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Pearson Edexcel

Mark Scheme (Results)

Summer 2022

Pearson Edexcel International GCSE
In Geography (4GE1)
Paper 1R Physical geography

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.

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Question number	Answer	Mark
1(a)	**AO1 (1 mark)** C Steep valley sides (1) The answer cannot be A or B (found in middle course), B or C (found in lower course).	**(1)**

Question number	Answer	Mark
1(b)(i)	**AO1 (1 mark)** D Where a river meets the sea (1) The answer cannot be A (meander), B (source) or C (confluence)	**(1)**

Question number	Answer	Mark
1(b)(ii)	**AO1 (1 mark)** Award 1 mark for any of the following. • Lake (1) • Sea / Ocean (1) • River (1) • Soil (1) • Groundwater (1) • Aquifer (1) • Surface water (1) • Atmosphere / clouds (1) • Glaciers / Ice (1) Accept any other appropriate response.	**(1)**

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Question number	Answer	Mark
1(c)	**AO1 (1 mark)/AO2 (1 mark)** Award 1 mark (AO1) for initial point and a further mark for explanation (AO2) up to a maximum of two marks. • Roots grow into small cracks in the rock (1) and as the roots grow the crack becomes larger and causes pieces of rocks to break off (1). • Rainwater which can be slightly acidic (1) can break down some of the rock on the river bank (1). • Water which goes into cracks in the rock can freeze (1) pushing cracks wider apart (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
1(d)	**AO2 (2 marks)/AO3 (2 marks)** Award 1 mark (AO3) for the identification initial point for how human activity can affect water quality, and a further mark for explanation (AO2) up to a maximum of two marks each. • Discharge of untreated sewage from houses (1) can enter the river to cause pollution (1). • Leakages from sewage treatment plants (1) can enter the river course and contaminate rivers (1). • Water treatment facilities can process the water (1) to ensure there is a higher amount of water suitable for household use (1). Accept any other appropriate response.	**(4)**

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Question number	Answer	Mark
1(e)	**AO2 (3 marks)** Award 1 mark for the initial explanation and 2 marks for further explanation up to a maximum of 3 marks. • Hard-engineering structures such as flood embankments (1) hold back flood water (1) to prevent it reaching certain areas (1). • Soft engineering strategies such as flood control schemes (1) can involve preserving marshes, wetlands, or flood plains (1) to act as temporary stores of water (1). • Prediction of river floods (1) particularly knowing how high or wide a river might become during flood conditions (1) can help people decide how high to build embankments or stop building in a particular area (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
1(f)	**AO3 (1 mark)** Award 1 mark for the following: • Landslide (1).	**(1)**

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Question number	Answer	Mark
1(g)	**AO1 (1 mark) AO2 (3 marks)** Award 1 mark for initial point (AO1), and 3 further marks (AO2) for the extension of this point up to maximum of 4 marks. Candidates should identify the different stages in the formation of the landform. • In upland areas where the long profile is steep / V-shaped valley (1) the river cuts downwards (by hydraulic action and abrasion) (1). As the river swings side to side (1) it leaves higher land on each side creating interlocking spurs (1). • As a river moves through the upper course it cuts downwards (1) through erosion (such as abrasion) (1). The river winds and bends to avoid areas of hard rock (1). Continued / repeated vertical erosion means that parts of land stick out to create the interlocking spurs (1). Accept any other appropriate response.	**(4)**

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Question number	Indicative Content
1(h)	**AO3 (4 marks) AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the level-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive, and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. This question is about analysing the factors that affect river regimes. Candidates will need to be able to identify the different ways features of a drainage basin can affect river regimes, including how this is reflected in a storm hydrograph. **AO3** • A river regime is the way in which the discharge changes over time. Factors affecting river regimes can include precipitation, temperature, vegetation, land-use, water abstraction and dams. • In areas with a lot of tree coverage there will be greater interception of rainwater, leading to slower infiltration and as such a longer lag time before the water reaches the river. • Urbanisation is associated with more 'flashy' river regimes due to an increase of impermeable surfaces. Higher levels of surface run off reach rivers much quicker to create shorter lag times. • River regimes can also be affected by human intervention, for example depending on the capacity of sewers, or diversion canals which may delay water reaching the river channel. **AO4** • Figure 1c shows how a drainage basin can include a range of rivers which connect to each other, each of which may travel through different land uses. • Figure 1c shows rivers travelling through areas of forested land, land used for pastoral farming as well as urban areas. • Figure 1c shows two storm hydrographs located at two points in the drainage basin with two different shapes due to the areas

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	where they are located. • Figure 1c shows how urban areas can lead to faster run off and higher discharge in rivers after a storm event, while rural areas (indicated by forested land) lead to much lower peak discharge and a longer lag time.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

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Question number	Answer	Mark
2(a)	**AO1 (1 mark)** B Cave (1) The answer cannot be A or D (depositional landforms) or C (coastal management strategy)	**(1)**

Question number	Answer	Mark
2(b)(i)	**AO1 (1 mark)** B a spit that has continued to grow across a bay (1) The answer cannot be A (headland), C (tombolo), or D (wave cut platform).	**(1)**

Question number	Answer	Mark
2(b)(ii)	**AO1 (1 mark)** Award 1 mark for any of the following. • Shelter from the sea / protected from wind (1) • Brackish water / partly salty water / salinity (1) • Water regularly flooded by tides (1) • Large expanse of mudflat (1). Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
2(c)	**AO1 (1 mark)/AO2 (1 mark)** Award 1 mark (AO1) for initial point and a further mark for explanation of the reason (AO2) up to a maximum of two marks. • Deforestation (1) for timber and building material (1). • Deforestation (1) for buildings / infrastructure (1). • Mangroves are often removed (1) to make space for aquaculture / shrimp farming (1).	

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	• Overfishing (1) leads to mangrove ecosystems being damaged (1). • Agriculture can lead to pesticides reaching the river (1) which can lead to mangroves being damaged (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
2(d)	**AO2 (2 marks)/AO3 (2 marks)** Award 1 mark (AO3) for identification of any reason and a further mark for explanation of the reason (AO2) up to a maximum of two marks each. • Business involved in tourism are likely to want to continue to increase the number of tourist (1), but this could upset conservationists who highlight damage being done to the reef (1). • Conservationists are likely to want to preserve the coral reef (1) which may cause conflict with local fisherman who want to use it as a resource (1). Accept any other appropriate response.	**(4)**

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Question number	Answer	Mark
2(e)	**AO2 (3 marks)** Award 1 mark for initial point and 2 marks for further explanation up to a maximum of 3 marks. • Constructive waves have a long wavelength / shallow gradient waves (1) which means that they have a strong swash and weak backwash (1) compared to destructive waves, so they help to build up the beach (1). • Destructive waves have a short wavelength / steeper gradient waves (1) which means they have a weak swash, but a stronger backwash (1) compared to constructive waves, so they lead to erosion of the beach (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(f)	**AO3 (1 mark)** Award 1 mark for the following: • Longshore drift (1).	**(1)**

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Question number	Answer	Mark
2(g)	**AO1 (1 mark) AO2 (3 marks)** Award 1 mark for initial point (AO1) for identification of suitable cause and further marks for development or explanation (AO2). • Where coastline is low lying land it is susceptible to coastal flooding (1). Monsoon can lead to strong storms over the Bay of Bengal for example (1) which can cause storm surges (1) which cause coastlines to be overwhelmed (1). • Strong winds over the sea creates powerful waves (1) which can overcome any defences (1). This is made worse by sea level rise caused by climate change (1) which can lead to increased frequency of strong winds (1). • Earthquakes can cause tsunami waves (1) which grow in height near the shore (1) which can breach defences (1) overwhelming large areas (1). Accept any other appropriate response.	**(4)**

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Question number	Indicative Content
2(h)	**AO3 (4 marks) AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the level-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive, and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. The question is about analysing the advantages of the coastal management plan for the coastline in Portugal. **AO3** • Coastlines at risk of erosion need an adequate coastal management strategy in order to protect different assets along their coastline. • There are a range of methods which can be used as part of a coastal management strategy including hard engineering (groynes, sea walls, rock armour, gabions etc.), as well as soft engineering (beach replenishment), and in some cases managed retreat. • The advantages of hard engineering strategies such as groynes are that they are effective at breaking the waves, absorbing their energy, and therefore protecting the coast. They also allow the beach to build up which can be an attraction for tourists. However, by trapping the sand they starve areas of the coastline further down which can lead to increased erosion in other areas. • Soft engineering strategy such as beach replenishment or sand dune nourishment are viewed as more sustainable approaches to managing the coast. Creating larger beaches will be popular with tourists, but the area would need constant replenishment, and the sand has to be physically transported to the site. **AO4** • Fig 2c shows how the coastline management strategy for a stretch of coastline in Portugal is comprised of different

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	strategies. • Figure 2c indicates how there are a mix of methods being used as part of this strategy including hard engineering (groynes and sea walls), soft engineering (beach and sand dune replenishment). • Figure 2c indicates how hard engineering dominates much of the coastline, particularly where towns and cities are located e. Porto, Espinho. • Figure 2c shows how around the lagoons of Aveiro beach replenishment is the dominant method used. • Figure 2c shows how some of the groynes used are made of rocks, and how some sand dune areas are protected by walkways.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that

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		supports all aspects of the argument. (AO4)

Question number	Answer	Mark
3(a)	**AO1 (1 mark)** C eye (1) The answer cannot be A (irrelevant), B (type of plate margin), or D (part of the earth's crust).	**(1)**

Question number	Answer	Mark
3(b)(i)	**AO1 (1 mark)** D point on the earth's surface directly above the focus (1) The answer cannot be A (plate boundary), B (not correct), or C (focus).	**(1)**

Question number	Answer	Mark
3(b)(ii)	**AO1 (1 mark)** Award 1 mark for a suitable characteristic: • Earthquake intensity (1) • Distance from epicentre / depth of focus (1) • Type of plate boundary (1) • Population density (1) • Building density (1) • Time of day (1) • Prevalence of buildings designed for earthquakes / level of preparation (1)	

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	Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
3(c)	**AO1 (1 mark)/AO2 (1 mark)** Award 1 mark (AO1) for identification of correct factor and a further mark for explanation (AO2) up to a maximum of two marks. • Tropical cyclones need a supply of heat and moisture from the ocean surface to form (1) so they are usually found in between the tropics (1). • Tropical cyclones need warm waters (of at least 26°C) to form (1) so they are distributed around the equator (1). • Tropical cyclones are found between the tropics (1) because they require low air pressure (1). • A circulatory motion of air (1) caused by the Coriolis force (1). Accept any other appropriate response.	**(2)**

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Question number	Answer	Mark
3(d)	**AO2 (2 marks)/AO3 (2 marks)** Award 1 mark (AO3) for identification of any suitable reason why people live in areas at risk of tropical cyclones and a further mark for explanation of the reason (AO2) up to a maximum of two marks each. • Residents are aware of the risk but accept that as part of life in that area (1) but do not feel the risk is high enough to move home (1). • Education of local people in areas at risk of tropical cyclones (1) so they know how to respond during an event for example where the nearest shelter is (1). • Despite information sharing about the risks of tropical cyclones (1) local residents may not have the resources to move away (1). • People may be financially unstable (1) so have no choice but to stay (1). Accept any other appropriate response.	**(4)**

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Question number	Answer	Mark
3(e)	**AO2 (3 marks)** Award 1 mark for the identification of a suitable way and 2 marks for further explanation up to a maximum of 3 marks. Candidates could identify: • Hazard mapping involves making a risk assessment (1) which can help inform town and city planners (1) where buildings need to have reinforced structures / or whether planning permission should be given (1). • Hazard mapping involves identifying the areas at most risk. (1) It will provide information for the public about their level of risk based on location (1) and to support the development of evacuation plans etc. should an earthquake take place (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
3(f)	**AO3 (1 mark)** Award 1 mark for the following: • Homelessness (1) • Outbreaks of disease (1) • Lost income for businesses (1) • High costs of rebuilding (1) • Power cuts (1) Accept any other reasonable response.	**(1)**

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Question number	Answer	Mark
3(g)	**AO1 (1 mark) AO2 (3 marks)** Award 1 mark for initial point (AO1), and 3 further marks (AO2) for the extension of this point up to maximum of 4 marks. • Oceanic and continental plate move towards each other (1). Oceanic plate melts as it sinks below the continental (1) due to friction (1). When this friction is released it causes an earthquake (1). • Oceanic and continental plate move towards each other (1). The denser oceanic plate sinks beneath the continental plate (1) As the oceanic plate is still rigid (it has not started to melt) this produces friction (1). This friction builds until seismic waves are released (1). Accept any other appropriate response. Accept answers that use an annotated diagram.	**(4)**

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Question number	Indicative Content
3(h)	**AO3 (4 marks) AO4 (4 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the level-based mark scheme below. **Indicative content guidance** The indicative content below is not prescriptive, and candidates are not required to include all of it. Other relevant material not suggested below must also be credited. This question is about analysing reasons for the different impacts from the two volcanic eruptions (Anak Krakatoa, Volcan de Fuego). **AO3** • Impacts from volcanic eruptions will vary based on its location, size, and length of the eruptive episode and on how prepared local areas were for the eruption. • Volcanic eruptions will differ in character: some produce more ash which can lead to damage and disruption very long distances away from the eruption; others may cause pyroclastic flows or lahars which make it difficult to prevent any damage and have the potential to lead to greater destruction and /or casualties. • If places at risk from volcanic eruptions have prepared sufficiently for an eruption the public and local emergency services will be ready to act in terms of evacuating people at risk (as was seen with the 2021 eruption of Mount Soufriere). **AO4** • Fig 3c shows information about two volcanic eruptions that took place in 2018 but with different impacts. • Figure 3c shows how the eruption of Anak Krakatoa in Indonesia led to 429 deaths and 14,059 people injured with an eruption that led to a significant change to the physical structure of the volcano. • Figure 3c shows how the eruption of Volcan de Fuego in Guatemala led to 190 deaths largely due to pyroclastic flows and ash falling. It suggests that evacuation played a role in reducing the number of deaths as has been seen in 2021 eruption of La Soufrière.

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	• Figure shows that despite Volcan de Fuego being close to settlements (and on land rather than in the sea) this did not necessarily lead to higher deaths.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	1–3	• Attempts to apply understanding to deconstruct information but understanding and connections are flawed. An unbalanced or incomplete argument that provides limited synthesis of understanding. Judgements that are supported by limited evidence. (AO3) • Uses some geographical skills to obtain information with limited relevance and accuracy, which supports few aspects of the argument. (AO4)
Level 2	4–6	• Applies understanding to deconstruct information and provide some logical connections between concepts. An imbalanced argument that synthesises mostly relevant understanding, but not entirely coherently, leading to judgements that are supported by evidence occasionally. (AO3) • Uses geographical skills to obtain accurate information that supports some aspects of the argument. (AO4)
Level 3	7–8	• Applies understanding to deconstruct information and provide logical connections between concepts throughout. A balanced, well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

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Question number	Answer	Mark
4(a)(i)	**AO3 (1 mark)** C - amount of rainfall (1) It cannot be A, B or D as these are all qualitative type of data.	**(1)**

Question number	Answer	Mark
4(a)(ii)	**AO3 (1 mark)** Award one mark for suitable way maps could be used to support the enquiry. • To plan sites for data collection. (1) • To plot data on to explore patterns. (1) • To understand features of the local environment. (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
4(b)(i)	**AO4 (2 marks)** Award one mark for correct working, and one mark for correct answer. (1.2+2.0+1.4+1.2+1.0) / 5 (1) OR 6.8 / 5 = 1.4 (1)	**(2)**

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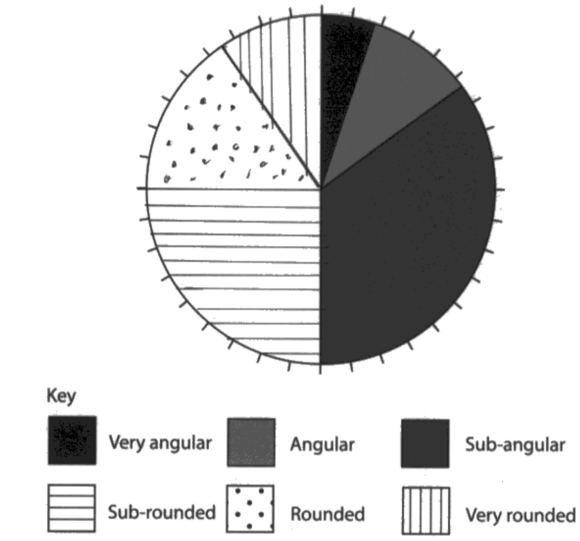
Question number	Answer	Mark
4(b)(ii)	**AO3 (1 mark)** Award one mark for suitable piece of equipment • Tape measure (1) • Flow meter (1) • Stopwatch (1) • Float (1) • Ping pong ball/other suitable floatable device (1) **Do not credit pen / paper.** Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
4(c)(i)	**AO4 (2 mark)** Award one mark for correct plotting of data (in any order), and a further mark for correct labelling.  	**(2)**

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Question number	Answer	Mark
4(c)(ii)	**AO3 (2 marks)** Award one mark each for two suitable ways to improve reliability of the data collected. • Take more measurements. (1) • Compare results to another group. (1) • Ensure one person in the group is responsible for measurements. (1) Accept any other reasonable response.	**(2)**

Question number	Answer	Mark
4(d)	**AO3 (3 marks)** Award 1 mark for identification of a suitable fieldwork technique, and a further two marks for explanation. • They could have measured river depth (1) to create a cross-section (1) to see how the channel shape changes (1). • They could have measured river gradient (1) using a clinometer (1) in order to explore relationships between relationship between gradient along a river's course (1). • They could have measured river depth (1) at regular intervals (1) to allow greater representation of the river channel (1). Accept any other reasonable response.	**(3)**

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Question number	Answer	Mark
5(a)(i)	**AO3 (1 mark)** C – beach gradient (1) It cannot be A, B or D as these are all qualitative sources of data.	**(1)**

Question number	Answer	Mark
5(a)(ii)	**AO3 (1 mark)** Award one mark for suitable ways could be used to support the enquiry. • To plan sites for data collection. (1) • To plot data on to explore patterns. (1) • To understand features of the local environment. (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(b)(i)	**AO4 (2 marks)** Award one mark for correct working, and one mark for correct answer. (8.1+6.5+7.6+12.3+8.6) / 5 (1) OR 43.1 / 5 = 8.6 (1)	**(2)**

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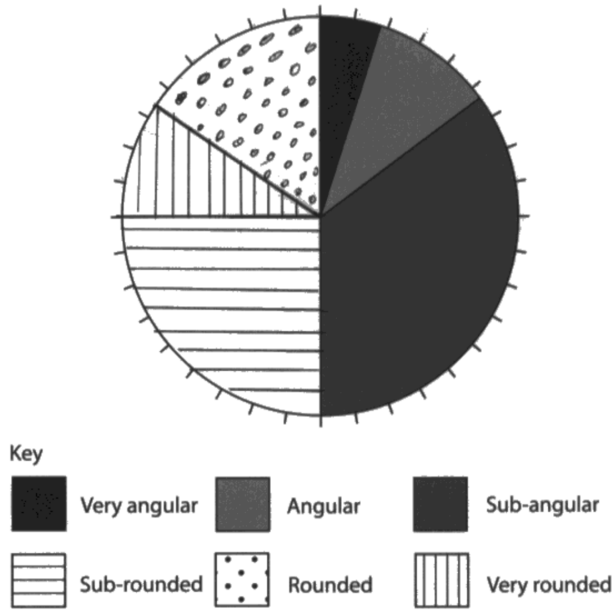
Question number	Answer	Mark
5(b)(ii)	**AO3 (1 mark)** Award one mark for suitable piece of equipment. • Tape measure (1) • Ruler (1) • Measuring app on a mobile phone (1) • Calipers (1) **Do not credit pen / paper.** Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(c)(i)	**AO4 (2 marks)** Award one mark for correct plotting of data (in any order), and a further mark for correct labelling.  	**(2)**

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Question number	Answer	Mark
5(c)(ii)	**AO3 (2 marks)** Award one mark each for two suitable ways to improve reliability of the data collected. • Take more measurements. (1) • Compare results to another group. (1) • Ensure one person in the group is responsible for measurements. (1) Accept any other reasonable response.	**(2)**

Question number	Answer	Mark
5(d)	**AO3 (3 marks)** Award 1 mark for identification of a suitable fieldwork technique, and a further two marks for explanation. • They could have used created beach profiles either side of the groyne (1) to measure height of the beach (1) to see how they restrict longshore drift (1). • They could take photographs of the different coastal management strategies (1) to compare which looks like a more natural coastline (1) and get people's views on them (1). • They could have drawn a field sketch (1) at set distances (1) to compare the features of different sites (1). Accept any other reasonable response.	**(3)**

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Question number	Answer	Mark
6(a)(i)	**AO3 (1 mark)** C – amount of rainfall (1) It cannot be A, B or D as these are all qualitative data.	**(1)**

Question number	Answer	Mark
6(a)(ii)	**AO3 (1 mark)** Award one mark for suitable piece of equipment. • To plan sites for data collection. (1) • To plot data on to explore patterns. (1) • To understand features of the local environment. (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
6(b)(i)	**AO4 (2 marks)** Award one mark for correct working, and one mark for correct answer. (22+12+33+16+8) / 5 (1) OR 91 / 5 = 18.2 (1)	**(2)**

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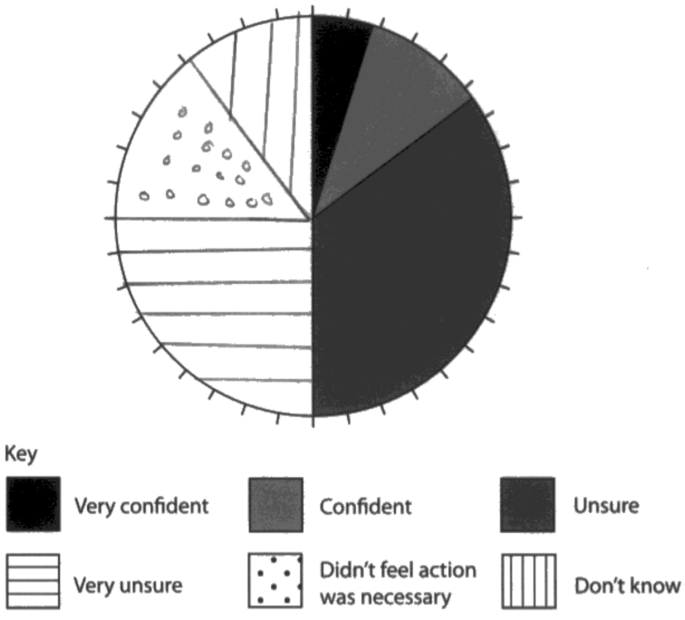
Question number	Answer	Mark
6(b)(ii)	**AO3 (1 mark)** Award one mark for suitable piece of equipment. • Rain gauge (1) • Bottle with ruler attached (1) • Weather station / meter (1) **Do not credit pen / paper.** Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
6(c)(i)	**AO4 (2 marks)** Award one mark for correct plotting of data (in any order), and a further mark for correct labelling. 	**(2)**

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Question number	Answer	Mark
6(c)(ii)	**AO3 (2 marks)** Award one mark each for two suitable ways to improve reliability of the data collected. • Take more measurements. (1) • Compare results to another group. (1) • Use graduated sizes to ensure accuracy of measurements. (1) Accept any other reasonable response.	**(2)**

Question number	Answer	Mark
6(d)	**AO3 (3 marks)** Award 1 mark for identification of a suitable fieldwork technique, and a further two marks for explanation. • They could have used a Stevenson screen (1) to gather a bigger range of data on atmospheric characteristics (1) such as air pressure (1). • They could have gathered secondary data on weather characteristics (1) for the same time of year (1) and compare them to see if there are differences (1). • They could have carried out a bipolar survey (1) to measure the building quality of each area (1) to assess how likely they are to withstand a cyclone (1). Accept any other reasonable response.	**(3)**

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