GCSE
GEOGRAPHY
8035/3

Paper 3 Geographical Applications

Mark scheme

June 2021

Version: 1.0 Final Mark Scheme

Mark schemes are prepared by the Lead Assessment Writer and considered, together with the relevant questions, by a panel of subject teachers. This mark scheme includes any amendments made at the standardisation events which all associates participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the students' responses to questions and that every associate understands and applies it in the same correct way. As preparation for standardisation each associate analyses a number of students' scripts. Alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, associates encounter unusual answers which have not been raised they are required to refer these to the Lead Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of students' reactions to a particular paper. Assumptions about future mark schemes on the basis of one year's document should be avoided; whilst the guiding principles of assessment remain constant, details will change, depending on the content of a particular examination paper.

Further copies of this mark scheme are available from aqa.org.uk

Point marked questions marking instructions

The mark scheme will state the correct answer or a range of possible answers, although these may not be exhaustive. It may indicate how a second mark is awarded for a second point or developed idea. It may give an indication of unacceptable answers. Each mark should be shown by placing a tick where credit is given. The number of ticks must equal the mark awarded. Do not use crosses to indicate answers that are incorrect.

Level of response marking instructions

Level of response mark schemes are broken down into levels, each of which has a descriptor. The descriptor is linked to the Assessment Objective(s) being addressed. The descriptor for the level shows the average performance for the level.

Before you apply the mark scheme to a student's answer read through the answer and annotate it (as instructed) to show the qualities that are being looked for. You can then apply the mark scheme. You should read the whole answer before awarding marks on levels response questions.

Step 1 Determine a level

Descriptors for the level indicate the different qualities that might be seen in the student's answer for that level. When assigning a level you should look at the overall quality of the answer and not look to pick holes in small and specific parts of the answer where the student has not performed quite as well as the rest. If the answer covers different aspects of different levels of the mark scheme you should use a best fit approach for defining the level and then use the variability of the response to help decide the mark within the level, ie if the response is predominantly Level 2 with a small amount of Level 3 material it would be placed in Level 2 but be awarded a mark near the top of the level because of the Level 3 content. For instance, in a 9 mark question with three levels of response, an answer may demonstrate thorough knowledge and understanding (AO1 and AO2) but fail to respond to command words such as assess or evaluate (AO3). The script could still access Level 2 marks. Note that the mark scheme is not progressive in the sense that students don't have to fulfil all the requirements of Level 1 in order to access Level 2.

Step 2 Determine a mark

Once you have assigned a level you need to decide on the mark. The descriptors on how to allocate marks can help with this. The exemplar materials used during standardisation will also help. There will generally be an answer in the standardising materials which will correspond with each level of the mark scheme. This answer will have been awarded a mark by the Lead Examiner. You can compare the student's answer with the example to determine if it is the same standard, better or worse than the example. You can then use this to allocate a mark for the answer based on the Lead Examiner's mark on the example. You may well need to read back through the answer as you apply the mark scheme to clarify points and assure yourself that the level and the mark are appropriate.

Indicative content in the mark scheme is provided as a guide for examiners. It is not intended to be exhaustive and you must credit other valid points. Students do not have to cover all of the points mentioned in the indicative content to reach the highest level of the mark scheme.

An answer which contains nothing of relevance to the question must be awarded no marks.

Assessment of spelling, punctuation, grammar and use of specialist terminology (SPaG)

Accuracy of spelling, punctuation, grammar and the use of specialist terminology will be assessed via the indicated 9 mark questions. In each of these questions, three marks are allocated for SPaG as follows:

- **High performance** – 3 marks
- **Intermediate performance** – 2 marks
- **Threshold performance** – 1 mark

General guidance

- Mark schemes should be applied positively. Examiners should look for qualities to reward rather than faults to penalise. They are looking to find credit in each response they mark. Unless the mark scheme specifically states, candidates must never lose marks for incorrect answers.
- The full range of marks should be used. Examiners should always award full marks if deserved, ie if the answer matches the mark scheme.
- 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.
- Do NOT add ticks to level-marked questions – use the highlight tool/brackets to signify what is relevant.
- Sometimes there are specific "triggers" in the mark scheme that enable higher level marks to be awarded. For instance, an example or case study may be required for Level 3 if it is stated within the question.
- Where a source, such as a photograph or map, is provided as a stimulus it should be used if requested in the question, but credit can often be given for inferred as well as direct use of the source.
- Always be consistent – accept the guidelines given in the mark scheme and apply them to every script.
- If necessary make comments to support the level awarded and to help clarify a decision you have made.
- Examiners should revisit standardise script answers as they apply the mark scheme in order to confirm that the level and the mark allocated is appropriate to the response provided.
- Mark all answers written on the examination paper.

Section A : Issue evaluation

Qu	Pt	Marking Guidance	Total marks
01	1	**In which year did nuclear power and coal provide the same proportion of the UK's electrical energy mix?** One mark for correct answer: **C:** 2015 No credit if two or more answers are shaded. AO4 – 1 mark	1
01	2	**Give two reasons for the growth of energy use in transport.** 2 x 1 mark Any two reasonable ideas, expressed in the context of growth, eg: • More cars/lorries (1 mark if "more cars" and "more lorries"). • Increased wealth means more cars. • Increased population means more cars. • More leisure/holiday activity means more movement. • Increased business activity means more transport. • Increased online shopping so more deliveries. AO2 – 2 marks	2

01	3	**Suggest why energy consumption in the UK might decrease in the future.**	6

Level	Marks	Description
3 (Detailed)	5–6	AO3 – Offers effective analysis when considering a range of reasons why energy consumption may decline in the future. AO3 - Demonstrates detailed evaluation of how different factors may influence energy consumption in the future.
2 (Clear)	3–4	AO3 – Offers clear analysis which considers some of the reasons why energy consumption may decline in the future. AO3 - Demonstrates a clear evaluation of how different factors may influence energy consumption in the future.
1 (Basic)	1–2	AO3 – Analyses the information in a descriptive way which identifies a limited number of factors which may influence energy consumption. AO3 - Demonstrates a basic evaluation of how different factors may influence energy consumption in the future.
	0	No relevant content.

- **Level 3 (detailed)** – identifies and examines a range of reasons why energy demand might decrease in the future, with some evaluative understanding of links to post-industrial change and domestic/transport energy efficiency savings.
- **Level 2 (clear)** – identifies reasons why energy demand might decrease with some evaluative awareness of industrial change and efficiency savings.
- **Level 1 (basic)** – identification of points which offer some awareness of why energy demand might decrease with limited reasoning.

<u>Indicative content</u>

- Industry becoming increasingly energy aware/efficient.
- Changing industrial structure, move to post-industrial economy.
- More efficient household appliances.
- Increasingly energy efficient buildings.
- Encouragement of public transport.
- Move towards electric vehicles.
- More people working from home.
- Growth of “staycation” holidays.
- Increased awareness of environmental issues

		AO3 – 6 marks	
		Spelling, punctuation and grammar (SPaG) Responses with SPaG marks that gain a mark of zero for the content/skills of the question can still be awarded SPaG marks if the response is judged to be a genuine attempt to answer the question. **High performance** • 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. **Intermediate performance** • 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. **Threshold performance** • 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. **No marks awarded** • The learner writes nothing. • The learner's response does not relate to the question. • The learner's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning.	**3** **2** **1** **0**

01	4	**'The use of renewable energy will help to manage climate change.'** **Discuss this statement.**	6

Level	Marks	Description
3 (Detailed)	5–6	AO3 – Demonstrates a detailed analytical understanding which considers how the use of renewable energy may influence the carbon balance and affect climate change. AO4 – Communicates ideas effectively about managing climate change, with good use of geographical language.
2 (Clear)	3–4	AO3 – Demonstrates a clear analytical understanding which considers how the use of renewable energy may influence climate change.

		AO4 – Communicates ideas clearly about managing climate change, with some use of geographical language.
1 (Basic)	1–2	AO3 – Demonstrates a limited analytical understanding of how the use of renewable energy may influence climate change. AO4 – Communicates ideas about managing climate change using basic language.
	0	No relevant content.

- **Level 3 (detailed)** – shows a sound understanding of how renewable energy may help to manage climate change. Demonstrates a causal relationship (**how** using fossil fuels causes climate change), and how the increased use of fossil fuels might help to reduce greenhouse gases.

- **Level 2 (clear)** – offers reasoned observations about how renewable energy may help to manage climate change. May lack a full understanding but offers some understanding of the links between using fossil fuels and climate change (with an implication that using more renewable energy will potentially reduce the use of fossil fuel which will help to manage climate change.

- **Level 1 (basic)** – limited understanding which implies that increased use of renewable energy will reduce the use of fossil fuel with tentative link to climate change. Simple points not fully developed with limited causal understanding.

<u>Indicative content</u>

- Renewable energy as a mitigating factor is clearly mentioned in the Specification and identified on Figure 1.
- Candidates may agree with the statement and offer an understanding about how renewable energy might influence climate change or adopt the view that while it may have a potential impact the actual impact may be more marginal, especially in global terms. In essence the discussion is about the impact/relative impact and understanding the link between the use of renewable energy and climate change.

The understanding is essentially:

- More renewable energy may mean less use of fossil fuels so fewer greenhouse gases going into the atmosphere.

AO3 – 3 marks
AO4 – 3 marks

02	1	**What was the increase in the UK energy capacity for renewables in gigawatts (GW) between 2010 and 2018?** One mark for correct answer:	1

		C: 34 No credit if two or more answers are shaded. AO4 – 1 mark	

02	2	**Suggest one reason why offshore locations might be more suitable than onshore locations for wind turbines.** Any reasonable idea, eg: • Less environmental intrusion/visual pollution. • Less conflict (less people/people don't live there). • Ability to build taller/bigger turbines. • Stronger/more reliable wind. • They generate more power (because there is more wind). • They don't use space on land that could be used for other purposes. AO2 – 1 mark	1

02	3	**'All types of renewable energy generation can create environmental challenges.'** **To what extent do you agree with this statement?**	6

Level	Marks	Description
3 (Detailed)	5–6	AO2 – Demonstrates a detailed understanding of the environmental issues associated with different types of renewable energy generation. AO3 – Detailed evaluation of the types of environmental impact of different types/scales of energy generation.
2 (Clear)	3–4	AO2 – Demonstrates a clear understanding of the environmental issues associated with different types of renewable energy generation. AO3 – Some evaluation of the types of environmental impact of different types of energy generation.
1 (Basic)	1–2	AO2 – Demonstrates a limited understanding of the environmental issues associated with different types of renewable energy generation. AO3 – A limited evaluation which largely agrees with the statement and offers descriptive observations largely taken from the resource.
	0	No relevant content.

		• **Level 3 (detailed)** – offers a discussion which agrees with OR challenges the statement with thoughtfully considered observations, which may be developed from the resource or from own knowledge and understanding. Discussion begins to consider the relative impact of different renewable energy sources or the relative impact of similar energy generation projects at different scales. • **Level 2 (clear)** – shows an understanding of the statement by identifying the environmental impacts of different types of renewable energy generation and offering some relative evaluative judgement. • **Level 1 (basic)** – supports or challenges statement by offering observations from the resource with limited development or discussion. <u>Indicative content</u> • Although the resource focuses on renewable energy candidates may bring in observations about other types of energy generation (particularly nuclear, where there is some confusion about whether or not it is considered renewable). • The resource has a focus on a limited number of energy generation types. An answer which just focuses on these types can achieve the full mark range, as long as the discussion fulfils the criteria (basic, clear, detailed). • Discussions about the importance of management or scale may provide an interesting avenue for debate. Similar types of energy generation which operate at different scales might have significantly different impacts (large scale hydro/micro hydro) and relative effectiveness of management strategies may mean that environmental impacts are significantly different. • The question has a focus on energy generation, but accept observations which go beyond this and consider the environmental impacts of resource exploitation, as long as the points made are directly related to a type of energy generation. AO2 – 3 AO3 – 3	

03	1	**Give two differences in the age distribution on the Outer Hebrides between 2016 and 2041 (predicted).** 1 mark for each valid difference. Could express age groups by using actual age data or describing cohorts (children/young/middle aged/older): • Fewer children/young people in 2041. • Fewer middle-aged (working age) in 2041. • More older people in 2041. AO4 – 2 marks	2

<table>
<tr>
<td>s03</td>
<td>2</td>
<td>
‘Large scale wind energy projects are a suitable option for the Isle of Lewis.’

Do you agree with this statement?

Use evidence from the resources booklet and your own understanding to explain your answer.
<table>
<tr><th>Level</th><th>Marks</th><th>Description</th></tr>
<tr><td>3
(Detailed)</td><td>7–9</td><td>AO3 – Demonstrates thorough application of knowledge and understanding in evaluating the socio-economic and environmental impacts of the proposed wind farm development.

AO3 – Applies knowledge and understanding to make a decision based on a wide range of evidence, making specific links between different elements of the specification.

AO4 – Communicates ideas effectively, making thorough use of the resources booklet.</td></tr>
<tr><td>2
(Clear)</td><td>4–6</td><td>AO3 – Demonstrates reasonable application of knowledge and understanding in evaluating the socio-economic and environmental impacts of the proposed wind farm development.

AO3 – Applies knowledge and understanding to make a decision based on a reasonable range of evidence, making some links between different elements of the specification.

AO4 – Communicates ideas clearly, making some use of the resources booklet.</td></tr>
<tr><td>1
(Basic)</td><td>1–3</td><td>AO3 – Demonstrates basic application of knowledge and understanding in evaluating the socio-economic and environmental impacts of the proposed wind farm development.

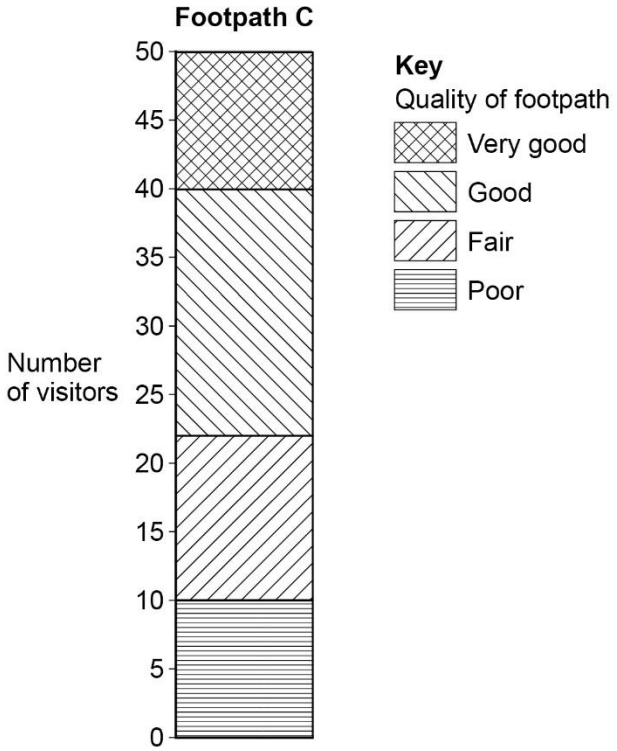
AO3 – Applies knowledge and understanding to make a decision based on a narrow range of evidence, with limited links between different elements of the specification.

AO4 – Communicates ideas using basic language, making limited use of the resources booklet.</td></tr>
<tr><td></td><td>0</td><td>No relevant content.</td></tr>
</table>
</td>
<td>9
+ 3
SPaG</td>
</tr>
</table>

		• **Level 3 (detailed) –** a wide range of supporting points identified and developed from the resources in order to support the answer. Reference made to points across the resource booklet which brings in the wider specification context. Offers detailed observations which support a judgement OR offers a balanced appreciation of the issues relating to the proposed development. • **Level 2 (clear) –** thorough use of Figure 3 with some broader reference to the other resources used in order to support a convincing discussion. Offers observations which support a judgement OR offers a balanced appreciation of the issues relating to the proposed development. • **Level 1 (basic) –** a limited number of appropriate points identified mainly from Figure 3, which are largely copied or with limited development. Offers basic observations which support a judgement OR identifies basic advantages/disadvantages of the proposed development with limited discussion. <u>Indicative content</u> • There is an expectation that candidates will draw on evidence from the whole of the resource booklet in order to consider broader themes and offer the potential to examine wider aspects of their geographical studies. • Decision making implies an element of evaluative thinking. This can be expressed in a variety of ways, from simply identifying appropriate evidence to making comparative judgements about different aspects of the proposed development. • There are synoptic links running through the whole exercise, including an appreciation of the socio-economic and environmental aspects of the proposed development, as well broader aspects of sustainable development and links to climate change mitigation. • The exercise offers the opportunity to appreciate that all types of energy generation bring with them environmental challenges and that energy generation decisions are complex. • There is a clear element of balancing socio-economic gains and socio-environmental costs, but also a consideration of the conflict between different types of economic opportunity (in this case energy generation and tourism). • The nature of the exercise suggests a need for a discussion which considers both costs and benefits, both in the short and long term and how the proposed development might impact the future economic security of an area where opportunities might be limited. • Part of the discussion might consider the relative merits of different economic opportunities or offer a discussion about the scale of the proposal and whether smaller scale energy developments might be more appropriate. AO3 – 6 AO4 – 3	

		Spelling, punctuation and grammar (SPaG) Responses with SPaG marks that gain a mark of zero for the content/skills of the question can still be awarded SPaG marks if the response is judged to be a genuine attempt to answer the question. **High performance** • 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. **Intermediate performance** • 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. **Threshold performance** • 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. **No marks awarded** • The learner writes nothing. • The learner's response does not relate to the question. • The learner's achievement in SPaG does not reach the threshold performance level, for example errors in spelling, punctuation and grammar severely hinder meaning.	**3** **2** **1** **0**

Section B: Fieldwork

Qu	Pt	Marking guidance	Total marks
04	1	**Complete the graph below (Figure 5) to show the quality of footpath data for Footpath C.** Both bars marked on in correct order and shaded as the key (1 mark)  AO4 – 1 mark	1
04	2	**What percentage of visitors thought the quality of Footpath C was very good?** 20% AO4 – 1 mark	1
04	3	**Outline the conclusions that the students could make from the data (Figure 4).** 2x1 single points: • Footpath A appears to have the highest quality.(1) • Footpath B appears to have the lowest quality. (1) • Footpaths B and C had the same level of 'very good' rating. (1) 2 marks for a developed point: • Footpath A has the highest rating (1) suggested by the fact that 38 people said they were good or very good. (d)(1) • All three footpaths had a range of ratings (1), however footpath B had the highest number rated poor. (d)(1)	2

		No marks for simply repeating a single data set (21 people said Footpath A was very good). There needs to be a link to the idea expressed in the question 'does the quality of footpath vary?'. AO3 – 2 marks	

04	4	**Suggest another appropriate method the students could use to present the footpath quality data.** Any <u>appropriate</u> suggestion. Most likely answers may be pie graph/chart; bar graph/chart, located bar graph – 1 mark. Line graph is incorrect. AO4 – 1 mark	1

04	5	**Suggest two ways the questionnaire shown in Figure 6 could be improved to make it more useful.** 2x1 Credit any valid suggestion • Differentiate between males/females. • Indicate different age groups using tick boxes. • Provide a list of areas/district from which shoppers are likely to have travelled. • Ask how far they have travelled. • Provide a list of options from which shoppers can choose when they last visited. • Ask how many times they have visited. • Ask which shops/services they have used/reasons for visit. • Provide a list of types of transport. • Ask how long the journey has taken. • Ask how long are you staying. • Provide options in terms of length of stay. • Improve the design of the questionnaire so the responses from a number of shoppers could be recorded on one sheet. AO4 – 2 marks	2

04	6	**Complete Figure 7 by adding the following information.** Both sets of appropriate symbols required for 1 mark (2 buses 4 cars) Accept any reasonable representation. AO4 – 1 mark	1

04	7	**Complete the desire line map (Figure 8) by adding the following information about a shopper.** Both direction and distance required for 1 mark. Tolerance • Accept anywhere between existing desire lines pointing in SE direction. • 14–16km distance. AO4 – 1 mark	1

04	8	**Suggest reasons for the pattern shown on Figure 8.** 2x1 **changes** mark or 2 marks for a developed point. Accept any reasonable comment that relates to a description of the pattern. • The river is a major barrier and reduces movement from the north. • People travel shorter distances from the east because there are other shopping areas nearby. • Fewer people come from longer distances because of the need for a car/cost. • More remote areas may have fewer shopping opportunities. • The bus service may make it more difficult/easier to reach the shopping centre. • There appears to be a general pattern of "distance-decay". AO4 – 2 marks	2

04	9	**Complete the table below (Figure 10) for town centre A.** AO4 – 1 mark	1

Town centre	**A**	**B**	**C**
Number of charity shops	**9**	19	18
Total number of shops	**92**	114	142

04	10	**Using Figure 10**, **compare the proportion of charity shops between the three town centres.**	4

Level	Marks	Description
2 (Clear)	3–4	AO3 – Demonstrates clear application of knowledge and understanding of proportion by analysing the data associated with the three identified towns. AO4 – Clear reference made to the data shown in **Figure 10**.
1 (Basic)	1–2	AO3 – Demonstrates limited application of knowledge and understanding of proportion by simple analysis which largely refers to amounts rather than proportions. AO4 – Some reference made to the data shown in **Figure 10**.
	0	No relevant content.

- **Level 2 (clear) –** shows an understanding of the relative proportion of all three places by using % data or ratio with an appropriate degree of accuracy. Candidates need to make an explicit comparison between the three data sets to gain full marks.

  4 marks – Understanding of proportion and accurate data with all three places used to offer clear analysis.

  3 marks – Understanding of proportion and some data used to offer clear analysis

- **Level 1 (basic)** – Limited understanding of proportion, with data used in a basic way. No real attempt to analyse the data in terms of relative proportions.

  2 marks – Attempts to consider proportion but calculations not always accurate. Simple statements with no relative judgements (B has the most charity shops / C has the highest proportion) or incomplete.

  1 mark – Simple use of raw data with no real understanding of proportion:
  - Repeats data (A has 9 charity shops, B has 19 charity shops, etc.)
  - B has more charity shops than C.
  - **Max Level 1** for correct calculation of proportion / percentage with no further analysis.

  Approximate statistical data:

	A	B	C
Percentage	9.7	16.6	12.6
Ratio	1 in 10 (just over)	1 in 6	1 in 8 (just under)

AO3 – 2 marks

AO4 – 2 marks