www.dynamicpapers.com

Pearson Edexcel

Mark Scheme (Results)

November 2020

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

www.dynamicpapers.com

Edexcel and BTEC Qualifications

Edexcel and BTEC qualifications are awarded by 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.

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

Autumn 2020
Publications Code 4GE1_01R_2011_MS
All the material in this publication is copyright
© Pearson Education Ltd 2020

www.dynamicpapers.com

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.

www.dynamicpapers.com

Question number	Answer	Ma
1(a)	**AO1 (1 mark)** **A** The variation in river discharge throughout the year (1) is the correct response. B, C, and D are all incorrect as they have time scales which are too short.	**(1)**

Question number	Answer	Mark
1(b)(i)	**AO1 (1 mark)** **C** A closed system made up of stores and flows (1) is the correct response A and D are incorrect as the describe open systems. B is incorrect as it only identifies part of the system.	**(1)**

Question number	Answer	Mark
1(b)(ii)	**AO1 (1 mark)** Award 1 mark for any of the following. • Watershed (1) • Channel network (1) • Catchment (1) • Source (1) • Idea of inputs/outputs (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
1(b)(iii)	**AO1 (1 mark)/AO2 (1 mark)** Award one mark for a point about how urbanisation affects river discharge (AO1) and 1 mark (AO2) for further explanation. • Increased urbanisation can increase rates of surface runoff (1) this will decrease the lag time and increase the peak in river discharge (1).	

www.dynamicpapers.com

	• Less interception by trees means faster surface run off (1) causing shorter lag time (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
1(c)	**AO2 (2 marks)/AO3 (2 marks)** Award 1 mark (AO3) for identification of any idea from Fig 1a and a further mark for explanation of the reason (AO2) up to a maximum of two marks each. • Rock type this can impact the hydrological cycle by changing rates of surface run off (1). Non-porous rock will increase run off rates (1). • Vegetation will affect storage in the hydrological cycle (1) a larger number of trees will increase the amount of water intercepted and evaporated (1). • Atmosphere global warming reduces ice and snow storage (1) but raises ocean storage evaporation and precipitation (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
1(d)	**AO2 (3 mark)** Award 1 mark for the identification of a feature of the river profile and 2 marks for further explanation up to a maximum of 3 marks. Candidates could identify : • Downstream river becomes wider (1) due to erosion of river channel (1) by bedload (1). • Wider channel downstream (1) due to greater discharge (1) creating more lateral erosion (1). • Meanders are formed (1) due to erosion/deposition (1) moving laterally across the lower course of the river (1).	

www.dynamicpapers.com

	• The river channel gets deeper (1) in the upper course of the river (1) due to vertical erosion (1). Reward answers that refer to gradient differences, or landforms that lead to different shapes due to erosion and deposition. Accept any other appropriate response.	**(3)**

www.dynamicpapers.com

Question number	Answer	
1(e)	**AO3 (1 mark)** Award 1 mark for the following: • Ox bow lake (1)	**(1)**

Question number	Answer	Mark
1(f)	**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. • A waterfall occurs where a band of hard rock overlies softer rock (1). This softer rock erodes more quickly than the harder rock (1) and over time this creates an overhang of hard rock (1) This overhang is unsupported, so it collapses (1) headward erosion (1). Candidates can be awarded marks for a diagram with appropriate annotations, which develop an explanation. Accept any other appropriate response.	**(4)**

www.dynamicpapers.com

Question number	Answer indicative content
1(g)	**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 analysis of the positive and negative aspects of a river management scheme. Candidates should be able to identify linkages between the development of the scheme and the viewpoints of different types of people. They should also be able to identify both positive and negative aspects of the scheme and make judgements about it. AO3 • River management schemes have different effects on different people. • Top down approaches often don't reach the levels of impact they were first meant to. • Energy production will increase through investment in HEP but this may have a negative effect on the environment. • Large scale developments often rely on a large labour force and create a variety of different jobs for people. • The view of people affected by the project can change over time depending on how schemes like this affect them. • The level of consultation on a project like this is variable. • The project may have effects across a wider area outside of the initial project. AO4 • Fig 1d tells us that the scheme has lots of different viewpoints which could be in conflict. • Fig 1d Villagers may have different views depending on where they are located. • Fig 1c tells us that there has been a variety of viewpoints on the value of the project Fig 1d. • Fig 1c tells us that initial projects to increase irrigation failed and actually had negative effects.

www.dynamicpapers.com

	• The scheme has positive aspects which could increase farm productivity. • Fig 1c potential impact on Gulf of Cambay reducing water reaching lower regime. • Fig 1d tells us that there may be overall countrywide improvements with increased energy.

Question number	**Answer**	
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)

www.dynamicpapers.com

Question 2

Question number	Answer	Mar
2(a)	**AO1 (1 mark)** C rock type (1) is the correct as it is the only abiotic factor A, B and D are incorrect as they are all biotic factors.	**(1)**

Question number	Answer	Mark
2(b)(i)	**AO1 (1 mark)** D vegetation flooded and drained by salt water (1) is the correct response. A is incorrect as it describes flooding by freshwater. B and C are incorrect as they describe vegetation.	**(1)**

Question number	Answer	Mark
2(b)(ii)	**AO1 (1 mark)** Award 1 mark for any of the following. • Tropical location (1) • Areas free from strong waves (1) • Brackish or saline water (1) • Large tidal range (1) • Pollution (1) • Water temperature (1) Accept any other appropriate response.	**(1)**

www.dynamicpapers.com

Question number	Answer	Mark
2(b)(iii)	**A01 (1 mark)/AO2 (1 mark)** Award 1 mark (AO1) for a point about how constructive waves can affect beach gradient and 1 mark (AO2) for further explanation up to a maximum of 2 marks. • Constructive waves can decrease the gradient of the beach (1) because they have a stronger swash and therefore move a large amount of material onto the beach (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
2(c)	**AO2 (2 mark)/AO3 (2 mark)** Award 1 mark (AO3) for identification of any idea from fig 3a and a further mark for explanation of the reason (AO2) up to a maximum of two marks each. • Rock type hard rock resistant to erosion (1) can lead to high coastlines and cliffs (1). • Soft engineering such as beach replenishment (1) can limit the effect of erosion at the coast (1). • Pollution from ships (1) can have a negative effect on coastal environments such as destroying coral reefs (1). • Rock type can have a impact on how much weathering takes place (1) this leads to the creation of different landforms (1). Accept any other appropriate response.	**(4)**

www.dynamicpapers.com

Question number	Answer	Mark
2(d)	**AO2 (3 mark)** Award 1 mark for the identification of the characteristic and 2 marks for development through further explanation up to a maximum of 3 marks. • Mass tourism (1) can lead to greater levels of pollution on the beach (1) which may enter the food chain endangering marine population (1). • Trampling of vegetation (1) may damage fragile ecosystems such as sand dunes (1) which may increase erosion rates as there is reduced vegetation to hold dunes together (1). • Global warming (1) can lead to sea level rise (1) which can destroy mangrove ecosystems due to increase in tidal range (1). Accept any other appropriate response.	**(3)**

Question number	Answer	Mark
2(e)	**AO3 (1 mark)** Award 1 mark for the following: • Headland (1)	**(1)**

Question number	Answer	Mark
2(f)	**AO1 (1 mark)/AO2 (3 mark)** Award 1 mark for initial point (AO1), and 3 further marks (AO2) for the extension of this point up to maximum of 4 marks.	

www.dynamicpapers.com

	• Low long constructive waves have a strong swash (1) this carries material up the beach (1) where it is deposited (1) because the backwash isn't as strong (1). • Material from eroded coasts/sand/shingle (1) carried by waves (1) deposited on a beach shore (1) and remains due to weak backwash (1). Candidates can be awarded marks for a diagram with appropriate annotations, which develop an explanation. Accept any other appropriate response.	**(4)**

www.dynamicpapers.com

Question number	Answer indicative content
2(g)	**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 importance of coral reef ecosystems. The resource gives candidates an idea of a range of benefits, threats and pressures. Candidates will be expected to make the link between the positive effects the ecosystem and the impact that its removal may have. For higher level response there is an expectation for both human and physical advantages to be identified. Candidates may make a judgement or express a personal view but a lack of this shouldn't be a barrier to higher marks. **AO3** • The coral reefs are a beneficial ecosystem that can have a range of positive effects. • There is an ongoing challenge between over development and managing the ecosystem sustainably. • There is pressure on the ecosystem because it provides more than just a natural wonder it is a food source and source of income for many people. • The over development of coral reefs can lead to its demise. **AO4** • Fig 2c gives a clear indication of the damage to coral reefs. • Fig 2c Outlines the key benefits of the system. • Fig 2c outlines some of the pressures on the ecosystem. • Fig 2c also gives a clear indication of the factors that put pressure on the ecosystem.

www.dynamicpapers.com

Question number	Answer	
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)

www.dynamicpapers.com

Question 3

Question number	Answer	Mar
3(a)	**AO1 (1 mark)** **D** rebuilding settlements (1) is correct as it is a longer-term response. A, B, and C are all incorrect as they are short term responses.	**(1)**

Question number	Answer	Mark
3(b)(i)	**AO1 (1 mark)** **A** Buildings damaged (1) is the correct response as it is a short-term impact. B and C are incorrect as they are human impacts. D is incorrect is incorrect as it is associated with earthquake hazards.	**(1)**

Question number	Answer	Mark
3(b)(ii)	**AO1 (1 mark)** Award 1 mark for the following: • Saffir-Simpson scale (1) • Weather stations (1) • Anemometer (1) • Satellite systems (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
3(b)(iii)	**AO1 (1 mark)/AO2 (1 mark)** Award 1 mark for the identification of the method of relief (AO1) and a further mark for further development (AO2) up to a maximum of 2 marks. • Short term relief such as tents (1) can provide the general population with immediate shelter following a tropical storm. (1).	

www.dynamicpapers.com

	• Food parcels reduce the risk of starvation (1) because they provide people with immediate food which they don't need to pay for (1). Accept any other appropriate response	**(2)**

Question number	Answer	Mark
3(c)	**AO2 (2 mark)/AO3 (2 mark)** Award 1 mark (AO3) for identification of any idea from fig 3a and a further mark for explanation of the reason (AO2) up to a maximum of two marks each. • Quality of Soil (1) People may work in farming and the quality of the soil means that they are able to produce a good crop year on year (1). • Geothermal energy (1) provides people with a low-cost source of energy (1). • Areas rich in mineral deposits (1) may cause people to stay because it gives a source of income (1). Accept any other appropriate response.	**(4)**

Question number	Answer	Mark
3(d)	**AO2 (3 marks)** Award 1 mark for the identification of the feature and 2 marks for development through further explanation up to a maximum of 3 marks. • Financial cost (1) cost of repairing damage (1) such as billions of $ repairing damaged roads and flooded infrastructure (1). • Buildings damaged (1) so people demand higher building standards (1) to help protect them from the cyclone impacts (1). • Cyclone damage (1) leads to investment by governments/relief organisations (1) which is used to develop better early warning systems (1). Accept any other appropriate response.	**(3)**

www.dynamicpapers.com

Question number	Answer	Mar
3(e)	**AO3 (1 mark)** Award 1 mark for the following: • Eye of the Storm (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
3(f)	**AO1 (1 mark)/AO2 (3 mark)** Award 1 mark for initial point (AO1), and 3 further marks (AO2) for the extension of this point up to maximum of 4 marks. • Destructive plate boundaries are formed where 2 plates move towards one another (1) The edge of one plate is destroyed (1) as it is pushed beneath the other (1) this is called subduction (1). • Two plates move towards each other (1) and the oceanic plate is forced under the continental plate (1) because it is heavier (1) and friction causes melting of the plate (1). Candidates may talk about different density of material. Candidates can be awarded marks for a diagram with appropriate annotations, which develop an explanation. Accept any other appropriate response.	**(4)**

www.dynamicpapers.com

Question number	Answer indicative content
3(g)	**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 analysis of the extent of different hazardous events Candidates should be able to identify linkages development levels, levels of preparation and magnitude of the events. **AO3** • Fig 3c Some countries (New Zealand and Japan) in the world that experience earthquakes have a high level of economic development so can afford to spend more money on improving the country's infrastructure, e.g. earthquake proof buildings, than countries with a lower level of development. • Fig 3c Countries that have effective warning systems, rescue services, medical services, education systems and building design, tend to have less damage from an earthquake. • Fig 3c (Haiti)Countries that are less economically developed cannot afford to spend as much money to protect themselves from earthquakes, so it is likely that these areas will have a higher death toll, even if the magnitude of an earthquake is the same as the magnitude in a more developed country. • Fig 3c (Japan and New Zealand) More-developed countries can afford to spend money on prediction methods, such as GPS satellite (when data is sent from satellites to computers with information such as plate movement and changes in the earth's surface). In the developing world, communication systems may be underdeveloped, so the population may not be well educated about what to do in the event of an earthquake. • Fig 3c (Haiti) Construction standards tend to be poorer in less - developed countries. Homes and other buildings suffer serious direct damage when the disaster occurs. Buildings collapsing result in high death tolls. • Evacuation and other emergency plans are also difficult to put into action due to limited funds and insufficient resources. Clearing up

www.dynamicpapers.com

	can be difficult. There may not be enough money to rebuild h quickly and safely, which leads to many people being forced to liv in emergency housing or refugee camps –which can increase the death toll. **AO4** • Fig 3d shows that the Japan earthquake had a much higher magnitude that the Haiti earthquake. • Fig 3d shows that Haiti had a very high number of deaths compared to Japan. • Fig 3c shows that although Haiti had a low cost of repair it had the highest death toll. • Fig 3c shows that level of GNI has a correlation to the amount of deaths as a result of the earthquake event.

Question number	**Answer**	
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)

www.dynamicpapers.com

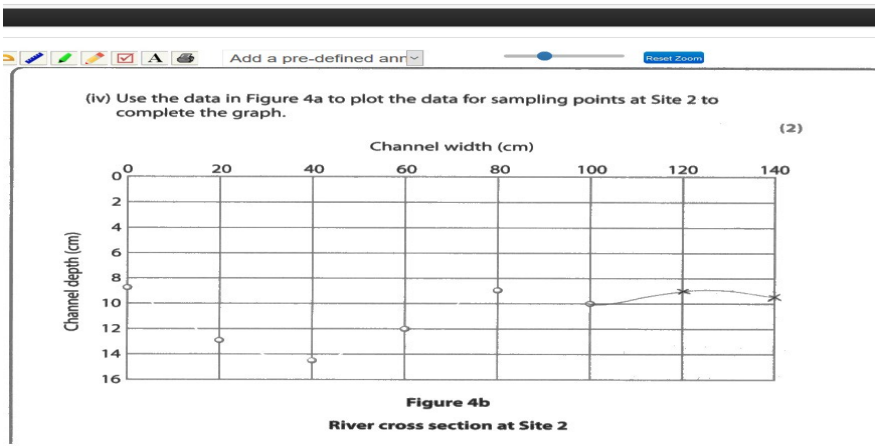
Level 3	**7–8**	• Applies understanding to deconstruct information and ide logical connections between concepts throughout. A balan well-developed argument that synthesises relevant understanding coherently, leading to judgements that are supported by evidence throughout. (AO3) • Uses geographical skills to obtain accurate information that supports all aspects of the argument. (AO4)

Question number	Answer	Mark
4(ai)	**AO3 (1 mark)** Award 1 mark for a suitable risk identified. • Students could fall into the river (1) • Hypothermia (1) • Heat stroke (1) Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
4(aii)	**AO3 (1 mark)** Award 1 mark for each suitable way to manage risk identified. • Students could work in pairs (1). • Teachers could brief the students about the risks before they undertake the enquiry (1). Accept any other appropriate response.	**(1)**

www.dynamicpapers.com

Question number	Answer	
4(aiii)	**AO4 (2 marks)** Award 1 mark for working and 1 mark for correct answer to one decimal place. Add up all the figures 558 /8 = 69.85 69.9 correct answer to 1 decimal place.	**(2)**

Question number	Answer	Mark
4(aiv)	**AO4 (2 marks)** Candidates will need to plot all points correctly Site 2 120 9.0 Site 2 140 9.5 • 1 mark for correctly plotted points. • 1 mark for accurately drawing cross section. • If no points are plotted, but accurate line award 1 mark.  **Figure 4b** **River cross section at Site 2**	**(2)**

Question number	Answer	Mark
4(av)	**AO3 (2 marks)** Award 1 mark for the initial point (1) and a further mark for further development (1). • Random - students could pick the first site at random to ensure that they reduce bias (1) and therefore don't confirm predetermined theories (1).	

www.dynamicpapers.com

	• Random sampling will ensure choices are not biased (1) so each site had an equal chance of being selected (1). Accept any other appropriate response.	**(2)**

Question number	Answer	Mark
4(b)	**AO3 (4 marks)** Award 1 mark for advantage or disadvantage identified a further mark for development of each point. Max 2 marks for advantage and 2 marks for disadvantage. • Advantage: By using annotated sketches students can get a quick view of the areas they are working recording key features (1) to support recall later (1). • Advantage: By using field sketches students can highlight features (1) that they want to focus on as part of their study (1). • Disadvantage: Because students have different perceptions (1) they may over-exaggerate features (1). • Disadvantage: Students are only taking a view of their area as they see it (1) candidates sketches may not record everything accurately (1). Accept any other appropriate response.	**(4)**

Question number	Answer indicative content

www.dynamicpapers.com

4(c)	**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 the candidates making a judgement of the value of their data analysis techniques in achieving the overall aims of their study. This will depend on what data analysis techniques they used. Candidates are expected to make a judgement on more than one technique. Candidates should identify strengths, weaknesses, and alternative techniques which could have been used in their study. For level 2 responses candidates will need to link the evaluation to the purpose of the study directly. For level 3 responses there should be a greater depth of evaluation.

www.dynamicpapers.com

Question number	Answer	
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)

Question number	Answer	Mark
5(ai)	**AO3 (1 mark)** Award 1 mark for a suitable risk identified. • Students could be trapped by the incoming tide (1). • Students could get lost/separated from group (1). Accept any other appropriate response.	**(1)**

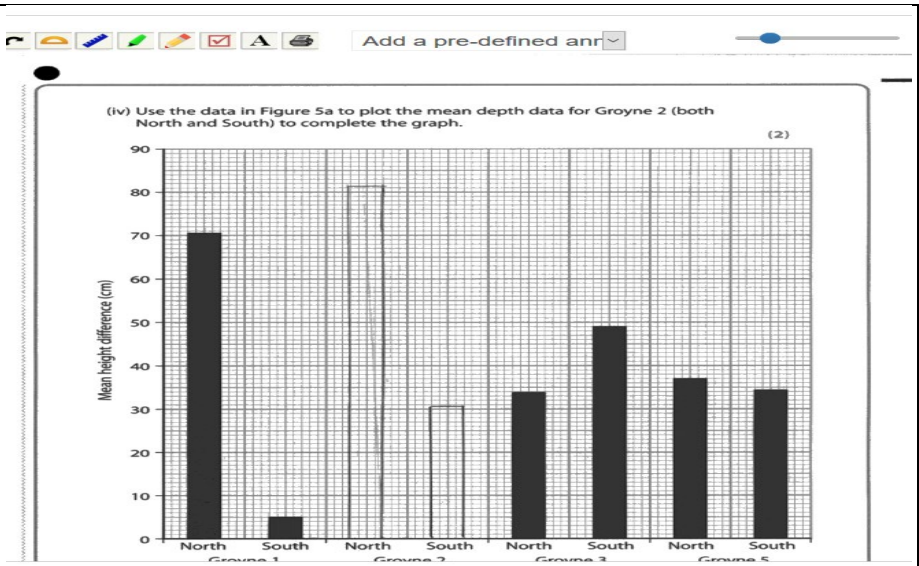
www.dynamicpapers.com

Question number	Answer	
5(aii)	**AO3 (1 mark)** Award 1 mark for each suitable way to manage risk identified. • Students could work in pairs (1). • Teachers could brief the students about the risks before they undertake the enquiry (1). Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
5(aiii)	**AO4 (2 marks)** Award 1 mark for working and 1 mark for correct answer to one decimal place. • 0+74+45+122= 241/4 = 60.25 • Correct to 1 decimal place 60.3	**(2)**

Question number	Answer	Mark
5(aiv)	**AO4 (2 marks)** Candidates will need to plot all points correctly 1 mark for correctly plotted 81.5 bar 1 mark for correctly plotted 30.3 bar	

www.dynamicpapers.com

		**(2)**
Question number	**Answer**	**Mark**
5(av)	**AO3 (2 marks)** Award 1 mark for the initial point (1) and a further mark for further development (1). • Random - students could pick the first site and random to ensure that they reduce bias (1) and therefore don't confirm predetermined theories (1). • Random sampling will ensure choices are not biased (1) so each site had an equal chance of being selected (1). Accept any other appropriate response.	**(2)**

Question number	**Answer**	**Mark**
5(b)	**AO3 (4 marks)** Award 1 mark for advantage or disadvantage identified a further mark for development of each point. Max 2 marks for advantage and 2 marks for disadvantage. • Advantage: By using annotated sketches students can get a quick view of the areas they are working recording key features (1) to support recall later (1). • Advantage: By using field sketches students can highlight features (1) that they want to focus on as part of their study (1).	

www.dynamicpapers.com

	• Disadvantage: Because students have different perceptions (1) they may over-exaggerate features (1). • Disadvantage: Students are only taking a view of their area as they see it (1) candidates sketches may not record everything accurately (1). Accept any other appropriate response.	**(4)**

Question number	Answer indicative content
5(c)	**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 the candidates making a judgement of the value of their data analysis techniques in achieving the overall aims of their study. This will depend on what data analysis techniques they used. Candidates are expected to make a judgement on more than one technique. Candidates should identify strengths, weaknesses, and alternative techniques which could have been used in their study. For level 2 responses candidates will need to link the evaluation to the purpose of the study directly. For level 3 responses there should be a greater depth of evaluation.

www.dynamicpapers.com

Question number	Answer	
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)

www.dynamicpapers.com

Question number	Answer	Mark
6(ai)	**AO3 (1 mark)** Award 1 mark for a suitable risk identified. • Students could get hypothermia/heat stroke (1) • Students could get sunburnt (1) • Students could get dehydrated (1) Accept any other appropriate response.	**(1)**

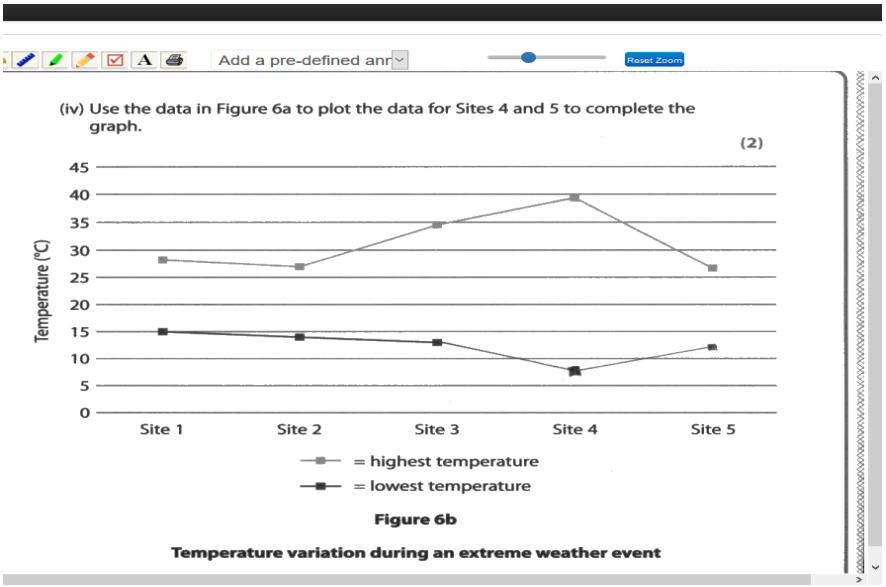
Question number	Answer	Mark
6(aii)	**AO3 (1 mark)** Award 1 mark for each suitable way to manage risk identified. • Students could have a limited time outside (1). • Teachers could brief students about correct outdoor clothing (1). Accept any other appropriate response.	**(1)**

Question number	Answer	Mark
6(aiii)	**AO4 (2 marks)** Award 1 mark for working and 1 mark for correct answer to one decimal place. • Add up all the figures peak temperature – low temp - = range • 15.1 + 14.4 + 13.7 + 7.5 + 13.6 = 64.3/5 • Correct answer to 1 decimal place 12.9 Accept any other appropriate response.	

www.dynamicpapers.com

		(

www.dynamicpapers.com

Question number	Answer	
6(aiv)	**AO4 (2 marks)** Candidates will need to plot all points correctly. Low temp Site 4 7.5 Site 5 13.6 1 mark for correctly plotted point for point 4. 1 mark for correctly plotted point for point 5.  **Figure 6b** **Temperature variation during an extreme weather event**	**(2)**

Question number	Answer	Mark
6(av)	**AO3 (2 marks)** Award 1 mark for the initial point (1) and a further mark for further development (1). • Random - students could pick the first site at random to ensure that they reduce bias (1) and therefore don't confirm predetermined theories (1). • Random sampling will ensure choices are not biased (1) so each site had an equal chance of being selected (1). Accept any other appropriate response.	**(2)**

www.dynamicpapers.com

Question number	Answer	Mark
6(b)	**AO3 (4 marks)** Award 1 mark for advantage or disadvantage identified a further mark for development of each point. Max 2 marks for advantage and 2 marks for disadvantage. • Advantage: By using annotated sketches students can get a quick view of the areas they are working recording key features (1) to support recall later (1). • Advantage: By using field sketches students can highlight features (1) that they want to focus on as part of their study (1). • Disadvantage: Because students have different perceptions (1) they may over-exaggerate features (1). • Disadvantage: Students are only taking a view of their area as they see it (1) candidates sketches may not record everything accurately (1). Accept any other appropriate response.	**(4)**

Question number	Answer indicative content
6(c)	**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 the candidates making a judgement of the value of their data analysis techniques in achieving the overall aims of their study. This will depend on what data analysis techniques they used. Candidates are expected to make a judgement on more than one technique. Candidates should identify strengths, weaknesses, and alternative techniques which could have been used in their study.

www.dynamicpapers.com

	For level 2 responses candidates will need to link the evaluation to the purpose of the study directly. For level 3 responses there should be a greater depth of evaluation.

www.dynamicpapers.com

Question number	Answer	
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)

www.dynamicpapers.com

www.dynamicpapers.com

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