

Assessment Objectives Grid - G4

Question	AO1 Knowledge & Understanding	AO2 Application	AO3 Skills	Total
1	4 (concepts of place, space and diversity)	3 (interpreting & unfamiliar context)	3 (analyse and synthesise geographical information)	10
2	3 (select human processes underpinning concepts, examples)	4 (application in unfamiliar contexts)	3 (carry out research and use of methods)	10
3	3 (people-environment interactions)	3 (analysis and unfamiliar contexts)	4 (research and communication)	10
4	7 (extend geographical ideas, concepts and processes)	11 (consider new ideas and developments, evaluation)	7 (synthesise information, reach conclusions, and communicate findings)	25
5	7 (extend geographical ideas, concepts and processes)	11 (evaluation of viewpoints, (extend geographical ideas, concepts and processes)	7 (reach conclusions and communicate findings)	25
Total	24 (30%)	32 (40%)	24 (30%)	80 (100%)

GENERIC MARK SCHEME

These give an outline of the qualities expected of answers at each level. Normally, these will be written into the mark scheme for a specific examination, and which may be modified beyond these descriptors to accommodate the demands of individual questions.

If a candidate answers in an unanticipated way, but it is clear that there is some substance to the answer, the following guidelines may be used in allocating a mark to the answer. If in any doubt, please consult your team leader.

10 mark questions

Explanation of some kind is the most likely demand of these questions. For other kinds of command, comparable qualities to those given for explanation can be expected.

Level 3 (8 - 10 marks)	Answers at this level have a good explanation. Explanations may be brief or quite long; their distinguishing quality is that they are clear. Answers need not be fully comprehensive but should be extensive enough to cover most aspects that can be reasonably expected for the question posed. Points of explanation should have some supporting evidence, either from resources provided or from knowledge gained from the candidate's own studies. If the question has more than one aspect, then these will all be addressed soundly.
Level 2 (4 - 7 marks)	Answers in Level 2 will either (i) contain a small amount of clear explanation but several points that might reasonably be expected will be missing, or (ii) be answers that are more comprehensive but the explanation is not really clear, or (iii) be clear on several points but support for the explanations will be missing or be too generalised, 'as in the Amazon'. If the question has more than one aspect, one may be dealt with adequately, but others may be underdeveloped, leading to an unbalanced answer.
Level 1 (1 - 3 marks)	Answers at this level there will only be the beginnings of an answer to the question, and will have major weaknesses. Explanations will be unclear or may be missing altogether. Correct information that could be relevant may be stated, but it will be left to the reader to put two and two together. Answers that deal with more than one point will be over simple on all of them. Any support that is given will be very general 'e.g. Africa'. If a question has more than one aspect, only one may be addressed and others ignored. Answers may be incorrect or faulty in some other way.

25 mark questions

These questions will have a strong evaluative element. Some form of debate needs to be engaged in to reach the two top levels. Some questions may have a command for description or explanation in the early part of the wording. If only those parts are attempted, answers can gain a maximum mark of the top of Level 3.

Level 5 (22 - 25 marks)	<p>A range of evidence supporting more than one possible conclusion will be clearly stated. There will be a good attempt to weigh up the evidence. This may be by showing that one piece of evidence carries more weight than others, or that there are far more points in favour of one point of view than for any others. These questions will often have a 'how far' or 'to what extent' element, and evidence given will be used deal with such aspects. The structure of the answer will be evaluative throughout. Conceptual understanding and place specific knowledge will both be very good. Answers will be well ordered and logical, with clear expression in the chosen language.</p>
Level 4 (17 - 21 marks)	<p>A reasonable amount of evidence on both sides of the debate will be presented here. There will be some attempt to weigh up the evidence in order to show that it points more one way than the other, or to try and assess 'how far'. These will either be limited, confined to just one or two sentences, or unbalanced, being too sweeping for one side over others. All other aspects of the answer expected up to Level 3 will be present. Conceptual understanding or place knowledge may be good, but not equally strong on both. Answers will have only minor flaws in logical ordering or linguistic expression.</p>
Level 3 (10 - 16 marks)	<p>These answers will have a good explanation. There will be some attempt to show that there are arguments on both sides of the case, but these will be few, scattered and in most instances, not supported by any evidence. There may be some evidence of conceptual understanding, and/or the odd piece of place specific knowledge. Structure and expression may have flaws.</p>
Level 2 (5 - 9 marks)	<p>Answers at this level will be mainly explanatory, with evidence of some of the comparable qualities expected at Level 3 for the 10 mark questions. Any attempt to deal with the evaluative components will be brief, and either be very simple, confined only to one side or have very little support. There will be weaknesses of structure and expression.</p>
Level 1 (1 - 4 marks)	<p>Some relevant knowledge may be stated, but few points will be explained. Any evaluation will be a simple statement of a point of view without any valid supporting evidence. The structure may be muddled and expression weak or unclear. Planning notes or fragments can be given a mark in this range.</p>

G4

If a candidate answers in a way that is not anticipated by the mark scheme, but has an acceptable answer to the question set, please use the generic mark scheme on pages 2 & 3 to determine an appropriate mark. If in any doubt, please consult your team leader.

SECTION A

Q.1 Explain why there are increasing demands for electricity and water in south-east England. [10]

Figure 2 outlines the expected growth in demand for electricity, and Figure 6 does the same for water. Figure 7 identifies some mismatches. Figure 9 indicates the growth of the population of London and number of households in south-east England. Information from other resources can be made relevant. Full marks can be gained by very good explanations involving increased population, more dwellings and greater employment. However, credit well answers related to climate change increasing the need for energy for air conditioning in summer, and greater demands for water as evaporation increases. Also some candidates may highlight lifestyle changes that increase demands, e.g. power showers with water, or power for servers holding computer data. The best answers will focus on explanations that fully back up points. Mid-range answers will contain some sections that could be part of a fuller answer, but are limited in number. Or they may cover a number of points but never develop any well. Low-range answers may fail to make explanatory points, giving information that the reader needs to work on themselves in order to reach an explanation.

Level 3 (8 - 10 marks)	Explanations for both electricity and water are clear, extensive and are well supported. <i>'Incomes are higher and growing in the south-east and people can afford power showers, dishwashers and other electrical goods.'</i>
Level 2 (4 - 7 marks)	There may be some imbalance in quality between electricity and water or both combined. Both may be equally good but have weaknesses in clarity, extent or support. Some sound explanation will be present. <i>'The south-east is growing faster than other parts of the country.'</i>
Level 1 (1 - 3 marks)	Explanation will be poor. Extent of increases in demand may be repeated from the resources, but explanations are likely to be unclear, very limited in range and not well supported. <i>'Hardly anyone lives in the north of England.'</i>

Q.2 Outline how precipitation patterns and the potential for storing water in different parts of the UK contribute to problems of water supply. [10]

Figures 3, 4, 7 and 8 give information on rainfall and storage in London and south-east England. Figures 15 and 16 give rainfall and storage potential in areas of upland Britain. Figures 6, 7 and 15 cover a number of points that indicate problems arising from mismatches. Information from other resources can be made relevant. Having highlighted demand in Q1 candidates need not dwell on the demand side for high marks. Top level answers will outline rainfall and storage of water in at least two parts of the UK, most likely London and the south-east of England, and contrast this with an upland area of Britain, probably mid-Wales. They will make the point clearly that high rainfall and large storage capacity is located some distance from where demand is high. These answers will also highlight the difficulty and cost of transferring water from areas with high supplies to where supplies are limited. Middle range answers are likely to present the correct information but be poorer on explaining problems of supply. Low level answers will be over-simplistic and may contain faulty information.

<p>Level 3 (8 - 10 marks)</p>	<p>Areas of both high rainfall and storage potential will be identified and lower rainfall and storage capacity in areas of high demand are clear. Problems of supply and difficulties with water transfer are made clear.. <i>'In Rhayader over 1500 mm of rain falls each year and the July average is only 14°C so not much evaporates.'</i></p>
<p>Level 2 (4 - 7 marks)</p>	<p>Information outlining rainfall and storage in different areas will be sound but may be unbalanced. Some presentation of problems will be given but will lack depth and detail. Alternatively, the balance between the outline and presentation of problems may be reversed. <i>'There are more valleys in mountain areas where water can be stored.'</i></p>
<p>Level 1 (1 - 3 marks)</p>	<p>Both the outline and problems will be sketchy or may be faulty in information provided. <i>'It rains more in the north than the south.'</i></p>

Q.3 Describe how different methods of generating electricity create environmental concerns. [10]

Figure 10 shows a number of types of generation in south-east England. Problems with HEP and transmission in sensitive areas appear in Figure 18, and there is clear questioning of the Severn barrage in Figures 28 and 29. Many of the other problems, especially CO₂ emission, are briefly referred to or implied in many of the resources. It can reasonably be expected that having studied Sustainable Energy, some of that knowledge may be introduced and described. Candidates are asked to describe in the first instance so that the how has some factual information to refer to. High level answers should extract a number of well-made points from the resource and introduce good detail on some other issues such as CO₂ levels with coal, oil and gas, radioactive waste from nuclear or opposition to wind power as a visual intrusion and a hazard to birds. Middle range answers may rely just on resources, or use only prior knowledge, or be thin if both are used. Lower level answers will have sparse content and unclear for how.

<p>Level 3 (8 - 10 marks)</p>	<p>Answers will cover a good range of environmental concerns from either renewable or non-renewable sources or both. At least two different methods will be used in some detail. Although not essential for full marks, it is anticipated that high level answers will deal with a non-renewable and renewable method. How will be clear with enough description of processes involved to give the basis for how. <i>'Wind turbines work best in upland areas but these are where most national parks and AONB are found and they spoil the view.'</i></p>
<p>Level 2 (4 - 7 marks)</p>	<p>How may not be fully complete and may not have enough description of what is involved in the processes to support the statements on how. <i>'Nuclear causes radioactive waste which is dangerous.'</i></p>
<p>Level 1 (1 - 3 marks)</p>	<p>Very little will be on how although a little description may be introduced in a way that leaves it up to the reader to work out environmental concerns. <i>'Coal gives off CO₂.'</i></p>

Q.4 Assess the sustainability of strategies aimed at managing increasing demands for water. [25]

The Resource Folder gives several strategies and management proposals for the UK, but full marks can be given to answers using information from outside the folder and from other parts of the world, provided that they are detailed, evaluative and focus on sustainability. Increasing supply is fully acceptable as a way of attempting to meet increasing demand, but credit good answers that confine themselves purely to the management of demand. Figures 13 to 16 give most information on boosting supplies within the UK. Demand reduction, or reducing the rate at which the increase in demand takes place, is more widely scattered throughout the resources.

<p>Level 5 (22 - 25 marks)</p>	<p>Answers will consider different degrees of sustainability related to water supply and/or demand in named strategies and associated management, supported by place specifics. Sources of increasing demands for water will be clear. The focus of most of the answer will be on sustainability and assessment. Extensive evidence is given. The answer will be well structured and logical, and expressed in clear language.</p> <p><i>'Lake Nasser provides water for Egypt. This gives farmers a predictable supply of water for irrigation to meet the demands of the growing population. However, the lake is already beginning to silt up, making it shallower, and reducing the amount of water that may be available in the future.'</i></p>
<p>Level 4 (17 - 21 marks)</p>	<p>The answer will deal well with water supply and/or demand strategies, identifying good and bad points with a number of these clearly linked to sustainability to provide some assessment. Some good evidence is given. Some indication of increasing demand will be present. A well ordered answer with good expression.</p> <p><i>'Lake Nasser provides water for Egypt. This allows farmers to make long term cropping plans.'</i></p>
<p>Level 3 (10 - 16 marks)</p>	<p>A number of valid points will be made about water supply and/or demand, including good and bad points. One or two of these may be simply related to sustainability, but sustainability will not be the central focus of the answer. Increasing demand may be mentioned but may only be implied. Schemes will be named but detail may not be well related to them. A little evidence is given. Minor flaws in organisation and expression are likely.</p> <p><i>'Dams silt up over time so provide less water.'</i></p>
<p>Level 2 (5 - 9 marks)</p>	<p>Some aspect of water supply and/or demand will be presented but the answer will be very narrow. Good and bad points may be made but it will be left to the reader to work out how they relate to sustainability. Demand is likely to be neglected, but if given some sound attention, strategies and management will be very thin. Schemes may be named but discussion will involve no place detail. Evidence is poorly linked to the answer. Frequent problems with structure and expression will be present.</p> <p><i>'Building dams can store water that would run off quickly in rivers.'</i></p>
<p>Level 1 (1 - 4 marks)</p>	<p>Isolated pieces of relevant information will be presented but not really organised into an answer. Schemes may be named but any discussion will have little if any relationship to them. Poor or no evidence given. The whole answer will be poorly organised and with poor expression.</p> <p><i>'Dams can burst and sweep away villages.'</i></p>

SECTION B

Q.5 Describe differences in wealth in cities. To what extent do these disparities create problems of sustainability? [25]

There are several routes that can be taken, all equally capable of producing high scoring answers. Contrast between MEDC and LEDC cities is likely. The problems of informal settlements, transport, waste disposal or pollution may be identified. How these problems affect sustainability should be made clear. The experience of different cities is likely to provide the evidence to support judgements on extent. The question may be answered by considering two LEDC cities with differing degrees of problems. Two MEDC cities could give similar opportunities. Candidates may focus fairly early on in their answers on how differences in wealth affect a particular problem that often gives rise to sustainability issues, such as waste disposal, and may use this as a central focus bringing in evidence from numerous cities. Differences within individual cities should be clear, but beyond that much of the answer may focus on differences between two or more cities.

<p>Level 5 (22 - 25 marks)</p>	<p>Differences in wealth in at least two cities will be described very clearly. These will be clearly linked to problems that they create. The seriousness of these problems will be identified. These points will be constantly related to how they affect the sustainability of the cities identified. Extensive evidence will be given. Extent will be clearly addressed. The answer will be well structured and logical, and expressed in clear language.</p> <p><i>'Although there is a rich minority, Quito has many homeless people who could only be housed in barrios ilegales. The poor conditions put off investors particularly for tourism. This prevents city revenue increasing and makes it difficult to invest in long term development. In Tokyo, ...'</i></p>
<p>Level 4 (17 - 21 marks)</p>	<p>Differences in wealth in at least two cities will be described. Resulting problems will be identified. Differing degrees of seriousness will be shown. Some of these will be related to sustainability. Some evidence is given. Some attempt at extent will be made. A well ordered answer with good expression.</p> <p><i>'Although Washington DC is the main centre of government in the USA, it has many poor areas. Unemployment is high in these areas, which leads to problems of drugs and crime. There are some very rich lawyers working in the city so tax revenues are high, but the rich are moving to suburbs.'</i></p>
<p>Level 3 (10 - 16 marks)</p>	<p>One or more cities will be identified. Some differences in wealth will be shown. Some problems will be identified. A limited number of points related to sustainability may be briefly made. Some evidence will be given. Minor flaws in organisation and expression are likely.</p> <p><i>'Overcrowding in Mumbai spreads disease as there are no sewers and the government cannot afford to give them materials to help.'</i></p>
<p>Level 2 (5 - 9 marks)</p>	<p>Answers will dwell mainly on differences only, or on problems only. The link between the two may be unclear. Sustainability will be neglected or be over simple, or may be left to the reader to work out. Evidence is poorly linked to the answer. Frequent problems with structure and expression will be present.</p> <p><i>'In LEDC cities like Cairo they just build anywhere so there are no roads. It is hard for people to get to work.'</i></p>
<p>Level 1 (1 - 4 marks)</p>	<p>A few differences or problems may be mentioned but these will be over simple. Poor or no evidence is given. The whole answer will be poorly organised and with poor expression.</p> <p><i>'When cities are poor they are unplanned so nobody can get water.'</i></p>