National
Qualifications
2016

2016 Geography

Advanced Higher

Finalised Marking Instructions

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General Marking Principles for Advanced Higher Geography

This information is provided to help you understand the general principles you must apply when marking candidate responses to questions in this paper. These principles must be read in conjunction with the Detailed Marking Instructions, which identify the key features required in candidate responses.

(a) Marks for each candidate response must always be assigned in line with these General Marking Principles and the Detailed Marking Instructions for this assessment.

(b) Marking should always be positive, ie marks should be awarded for what is correct and not deducted for errors or omissions.

(c) If a specific candidate response does not seem to be covered by either the principles or detailed Marking Instructions, and you are uncertain how to assess it, you must seek guidance from your Team Leader.

(d) Use the full range of marks available for each question.

(e) The Detailed Marking Instructions are not an exhaustive list. Other relevant points should be credited.

(f) For credit to be given, points must relate to the question asked.

Marking principles for each question type
There are a range of types of question which could be asked within this question paper. For each, the following provides an overview of marking principles, and an example for each.

Explain
Questions which ask candidates to explain or suggest reasons for the cause or impact of something, or require them to refer to causal connections and relationships: candidates must do more than describe to gain credit here.
Where candidates are provided with sources, they should make use of these and refer to them within their answer for full marks.
Where candidates provide a purely descriptive answer, or one where development is limited, no more than half of the total marks should be awarded for the question.

Analyse
Analysis involves identifying parts, the relationship between them, and their relationships with the whole. It can also involve drawing out and relating implications.
An analysis mark should be awarded where a candidate uses their knowledge and understanding/ a source, to identify relevant components (eg of an idea, theory, argument, etc) and clearly show at least one of the following:

- links between different components
- links between component(s) and the whole
- links between component(s) and related concepts
- similarities and contradictions
- consistency and inconsistency
- different views/interpretations
- possible consequences/implications
- the relative importance of components
- understanding of underlying order or structure

Where candidates are asked to analyse they should identify parts of a topic or issue and refer to the interrelationships between, or impacts of, various factors, eg in a question requiring candidates to analyse the different impacts of flooding on land use, the response should consider the effects of the immediate area and also, where appropriate, other areas. Analysis should be supported by evidence where relevant.

Evaluate
Where candidates are asked to evaluate, they should be making a judgement of the success, failure, or impact of something based on criteria. Candidates would be expected to briefly describe the technique/methodology being evaluated before offering an evidenced conclusion.

Discuss/comment on …
These questions are looking for candidates to explore ideas about a project, or the impact of a change. Candidates will be expected to consider different views on an issue/argument. There should be a range of impacts or ideas within the answer.

Draw to scale …
Draw to scale involves drawing a shape/route to the correct size using the given scale of the map.

Detailed Marking Instructions for each question

Question			General marking principle for this type of question	Max Mark	Specific Marking Instructions for this question
1.	(a)		Candidates should be referring to the physical landscape but there are opportunities to link with the human environment Must make appropriate use of OS extract **Candidates should avoid giving general lists that do not relate to the site of Rye**	**6**	Rye is at the confluence of three rivers – Rother, Tillingham and Brede and so would have had good accessibility historically (1). Rye is almost entirely surrounded by the rivers which would have provided a good defensive site. This is backed up by nearby Martello Tower at 919199 and Camber Castle (922184) (1). Rye is built on a small hill rising to approximately 15 m above sea level. This would have enhanced its defensive capabilities as the surrounding land to the south, south west and east is very flat and not much more that 3 m above sea level (1). The river Rother has a harbour at Rye and the sea is approximately 3km to the south east. This suggests that the river is navigable (1). To the west of Rye there are cliffs (Cadborough cliffs), which suggests a change in geology. The cliffs will limit Rye's development to the west (1). The rivers and the land to the south (which comprises wet lands and shingle) have also restricted Rye's growth (1). **Any other valid points such as meander or gap site.**

Question			General marking principle for this type of question	Max Mark	Specific Marking Instructions for this question
	(b)	(i)	Site should be accurately drawn to scale for 1 mark on the correctly placed overlay and 2 marks awarded for appropriate site.	**3**	Size of site should be 0·4cm x 0·6cm There are several possibilities for example the site should be adjacent to A class roads (1), out of town (1), have minimum impact on other land uses (1) Any other valid point.
		(ii)	Candidates should explain choice of site for P&R. Candidates can also be credited for annotations on their tracing overlay. Reasons will depend on site chosen. Avoid crediting a list of location factors, such as flat land, room for expansion. Candidates should make use of the atlas	**5**	Possible answers might include: Site 928208 is beside the A259 which is the main road into Rye from Kent therefore may expect a larger number of visitors to come via this route (1) rather than the A259 to Winchelsea. The P&R would mean that fewer cars are travelling across the River Rother and into Rye (1). The site is on flat greenfield land and close to a footpath that people could use to walk into Rye as it is only a distance of approximately 1km (1). Chosen site must be located close to a footpath for credit. The site is adjacent to housing but trees could be planted to screen the carpark (1). Local residents would probably view the P&R as an advantage as roads would be quieter and safer. There would be less congestion in town and so locals may be less likely to object to the development (2). Any other valid point.

Question			General marking principle for this type of question	Max Mark	Specific Marking Instructions for this question
	(c)	(i)	Candidates are not expected to know about nature reserves and so should make use of the map to help suggest reasons	**3**	RHNR is a coastal location which would provide a rich supply of food for birds. It could act as a 'stop-over point' for migratory species (2). It is an isolated location with no road access and so will provide a suitable environment for wildlife to flourish (1). There are large areas of water for wetland wildlife and shingle ridges which could provide breeding grounds. Good variation/diversity of natural habitats for birds.(2) Any other valid point.
		(ii)	Candidates must make appropriate use of the OS extract. Problems should relate to the location of the Nature Reserve.	**3**	The lack of road access limits visitor numbers as it would not be suitable for people with disabilities or parents with very young children (1). Coastal flooding could be a problem during (winter) storms as the Mean High Water mark is close to the boundary of the Nature Reserve. The sea water could breach the reserve and move areas of shingle (1). The groynes suggest that coastal management is necessary. Sand could be blown onto the reserve, altering the micro environment (1). Footpaths could flood easily which could cut-off areas of the reserve (1). The mouth of the Rother could silt up affecting aquatic life (1). Mention of proximity of Dungeness nuclear power station could get credit. No credit for reference to sewage works and works causing pollution. Any other valid point.

Question			General marking principle for this type of question	Max Mark	Specific Marking Instructions for this question
2.	(a)		Candidate would need to outline both physical and human techniques to be awarded full marks. A maximum of 3 marks if only human OR only physical techniques are given. Maximum of two marks for a description of techniques.	**4**	Responses could include: Environmental Quality Surveys could be taken along the footpaths over a period of time to identify changes in human impact (1). The Surveys may also highlight areas off the path-network that are being regularly visited (1). Visitor Surveys/Questionnaires could be used to identify the most common routes visitors are taking through the reserve (1). These could be combined with annotated photographs of the footpaths (1) and electronic footfall counters to quantify visitor numbers (1). Techniques commonly used in river studies can be used to measure footpath erosion (1). Measuring the width and depth of a footpath over time will identify change, for example at the beginning and end of the summer tourist season (2). These measurements could also be taken in areas where unofficial footpaths are developing (1). Soil and vegetation techniques could also be applied. Compaction of the soil, measured using infiltration techniques, would highlight where footfall is compacting the soil (1). Using a quadrat to quantify the percentage of exposed ground could also illustrate trampled zones along the path network (1). Any other valid techniques.

Question			General marking principle for this type of question	Max Mark	Specific Marking Instructions for this question
	(b)	(i)	Question is about sampling strategy rather than gathering methodology. Various strategies could be appropriate, provided candidates justify their approach.	**2**	Possible responses could include: A systematic approach could be used such as belt transects being established across the reserve (1). At regular intervals the vegetation could be sampled and micro-climatic data also gathered, to allow both sets of data to be compared and relationships identified (1). A sampling grip could be applied to the reserve and a random number generator used to create "grid references" in which to sample (1). This could remove any possible bias in the research but could make the research challenging if the sample points are in less accessible locations (1). A stratified approach could be used, particularly if vegetation data has already mapped and recorded by, for example the Sussex Wildlife Trust (1). Micro-climate data could then be collected in each area of varying vegetation cover (1), ensuring that each of the different zones within the reserve where sampled (1). Any other valid point regarding sampling strategy

Question			General marking principle for this type of question	Max Mark	Specific Marking Instructions for this question
		(ii)	No credit should be given for naming or describing factors. Only credit the explanation of how factors may impact on vegetation. Both physical and human factors can be credited. Avoid crediting information relating climatic factors.	4	Factors other than micro-climate may include: The underlying geology could result in vegetation changes due to a difference in drainage resulting from porous or non-porous rock (1). Different geologies will also result in different soil parent material, resulting in differing growing conditions (1). Vegetation is likely to be different around lagoon margins due to the conditions only supporting salt tolerant species (1). Gravel ridges, as shown on the map, tend to be well-drained creating a habitat that only certain types of plants are adapted to (1). Parts of the reserve may have had previous land uses, such as agriculture or small industries. These may have left local chemical deposits, changing the growing conditions for the vegetation (1). Vegetation in some parts of the reserve may have been planted by the Wildlife Trust to create particular habits, therefore the vegetation changes are related to human decision-making rather than microclimate (2). The nesting sites amongst the gravel ridges will have an added nutrient content due to bird droppings and nest debris. These will result in different growing conditions potentially resulting in specific vegetation patterns (2). Any other valid explanation

Question			General marking principle for this type of question	Max Mark	Specific Marking Instructions for this question
3.	(a)	(i)	Candidates should refer to Map 1. For full marks, reference should be made to specific examples from the map. No marks should be awarded for description only.	**4**	Most large cities, for example London, are found in north west Europe and this can be explained by factors such as low fertile relief, access to the coast, raw materials or any other valid point (2). Towards the periphery of Europe there are smaller and fewer cities, for example Stockholm, and this can be explained by a more extreme climate, fewer job opportunities, poorer communications or any other valid point (2). Throughout Europe many cities are located near the coast and this can be explained by access to trading routes, tourism and better economic opportunities (1). Any other valid point.
		(ii)	Candidates should analyse the use of proportional symbols. Candidates may use either positive or negative factors.	**3**	It is clear to see which values are higher or lower by comparing the size of the symbols (1). They can be used for both a precise geographical location (a precise location) or a geographic area (country) (1) You are able to extract numbers from the map by using the key to estimate the size of the population (1). However the overlap of the symbols can mean congestion and therefore difficulty interpreting the values as seen on the map close to London and Manchester (2). The size of the symbol can also mean that the precise location of the city can be lost (1). Any other valid point.

Question			General marking principle for this type of question	Max Mark	Specific Marking Instructions for this question
	(b)	(i)		**1**	There is no relationship/correlation between a country's GDP and net migration.(1)
		(ii)	Candidates should make a judgement on the null hypothesis.	**2**	The null hypothesis must be accepted because the value of the test statistic (0·428) is not greater than the critical value in the significance table (1). The value of 0·428 is closer to 0 than 1, a perfect positive correlation, also shows that there is no significant correlation between the two variables (1).
		(iii)	Avoid giving marks for candidate's comments which are the opposite/ reverse of points already credited.	**4**	The test is relatively quick and easy calculation in comparison to the PPMC (1). The test uses data which can be ranked but this means that the test loses some of its accuracy as it is not using the actual values (1). Can only test for linear relationships so a scattergraph could be drawn to see if this is the case (1). It requires a sample size of at least 7 observations, the larger the sample size the more reliable the result (1). Any other valid point.

Question			General marking principle for this type of question	Max Mark	Specific Marking Instructions for this question
	(c)		Candidates should use the material given and the atlas to help explore reasons behind the changes seen in the data table. Avoid giving marks for repetition. Avoid giving marks for comments which are the opposite/reverse of points already credited.	**6**	Possible answers may include: The higher the GDP of a country then the perception will be that there are more opportunities and so more migrants may be attracted to the country (1). Higher GDP could mean better job opportunities and living standards which is likely to draw people from countries that which are less 'well off'. (1) Higher GDP may also mean greater investment in education and health services and so attract people from other countries (1). This is highlighted by some of the results from the table such as Luxembourg whose net migration is 8/1000 and GDP is $110,697. Norway has the next highest GDP and although net migration is smaller it is still showing a growth of population (1). Germany has a net migration for 2012 of 1 and a slight decline in its population over the time period which may be the result of low birth rate (1). Bulgaria is the only country with negative migration and Poland has a result of 0. Bulgaria, as a more recent member of the EU, may have seen some of its population migrate to other EU countries. It also has the lowest GDP in the table and migrants could see the pull of other countries which have more opportunities as a result (1). With Poland many former migrants have returned to Poland as the economy of the country has improved. GDP is nearly double that of Bulgaria and opportunities have become better. (1) (Although the test statistic is not greater that the critical value it is close to the 95% critical value so although not statistically significant, there is a weak positive relationship between GDP & Net migration for selected European countries. Any other valid point.

[END OF MARKING INSTRUCTIONS]