GradeMax



Mark Scheme (Results)

Summer 2019

Pearson Edexcel International A Level In Geography (WGE02) Paper 2

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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)	**AO2 (2 marks)** **A** = Mangrove, saltmarsh, halosere **B** = Sand dune, dunes, psammosere Incorrect answers for A = wetland, beach, swamp. Incorrect answers for B = beach, landform e.g. a spit.	**2**

Question Number	Answer	Mark
1(a)(ii)	**AO1 (2 marks)** Award **1** mark for explaining a way and a further extension mark, up to a maximum of 2 marks: • Development of housing / further development (1) leads to destruction of ecosystems / water pollution from sewage which reduces biodiversity (1). • Water pollution from fertilizer run-off leads to eutrophication (1) as there are nutrients from agriculture entering the water (1). • Water pollution from industry (1) can have negative impacts on the marine ecosystem and food chain (1). • Oil discharges into the sea from drilling platforms leads to toxicity (1) and can kill a range of organisms in the marine food web (1). Credit other valid explanations which are shown or inferred from the situation of the photograph. Do not accept boats / fishing as these are not coastal development.	**2**

Question Number	Indicative content
1(b)	**AO1 (6 marks)/AO2 (2 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-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. Relevant points may include: **AO1** • Rock hardness, rock resistance, jointing, joint density, faulting can all influence the rate of coastal recession. • If the coast is made of a more resistant rock (e.g. granite), the erosion rate will be lower than if the coast is made of a less resistant rock (e.g. boulder clay). • Alignment of rock structures at the coast can create concordant and discordant coastlines and associated landforms e.g. headlands and bays which have differential coastal recession. • Ability of geology to withstand erosion and / or sub-aerial processes of weathering: resistance to erosion of sedimentary versus igneous rock types. **AO2** • Lithology plays an important role in coastal recession rates, but other natural factors come into play such as fetch, direction which the coast in facing, dominant winds and type of wave energy, tidal range. • Could argue lithology is much less important on depositional coasts, e.g. places where spits are found and transport and deposition are more important • Other physical factors include climate, altitude etc. These may be important in certain locations. • Climate change with sea level rise and greater storminess will likely be a significant factor in the future of coastal recession, e.g. Alaska. Wave energy will be focused closer to the shore and cliff faces, leading to increased rates of coastal erosion in areas where cliffs are composed of soft rocks. • Rates of erosion and recession will be influenced by other factors such as coastal engineering which protect coastal landscapes but could interfere with natural processes. Accept other valid explanations. NB Level 3 answers should include an element of evaluation of importance of different factors.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1–3	• Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate. (AO1) • Understanding addresses a narrow range of geographical ideas. (AO1) • Understanding of geographical ideas lacks detail. (AO1) • Applies knowledge and understanding to geographical information/ideas, with limited logical connections/relationships. (AO2)
Level 2	4-6	• Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Understanding addresses a range of geographical ideas. (AO1) • Understanding of geographical ideas is not fully detailed and/or developed. (AO1) • Applies knowledge and understanding to geographical information/ideas logically to find some relevant connections/relationships. (AO2)
Level 3	7-8	• Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Understanding addresses a broad range of geographical ideas. (AO1) • Understanding of the geographical ideas is detailed and fully developed. (AO1) • Applies knowledge and understanding to geographical information/ideas logically to find fully relevant connections/relationships. (AO2)

Question Number	Answer	Mark
2(a)(i)	**AO2 (2 marks)** Award **1** mark for each piece of evidence. • Cranes involved in construction of new buildings or construction cranes (1).	**2**

	• New / modern buildings (1). • Some buildings only partially constructed (1). • Buildings look like they have high architectural value, associated with rebranding (1). • Modern buildings materials (1). • Evidence of new planting / trees (1) Accept other regeneration ideas, but evidence **must be** from resource.	
Question Number	Answer	Mark
2(a)(ii)	**AO1 (2 marks)** Award **1** mark for explaining a problem and a further expansion mark, up to a maximum of 2 marks: • Displacement of residents / local people (1) who cannot afford prices of new housing (1). • Conflict between existing residents / newcomers (1) because existing residents resent change / loss of traditional lifestyle or townscape (1). • Noise / dust pollution associated with construction (1) causes discomfort and annoyance for people nearby (1). • Roads blocked due to the construction (1) so people have to take diversions so causes inconvenience / congestion / further air pollution (1). • Dust / debris / waste from the construction sites polluting the river (1) damaging to the river ecosystem /habitats. Credit other valid ideas inferred from the photograph.	**2**

Question Number	Indicative content
2(b)	**AO1 (6 marks)/AO2 (2 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-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. Relevant points may include: **AO1** • Regeneration includes social, economic, political as well as environmental improvements but there is much overlap between the ideas so often they cannot be considered as discrete. • Regeneration generally means improvement through renewal and is different to reimaging, for instance, which is more about how a place is seen by stakeholders etc. • Urban regeneration schemes can be developed at a range of scales (small to very large) and have a range of different design briefs for different groups. • Smaller-scale regeneration projects focus on improving communities (housing, education and skills, employment opportunities) and increasing local representation. This has a stronger social, and therefore economic, linkage. • Large-scale infrastructure projects (sporting events, expos, tourism development) are often the catalyst for regeneration, re-imaging and rebranding. These are also economically driven. **AO2** • Regeneration is often focused around economic improvements, rather than environmental since some schemes are privately funded and shareholders want a profit. • Regeneration may not benefit all individuals and groups within an area –local residents, low income groups, unskilled – could lose out so the social impact could be very mixed; lack of ability to afford new housing. • Benefits in the longer term might be difficult to judge as many schemes are relatively new, and it also depends on what metrics are used to qualify benefits, and how. • There could be some assessment of the extent to which there are environmental or economic benefits for groups of people, within a balanced overall assessment. • New businesses locating in an area can benefit, as can their employees; economic regeneration can lead to greater local and national taxes for local / national government. Allow some credit for costs as well, if used in the context of assessment.

Level	Mark	Descriptor
Level 0	0	No acceptable response.
Level 1	1–3	• Demonstrates isolated elements of geographical knowledge and understanding, some of which may be inaccurate. (AO1) • Understanding addresses a narrow range of geographical ideas. (AO1) • Understanding of geographical ideas lacks detail. (AO1) • Applies knowledge and understanding to geographical information/ideas, with limited logical connections/relationships. (AO2)
Level 2	4-6	• Demonstrates geographical knowledge and understanding, which is mostly relevant and may include some inaccuracies. (AO1) • Understanding addresses a range of geographical ideas. (AO1) • Understanding of geographical ideas is not fully detailed and/or developed. (AO1) • Applies knowledge and understanding to geographical information/ideas logically to find some relevant connections/relationships. (AO2)
Level 3	7-8	• Demonstrates accurate and relevant geographical knowledge and understanding throughout. (AO1) • Understanding addresses a broad range of geographical ideas. (AO1) • Understanding of the geographical ideas is detailed and fully developed. (AO1) • Applies knowledge and understanding to geographical information/ideas logically to find fully relevant connections/relationships. (AO2)

Question Number	Answer	Mark
3(a)	**AO3 (2 marks)** ***NB:*** *the aim / question / hypothesis provides a context for the investigation and the subsequent parts that follow – no credit for this.* Award **1** mark for explaining how the hazard / risk is managed and a further mark extending this explanation, up to a maximum of **2** marks. • *(Traffic)* - It was reduced by only using a designed crossing (1) which allowed a safe crossing over the busy road (1) • (*Hypothermia*) - lots of warm clothes were taken (1) so that I did not get cold which promotes hypothermia (1). • (*Slipping on wet rocks*) - walking boots were worn (1) to minimise the risk of falling over (1). • (*unreliable data*) – correct sampling design (1) to increase reliability / data range (1). Accept other risks and management. NB No mark for naming the risk.	**2**

Question Number	Answer	Mark
3(b)	**AO3 (4 marks)** Award **1** mark for explaining a valid type of quantitative data collection and a further expansion mark up to a maximum of **2** marks each. • Environmental quality scores from a number of respondents were used (1) to find out about attitudes towards rebranding in the city (1). • Questionnaires (closed questions) used to gauge opinions from stakeholders (1) such as impacts of change (1). • Frequency of plant types were recorded along a transect (1) in order to find out about changes in plant types within that coastal ecosystem (1). • Flood risk was estimated using a bi-polar scoring system (1) in which we evaluated the effectiveness of coastal defences against a set of criteria (1). • Traffic loudness was recorded in dB using our mobile phones (1). There was a dedicated app	**4**

	which allowed this to be carried out every 100m along a transect (1). Accept other valid ideas. Nature of quantitative techniques utilised will vary depending on the location as well as the context of the investigation. NB do not accept analysis points; focus must be on collection.	

Question number	Answer
3(c)	**AO3 (6 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** Content depends on students' choice of research question. Secondary data and information includes the following ideas: • Secondary data was used to contextualise, support or challenge primary fieldwork data. • Results indicated that e.g. an area had been successfully rebranded, back-up by empirical evidence from secondary sources. • Secondary data and research supported the design of sampling framework: number of sites, spacing, sample sizes, sampling method, plus methodology: equipment, operator error etc. • Results were compared with baseline secondary data, e.g. to work out rates of coastal recession using GIS and historical maps. • Conclusions from opinions from a range of online and other sources to provide textural context. • Secondary information was used to provide quantitative data for statistical analysis, e.g. the calculation of median deprivation indices for contrasting local areas. Nature of responses will be heavily dependent on the context of the fieldwork and the environment in which it was undertaken. Examiners should reward for detailed clear and specific data and information which are supported with depth and detail in terms of factual accuracy and realism.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–2**	• Limited understanding of the relationships between geographical questions and the background information, geographical context and research question. (AO3) • Uses a limited range of fieldwork research skills and techniques to obtain information that may link to, but not support, the investigation of the research question. (AO3) • Limited evidence of an ability to draw conclusions and the evaluation is simplistic, limited to one stage in the route to enquiry. (A03)
Level 2	**3–4**	• Some understanding of the relationship between the background information, geographical context and research question. (AO3) • Uses some fieldwork research skills and techniques to obtain information that may link to, but not support, the investigation of the research question. (AO3) • Some evidence of an ability to draw conclusions and the evaluation is relevant, but restricted to one or two stages in the route to enquiry. (A03)
Level 3	**5–6**	• A full understanding of the relationship between the background information, geographical context and research question. (AO3) • Evaluates fieldwork research skills and techniques to obtain information that may link to, but not support, the investigation of the research question. (AO3) • Clear evidence of an ability to draw conclusions and the evaluation is full, across a number of stages in the route to enquiry. (A03)

Question number	Answer
3(d)	**AO3 (12 marks)** **Marking instructions** Markers must apply the descriptors in line with the general marking guidance and the qualities outlined in the levels-based mark scheme below. **Indicative content guidance** Content depends on students' choice of research question. Evaluation should include some the following: • The nature of initial research to inform the context of the enquiry as well as the identification of an appropriate topic to study through the route to enquiry. • Design of sampling framework: number of sites, spacing, sample sizes, sampling method – linked to specific methods of data collection – and how this generated accurate / inaccurate results. • Methodologies: these will depend on specific methods chosen but can include evaluation of the equipment used, operator error; success of recording sheets / tallies; use of data on subsequent analysis and explanation. • Inaccessibility of sites / lack of ability collect data due to time of day, seasons, or unanticipated hazards such as bad weather – and how this impacted on the data collected, and therefore overall success. • Ethical issues could be considered e.g. appropriateness of questionnaire questions – and how this might have limited data that could be collected. • This impacts on both the range and quality of data and in turn has effects upon the accuracy of the results and the validity of conclusions. Whether the outcomes can be trusted. • Appropriate data analysis and whether the data collected could be easily collated and analysed, or was generated in a form that made this stage problematic; how this helped generate conclusions. • Conclusions could be referred to if data collection yielded unusual / unexpected / anomalous results which affected the reliability / validity of conclusions; how easy / difficult it was to make overall judgements based on the range of evidence collected. Maybe a combination of fieldwork and research. NB Level 3 answers should include some evaluation. Answers that explain their results and conclusions, rather than evaluating the success of their investigation, are likely to be self-penalising.

Level	Mark	Descriptor
	0	No rewardable material.
Level 1	**1–4**	• Limited understanding of the relationships between geographical questions and the background information, geographical context and research question. (AO3) • Uses a limited range of fieldwork research skills and techniques to obtain information that may link to, but not support, the investigation of the research question. (AO3) • Limited interpretation, analysis based on the data / information collected. (AO3) • Limited evidence of an ability to draw conclusions and the evaluation is simplistic, limited to one stage in the route to enquiry. (A03)
Level 2	**5–8**	• Some understanding of the relationship between the background information, geographical context and research question. (AO3) • Uses some fieldwork research skills and techniques to obtain information that may link to, but not support, the investigation of the research question. (AO3) • Interpretation and analysis based on the data / information collected forms part of the response. (AO3) • Some evidence of an ability to draw conclusions and the evaluation is relevant, but restricted to one or two stages in the route to enquiry. (A03)
Level 3	**9–12**	• A full understanding of the relationship between the background information, geographical context and research question. (AO3) • Evaluates fieldwork research skills and techniques to obtain information that may link to, but not support, the investigation of the research question. (AO3) • Critically considers the role of interpretation, analysis based on the data / information collected. (AO3) • Clear evidence of an ability to draw conclusions and the evaluation is full, across a number of stages in the route to enquiry. (A03)

Question Number	Answer	Mark
4(a)	**AO3 (4 marks)** Award **1** mark for a limitation and further expansion / development marks up to a maximum of **2** marks. • There are no numbers used (1) so this makes it difficult to compare across categories (1). • The descriptors used are vague / unclear (1) so the person filling it in would be unsure as to how to score (1). • "OK" doesn't mean anything and has no value (1) therefore doesn't help with the assessment (1). • There are only three categories shown (1) this could be quite limiting in terms of range for some areas (1). • The question / context asked is not shown (1), so it makes it difficult to know how to score (1). • There is no weighting used (1) so this survey assumes all categories are of equal importance which they are not (1). • In "scheme effectiveness" category two words are circled (1) therefore can't make mind up on decision (1). Accept other valid limitations.	**4**

Question Number	Indicative content	Mark
4(b)	**AO3 (3 marks)** Award **1** mark for a reason and further expansion / development marks up to a maximum of **3** marks. • Suitable sample size in relation to population is a key part of fieldwork design (1) since larger samples will have greater reliability (1) which improves the reliability of any conclusions (1). • Resources are going to be limited when collecting fieldwork data (1) so there won't be enough time (1) to survey all parts of an environment so people have to make allowances for the fact (1). • Sample size might be controlled by the number of field-workers (1) so the fieldwork design needs to consider the optimum size in order to get reliability (1) which then makes analysis and conclusions more valid (1). Credit other valid ideas.	**3**

Question Number	Answer	Mark
4(c)(i)	**AO3 (1 mark)** 11	**1**

Question Number	Answer	Mark
4(c)(ii)	**AO3 (1 mark)** **Correct answer:** **C** – Neither agree nor disagree **Incorrect answers:** Reason as these are not the highest bars (modal categories). The other bars are below the highest bar. **A** – Strongly agree **B** – Agree **D** – Strongly disagree	**1**

Question Number	Answer	Mark
4(d)	**AO3 (3 marks)** Award **1** mark for the advantage and a further expansion mark up to a maximum of **3** marks. • It's primary data so you know where it has come from (1) therefore can make assessment about quality (1) so how long they might last in the future (1). • Gives the user a clear visual impression of the sea defences (1) which could be very difficult to describe in words (1) and therefore helps with assessment of the quality and condition (1). • Allows you to see the general condition of the concrete defences (1) and therefore make judgments about their quality / conditions (1) so that you might predict how long they could last in the future (1) • A clear advantage is you can see the defence being used in situ, i.e. with the sea adjacent (1) so this helps you understand the context of the defence (1) and whether it will be effective against bigger storm waves for instance (1). Accept other valid advantages.	**3**

5(a)	**AO3 (4 marks)** Award **1** mark for a limitation and further expansion / development marks up to a maximum of **2** marks. • There are no numbers used (1) so this makes it difficult to compare across categories (1). • The descriptors used are vague / not clear (1) so the person filling it in would be unsure as to how to score (1). • "OK" doesn't mean anything and has no value (1) therefore doesn't help with the assessment (1). • There are only three categories shown (1) this could be quite limiting in terms of range for some areas (1). • The question / context asked is not shown (1), so it makes it difficult to know how to score (1). • There is no weighting used (1) so this survey assumes all categories are of equal importance which they are not (1).	**4**

	• Not fully completed with blank categories (1) therefore judgements unreliable (1). • In "traffic management" category two words are circled (1) therefore can't make mind up on decision (1).	

Question Number	Indicative content	Mark
5(b)	**AO3 (3 marks)** Award **1** mark for a reason and further expansion / development marks up to a maximum of **3** marks. • Suitable sample size in relation to population is a key part of fieldwork design (1) since larger samples will have greater reliability (1) which improves the reliability of any conclusions (1). • Resources are going to be limited when collecting fieldwork data (1) so there won't be enough time (1) to survey all parts of an environment so people have to make allowances for the fact (1). • Sample size might be controlled by the number of field-workers (1) so the fieldwork design needs to consider the optimum size in order to get reliability (1) which then makes analysis and conclusions more valid (1). Credit other valid ideas.	**3**

Question Number	Answer	Mark
5(c)(i)	**AO3 (1 mark)** 11	**1**

Question Number	Answer	Mark
5(c)(ii)	**AO3 (1 mark)** **Correct answer:** **C** – Neither agree nor disagree **Incorrect answers:** Reason as these are not the highest bars (modal categories). The other bars are below the highest bar. **A** – Strongly agree **B** – Agree **D** – Strongly disagree	**1**

Question Number	Answer	Mark
5(d)	**AO3 (3 marks)** Award **1** mark for the advantage and a further expansion mark up to a maximum of **3** marks. • It's primary data so you know where it has come from (1) therefore can make a direct assessment about management (1) e.g. volumes and type of traffic (1). • Gives the user a clear visual impression of the traffic (1) which could be very difficult to describe in words (1) and therefore helps with assessment of transport management (1). • Allows you to see the general condition of the traffic flow (1) and therefore make judgments about transport management (1) and compare it to other areas (1). Accept other valid advantages.	**3**

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