e) Explain **one** river flood prevention method. ~~soil used for the crops.~~

(3)

One ~~river f~~ method is through implanting vegetation. As seen ~~is~~ in Figure 1a there are vegetation placed near the upper stream of the river. During heavy rain, the vegetation collects ~~#~~ the ~~dish~~ water drops through their roots and through their leaves catching water droplets through inception, decreasing the amount of storm flow, which prevents a river flood.

ResultsPlus
Examiner Comments

This response achieved 3 marks

A soft engineering strategy is identified, with explanation for how this helps to prevent a river flood.

(e) Explain **one** river flood prevention method.

(3)

Dams and resevoirs (hard engineering) can be installed to manage the volume of water in a particular area of a river so that during the event of a storm, the rivers volume doesn't get large enough to burst its banks and flood an area.

ResultsPlus
Examiner Comments

This response achieves 3 marks.

A specific hard engineering strategy is identified, with further explanation of how this works to prevent river flooding.

Question 1 (f)

The majority of students were unable to correctly identify the type of mass movement shown in the resource, often confusing the term ‘mass movement’ with erosion or weathering processes resulting in a high proportion of students not being awarded the one mark.

Question 1 (g)

This question required candidates to explain the formation of interlocking spurs.

Generally, the majority of candidates were able to score some marks on this question. Candidates who scored 3 or 4 marks tended to use more specific geographical terminology and were able to explain a sequence of events. A few candidates explained the formation of a meander rather than interlocking spurs. In some instances, diagrams were used to good effect to show more clearly what was explained in the written response.

Question 1 (h)

For 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.

Many candidates engaged with the resource well and were able to describe one or two factors in detail for the difference in discharge shown in the resource. To access the higher marks, candidates need to go beyond simply describing one or two factors but begin to consider their significance in affecting the river regime. 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.

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

Analyse the factors that affect the river regime shown in Figure 1c.

(8)

The two hydrographs clearly show varied measurements. In the Hydrograph A, the lag time from the start of the storm to peak river discharge is shorter than the hydrograph from station B, the peak discharge from A is also way higher than B, as well as quicker to peak. [from hydrograph gauging station]

First of all, the soil and rock type of the river banks and river beds affects river regime. In Figure 1C, the ~~river~~ upper cause of the ~~river~~ tributary gauged by station A is an urban area, whereas B station gauges river in a forested land. In urban areas, the ground is usually made of impermeable concrete, stopping the percolation and infiltration of water to underground. This causes the surface runoff to increase, so more rain water during a storm reaches the river channel quicker, thus leading to the faster and higher peak in Hydrograph A. Conversely, ~~sing~~ since station B gauges a forested area with no urbanization, the soil allows infiltration of ground water, slowing surface runoff and decreasing runoff into the river channel.

Moreover, the vegetation also affects river regime. As stated, Figure 1C shows station A gauging river from an urban area and B from a forested one. The vegetation at near station B allows rain water to be intercepted, which slows the water run off into river channel. Station A gauges water from an urban area with little vegetation, so little to no water is intercepted by plants, causing quicker and more water to enter the river channel thus causing its peak in the graph.

Additionally, station A is situated near the lower course of the river whereas station B is situated ~~are~~ at the upper course in the

Figure. Lower causes of rivers are not as steep as the upper cause, ~~so water is less easily drained from the river channel~~, especially from the shallow flood plains near the estuary of the river. Thus, ~~state~~ the river gauged by station A has a higher and faster peak than B.

and has a higher amount of river discharge from joined upper course tributaries.

ResultsPlus
Examiner Comments

This is a Level 3 – 8 mark response.

The candidate uses the resource throughout their answer and they are able to apply their knowledge of drainage basin processes well to explain several reasons for the differences in discharge shown in the resource. Although, there is not a conclusion at the end, there is enough 'analysis' throughout their response, with the use of terms like 'however', and 'moreover', to reach the Level 3 descriptors.

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

Analyse the factors that affect the river regime shown in Figure 1c.

(8)

if the storm is high this can cause river flooding, making the river to go on a ~~anthore~~ another direction. this can cause river erosion. river flooding cause other animals to live there houses/place because its ~~a~~ flooded and ~~tt~~ 'Unliveable. river that are near the urban aras ~~are~~ It can be flooded and loss all of it's crops and cause soil erosion. but if the hydrograph gauging station do there work perfectly alot of those stuff can be avoided.

ResultsPlus
Examiner Comments

It is clear that this candidate is unfamiliar with the term 'river regime' in the question and has focused their response around impacts of flooding resulting in 0 marks being awarded.

Question 2 (b)(ii)

In this question, candidates were required to state a factor that encourages salt marsh ecosystems to develop.

A number of candidates stated factors specific to coral reef ecosystems, for example stating, 'water temperature 27°C'. It is important that candidates are familiar with more than just factors affecting the formation of coral reef ecosystems.

(ii) State **one** factor that encourages salt marsh ecosystems to develop.

(1)

~~The temperature of water~~ Amount of exposure to sunlight

ResultsPlus
Examiner Comments

This candidate achieved 0 marks as they have given a factor about coral reef formation rather than salt marsh ecosystem formation.

ResultsPlus
Examiner Tip

Ensure candidates are familiar with different types of coastal environments beyond just coral reefs.

(ii) State **one** factor that encourages salt marsh ecosystems to develop.

(1)

Temperature.

ResultsPlus
Examiner Comments

This candidate achieved 0 marks as they have given a factor more specific to coral reef formation rather than salt marsh formation.

(ii) State **one** factor that encourages salt marsh ecosystems to develop.

(1)

one factor is salty water

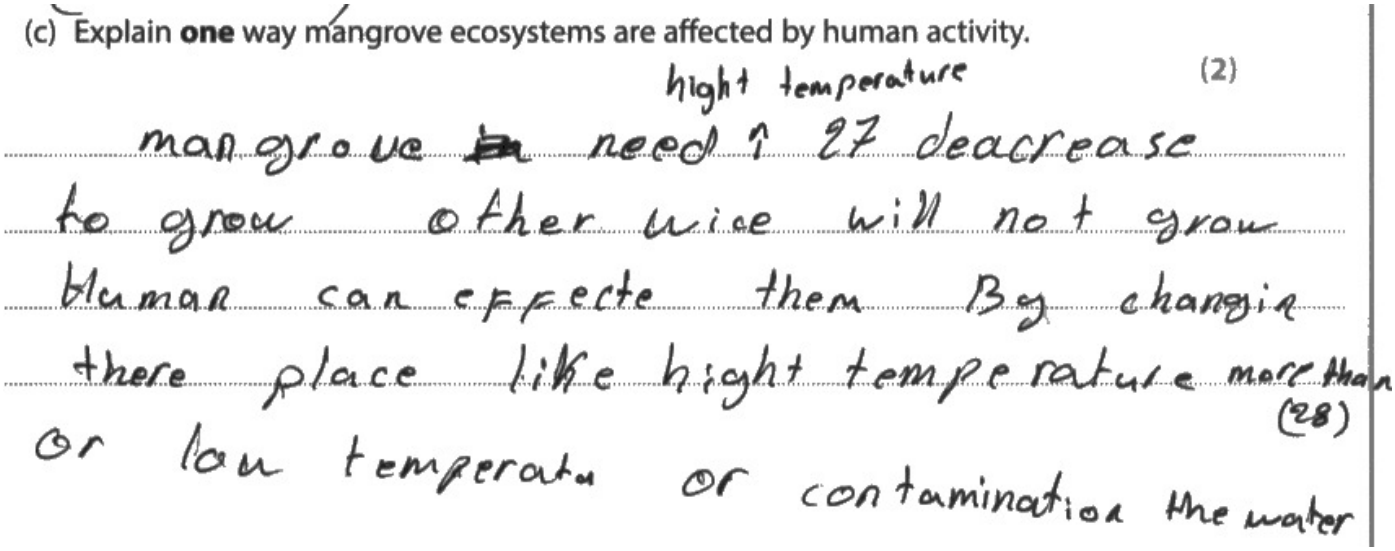
ResultsPlus
Examiner Comments

This response was awarded 1 mark as a correct factor required for salt marsh formation is stated.

Question 2 (c)

In this question, candidates were required to explain one way mangrove ecosystems are affected by human activity.

Candidates were awarded for giving a reason for their destruction and a second mark for why this was taking place. The majority of candidates were awarded the full two marks on this question.


(c) Explain **one** way mangrove ecosystems are affected by human activity. (2)

hight temperature

mangrove need ↑ 27 deacrease to grow other wise will not grow human can effecte them By changin there place like hight temperature more than (28) or low temperatu or contamination the water

ResultsPlus
Examiner Comments

This response misinterprets the question.

It is focused on the factors required for coral reef ecosystems to grow. It is not focused on mangrove ecosystems or human actions – 0 marks.

(c) Explain **one** way mangrove ecosystems are affected by human activity.

(2)

By deforestation, in order to build settlements such as houses for residents and hotels for tourists. The timber wood (in mangroves) provides stability to buildings due to its strength. Thus, urbanisation and the need to build settlements affects mangroves ecosystems

ResultsPlus
Examiner Comments

This response is focused on the question posed – identifying a cause of the destruction (deforestation) and reason (for timber) for this taking place.

2 marks.

Question 2 (d)

This question required candidates to use Figure 2a, which showed information about the uses of coral reefs, to explain two reasons why there may be conflict over the use of coral reef ecosystems.

The credit for these type of 'explain' questions comes from correctly identifying a possible conflict from the information given in the resource (AO3) and then developing this to explain why this causes conflict (AO2). Candidates were not awarded for just lifting information written in the resource.

Candidates, on the whole, understood the idea of conflict and used examples of how coral reefs are used shown in the resource. The better responses explained a potential conflict between two interested parties. Some candidates implied conflict between users without directly naming different groups of people. If done in detail, this was enough to achieve four marks. A few candidates were less clear on the idea of conflict and just stated advantages of having coral reef ecosystems which was not what the question required.

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

Explain **two** reasons why there may be conflict over the use of coral reef ecosystems.

(4)

1 As a result of coral reef ecosystems providing a vast biodiversity, it provides a large quantity and variety of fish. Thus, coral reef ecosystems provide food production which helps boost the economy and provides a source of income for the country. Yet, there is conflict as the biodiversity is needed to provide food & income but also to attract tourists who will also provide income.

2 Coral reefs are useful for medicine development. Thus are being damaged & affected by human activity, resulting in loss of reefs thus making hazards more prone as reefs provide shelter & protection, minimising the waves energy and erosion of the shore. Yet, they are needed to provide medicines which can cure diseases like cancer.

ResultsPlus
Examiner Comments

This candidate uses the resource in their answer and, although they don't always give specific groups of people who would be in conflict, there is enough detail to imply conflict in both reasons.

In the first reason, this is that 'there is high biodiversity which provides a food source (1) but biodiversity is reduced by fishing and tourists (1) causing a conflict.

In the second reason 'reefs are needed for medicine which causes damage (1) which results in the loss of reefs making an area more hazard prone (1).

4 marks

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

Explain **two** reasons why there may be conflict over the use of coral reef ecosystems.

(4)

1 There may be conflict between tourists and conservationists, this is because while tourists may want to dive or swim around coral reef areas, conservationists would want to prevent this as reefs can be damaged and disrupted by human activity.

2 There may be conflicts between researchers and fishermen as overfishing may lead to a reduced number of samples for the research industry to test with.

ResultsPlus
Examiner Comments

This candidate has clearly used the information in the resource to suggest two different groups of people who would be in conflict with each other over use of the coral reef ecosystem.

4 marks

Question 2 (e)

Candidates were required to explain the difference between constructive and destructive waves.

The majority of candidates achieved full marks clearly explaining the differences between the two types of waves. Where candidates did not achieve three marks, it was often because they did not mention the impact on beach.

(e) Explain the difference between constructive and destructive waves.

(3)

Constructive waves contain a strong swash, weak backwash where as destructive waves contain a weak swash strong backwash. Constructive waves are less frequent and provide to the construction of beaches whilst the more frequent destructive waves destroy the beaches

ResultsPlus
Examiner Comments

This response was awarded 3 marks giving a range of differences between constructive and destructive waves.

(e) Explain the difference between constructive and destructive waves.

(3)

Constructive waves are long at length and have a strong swash which builds up the beach as well as they are shallow and have a weak backwash. However, destructive waves are short at length and are tall and steep, they also have weak swash and a strong backwash which in turn erodes the beach by dragging the sediment into the sea.

ResultsPlus
Examiner Comments

This response was awarded 3 marks giving a range of differences between constructive and destructive waves.

Question 2 (f)

The majority of candidates correctly identified the process shown in the resource correctly.

Question 2 (g)

This question required candidates to explain the causes of coastal flooding. Generally, the majority of candidates were able to score some marks on this question. Candidates who scored 4 marks either explained one cause in detail or two correct causes of coastal flooding.

Candidates need to be clear on the difference between causes of sea level rise and causes of coastal flooding. Often candidates only explained the process of sea level rise limiting their responses. A few candidates explained the causes of meteorological flooding rather than coastal flooding.

(g) Explain the causes of coastal flooding.

(4)

A cause is climate change. Global warming cause glaciers to melt and sea level rises, as there is more volume.

Another hazard is tsunamis. They are caused by earthquakes under the sea, which creates a large magnitude of energy. This is sent by waves towards the shore, as water builds up. is carried out

Storm surges are caused by friction of wind blowing against the sea. Sea water rises and builds up at areas of low pressure. ~~Once they hit land~~ flooding will occur as sea water carries inland.

ResultsPlus
Examiner Comments

This is an example of a response which was awarded 4 marks for explaining two causes.

They correctly explain that a tsunami caused by an underwater earthquake (1) which is a large magnitude wave that builds up as it approaches the shore (1). Storm surges are caused by friction of the wind (1) causing sea water to rise up in areas of low pressure (1).

(g) Explain the causes of coastal flooding.

(4)

Coastal flooding is generally caused by Storm Surges. Storm Surges occur when offshore storms form larger than usual waves due to their stronger winds. These waves build up power until they hit the coastline, generally breaking through any coastal defences due to their size and power, and flooding the area near the coast.

ResultsPlus
Examiner Comments

This is an example of a response which was awarded 4 marks for one well explained cause of coastal flooding.

(g) Explain the causes of coastal flooding.

(4)

climate change causes many of the ice glaciers to melt in places like the arctic. climate change is a thick layer of gas called the ozone layer that traps the hot air between it and also the earth making the water levels rise on coasts by melting the ice in it.

ResultsPlus
Examiner Comments

A number of candidates only explained the causes for rising sea levels rather than a cause of coastal flooding which was not the focus of this question.

0 marks

Question 2 (h)

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 analyse the advantages and disadvantages of the coastal management plans shown. Candidates engaged with the resource well, using the examples of coastal management shown to frame their responses. However, a significant number of responses just described the pros and cons of each type of management shown without applying it to why it is best for the specific locations, with minimal judgement.

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.

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

Analyse the advantages and disadvantages of the coastal management plan shown.

(8)

Hard engineering helps to reduce wave erosive power and stops from flooding inland. According to figure 2c, rock groyne in Espinho traps eroded material, avoid sand blowing inland. Helps to trap beach sediment that is being transported by longshore drift. According to the sketch shown, hard engineering such as groynes and sea walls are being chosen to use the most frequently. 3 areas that are coloured in orange are using hard engineering. This includes Porto, Espinho and Mira 's coastlines. Although they reduce wave power in great benefit, they will also disfigure the natural beauty of the coastline. Examples such as sea walls, gabions and rip raps cannot keep pace with sea level rise which will disfigure the natural beauty of the coastline. This will not attract more tourists, which reduces the population of tourists arriving in the coastal location. Furthermore, it is also harder to maintain as it requires a constant management and is more expensive. Therefore, even though hard engineering such as groynes and sea walls help to trap eroded material and reduce wave erosive power, it also will disfigure the natural appearance of the coastline, resulting in loss of tourists and low income from beaches.

Soft engineering can keep pace with sea level rise and is cheaper and more environmentally friendly to use. According to figure 2c, soft engineering such as beach replenishment is used in the north of Espinho. However, it is relatively less used along the coastline in contrast to Hard Engineering as only places such as near the river Douro and Barra which is coloured in blue. Blue represents beach replenishment and red represents beach replenishment and sand dune. Beach replenishment is meant by dumping sand and shingles onto

areas to ~~retain~~ replace eroded material. It is cheaper and easier to maintain, but requires more time to process it. It is more environmentally friendly but will lose tourists when in process of dumping as it spoils the natural beauty of the coastline. Sand dunes reduces wave and erosive power to reduce chance of flooding. Therefore, soft engineerings are a good choice to use as it is a cheaper and more beautiful to view

ResultsPlus
Examiner Comments

This candidate shows frequent use of the resource throughout the answer and goes beyond just describing simple pros and cons of the strategies to clearly analyse the combined strategies used at the location.

Although they do not have a conclusion at the end, they use terms such as 'however', 'great benefit' and 'therefore' throughout their response to demonstrate their argument and judgement.

This response was awarded Level 3 – 8 marks

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

Analyse the advantages and disadvantages of the coastal management plan shown.

(8)

In figure 2c, groynes, a form of hard engineering, are shown to be used across the majority of the coastline. Groynes collect sediment at one end due to longshore drift occuring and moving sediment across the beach, this allows a wide beach, which could bring in tourism in areas such as Mira and Espinho. However, on the other side of the groyne, the beach is starved of sediment, which may lead to waves approaching the coast closer and increased erosion. Another hard engineering method used is sea walls, these are effective at absorbing and reflecting wave energy, which decrases coastal erosion, however as they are needed for long stretches of Coast, around 72 km in Mira and 60 km across Espinho and Esmoriz it may be expensive to build. In areas such as Barra and Torreira, soft engineering such as beach replenishment is used, this is a good method as it looks natural, however sand needs to be regularly repumped into the beach as erosion and longshore drift will deposit this material elsewhere, making it time consuming and perhaps ineffective.

North of Espinho, beach replenishment and sand dunes are both used as forms of soft engineering. Sand dunes are coastal ecosystems ~~which~~ which occur when prevailing wind is onshore, so sand accumulates around an object. ~~These~~ These can ~~be~~ get destroyed easily, making them ineffective. Overall, **(Total for Question 2 = 25 marks)**
the use of hard engineering along ~~the~~ this coast is perhaps more effective.

ResultsPlus
Examiner Comments

This candidate gives a brief concluding statement at the end of their answer and makes clear reference to the strategies used at each location.

There are several pros and cons of the different strategies being used with simple judgement as to whether this is good/bad for the location.

Some parts of the response are quite descriptive and the AO3 is slightly weaker in this response meaning it was awarded Level 3 – 7 marks.

Question 3 (b)(ii)

Most candidates were able to score a mark on this question being able to state one factor that can affect how much damage an earthquake can cause.

(ii) State **one** factor that can affect how much damage an earthquake can cause.

(1)

How much preperation prior the earthquake

ResultsPlus Examiner Comments

There were a wide range of factors given by candidates.

This response was awarded the mark having stated a correct factor – level of preparation.

(ii) State **one** factor that can affect how much damage an earthquake can cause.

(1)

Killing people.

ResultsPlus Examiner Comments

This candidate has given an impact of an earthquake rather than a factor that affects the level of damage caused.

0 marks

(ii) State **one** factor that can affect how much damage an earthquake can cause.

(1)

magnatudie

ResultsPlus Examiner Comments

Correct factor stated – 1 mark.

(ii) State **one** factor that can affect how much damage an earthquake can cause.

If the ~~area~~ area is urban or rural (1)

ResultsPlus
Examiner Comments

Correct factor stated – 1 mark.

Question 3 (c)

For this question, candidates were required to identify a correct factor that affects the formation of tropical cyclones (AO1) and explain their distribution (AO2).

Most candidates were clear on the factors required for tropical cyclones to form. However, a number of candidates were unfamiliar with the demands of the term 'distribution' and therefore did not achieve the second mark.

(c) Explain **one** factor that affects the distribution of tropical cyclones.

(2)

Temperature - Tropical cyclones need water that has a temperature around (23°c - 27°c) degrees, and it needs warm air, to form. They are found only near the equator.

ResultsPlus
Examiner Comments

This candidate gives a specific factor and links this to where they are most commonly found to fully meet the demands of a distribution question.

2 marks

(c) Explain **one** factor that affects the distribution of tropical cyclones.

(2)

When get tropical cyclons it ~~happ~~ might happend Inland floodings and strong wind then houses, trees are fly away then destroyed.

ResultsPlus
Examiner Comments

This response was awarded 0 marks – as they have misinterpreted the question and given impacts a tropical cyclone may cause.

(c) Explain **one** factor that affects the distribution of tropical cyclones.

(2)

Cyclones need waters of around 27°C to form, which is usually around the equator

ResultsPlus
Examiner Comments

This candidate gives a specific factor and links this to where they are most commonly found to fully meet the demands of a distribution question.

2 marks

(c) Explain **one** factor that affects the distribution of tropical cyclones.

(2)

They form where there is warm moist air as they air rises. For this, the sea surface temperatures must be at least 27°C so that the air above the water is warm

ResultsPlus
Examiner Comments

This candidate gives a specific factor that causes the formation of a tropical cyclone, but they do not meet the 'distribution' requirement in the question as they have not mentioned where they are formed.

1 mark

Question 3 (d)

This question required candidates to use Figure 3a, which showed information for people living in areas at risk of tropical cyclones in the USA, to explain two reasons why people continue to live in areas at risk of tropical cyclones.

The credit for these types of 'explain' questions comes from correctly identifying a possible reason from the information given in the resource (AO3) and then developing this to explain why people live in these areas (AO2). Candidates need to ensure they have used the resource in their response. Often, candidates gave reasons that could not be plausibly inferred from the resource provided. Most often these centred around the idea of people lacking education and knowledge or to be close to family and jobs, neither of which could not be inferred from the resource. The better responses made clear links to the resource and developed these reasons to explain why it makes people willing to live in these areas.

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

Explain **two** reasons why people continue to live in areas at risk of tropical cyclones.

(4)

1 Education on drills and preparation and emergency appear to be established in the figure which can increase confidence in safety of the locals especially if the cyclones occur infrequently.

2 The figure is for the USA and since the USA is a developed country, it will have building regulations and increased structural support such as stilts for coastal homes. Information from the figure of flood flooding spreads awareness and increases protection levels on homes.

ResultsPlus
Examiner Comments

This response achieved 4 marks – giving two correct reasons why people continue to live in areas at risk which are specific to the information shown in the resource.

ResultsPlus
Examiner Tip

Ensure candidates only give reasons that can be inferred from the resource provided.

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

Explain **two** reasons why people continue to live in areas at risk of tropical cyclones.

(4)

1 People feel prepared to face the threat of a tropical cyclone and are not afraid for their safety.

2 People have plans which include photo documentation of valuables so this means they are confident they will be compensated for any losses

ResultsPlus
Examiner Comments

This response achieved 4 marks – giving two correct reasons why people continue to live in areas at risk which are specific to the information shown in the resource.

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

Explain **two** reasons why people continue to live in areas at risk of tropical cyclones.

(4)

1 they may not be educated enough on what to do and may not understand how to make a plan to protect themselves

2 They may have lost out working about cyclones and they don't all come true so have the mindset that they will leave when it actually happens as it would be expensive to move for no reason.

ResultsPlus
Examiner Comments

This candidate has not given reasons which can be inferred from the resource provided and therefore was awarded 0 marks.

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

Explain **two** reasons why people continue to live in areas at risk of tropical cyclones.

(4)

1 Hurricanes bring many hazards to WI coastlines and inland areas, including Storm surge along the coast, inland Flooding due to heavy rainfall, tornadoes Strong wind, rip currents and large waves.

2 when Faced with an emergency and ensure everyone in your home is prepared For the next Storm.

ResultsPlus
Examiner Comments

This response has focused on the impacts of a tropical cyclone in the first part and in the second part of the answer, it is too vague by simply stating 'people should be prepared' which is not enough to award the AO3 credit.

0 marks

Question 3 (e)

For this question, candidates were required to identify a suitable way hazard mapping is used and explain why this helps to prepare for an earthquake event. In this question, candidates are required to focus on one idea and develop it in detail to access the 3 marks available.

The majority of candidates achieved full marks clearly explaining the role hazard mapping has on being able to help people prepare. There were a few candidates who were unclear on what hazard mapping is and, as a result, they explained a completely different preparation strategy.

(e) Explain **one** way hazard mapping can help preparation for an earthquake event.

(3)

Hazard mapping looks at historic events and determines which areas are most likely to be effected by an earthquake. With the information, the government can provide relief aids and educate people about evacuation plans. They can also improve the buildings design to make it more earthquake-proof so less collapse.

ResultsPlus
Examiner Comments

This candidate was awarded 3 marks as they understand what hazard mapping is and how it can help with preparing for an earthquake.

(e) Explain **one** way hazard mapping can help preparation for an earthquake event.

(3)

They can locate the dangerous areas and where landslides can occur & meaning they can tell the people how, where and why to evacuate. This means that less people are likely to die and to prepare their homes for less damage.

ResultsPlus
Examiner Comments

This candidate was awarded 3 marks as they understand what hazard mapping is and how it can help with preparing for an earthquake.

Question 3 (f)

The majority of candidates correctly identified a potential long-term impact of an earthquake.

(f) Study Figure 3b in the Resource Booklet.

Suggest a long-term impact of the hazard shown.

(1)

Damaged infrastructure (buildings, roads)

ResultsPlus
Examiner Comments

This candidate states a correct potential long-term impact based on the resource provided.

(f) Study Figure 3b in the Resource Booklet.

Suggest a long-term impact of the hazard shown.

(1)

Homelessness due to destruction of buildings

ResultsPlus
Examiner Comments

This candidate states a correct potential long-term impact based on the resource provided.

Question 3 (g)

This question required candidates to explain how earthquakes are formed at a destructive plate boundary.

Generally, the majority of candidates were able to score some marks on this question. Candidates who scored 3 or 4 marks tended to use more specific geographical terminology and were able to explain a sequence of events. However, some candidates confused the type of plate boundary, writing about conservative plate boundary which was not credited.

A few candidates supported their written responses with diagrams which often showed the direction of plate movement which was useful as this was often missed at the start of a lot of written answers.

(g) Explain why earthquakes occur at destructive plate margins.

(4)

At destructive plate boundaries, an oceanic plate ~~is subducted under moves~~ and continental plate move towards each other ; the oceanic plate is subducted under because it's denser. [redacted] If then grinds against the continental plate (and melts in the mantle), building up high levels of pressure until the portion of the plate cracks or snaps violently, releasing large volumes of energy in the form of shockwaves.

ResultsPlus
Examiner Comments

This candidate explains the full sequence, including the correct geographical terminology, to explain why earthquakes occur at a destructive plate boundary.

4 marks

Question 3 (h)

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 analyse the reasons for the different impacts of the two volcanic eruptions shown in the resource. The majority of candidates engaged with the resource and used this throughout their answer but mainly only described the different impacts with only basic reasons provided. In the better responses candidates made simple judgements on which area suffered most, explaining why this was the case. A very small number of candidates just lifted the text from the resource and this was not given credit.

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.

(h) Study Figure 3c in the Resource Booklet.

Analyse reasons for the different impacts of the two volcanic eruptions shown.

(8)

As Figure 3c shows, the volcanic eruption in Indonesia is happen at the middle of two islands. The tsunamis it caused is the one killed and injured most of the people. It is uncommon for indonesia to have Tsunami, and it is poorer, with less experianced. Therefore less people are educated how to treat Tsunami. It had building that is not designed for nature hazards. And due to it is cause by volcanic eruption under sea, no one predicted or prevent to Tsunami so no warning system. It is also due to high population density in Indonesia so it damage lots of houses. Lack of protection such as hard engineering - sea walls are built due to unexpected and too expensive. However it is on sea so less Ash have damage people.

As Figure 3c also shows, the volcano volcán de Fuego cause much less death and injury. This is because firstly it is in forest and far away from city, therefore less dense of population, leading to less death by collapse of building and houses. It is on land so the local government probably have predict it and set protection and prevention beforehand such as remove people in high risk area, education and practise before it actually happened. Another thing is that is far away from the ocean so it wont cause tsunami, which damage more people and building. However, it is on land so it cause Ash and pyroclastic flow damaging building, towns, crops or road. This reduce the speed of finical support from other country or energency or reasue team from local government. And it is proved by as Figure 1c shows the international airport is blocked. However, this pyroclastic flow and ash would cause burn or lung problem, as it is close to town and vilbges.

ResultsPlus
Examiner Comments

This candidate was awarded Level 3 – 7 marks.

There is frequent use of the resource throughout their answer and they begin to analyse the different impacts by stating that it was the tsunami which caused most of the deaths in Indonesia and less deaths in Guatemala 'firstly' because the volcano is located in a more rural area. There is also use of terminology like 'however' in their response to show enough judgement and argument, with enough range to meet the Level 3 descriptors.

(h) Study Figure 3c in the Resource Booklet.

Analyse reasons for the different impacts of the two volcanic eruptions shown.

(8)

Figure 3C shows the impacts of a volcanic eruption on a highly developed country (HIC) and a less developed country (LIC).
Therefore, the Indonesian volcanic eruption resulted in ~~to~~ more injuries and a higher death toll in comparison to the Guatemala volcanic eruption.
Both countries suffered from damages to buildings, houses, villages as a result causing a halt in both economies. Indonesia ~~is~~ has access to the sea, thus the volcanic eruption caused damages to 510 ships as well as it is ~~bordered~~ surrounded by the Java Sea. In Guatemala, it is land locked thus the pyroclastic flows blocked transport roads causing a delay in emergency supplies and aid support. Whereas in Indonesia, aid & emergencies were able to be sent. The closing of the airport prevented any flights with emergency aid and supplies being sent. 4000 were evacuated minimising deaths in comparison to Indonesia, ~~as~~ people weren't evacuated. Figure 3c shows that the volcanic activity in Indonesia occured on an island of Anak Krakatau ~~whereas~~ access to the sea.
Whereas, Guatemala ~~on a~~ in a city (high level of urbanisation and high levels of buildings) in Volcan de Fuego, ~~nearby to the capital~~
~~Both~~ Guatemala suffered from volcanic explosions causing breathing difficulties due to the ash. The pyroclastic flows destroyed vegetation causing crops growth and production to decline causing a decline in the economy. Both suffered from homelessness and unemployment as a result of damages to businesses and homes. Education was halted due to the damages of schools and universities. Spread of diseases due to the lack of supplies due to blocked roads in Guatemala causing deaths.
Thus, Indonesia experienced more deaths due to being more populated and on an island thus evacuation was limited in comparison to Guatemala which ~~had~~ less deaths due to being evacuated due to monitors & predictions of the volcanic activity.

Thus, due to its preparation of evacuating before hand in Guatemala, results in less impacts of the volcanic eruption as well as the % for population. Thus, as they could evacuate people, less deaths were caused as compared to Indonesia. Yet both recovered inevitable damages to its settlements and buildings where less deaths for Guatemala due to preparing and less populated than Indonesia (island).

ResultsPlus
Examiner Comments

This candidate was awarded Level 3 – 8 marks.

Although they work through the different impacts seen in each location first, they make a clear judgement at the beginning of their answer with this being due to differences in the level of development between the two locations.

The end of their response is a conclusion which makes a judgement about the significance of both physical and human factors in causing the differences shown in the two locations.

(h) Study Figure 3c in the Resource Booklet.

Analyse reasons for the different impacts of the two volcanic eruptions shown.

(8)

Anak Krakatau Indonesia 2018:

- Triggered a tsunami
- 14,059 people injured
- 429 deaths
- Destroyed 2,752 houses and 510 ships.
- Eruption reduced the volcano's height from 338 to 100m.

Volcán de Fuego Guatemala 2018:

- 190 deaths
- 4,000 people evacuated
- pyroclastic flows hit several towns and villages and blocked transport routes.
- Ash reached the capital, Guatemala city, and closed the international airport.

ResultsPlus
Examiner Comments

This response was awarded 0 marks as the candidate directly lifts the bullet points shown in the resource with no additional comment.

Question 4 (a)(ii)

Please note that the comments made on Q04 also apply to Q05 and Q06 as the questions are in parallel and the resources very similar.

Section B had reduced number of marks in this series and as a result fewer questions. There were only questions with unfamiliar fieldwork contexts. There was information provided on the fieldwork context in the exam paper and additional resources in the resource booklet which candidates were required to use.

For this question, candidates needed to state one way maps could be used to support their enquiry. This could be at any stage of the geographical enquiry process and most candidates achieved the mark.

(ii) State **one** way maps could be used to support the enquiry.

(1)

find out where the upper, middle and lower source of the river is located.

ResultsPlus Examiner Comments

Correct potential use of a map for the river enquiry described.

1 mark

(ii) State **one** way maps could be used to support the enquiry.

(1)

Maps could be annotated to highlight the specific areas of investigation

ResultsPlus Examiner Comments

Correct potential use of a map for a geographical enquiry.

1 mark

Question 4 (b)(i)

This question was answered quite well with many candidates gaining 2 marks. Where candidates scored only 1 mark, it was due to them not writing the final answer to one decimal place.

(b) Study Figure 4b which shows some data collected about river velocity.

(i) Calculate the mean velocity.

Give your answer to one decimal place.

You must show all your workings in the space below.

(2)

$\frac{1.2 + 2.0 + 1.4 + 1.2 + 1.0}{4} = 1.2$

1.2 m/s

ResultsPlus
Examiner Comments

This candidate has not identified all 5 figures required for this calculation and as such has not divided by 5 which means they have not shown the correct method for working out the mean based on the data provided.

0 marks

(b) Study Figure 4b which shows some data collected about river velocity.

(i) Calculate the mean velocity.

Give your answer to one decimal place.

You must show all your workings in the space below.

(2)

$$\frac{1.2 + 2.0 + 1.4 + 1.2 + 1.0}{5} = 1.36$$

$$\simeq 1.4$$

1.4

~~1.36~~ m/s

ResultsPlus
Examiner Comments

2 marks – correct working and answer rounded to 1 decimal place.

Question 4 (b)(ii)

This question was answered well with the vast majority of candidates able to identify a correct piece of equipment.

(ii) State **one** piece of equipment that could be used to measure river velocity.

(1)

Measuring tape

ResultsPlus
Examiner Comments

1 mark – correct piece of equipment stated for measuring river velocity.

(ii) State **one** piece of equipment that could be used to measure river velocity.

(1)

a floating ball

ResultsPlus
Examiner Comments

1 mark – correct piece of equipment stated for measuring river velocity.

Question 4 (c)(i)

A significant number of candidates were able to achieve two marks, correctly proportioning their segments and shading them to fit the key provided.

Some candidates found the demands of this question a challenge with either the proportioning of the segments or correctly following the key or with both elements.

(c) (i) Complete Figure 4d below, using data highlighted in Figure 4c in the Resource Booklet.

(2)

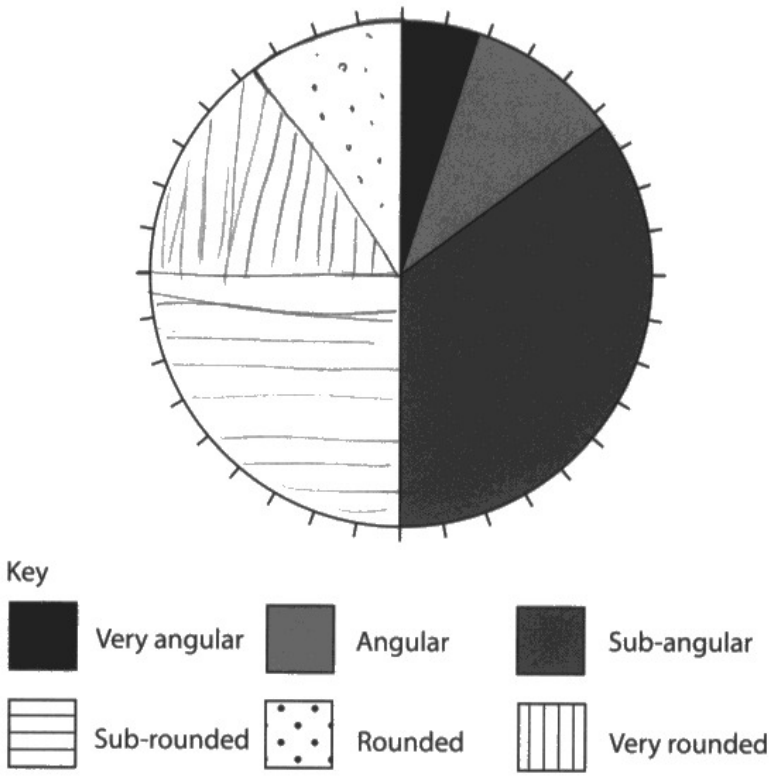


Figure 4d

Pie chart showing pebble shape

ResultsPlus
Examiner Comments

This candidate has the 3 proportions plotted correctly (1) but their shading is incorrect as 'rounded' should be the second biggest segment, not the smallest.

1 mark

(c) (i) Complete Figure 4d below, using data highlighted in Figure 4c in the Resource Booklet.

(2)

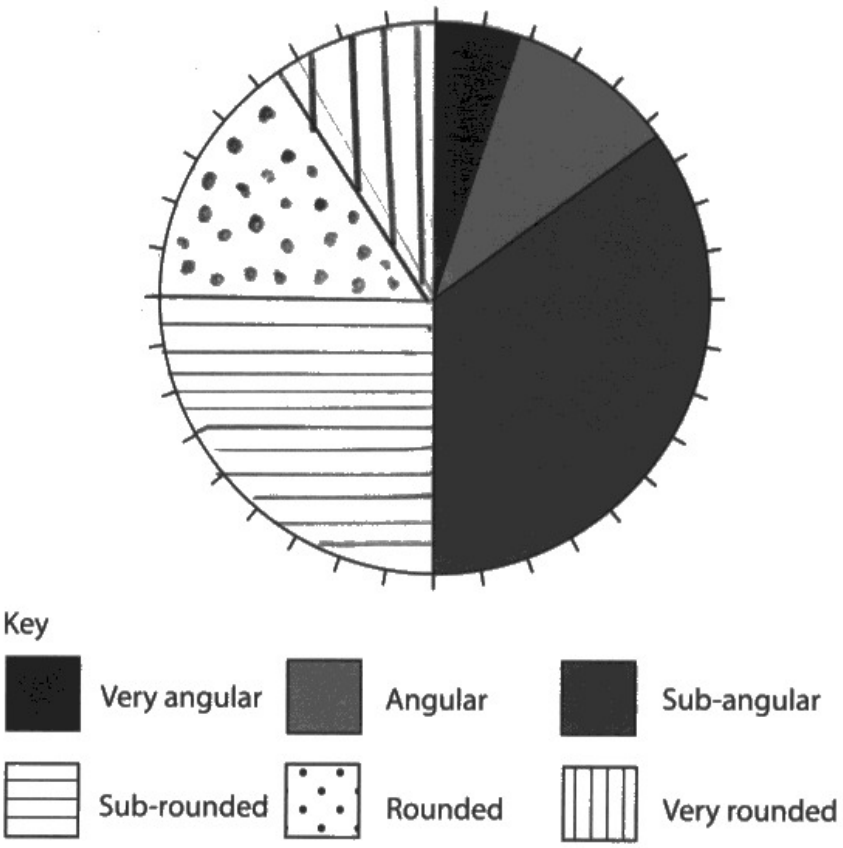


Figure 4d

Pie chart showing pebble shape

ResultsPlus
Examiner Comments

2 marks – correctly proportioned segments (1) and correct shading (1).

(c) (i) Complete Figure 4d below, using data highlighted in Figure 4c in the Resource Booklet.

(2)

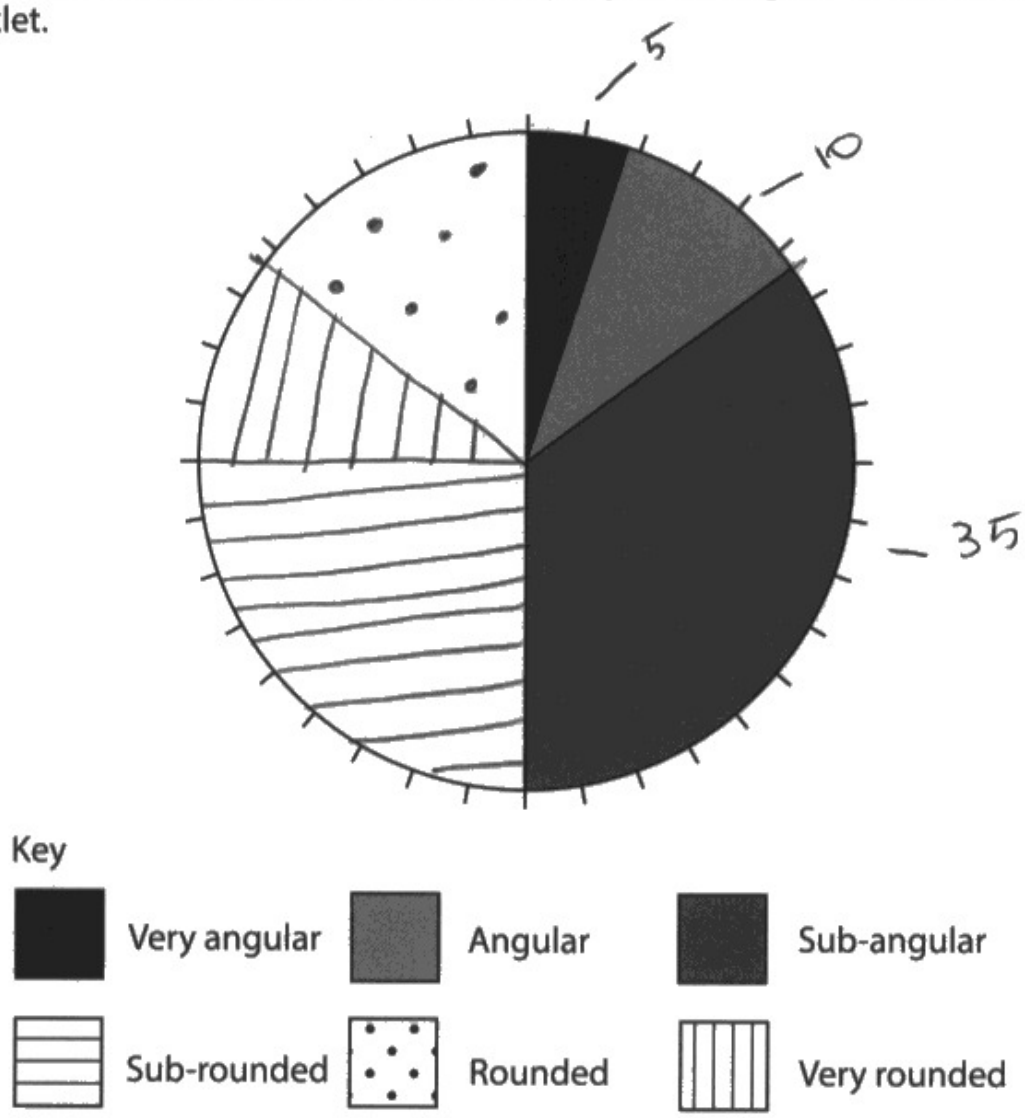


Figure 4d

Pie chart showing pebble shape

ResultsPlus
Examiner Comments

2 marks – correctly proportioned segments (1) and correct shading (1). The segments could be plotted in any order as long as they were correctly proportioned and shaded.

Question 4 (c)(ii)

Candidates were required to identify two ways the students could have improved the reliability of the data collected. It is important to ensure candidates are familiar with the difference between accuracy and reliability in the context of a geographical enquiry. A considerable number of candidates made suggestions linked to accuracy/validity rather than reliability.

(ii) Identify **two** ways the students could have improved the reliability of the data collected.

(2)

1 check with other student who have done it before them

2 Repeat 3 times and take an average

ResultsPlus
Examiner Comments

Two correct ways to increase reliability identified.

2 marks

ResultsPlus
Examiner Tip

Ensure candidates know the difference between reliability and accuracy in a geographical enquiry context.

(ii) Identify **two** ways the students could have improved the reliability of the data collected.

(2)

1 used more pebbles than just 100

2 Done it multiple times (maybe different days) to get a more accurate result.

ResultsPlus
Examiner Comments

Two correct ways to improve reliability identified.

2 marks

(ii) Identify **two** ways the students could have improved the reliability of the data collected.

(2)

1 by measuring the size of sediment instead of the pebble shape

2 should have made two different pie chart for each location

ResultsPlus
Examiner Comments

This candidate has misunderstood the term reliability in the question and has not given any correct ways to improve reliability.

0 marks

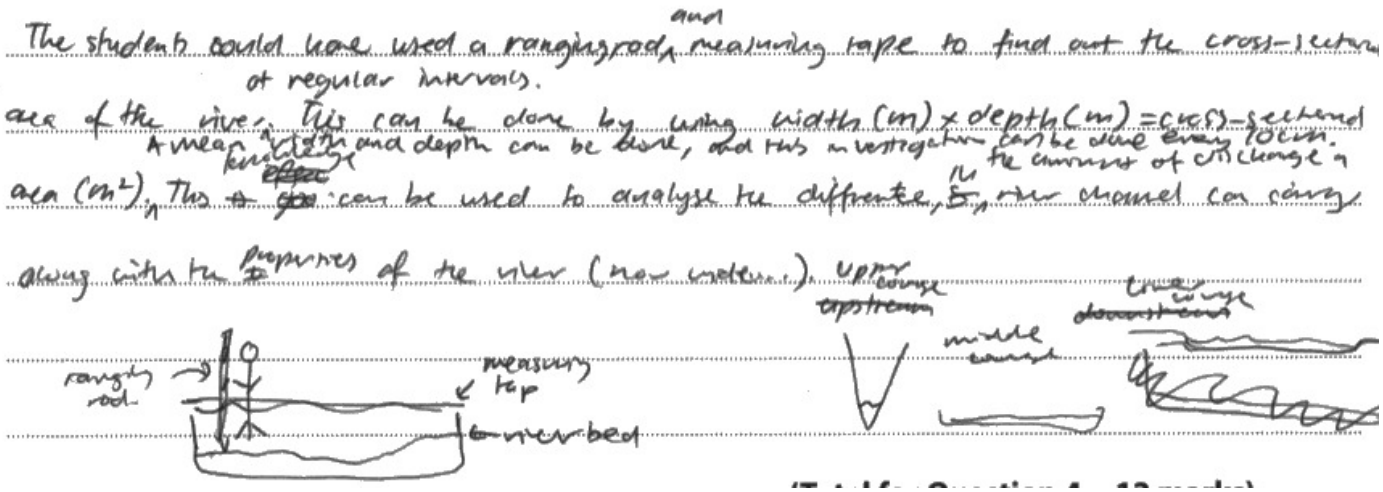
Question 4 (d)

In this question, the candidates were required to explain one other fieldwork technique the students could have used in their enquiry. In this question, candidates are required to focus on one idea and develop it in detail to access the 3 marks available.

A number of candidates found it a challenge to ensure they were aware of all the methods used, which were shown in the resources. This meant a significant proportion of candidates wrote about a method already mentioned resulting in zero marks being awarded. Some candidates are unfamiliar with the term 'fieldwork technique' and, as a result, explained a sampling strategy instead, also resulting in zero marks being awarded. The better responses explained the how or why their chosen fieldwork technique would support the enquiry.

(d) Explain **one other** fieldwork technique the students could have used to explore river channel changes.

(3)



ResultsPlus
Examiner Comments

This response explains in detail how to measure the cross-section (wetted perimeter) of the river channel.

3 marks

(d) Explain **one other** fieldwork technique the students could have used to explore river channel changes.

(3)

Another fieldwork technique to investigate river channel changes is by measuring the width of the river using a flexible measuring tape. They need to stretch the tape from one bank to the opposing bank of the river. Read the length of the width of the river precisely. Make sure that the tape is not sagging, as it'll affect the results.

(Total for Question 4 = 12 marks)

Make sure to do that for all sites, with repeats, and find average of width for each site.

ResultsPlus
Examiner Comments

This candidate explains in detail how they would measure the width of the river channel. However, this was a technique mentioned in Figure 4a and therefore can not be credited.

0 marks

(d) Explain **one other** fieldwork technique the students could have used to explore river channel changes.

(3)

The students could have used stratified sampling. It would involve prior research into the shape of the pebbles. This would allow students to selectively choose the outcomes they would either intend to display.

ResultsPlus
Examiner Comments

This was a fairly common error where candidates misinterpret the term 'fieldwork technique' and explain a sampling strategy instead.

0 marks

Question 5 (a)(ii)

Please note that the comments made on Q05 also apply to Q04 and Q06 as the questions are in parallel and the resources very similar.

Section B had reduced number of marks in this series and as a result fewer questions. There were only questions with unfamiliar fieldwork contexts. There was information provided on the fieldwork context in the exam paper and additional resources in the resource booklet which candidates were required to use.

For this question, candidates needed to state one way maps could be used to support their enquiry. This could be at any stage of the geographical enquiry process and most candidates achieved the mark.

(ii) State **one** way maps could be used to support the enquiry.

(1)

They could be annotated to highlight the different management techniques

ResultsPlus
Examiner Comments

Correct potential use of a map for the coastal enquiry described.

1 mark

(ii) State **one** way maps could be used to support the enquiry.

(1)

We can identify the shape of the coastline to help determine the strength of erosion caused or with the management

ResultsPlus
Examiner Comments

Correct potential use of a map for the coastal enquiry described.

1 mark

Question 5 (b)(i)

This question was answered quite well with many candidates gaining 2 marks. Where candidates scored only 1 mark, it was due to them not writing the final answer to one decimal place.

(b) Study Figure 5b which shows some data about beach sediment.

(i) Calculate the mean size of the pebbles in centimetres.

Give your answer to one decimal place.

You must show all your workings in the space below.

$8.1 + 6.5 + 7.6 + 12.3 + 8.6 = 93.1$

$\frac{93.1}{5} = 8.62$

$= 8.6$ (2)

8.6

~~8.62~~ cm

ResultsPlus
Examiner Comments

2 marks – correct working and answer rounded to 1 decimal place.

(b) Study Figure 5b which shows some data about beach sediment.

(i) Calculate the mean size of the pebbles in centimetres.

Give your answer to one decimal place.

You must show all your workings in the space below.

$8.1 + 6.5 + 7.6 + 12.3 + 8.6 = 43.1$

$43.1 \div 5 = 8.62$

(2)

8.62 cm

ResultsPlus
Examiner Comments

1 mark – correct calculation but answer is not given to 1 decimal place.

Question 5 (b)(ii)

This question was answered well with the vast majority of candidates able to identify a correct piece of equipment.

(ii) State **one** piece of equipment that could be used to measure the pebbles.

(1)

Caliper

ResultsPlus
Examiner Comments

1 mark – correct piece of equipment stated for measuring pebbles.

(ii) State **one** piece of equipment that could be used to measure the pebbles.

(1)

A ruler.

ResultsPlus
Examiner Comments

1 mark – correct piece of equipment stated for measuring pebbles.

Question 5 (c)(i)

A significant number of candidates were able to achieve two marks, correctly proportioning their segments and shading them to fit the key provided. Some candidates found the demands of this question a challenge with either the proportioning of the segments or correctly following the key or with both elements.

(c) (i) Complete Figure 5d below, using data highlighted in Figure 5c in the Resource Booklet.

(2)

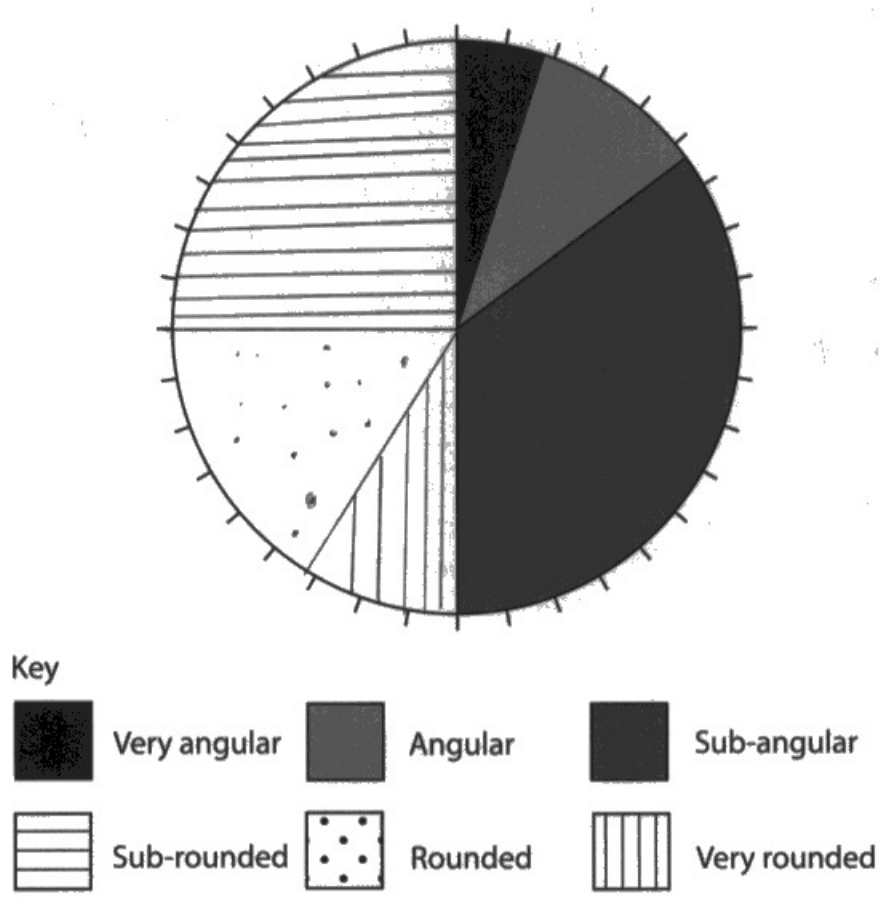


Figure 5d

Pie chart showing pebble shape

ResultsPlus
Examiner Comments

2 marks – correctly proportioned segments (1) and correct shading (1). The segments could be plotted in any order as long as they were correctly proportioned and shaded.

(c) (i) Complete Figure 5d below, using data highlighted in Figure 5c in the Resource Booklet.

(2)

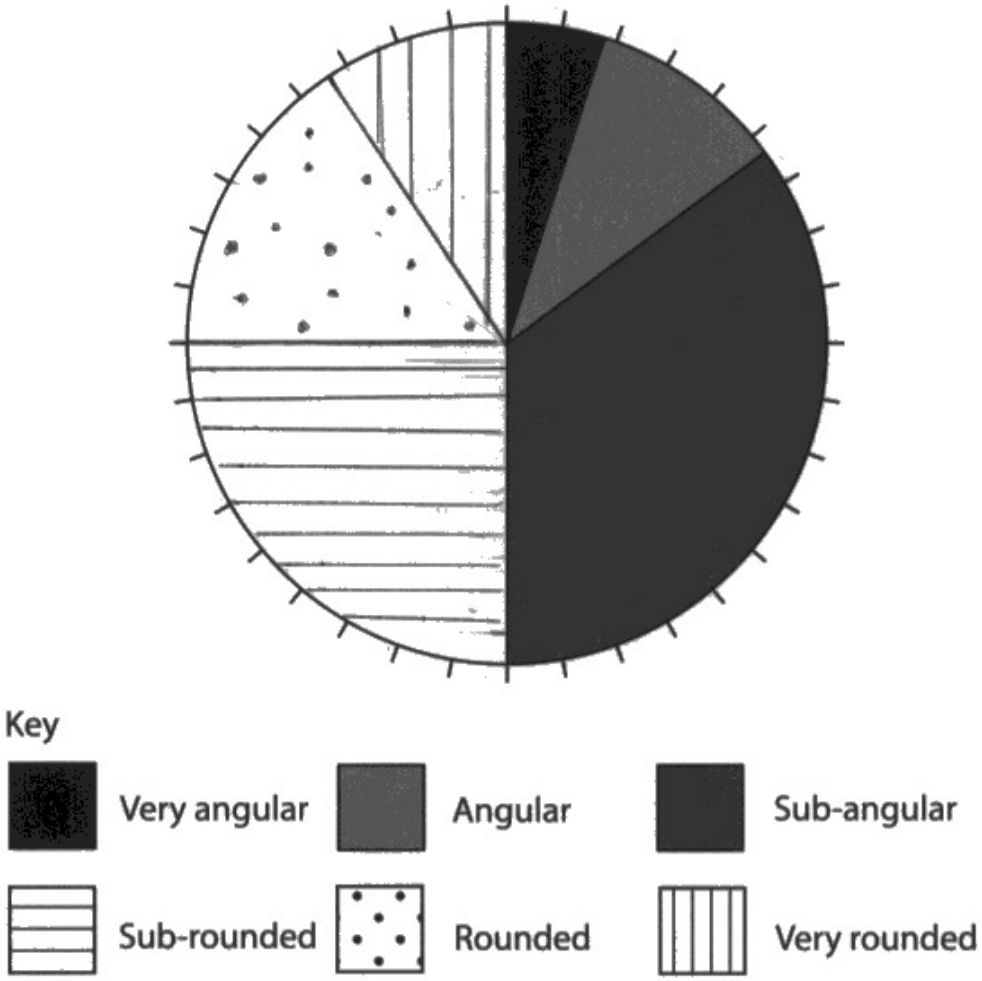


Figure 5d

Pie chart showing pebble shape

ResultsPlus
Examiner Comments

2 marks – correctly proportioned segments (1) and correct shading (1).

Question 5 (c)(ii)

Candidates were required to identify two ways the students could have improved the reliability of the data collected. It is important to ensure candidates are familiar with the difference between accuracy and reliability in the context of a geographical enquiry. A considerable number of candidates made suggestions linked to accuracy/validity rather than reliability.

(ii) Identify **two** ways the students could have improved the reliability of the data collected.

measure (2)

1 more times and get average to reduce wrong.

2 Increase sample size, get more pebbles and repeat measuring to get average.

ResultsPlus
Examiner Comments

This response identifies two correct ways reliability could be improved.

2 marks

ResultsPlus
Examiner Tip

Ensure candidates are aware of the difference between reliability and accuracy in a geographical enquiry context.

(ii) Identify **two** ways the students could have improved the reliability of the data collected.

(2)

1 Repeat, using more samples.

2 Let more ~~fan~~ than one person judge the pebble, so data could be more fair

ResultsPlus
Examiner Comments

This response identifies two correct ways reliability could be improved.

2 marks

(ii) Identify **two** ways the students could have improved the reliability of the data collected.

(2)

1 Photographs; photographs would have given a visual representation of the pebble

2 Distance from the coastline where each type of pebble was found.

ResultsPlus
Examiner Comments

This candidate has misunderstood the term reliability in the question and has not identified any correct ways reliability could be improved.

0 marks.

Question 5 (d)

In this question, the candidates were required to explain one other fieldwork technique the students could have used in their enquiry. In this question candidates are required to focus on one idea and develop it in detail to access the 3 marks available.

A number of candidates found it a challenge to ensure they were aware of all the methods used, which were shown in the resources. This meant a significant proportion of candidates wrote about a method already mentioned resulting in zero marks being awarded. Some candidates are unfamiliar with the term 'fieldwork technique' and as a result explained a sampling strategy instead, also resulting in zero marks being awarded. The better responses explained the how or why their chosen fieldwork technique would support the enquiry.

(d) Explain **one other** fieldwork technique the students could have used to explore the impact of coastal management.

(3)

Beach gradient – Place a ranging pole at every gradient and use a clinometer to measure the changes in beach gradient, repeat every 3 metres (systematic sampling) to see changes along the coast

ResultsPlus
Examiner Comments

This candidate explains how they would measure beach gradient. However, this was a technique mentioned in Figure 5a (called beach profile in the resource) and therefore can not be credited.

0 marks

(d) Explain **one other** fieldwork technique the students could have used to explore the impact of coastal management.

(3)

One other fieldwork technique would be to use systematic and random sampling to get a varied data collection so ~~they~~ that they can support ~~they~~ their enquiry with a lot of information and evidence. ~~and~~ They could have also gone to another site.

ResultsPlus
Examiner Comments

This was a fairly common error where candidates misinterpret the term 'fieldwork technique' and explain a sampling strategy instead.

0 marks

(d) Explain **one other** fieldwork technique the students could have used to explore the impact of coastal management.

(3)

Questionaires so people living in an area can provide a detail response to how coastal managment hasit affected the coastline over years providing qualitative data.

ResultsPlus
Examiner Comments

This response explains the use of questionnaires of local people and links to the enquiry described.

3 marks

(d) Explain **one other** fieldwork technique the students could have used to explore the impact of coastal management.

(3)

Taking field sketches is a qualitative fieldwork techique that can be used. By taking annotated sketches and comparing them with secondary data, any changes in features of the coastal management can be identified.

ResultsPlus
Examiner Comments

This response describes an alternative fieldwork technique in detail.

3 marks

Question 6 (a)(ii)

Please note that the comments made on Q06 also apply to Q04 and Q05 as the questions are in parallel and the resources very similar.

Section B had reduced number of marks in this series and as a result fewer questions. There were only questions with unfamiliar fieldwork contexts. There was information provided on the fieldwork context in the exam paper and additional resources in the resource booklet which candidates were required to use.

For this question, candidates needed to state one way maps could be used to support their enquiry. This could be at any stage of the geographical enquiry process and most candidates achieved the mark.

(ii) State **one** way maps could be used to support the enquiry.

(1)

maps can be used to monitor where more rain occurs

ResultsPlus
Examiner Comments

Correct potential use of a map for the hazardous environments enquiry described.

1 mark

(ii) State **one** way maps could be used to support the enquiry.

(1)

Help them to view better

ResultsPlus
Examiner Comments

This response is too vague for credit and needs to state a more specific use of a map.

0 marks

(ii) State **one** way maps could be used to support the enquiry.

(1)

See where the tropic cyclones normally tare place.

ResultsPlus
Examiner Comments

Correct potential use of a map for the hazardous environments enquiry described.

1 mark

Question 6 (b)(i)

This question was answered quite well with many candidates gaining 2 marks. Where candidates scored only one mark, it was due to them not writing the final answer to one decimal place.

(b) Study Figure 6b which shows some data about rainfall over 5 days during a tropical cyclone event.

(i) Calculate the mean rainfall.

Give your answer to one decimal place.

You must show all your workings in the space below.

(2)

$22+12+33+16+8=91$

$91 \div 5$

18.2

18.2 mm

ResultsPlus
Examiner Comments

2 marks – correct working and answer rounded to 1 decimal place.

Question 6 (b)(ii)

This question was answered well with the vast majority of candidates able to identify a correct piece of equipment.

(ii) State **one** piece of equipment that could be used to measure rainfall.

(1)

measuring cap

ResultsPlus
Examiner Comments

1 mark – correct piece of equipment stated for measuring rainfall.

(ii) State **one** piece of equipment that could be used to measure rainfall.

(1)

ruler

ResultsPlus
Examiner Comments

1 mark – correct piece of equipment stated for measuring rainfall.

Question 6 (c)(i)

A significant number of candidates were able to achieve two marks, correctly proportioning their segments and shading them to fit the key provided. Some candidates found the demands of this question a challenge with either the proportioning of the segments or correctly following the key or with both elements.

(c) (i) Complete Figure 6d below, using data highlighted in Figure 6c in the Resource Booklet.

(2)

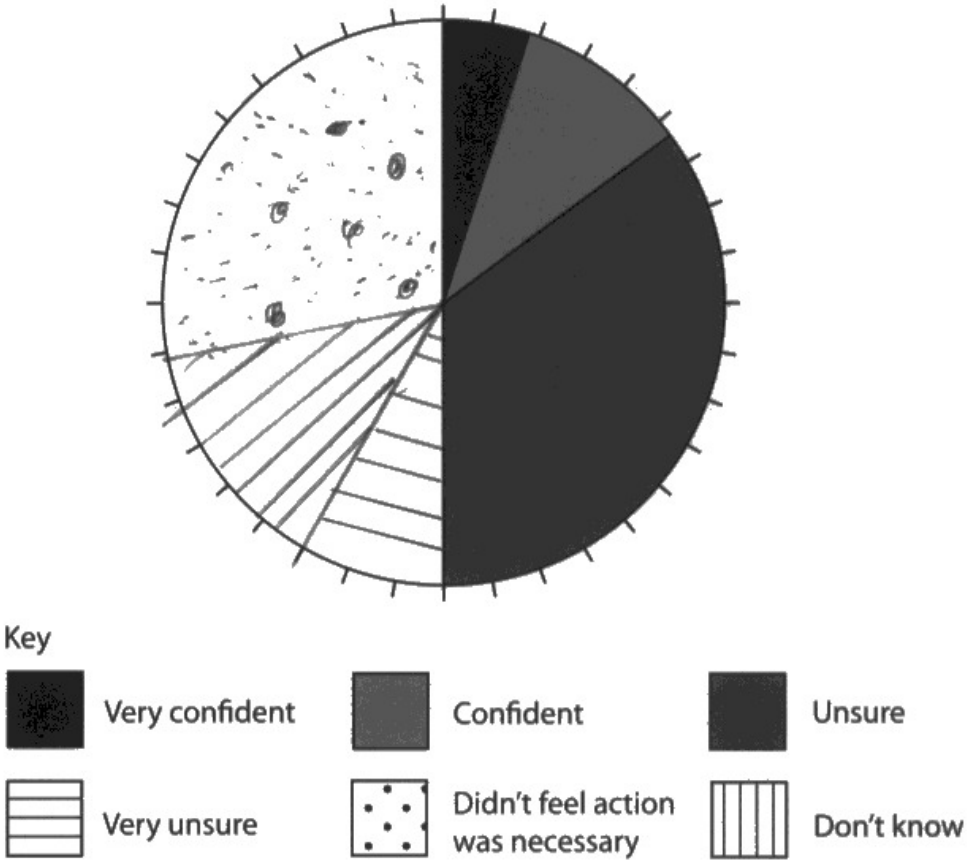


Figure 6d

Pie chart showing views on preparation for tropical cyclones

ResultsPlus
Examiner Comments

0 marks – the proportions are incorrect and the largest segment should be shaded as 'very unsure' whereas this candidate has shaded it 'didn't feel action was necessary' making the shading incorrect.

(c) (i) Complete Figure 6d below, using data highlighted in Figure 6c in the Resource Booklet.

(2)

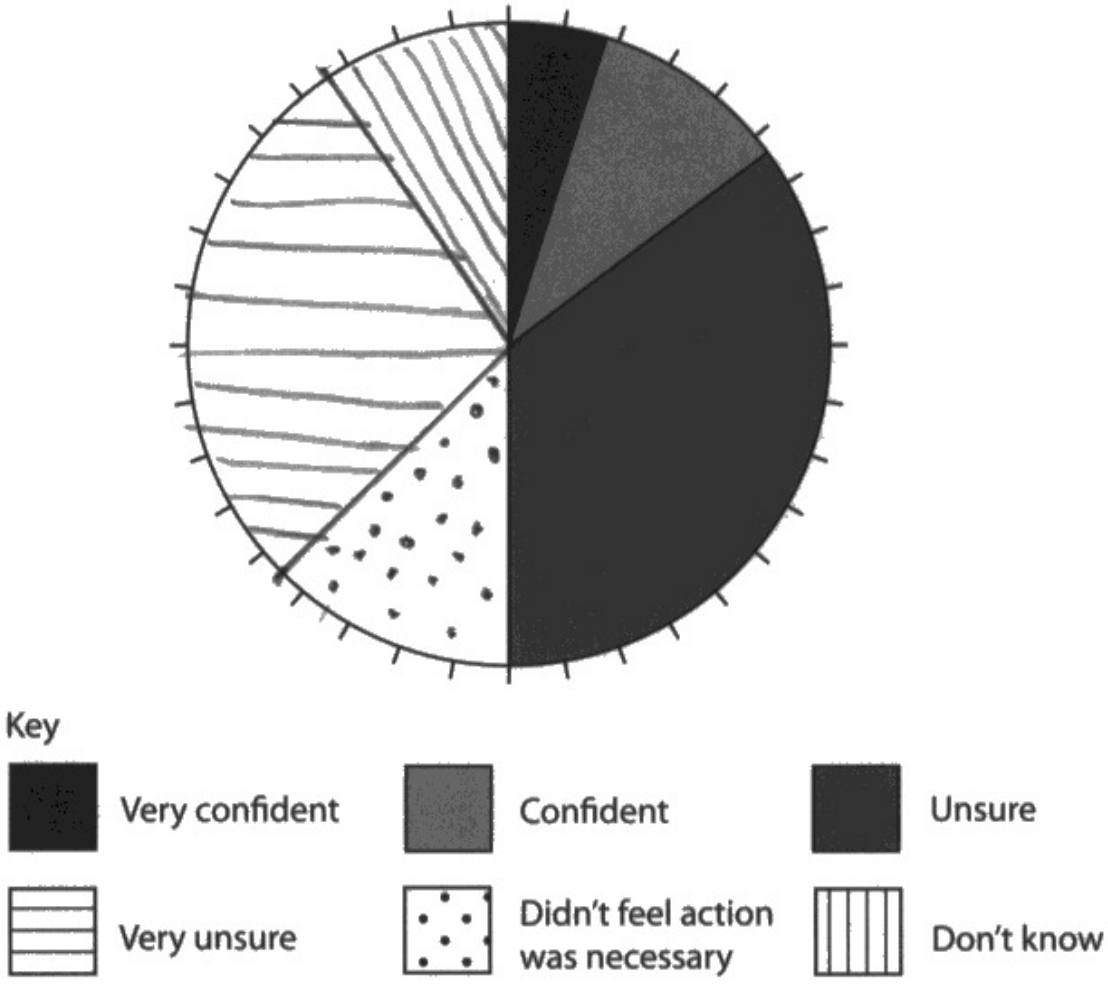


Figure 6d

Pie chart showing views on preparation for tropical cyclones

ResultsPlus
Examiner Comments

1 mark – this candidate has the shading correct i.e. the biggest segment shows horizontal lines, the smallest segment shows vertical lines and the middle sized segment shows dots. However, the segment of 'didn't feel action was necessary' is too small meaning the plots are not all correct.

(c) (i) Complete Figure 6d below, using data highlighted in Figure 6c in the Resource Booklet.

(2)

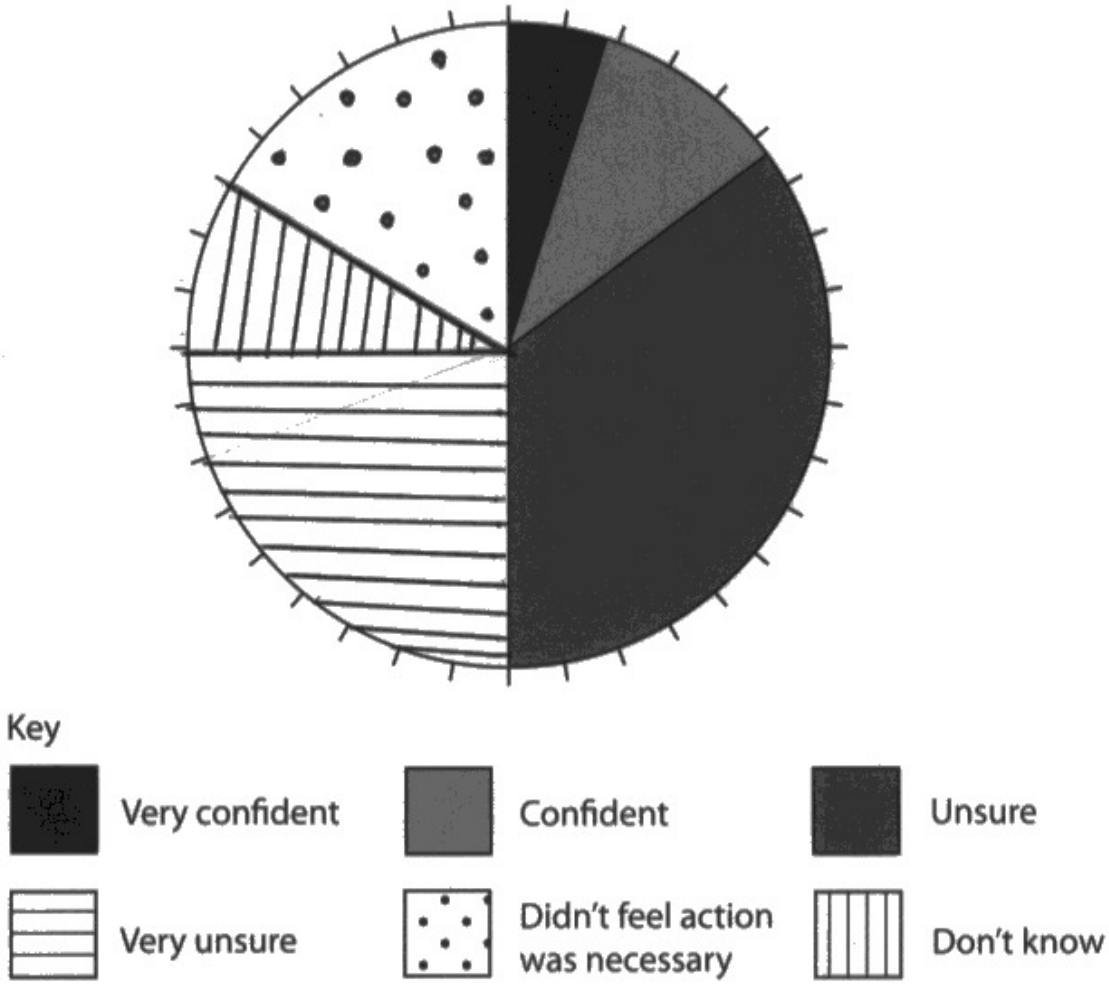


Figure 6d

Pie chart showing views on preparation for tropical cyclones

ResultsPlus
Examiner Comments

2 marks – correctly proportioned segments (1) and correct shading (1). The segments could be plotted in any order as long as they were correctly proportioned and shaded (and the 'don't know' segment is within the tolerance agreed in standardisation.

Question 6 (c)(ii)

Candidates were required to identify two ways the students could have improved the reliability of the data collected. It is important to ensure candidates are familiar with the difference between accuracy and reliability in the context of a geographical enquiry. A considerable number of candidates made suggestions linked to accuracy/validity rather than reliability.

(ii) Identify **two** ways the students could have improved the reliability of the data collected.

(2)

1 They could have asked more people.

2 The experiment could have been repeated.

ResultsPlus
Examiner Comments

This response identifies two correct ways reliability could be improved.

2 marks

ResultsPlus
Examiner Tip

Ensure candidates are aware of the difference between reliability and accuracy in a geographical enquiry context.

(ii) Identify **two** ways the students could have improved the reliability of the data collected.

(2)

1 They could've researched more about ~~this~~ how to collect data as they didn't know lots of stuff.

2 They could've been more confident as they are unsure about lots of things which will give them a bad grade.

ResultsPlus
Examiner Comments

This candidate does not identify any correct ways reliability could have been improved.

0 marks

(ii) Identify **two** ways the students could have improved the reliability of the data collected.

(2)

1 Specify the age group and place of residence of the interviewed.

2 Specify the total number of people surveyed.

ResultsPlus
Examiner Comments

This response does not identify any correct ways to improve reliability of the data collected.

0 marks

Question 6 (d)

In this question, the candidates were required to explain one other fieldwork technique the students could have used in their enquiry. In this question, candidates are required to focus on one idea and develop it in detail to access the 3 marks available.

A number of candidates found it a challenge to ensure they were aware of all the methods used, which were shown in the resources. This meant a significant proportion of candidates wrote about a method already mentioned resulting in zero marks being awarded. Some candidates are unfamiliar with the term 'fieldwork technique' and as a result explained a sampling strategy instead, also resulting in zero marks being awarded. The better responses explained the how or why their chosen fieldwork technique would support the enquiry.

(d) Explain **one other** fieldwork technique the students could have used to explore weather characteristics.

(3)

Collect secondary information, for example ~~#~~ find online photos or videos ~~to~~ as reference and to do comparison.

ResultsPlus
Examiner Comments

This response, although brief, explains the use of secondary data (1) such as videos and photos to reinforce (1) (findings) and to make comparisons (1).

3 marks

(d) Explain **one other** fieldwork technique the students could have used to explore weather characteristics.

(3)

one other feild work technique could be exploring ~~[illegible]~~ and asking people experiences on the weather and seeing if ther are any similarities between the experiences to mke a final weather characteristics.

(Total for Question 6 = 12 marks)

TOTAL FOR SECTION B = 12 MARKS

ResultsPlus
Examiner Comments

This candidate explains how they would carry out a questionnaire. However, this was a technique mentioned in Figure 6c and therefore can not be credited.

0 marks

(d) Explain **one other** fieldwork technique the students could have used to explore weather characteristics.

(3)

The stutued could us a systemstic methord or random ~~methor~~ ~~of~~ collectiontion methord as to fiind the weather charastristics from the people who are living by the hazourdones environments.

ResultsPlus
Examiner Comments

This was a fairly common error where candidates misinterpret the term 'fieldwork technique' and explain a sampling strategy instead.

0 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. know the difference between erosion and weathering.
- Candidates need to ensure they follow requirements for calculation questions accurately, particularly where they are asked to round an answer to one decimal place.
- It is important that candidates are aware of the difference between reliability and accuracy in the context of a geographical enquiry.
- 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

Pearson Education Limited. Registered company number 872828
with its registered office at 80 Strand, London WC2R 0RL.