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Mark Scheme (Results)

Summer 2024

Pearson Edexcel GCSE
In Geography A (1GA0)
Paper 03: Geographical Investigations:
Fieldwork and UK Challenges

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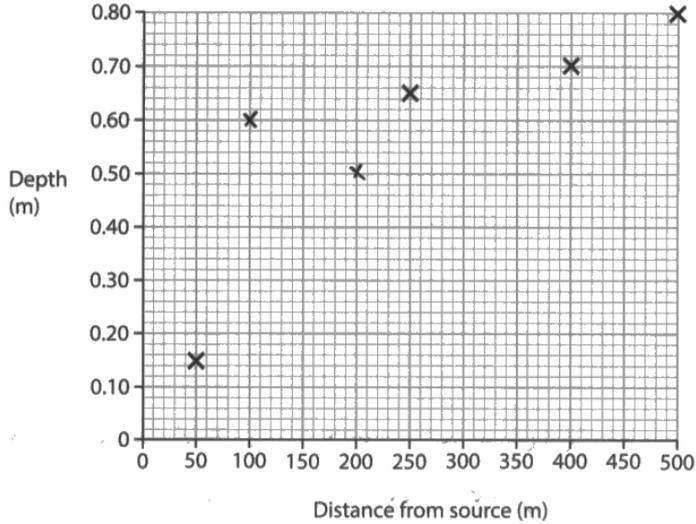
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General Marking Guidance

- 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.

Question Number	Answer	Mark
1(a) (i)	<p>Award 1 mark for identification of the equipment and a further mark for describing how the method is used, up to a maximum of 2 marks.</p> <p>Using a metre stick / ruler (1) the students record the measurement by placing it onto the bottom of the riverbed and recording the reading (1) / and split the width of the river into ten equal points (1)</p> <p>Accept any other appropriate response.</p>	(2)

Question number	Answer	Mark
1(a) (ii)	<p>Award 1 mark for a disadvantage and a further mark for development of the disadvantage, up to a maximum of 2 marks.</p> <p>When placing the metre stick to the bottom of the riverbed the ruler might be touching a stone / not the river bed (1) this could have resulted in an inaccurate reading of the true river channel depth (1).</p> <p>When trying to read the depth on the metre stick the flow of the water might push up against the ruler (1) this may have resulted in an inaccurate reading of the true river channel depth (1).</p> <p>Do not accept: a general 'not accurate' in isolation.</p> <p>Accept any other appropriate response.</p>	(2)

Question number	Answer	Mark
1(b) (i)	<p>Award 1 mark for each correctly plotted point.</p> 	(2)
Question Number	Answer	Mark
1(b) (ii)	<p>Award 1 mark for correct answer and a further mark for the correct working out, up to a maximum of 2 marks.</p> <p>The working mark should be awarded for either writing out the process of calculating mean</p> $0.80 + 1.50 + 4.00 + 6.00 + 6.50 + 7.5 / 6 \text{ (1)}$ <p>Or</p> $26.3 / 6 \text{ (1)}$ <p>4.4 (1)</p>	(2)

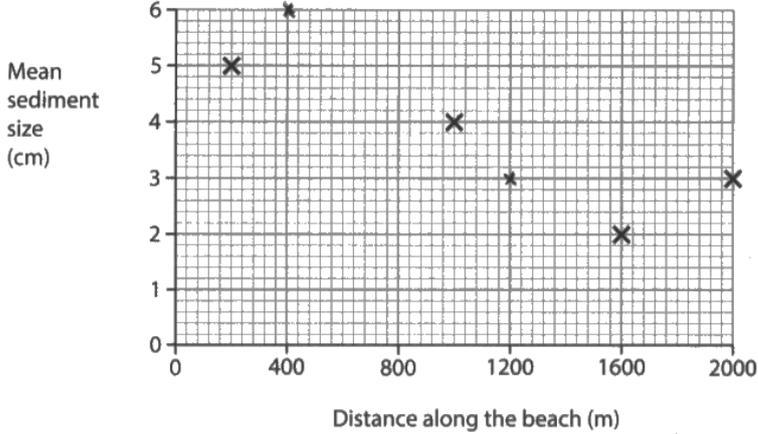
Question Number	Answer	Mark
1(b) (iii)	<p>Award 1 mark for each correct answer, up to a maximum of 2 marks.</p> <p>B the river width increases overall between site 1 and site 6</p> <p>D the river depth decreases between site 2 and site 3</p>	(2)

Question number	Indicative content
1(c)	<p style="text-align: center;">AO3 (4 marks)/AO4 (4 marks)</p> <p>This question requires candidates to draw on evidence from their own fieldwork investigation to evaluate the following statement.</p> <p><i>My fieldwork data supported the expected changes to river discharge downstream (width, depth, and velocity).</i></p> <p>Candidates should consider the positive and negatives of their data. Therefore, examiners should expect to see evidence of this through candidates making specific references to their own river fieldwork.</p> <p>For level 3, candidates should provide evidence of evaluation related to answering the statement and to achieve full marks should provide a conclusion.</p> <p>Candidates may demonstrate AO3 and AO4 through the following examples:</p> <ul style="list-style-type: none"> • There is evidence of the candidate's own fieldwork investigation presentation technique(s) used with clear links to the data collection methods. For example, candidates might draw on specific evidence of the data collection methods relating to and not only the following; <ul style="list-style-type: none"> - <i>Collection survey sites</i> - <i>Equipment – measuring tape, flow meter, floats, metre rulers</i> - <i>Data gathered</i> - <i>Fieldwork enquiry question / hypotheses / key questions</i> <p>(AO4.1d – communicating findings)</p> • There is evidence of consideration in relation to the appropriateness and complexity of completing certain fieldwork methods relating to their accuracy and reliability. For example, candidates may refer to the following in their response; <ul style="list-style-type: none"> - <i>For my river investigation, I was aiming to find out if the width and depth increased downstream as expected by the Bradshaw Model for the River Conwy. I gathered data by measuring the width using a measuring tape from bank to bank and the depth by using a metre ruler from the river bed to the water surface at intervals along the channel. My data supported what expected to happen with the width and depth increasing downstream across my three survey sites. However, there were occasions at the second site where the depth varied this was due to issues trying to access the river bed.</i> <p>(AO3.1d – making judgements)</p>

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1-3	<ul style="list-style-type: none"> • 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 are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4-6	<ul style="list-style-type: none"> • 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) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7-8	<ul style="list-style-type: none"> • 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) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

Question Number	Answer	Mark
2(a) (i)	<p>Award 1 mark for identification of the equipment and a further mark for describing how the method is used, up to a maximum of 2 marks.</p> <p>Collect a grab sample at different locations along the beach (1) and use a grain chart size card (1)</p> <p>Collect a grab sample at different locations (1) and use callipers to measure the pebbles (1).</p> <p>Using the Power's of Roundness Index (1) plus development (1)</p> <p>Quadrats (1) plus development (1)</p> <p>Sediment sieve (1) plus development (1)</p> <p>Accept any other appropriate response.</p>	(2)

Question number	Answer	Mark
2(a) (ii)	<p>Award 1 mark for a disadvantage and a further mark for development of the disadvantage, up to a maximum of 2 marks.</p> <p>When selecting the grab sample the person chosen might change which could alter the number of pebbles collected (1) resulting in smaller / larger samples across survey sites (1).</p> <p>Subjectivity of making judgements about sediment size (1) plus development (1)</p> <p>Do not accept: a general 'not accurate' in isolation.</p> <p>Accept any other appropriate response.</p>	(2)

Question number	Answer	Mark
2(b) (i)	<p>Award 1 mark for each correctly plotted point.</p>  <p>Mean sediment size (cm)</p> <p>Distance along the beach (m)</p>	(2)

Question Number	Answer	Mark
2(b) (ii)	<p>Award 1 mark for correct answer and a further mark for the correct working out, up to a maximum of 2 marks.</p> <p>The working mark should be awarded for either writing out the process of calculating mean</p> $15 + 14 + 12 + 9 + 7 + 4 / 6 = \mathbf{(1)}$ <p>Or</p> $61 / 6 = \mathbf{(1)}$ <p>10.2 (1)</p>	(2)

Question Number	Answer	Mark
2(b) (iii)	<p>Award 1 mark for each correct answer, up to a maximum of 2 marks.</p> <p>B the mean sediment size decreases overall between site 1 and site 6</p> <p>D the beach gradient decreases between site 2 and site 3</p>	(2)

Question number	Indicative content
2(c)	<p style="text-align: center;">A03 (4 marks)/A04 (4 marks)</p> <p>This question requires candidates to draw on evidence from their own fieldwork investigation to evaluate the following statement.</p> <p><i>My fieldwork data supported the expected changes to beach morphology (gradient and width) and sediment size.</i></p> <p>Candidates should consider the positive and negatives of their data collection methods. Therefore, examiners should expect to see evidence of this through candidates making specific references to their own coastal fieldwork.</p> <p>For level 3, candidates should provide evidence of evaluation related to answering the statement.</p> <p>Candidates may demonstrate A03 and A04 through the following examples:</p> <ul style="list-style-type: none"> • There is evidence of the candidate's own fieldwork investigation presentation technique(s) used with clear links to the data collection methods. For example, candidates might draw on specific evidence of the data collection methods relating to and not only the following; <ul style="list-style-type: none"> - <i>Collection survey sites</i> - <i>Equipment – measuring tape, clinometer, ranging poles</i> - <i>Data gathered</i> - <i>Fieldwork enquiry question / hypotheses / key questions</i> <p style="text-align: center;">(A04.1d – communicating findings)</p> • There is evidence of consideration in relation to the appropriateness and complexity of completing certain fieldwork methods relating to their accuracy and reliability. For example, candidates may refer to the following in their response; <ul style="list-style-type: none"> - <i>For my coastal investigation, I was aiming to find out if the gradient of the beach decreased towards the water's edge for Formby beach. I gathered data by measuring the width of the beach using a measuring tape from the water's edge to the back shore and the change in angle of slope by using a clinometer and ranging poles to create several beach profiles from west to east. My data supported what I expected to happen with the gradient of the beach increasing away from the water's edge.</i> <p style="text-align: center;">(A03.1d – making judgements)</p>

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1-3	<ul style="list-style-type: none"> • 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 are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4-6	<ul style="list-style-type: none"> • 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) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7-8	<ul style="list-style-type: none"> • 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) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark
3 (a)	<p>Award one mark for the description of a data collection method and a further mark for the explanation of the reason for using the data collection method, up to a maximum of 4 marks.</p> <p>NB: The explanation can be either why they conducted that method or a limitation of the method.</p> <p>Do not credit extended descriptions of how they conducted the method for a second mark.</p> <p>Secondary data collection methods are acceptable.</p> <p>A land use survey (1) to understand the function of land use along a transect from the CBD (1).</p> <p>A pedestrian count (1) to look at the footfall in the urban area (1)</p> <p>A questionnaire (1) plus development (1)</p> <p>Drawing a field sketch of the survey sites (1) plus development (1)</p> <p>A structured interview (1) plus development (1)</p> <p>Accept any other appropriate response.</p>	<p>(4)</p> <p>2+2</p>

Question number	Answer	Mark
3 (b)	<p>No credit for naming the presentation technique.</p> <p>Award one mark for identification of how a graph has been used, and a further mark for explanation of an advantage / reason for choice, up to a maximum of 2 marks.</p> <p>Allowed patterns to be seen more clearly (1) plus development (1)</p> <p>Easy to plot data (1) plus development (1)</p> <p>I could quickly spot trends (1) plus development (1)</p> <p>Other acceptable response might be: located proportional circles, scatter graph, pie chart, line graph, bar chart, word clouds.</p> <p>Accept any other appropriate response.</p>	(2)

Question number	Answer	Mark
3 (c)	<p>No credit for naming the sampling strategy.</p> <p>Award one mark for identification of a disadvantage of a sampling strategy linked to an urban study and a further mark for an explanation of the disadvantage, up to a maximum of 2 marks.</p> <p>Candidates may refer to one of the following sampling strategies: random, systematic, stratified, opportunistic, pragmatic.</p> <p>Do not credit generic responses about sampling.</p> <p>Random sampling created a poor representation of the overall population / survey area (1) this is due to the random allocation of sites (1)</p> <p>Random sampling can often lead to unintentional bias (1) plus development (1)</p> <p>Randomly selecting survey sites resulted in some areas not being suitable for data collection (1) plus development (1)</p> <p>Systematically selecting the public for the questionnaire resulted in not all having an equal chance of being selected (1) this led to an unrepresentative sample (1)</p> <p>Systematically sampling caused over-representation of one group (1) plus development (1)</p> <p>Using stratified / systematic sampling for our questionnaire was time consuming (1) plus development (1)</p> <p>Accept any other appropriate response.</p>	(2)

Question number	Answer	Mark
3 (d)	<p>Award 1 mark for identification of a secondary data source and a further mark for an explanation, up to a maximum of 2 marks.</p> <p>NB: Candidates can achieve marks without naming a specific secondary data source.</p> <p>It provided an overview of the demographics and socioeconomic statistics (1) which informed the choice of survey sites (1)</p> <p>Historical data from previous student cohorts provided a wider range of data (1) this enabled us to make comparisons (1)</p> <p>Using historical photos to see changes in survey sites (1) plus development (1)</p> <p>Local crime rates provided an overview of how safe the area was (1) plus development (1)</p> <p>Supported the validity of my primary data (1) plus development (1)</p> <p>Accept any other appropriate response.</p>	(2)

Question number	Indicative content
3 (e)	<p style="text-align: center;">AO3 (4 marks)/AO4 (4 marks)</p> <p>This question requires candidates to evaluate the accuracy and reliability of the student's method to collect data.</p> <p>Candidates may demonstrate AO3 and AO4 through the following examples:</p> <ul style="list-style-type: none"> • The students conducted an environmental quality survey from the CBD to the suburbs at 4 different survey sites (AO4.1d – communicate findings), which may have impacted on how representative the environmental quality was due to the smaller number of survey sites chosen (AO3.1d – making judgements), which could have been reduced the overall view of the environmental quality (AO3.1d – making judgements). • The students surveyed 4 different aspects of the environmental quality using a scale of 1-4 (AO4.1d – communicate findings) which created an opportunity to make judgements on these environmental indicators but the scale of 1 -4 is narrow (AO3.1d – making judgements) and the decisions are subjective (AO3.1d – making judgements).

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1-3	<ul style="list-style-type: none"> • 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 are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4-6	<ul style="list-style-type: none"> • 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) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7-8	<ul style="list-style-type: none"> • 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) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark
4(a)	<p>Award one mark for the description of a data collection method and a further mark for the explanation of the reason for using the data collection method, up to a maximum of 4 marks.</p> <p>NB: The explanation can be either why they conducted that method or a limitation of the method.</p> <p>Do not credit extended descriptions of how they conducted the method for a second mark.</p> <p>Secondary data collection methods are acceptable.</p> <p>Using a questionnaire (1) so that we could gather people's views (1)</p> <p>A traffic count (1) plus development (1)</p> <p>A structured interview (1) plus development (1)</p> <p>Drawing a field sketch of the survey sites (1) plus development (1)</p> <p>Environmental quality survey (1) plus development (1)</p> <p>Accept any other appropriate response.</p>	(4) 2 + 2

Question number	Answer	Mark
4(b)	<p>No credit for naming the presentation technique.</p> <p>Award one mark for identification of how a graph has been used, and a further mark for explanation of an advantage / reason for choice, up to a maximum of 2 marks.</p> <p>Allowed analysis of people at survey sites (1) plus development (1)</p> <p>Allowed pattern to be seen more clearly (1) plus development (1)</p> <p>Easy to plot data (1) plus development (1)</p> <p>I could quickly spot trends (1) plus development (1)</p> <p>Other acceptable response might be: located proportional circles, scatter graph, pie chart, line graph, bar chart.</p> <p>Accept any other appropriate response.</p>	(2)

Question number	Answer	Mark
4(c)	<p>No credit for naming the sampling strategy.</p> <p>Award one mark for identification of a disadvantage of a sampling strategy linked to an urban study and a further mark for an explanation of the disadvantage, up to a maximum of 2 marks.</p> <p>Candidates may refer to one of the following sampling strategies: random, systematic, stratified or opportunistic.</p> <p>Random sampling created a poor representation of the overall population / survey area (1) this is due to the random allocation of sites (1)</p> <p>Randomly selecting survey sites resulted in some areas not being suitable for data collection (1) plus development (1)</p> <p>Systematically selecting the public for the questionnaire resulted in not all having an equal chance of being selected (1) this led to an unrepresentative sample (1)</p> <p>Systematically sampling caused over-representation of one group (1) plus development (1)</p> <p>Using stratified sampling for our questionnaire was time consuming (1) plus development (1)</p> <p>Accept any other appropriate response.</p>	(2)

Question number	Answer	Mark
4(d)	<p>Award 1 mark for identification of a secondary data source and a further mark for an explanation, up to a maximum of 2 marks.</p> <p>NB: Candidates can achieve marks without naming a specific secondary data source.</p> <p>It provided an overview of the demographics and socioeconomic statistics (1) which informed the choice of survey sites (1)</p> <p>Historical data from previous student cohorts provided a wider range of data (1) this enabled us to make comparisons (1)</p> <p>Using historical photos to see changes in survey sites (1) plus development (1)</p> <p>Local crime rates provided an overview of how safe the area was (1) plus development (1)</p> <p>Supported the validity of my primary data (1) plus development (1)</p> <p>Accept any other appropriate response</p>	(2)

Question number	Indicative content
4(e)	<p style="text-align: center;">A03 (4 marks)/A04 (4 marks)</p> <p>This question requires candidates to evaluate the accuracy and reliability of the student’s method to collect data.</p> <p>Candidates may demonstrate A03 and A04 through the following examples:</p> <ul style="list-style-type: none"> • The students used random sampling to gather their questionnaire data (A04.1d – communicate findings), which may have impacted on how representative the sample gathered (A03.1d – making judgements), which could have been reduced the variety of views on the rural environment (A03.1d – making judgements). • The students asked a mix of open and closed questions (A04.1d – communicate findings) which created an opportunity to generate both quantitative and qualitative data (A03.1d – making judgements) this would allow the students to generate a broader understanding of people’s views about the rural environment (A03.1d – making judgements).

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1-3	<ul style="list-style-type: none"> • 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 are supported by limited evidence. (AO3) • Few aspects of the enquiry process are supported by the use of geographical skills to obtain information, which has limited relevance and accuracy. Communicates generic fieldwork findings and uses limited relevant geographical terminology. (AO4)
Level 2	4-6	<ul style="list-style-type: none"> • 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) • Some aspects of the enquiry process are supported by the use of geographical skills. Communicates fieldwork findings with some clarity, using relevant geographical terminology occasionally. (AO4)
Level 3	7-8	<ul style="list-style-type: none"> • 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) • All aspects of the enquiry process are supported by the use of geographical skills. Communicates enquiry-specific fieldwork findings with clarity, and uses relevant geographical terminology consistently. (AO4)

Question number	Answer	Mark
5(a) (i)	A Central and SE England	(1)

Question number	Answer	Mark
5(a) (ii)	<p>Award 1 mark for identifying each pattern, up to a maximum of 2 marks.</p> <p>NB: Candidates might achieve full marks either with two separate points or one point which has been developed.</p> <p>NB: There is no requirement for candidates to use specific data from the Figure to achieve full marks.</p> <p>NB: No marks for just a list of data lifted from the Figure in isolation.</p> <p>All areas of Scotland are predicted to be at risk of increased flooding (1)</p> <p>The east flood risk is higher than the west (1)</p> <p>The largest flood risk is in East Scotland (1)</p> <p>The lowest flood risk is in West Scotland (1)</p> <p>The north and east have higher predicted flood risk (1)</p> <p>The predicted flood risk is similar across the different regions of Scotland (1)</p> <p>Accept any other appropriate response.</p>	(2)

Question number	Answer	Mark
5(a) (iii)	<p>Award one mark for each correct reason.</p> <p>Increase urbanisation / increased impermeable surfaces (1)</p> <p>Climate change / Global warming (1)</p> <p>Population increase (1)</p> <p>Poorly maintained river / coast flood defences (1)</p> <p>Sea level rise (1)</p> <p>Building near flood risk zones (1)</p> <p>Changing weather patterns (1)</p> <p>Increased storms / severe weather (1)</p> <p>Lack of funds / too expensive to protect flood risk zones (1)</p> <p>Deforestation (1)</p> <p>Accept any other appropriate response.</p>	(2)

Question number	Answer	Mark
5(b)	<p>Award 1 mark for the identification of an impact of river flooding and a further mark(s) for development of the reason, up to a maximum of 3 marks.</p> <p>For full marks, candidates must refer to Figure 5b.</p> <p>One impact of river flooding is damage to businesses (1) with 40% not able to re-open (1) due to the cost of the repairs (1)</p> <p>Properties at risk are increasing (1) with around 2.4 million UK properties at risk (1) this means that people are often forced to pay for repairs / high insurance premiums / relocate (1)</p> <p>Implications on mental health (1) plus development (1)</p> <p>Accept any other appropriate response.</p>	(3)

Question number	Answer	Mark
5(c)	<p>Award 1 mark for the identification of how river / coastal flooding can be managed and a further mark(s) for explanation of this, up to a maximum of 4 marks.</p> <p>One approach to managing river flooding is raised embankments (1) which increase the capacity of the river channel (1)</p> <p>Dams and reservoirs (1) plus development (1)</p> <p>Channel straightening (1) plus development (1)</p> <p>Building houses / businesses away from flood risk zones (1) reduces the risk of future flooding (1)</p> <p>Increased drainage in flood risk zones (1) plus development (1)</p> <p>Floodplain zoning (1) plus development (1)</p> <p>Afforestation (1) plus development (1)</p> <p>Managed retreat (1) plus development (1)</p> <p>Flood risk warnings (1) plus development (1)</p> <p>Sea wall (1) plus development (1)</p> <p>Groynes (1) plus development (1)</p> <p>Do not accept: generic 'engineering' comments.</p> <p>Accept any other appropriate response.</p>	<p>(4)</p> <p>2 + 2</p>

Question number	Indicative content
5(d)	<p>A02</p> <ul style="list-style-type: none"> • River flooding occurs when the channel bursts its banks and coastal flooding when storms create powerful waves that approach the coastline. • When towns and villages are located next to rivers and the coast this can increase the risk of flooding. • In recent years the UK have spent billions on flood defences to protect properties located next to rivers and the coast. • Floods can disrupt transport networks, contaminate water supplies, cause significant damage to homes and lead to expensive repairs. • Flooding can have a significant impact on the environment with destruction of wildlife habitats which can lead to disruption of local ecosystems. • Flooding can cause riverbank erosion and sedimentation which can have an impact on rivers and reservoirs. <p>A03</p> <ul style="list-style-type: none"> • In the future, the UK is likely to experience an increase in flood risk due to global warming. It is predicted changes in average global temperatures will cause more properties to be at risk of flooding due to increased frequency of storms and rising sea levels. • The rise in the number of people living in towns and cities in the UK is putting pressure on the construction of new homes which is reducing the permeability of the land surrounding rivers and increasing the risk of flooding. • The increased frequency of storms is causing many regions of England such as Derbyshire, Cheshire and Nottingham to review the type of flood defences used to protect against river flooding. <p>A04</p> <ul style="list-style-type: none"> • Figure 5a illustrates the potential risk of flooding by 2080 in the UK. For example, by 2080 it is expected the area with the highest risk of flooding will be the East of Scotland. Not only will this area have the greatest risk, the rest of Scotland will also experience a similar percentage of flood risk. The area with the lowest risk from flooding by 2080 is predicted to be England Central and the South East. • Figure 5b demonstrates the impact flooding is having on properties in England. The map highlights the regions where properties have been at most risk of flooding in 2021 was in the south. For example, in the south east in

Question number	Indicative content
	<p>places like London properties at risk of flooding was over 1,200 per 100,000.</p> <ul style="list-style-type: none"> • Figure 5c provides a clear overview of the costs associated with river and coastal flooding in the UK. For example, one in six properties in the UK are located in areas where there is a significant risk of flooding which is supported by Figure 5a and 5b where the evidence suggests the risk from flooding is increasing. Figure 5c also illustrates how flooding can have an impact of people’s mental health due to the damages caused by the flood waters to homes and businesses. • Figure 5d highlights the cost associated with reducing flood risk across different regions of England. For example, since 2015 the cost of reducing flood risk in the East Midlands has increased from £29 to £65 million. This trend is seen across most other regions however, in the North East there has been a reduction from £16 to £10 million. • Figure 5e demonstrates the different views stakeholders have about flooding in the UK. For example, Sarah a business owner indicates the costs associated with flooding due to the disruption it causes to her trading.

Level	Mark	Descriptor
	0	No acceptable response.
Level 1	1–4	<ul style="list-style-type: none"> • Demonstrates isolated elements of understanding of concepts and the interrelationship between places, environments and processes. (AO2) • 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 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	5–8	<ul style="list-style-type: none"> • Demonstrates elements of understanding of concepts and the interrelationship between places, environments and processes. (AO2) • 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	9–12	<ul style="list-style-type: none"> • Demonstrates accurate understanding of concepts and the interrelationship of places, environments and processes. (AO2) • 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)

Marks for SPGST		
Performance	Marks	Descriptor
SPaG 0	0	<p><i>No marks awarded:</i></p> <ul style="list-style-type: none"> • Learners write nothing. • Learner's response does not relate to the question. • Learner's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning.
SPaG 1	1	<p><i>Threshold performance:</i></p> <ul style="list-style-type: none"> • Learners spell and punctuate with reasonable accuracy. • Learners use rules of grammar with some control of meaning and any errors do not significantly hinder meaning overall. • Learners use a limited range of specialist terms as appropriate.
SPaG 2	2–3	<p><i>Intermediate performance:</i></p> <ul style="list-style-type: none"> • Learners spell and punctuate with considerable accuracy. • Learners use rules of grammar with general control of meaning overall. • Learners use a good range of specialist terms as appropriate.
SPaG 3	4	<p><i>High performance:</i></p> <ul style="list-style-type: none"> • Learners spell and punctuate with consistent accuracy. • Learners use rules of grammar with effective control of meaning overall. • Learners use a wide range of specialist terms as appropriate.