2025 Geography

Advanced Higher

Question Paper Finalised Marking Instructions

General marking principles for Advanced Higher Geography

Always use these general principles. Use them in conjunction with the detailed marking instructions, which identify the key features required in candidate responses.

(a) Always use positive marking. This means candidates accumulate marks for the demonstration of relevant skills, knowledge and understanding; marks are not deducted for errors or omissions.

(b) If a 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.

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

(d) The detailed marking instructions are not an exhaustive list. Award marks for other relevant points.

(e) Award marks only where points relate to the question asked. Where candidates give points of knowledge without specifying the context, award marks unless it is clear that they do not refer to the context of the question.

Marking principles for each question type
There is a range of question types in this question paper. For each question type, the following provides an overview of marking principles.

Explain **questions**
Candidates gain marks for explaining or suggesting reasons for the cause or impact of something, or for referring to causal connections and relationships. Candidates must do more than describe to gain marks here.

For source-based questions, candidates 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, award no more than half the available marks for the question.

Analyse **questions**
Candidates gain marks for identifying parts, the relationship between them, and their relationships with the whole; and for drawing out and relating implications.

Award an analysis mark where candidates use their knowledge and understanding or a source to identify relevant components (for example of an idea, theory, argument) 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
- consistencies and inconsistencies
- different views or interpretations
- possible consequences or 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. For example, where a question asks candidates to analyse the different impacts of flooding on land use, they should consider the effects of the immediate area and also, where appropriate, other areas. Candidates should support analysis with evidence where relevant.

Evaluate **questions**

Candidates gain marks for making a judgement of the success, failure, or impact of something based on criteria. They should give a brief description of the technique or methodology being evaluated, before offering an evidenced conclusion.

Discuss **or** *comment on* **questions**
Candidates gain marks for exploring ideas about a project, or the impact of a change. They should consider different views on an issue or argument. They should give a range of impacts or ideas within their answer.

Draw to scale **questions**
Candidates gain marks for drawing a shape or route to the correct size using the given scale of the map.

Marking instructions for each question

Question			General marking instructions for this type of question	Max mark	Marking instructions for this question
1.	(a)	(i)	Candidates **draw** accurately the proposed route for the 17 to 20km cycle race. Award **1 mark** for distance. Award **1 mark** for an appropriate start point. Award **1 mark** for route, that is on **and** off road. Award **1 mark** for an appropriate route.	4	• the cycle route should be 66–82cm. **(1)** • the start and finish point should be clear. • the cycle race must start near the end of the swim (next to the reservoir). **(1)** There is no requirement for the start and finish of the cycle race to be in the same place. • the cycle race should have existing roads and off-road paths and tracks. **(1)** • the cycle route should be appropriate. **(1)** (eg not through the prison grounds; not over fences; pathless woodland; streams)

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Question			General marking instructions for this type of question	Max mark	Marking instructions for this question
		(ii)	Candidates may wish to **annotate** their chosen route on the tracing overlay to highlight reasons for their choice. Candidates should **discuss** and/or include annotations with detailed information, including good use of map reading skills. Credit should be given for effective use of the atlas. Award **0 marks** for similar or repeated points.	**8**	**Cycle:** • the cycle route starts beside Grafham Water with open space allowing for easy transition from the swim and for storage of equipment 151672 **(1)** • the route follows the B661 to the east, a quiet road that won't cause much disruption if closed during the race **(1)** • it takes participants past the wind farm at 173675 creating a positive impression of the environmental credentials of the local area **(1)** • moving north the route travels through the village of Grafham, allowing locals and supporters to line the route safely **(1)** • a steep downhill slope at 161700 will make cycling more entertaining and interesting **(1)** (by following the farm track west past Brook Farm 156721, cyclists will avoid the main road (A14) so that this busier road does not need to be closed) **(1)** • a physically challenging uphill section on Stocking Lane 130705 will stretch out the field in the race, especially as this is over halfway through **(1)** • a high point of 66 m above sea level is reached at 125700, providing good views across the reservoir to the south east **(1)** • the cycle route will end at the car park/picnic site just outside the village of Perry 142672 away from any roads so causing minimum disruption **(1)** • the route is mainly along paths and tracks such as Three Shire Way, minimising disruption and improving safety for cyclists **(1)** • there is a pub 147668 about 500m from the finish line giving participants a place to meet up and celebrate **(1)** **Or any other valid point.**

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Question			General marking instructions for this type of question	Max mark	Marking instructions for this question
		(iii)	Candidates should **explain** the **positive** socio-economic impacts that the event may have on the area. Award marks for any valid social or economic impact. Award **1 mark** for each valid point. Award **0 marks** for a reverse point. Award **0 marks** for negative impacts.	4	• cafes and shops may have increased sales on the day of the event, in local settlements such as Grafham village farm 163691**(1)** • increased business for local accommodations such as the caravan site near Grafham 157695 for athletes and spectators staying close by **(1)** • this event may inspire people living in the local area to get outside and exercise more improving health, happiness and wellbeing **(1)** • farms offering their land during the event like Brook Farm 156721 may be compensated for any inconvenience providing an alternative source of income for the farm — diversification **(1)** • local events may be organised in conjunction with the competition which will increase trade and might create some temporary employment for young people **(1);** temporary employment from the event may help younger people develop and nurture their employability skills **(1)** • competitors may be encouraged back to the area and if successful it could become an annual event **(1)** with easy access from the A1 and Luton Airport **(1)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Marking instructions for this question
	(b)		Candidates should **suggest** the **negative** economic and environmental consequences the construction of this dam and reservoir may have had on the local area. Award marks for any valid economic and environmental impact. Award **1 mark** for each valid point. Award **0 marks** for a reverse point. Award **0 marks** for positive impacts. Award **a maximum of 3 marks** if only economic or environmental impacts are suggested.	4	• there would have been a loss of fertile farmland either side of the river and with less land local farms may not be economically viable and may have had to close. **(1)** There may have been a loss of employment on farms such as Rectory farm 154684 **(1)** • journeys between Perry and Grafham are longer increasing travel costs and air pollution **(1)** • construction of the dam may have caused noise pollution **(1)** • the B661 needed to be re-routed around the dam increasing the cost of the project **(1)** • fish swimming upstream to spawn may now be blocked by the dam, reducing fish numbers and impacting ecosystems across the whole river system **(1)** • the natural flow of the river may now be more regulated reducing natural flood events that may be relied on by certain species on the river **(1)** • farmland used for growing crops further downstream may have been deprived of silt and its nutrients that are normally deposited in times of flood, affecting crop yields and income **(1)** • part of the ancient woodland north of Lymage Farm 131681 has been flooded by the reservoir, reducing habitat for local mammals such as foxes and deer **(1)** • the electricity transmission lines will have been re-routed, adding to the cost of compensating the power company **(1)** **Or any other valid point.**

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Question			General marking instructions for this type of question	Max mark	Marking instructions for this question
2.	(a)		Candidates should **describe** how discharge data may be gathered. Candidates should **discuss** reliability. Award **a maximum of 7 marks** if all of river width, depth and velocity are not included. Award **a maximum of 5 marks** for either part (i) or part (ii). Candidates may answer each part separately or integrate their answers.	**8**	Possible answers may include: • discharge M3/s= cross sectional area x average velocity **(1)** (i) • to measure the width of a river: — a tape measure is placed from one bank to the other **(1)** (i) — if the tape measure comes in contact with the water, it may be dragged downstream making the measurement longer than it is **(1)** (ii) • to measure the depth of the river: — a metre stick is placed in the water at regular intervals across the stream **(1)** (i) — placing the metre stick with the narrow side facing the direction of flow will keep the metre stick vertical and so give a more accurate reading **(1)** (ii) • to measure velocity: — a flow meter is placed in the water at the same points as the river depth was taken **(1)** (i) — a float could be used but is less accurate than a flow meter **(1)** (ii) — the float is timed to see how long it takes to travel 10 metres **(1)** (i) — this is repeated several times, and the average velocity is calculated **(1)** (i) — if only one reading is taken, this could be invalid if the float became stuck on a rock **(1)** (ii) — when using a float the average velocity is multiplied by 0.8 to give the average velocity of the river across its depth **(1)** (i) • the cross-sectional area is calculated by width x average depth **(1)** (i) • it is more accurate to draw the cross section on graph paper and count the area using the squares on the graph paper **(1)** (ii) **Or any other valid point.**

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Question			General marking instructions for this type of question	Max mark	Marking instructions for this question
	(b)		Candidates should **suggest** how any health and safety issues could be minimised for the students involved in collecting this data. Award **1 mark** for each valid point.	2	Possible answers may include: • there is a risk that the students could fall into the water and suffer from hypothermia if the temperatures are low. This could be avoided by having a change of clothing and hot drinks **(1)** • there is a risk that the students could slip on wet rocks. This could be avoided by wearing suitable footwear, eg walking boots **(1)** • there is a risk that the students could be swept downstream if the volume and speed of the river are high. This could be avoided by checking the weather forecast for heavy rain **(1)** • falling trees could present a risk on windy days. This could be avoided by choosing sites away from trees **(1)** **Or any other valid point**.

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Question			General marking instructions for this type of question	Max mark	Marking instructions for this question
3.	(a)	(i)	Candidates should **evaluate** the effectiveness of using a transect to gather this data. Award **1 mark** for each valid point.	4	**Possible answers may include:** • sampling strategies can be used along a transect **(1)** • cities tend to grow outwards form a central point and therefore it is more likely that different ages of development will be sampled **(1)** • if the transect follows transport routes this may affect the results **(1)** • change can be identified along a transect which can then be further investigated **(1)** • using a transect is less time consuming than gathering the data for a whole city **(1)** • several transects can be used from the same central point and compared which would be more effective than using only one **(1)** • one transect may not be representative of the pattern of an urban area **(1)** • transects may cross geographical features such as a river or motorway which may not be appropriate/safe for fieldwork to be carried out **(1)** • comparisons can be made with urban land use models eg Burgess **(1)** **Or any other valid point.**

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Question			General marking instructions for this type of question	Max mark	Marking instructions for this question
		(ii)	Candidates should **suggest** possible reasons for changes in noise along the transect. Award **a maximum of 7 marks** if candidates do not refer to both diagrams. Award **1 mark** for each valid point.	**8**	**Possible answers may include:** • there may be more deliveries made in the CBD which increases noise levels at Site 1 **(1)** • Site 1 has the highest number of vehicles including buses and lorries which will generate more noise 85db **(1)** • Site 1 has the second highest number of pedestrians (120) which will account for higher noise levels **(1)** • Site 2 is noisier as it is outside the exhibition centre and there could be an event on which would mean an increased number of pedestrians **(1)** • the train line will generate noise at Site 3 but the data may have been collected during a period when no trains passed **(1)** • Site 4 will experience traffic noise 82db due to its location at the junction where the A class road and motorway are located **(1)** • university students walking between lectures will see an increase in noise levels at sites 5 and 6 **(1)** but there could be less traffic here due to restrictions eg pedestrianised areas or low car ownership or parking restrictions **(1)** • the hospital could generate noise levels from emergency vehicles such as ambulances **(1)** • both sites 9 and 13 are located in parks/open space and have lower noise readings possibly because the pedestrians are mainly doing pursuits on their own such as running/walking which will generate little noise **(1)** • schools at site 14 could be noisy at the start and the end of the school day and at lunchtime **(1)** • Site 17, 4800m from the CBD, is located in the centre of a housing estate and therefore 0 cars during the 15-minute counting period, and less noise **(1)**

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					Additional relevant information • the weather could impact on the noise level eg heavy rain **(1)** • there may be more cars on the road when the weather is inclement **(1)** • the time of the year could affect the noise eg the park may be noisier in the summer holidays with children playing **(1)** • the day of the week is also a consideration — weekday vs weekend as there will be less commuter traffic at the weekend **(1)** • the time of day will affect noise — if the data is collected in rush hour there will be more noise than late in the evening or very early in the morning **(1)** • there could be roadworks that create noise **(1)** **Or any other valid point.**
	(b)	(i)	Candidates should **state** the null hypothesis.	1	• there is no relationship between the distance from the CBD and noise levels **(1)**
		(ii)	Candidates should **evaluate** the result in terms of the null hypothesis. Award **1 mark** for each valid point.	3	**Possible answers may include:** • the SRCC result of –0.65 indicates a negative correlation **(1)** • at 95% the value of -0.65 is greater than the critical value of 0.48 **(1)** • at 99% the value of -0.65 is greater than the critical value of 0.63 **(1)** • there is a 99% certainty that the result will not have occurred by chance **(1)** • the null hypothesis must be rejected at 95% and 99% **(1)** • there is a negative relationship between the distance from the CBD and noise levels — as distance increases noise levels decrease **(1)** • the result is significant but the correlation not perfect and would require further investigation **(1)** • the value of -0.65 is closer to –1, a perfect negative correlation, than 0 **(1)** **Or any other valid point.**

Question			General marking instructions for this type of question	Max mark	Marking instructions for this question
		(iii)	Candidates should **explain** the suitability of using Spearman's Rank Correlation Coefficient (SRCC) for measuring this relationship**.** Award **1 mark** for each valid point.	4	**Possible answers may include:** • the test is relatively quick and easy to calculate in comparison to Pearson's (PPMCC) **(1)** • can identify relationships quickly, especially if a scattergraph is drawn **(1)** • SRCC can help determine the nature of possible relationships between the two variables eg if the relationship is positive or negative **(1)** • SRCC tests the strength or significance of a possible relationship **(1)** • the test uses data which can be ranked but this means that it is not quite as accurate because it is not using actual values **(1)** • it requires a sample size of at least 7-10 and there are 18 in the sample which is sufficient **(1)** the larger the sample size the more reliable the result **(1)** • SRCC can be less reliable where correlations can be found for unexplainable relationships **(1)** a relationship between two variables is sometimes taken as evidence that one causes the other, but this is sometimes not true **(1)** • SRCC can test linear and non-linear monotonic relationships **(1)** • SRCC is less likely to be impacted by extreme values **(1)** **Or any other valid point.**

[END OF MARKING INSTRUCTIONS]