

Section A: Issue Evaluation – MARK SCHEME

Question 1a

Which of the following cities has the highest annual rainfall?

B: Glasgow

1 mark for correct answer.

No mark if more than one answer selected.

Question 1b

Give two effects of water stress.

Any two reasonable ideas, expressed as an “effect”. Examples might include:

- water supply/shortage issues
- may lead to rationing
- reducing water table affects aquifers
- too much water removed from rivers affects flow
- hosepipe bans makes outside water use difficult
- increase in the price of water
- effects on vegetation in gardens
- problems for farming/growing crops/food shortages/increasing food prices
- effects on angling/fishing
- effects on sailing/recreational activities
- problems for industrial production/loss of output/jobs
- falling levels in reservoirs affects energy supply
- need for increasing levels of water management to ensure adequate supply
- damage to environment
- health issues
- over-extraction of water

Question 1c

'Water transfer schemes will be essential to meet the growing demand for water in the UK.' Do you agree? Explain your answer.

- Level 3 (5-6 Marks)(detailed) understanding of the debate with evaluative observations which identify precisely why there may be a need for water transfer schemes and a broad appreciation of alternative strategies to ensure adequate supply.

Indicative content

- The precipitation map shows clearly that there are considerable variations in amounts of precipitation across the UK
- The major settlements identified on the map suggest that there may be an imbalance between supply and demand
- There are also additional physical factors that might be considered, such as types/patterns of rainfall and the effect of geology on storage and the importance of aquifers
- In addition to total rainfall amounts the consideration of seasonality is of fundamental importance in relation to the management of water supply
- Part of the debate is the legal obligation that water companies have to ensure adequate supply and quality
- Broader aspects might include observations about how agricultural/industrial demand may be in areas of lowest rainfall
- There are a number of demand based factors identified in the resource, including population/housing growth and increasing demand created by growing levels of wealth
- Aspects of changing climate are considered, especially in relation to the reliability of rainfall/ there is an element of "the unknown" suggested here
- There are clearly different potential strategies for managing water supply, including water transfer schemes/recharge/storage and also reducing waste and conservation
- There is a clear suggestion that satisfying the likely future demand will not be easily possible without some form of transfer/storage

Question 1d

Suggest why water companies need 25 year plans.

- Level 3 (5-6 Marks) (Detailed) reference to resource(s) to identify and evaluate the needs for 25 year plans with an appreciation of both supply and demand factors. This includes an understanding that developing supply infrastructure requires planning/time and involves a range of factors.

Indicative content

- Water companies have a legal obligation to ensure both quantity and quality of supply.
- Past evidence is used to consider both likely supply and demand in the future.
- The idea of a 25 year plan clearly suggests that there is a longer term strategy which will reduce the likelihood of shortages.
- There are also long term development/planning strategies in relation to housing/industrial/recreational development and since these factors will reflect on the demand for water they need to be considered together.
- Satisfying future water demand will require considerable engineering challenges and this will require companies to consider a range of factors, including planning issues/environmental assessments/development and building. All of these phases of development will take time so there is a need for long term planning.
- Long term planning is required in order to use resources effectively (the "white elephant" syndrome).

Question 2a

What is the approximate area of the proposed reservoir as shown on the Ordnance Survey (OS) map extract?

B: 6 km²

1 mark for correct identification.

No mark if more than one answer selected.

Question 2b

Describe the relief of the land in the area of the proposed reservoir.

2x1 marks for 2 identified points OR 2 marks for a developed idea.

1 mark for a single identified observation which describes or implies a description;

- It is flat/relatively flat(1)
- It is low-lying
- The spot heights are all about 60m (1)
- There are few/no contour lines/contour lines are far apart(1)

2 marks for a developed point

- There are few/no contour lines (1), showing that the land is relatively flat.(d) (1)

Question 2c

Give one reason why clay is a suitable material on which to build a reservoir.

Any idea which suggests/implies that clay will restrict percolation or reduce the need for engineering strategies in order to reduce water loss.

- It is impermeable/does not easily allow water to pass through it/waterproof
- There will be less water loss/clay holds water more effectively
- There will be less need to line the reservoir
- It is easily dug up

Question 3a

‘The physical environment provides opportunities for a range of socio-economic activities.’ Use Figure 2 and Figure 3 to discuss this statement.

- Level 3 (5-6 Marks) (detailed) use of **Figure 2** and **Figure 3** which offers developed and reasoned observations about how the physical environment provides the opportunity for a wide range of socio-economic opportunities. May make links between social/recreational opportunities and economic opportunities (visitor centres/wardens/catering opportunities).

Indicative content

- The physical environment provides a wide range of economic opportunities in relation to resource development and use, and also transportation.
- Economic opportunities may be created for both the local area and the wider economy.
- Economic opportunities may be reflected in job opportunities/wealth creation or specific industrial links. Multiplier possibilities might be considered.
- There are a range of social activities which might be passive or active.
These might be expressed in many ways
(recreational/sporting/creative/educational/environmental).
- Social and economic opportunities do not exist in isolation. For instance, water sports activities are seen as a recreational/social activity but also provide employment through activity centres/cafes etc.).
- Accept observations about negative socio-economic opportunities

Question 3b

Do you think that the proposed reservoir development should go ahead?

Use evidence from the resources booklet and your own understanding to explain your choice.

- Level 3 (7-9 Marks) (detailed) use of the resources with a wide range of points developed (using the range of resources or going beyond the resources) which supports the decision. Offers detailed observations which support the decision OR offers a balanced appreciation of the advantages/disadvantages of the proposed development. Likely to use material from different parts of the resource booklet.

Indicative content

- There is an expectation that candidates will draw on evidence from the whole of the resource booklet in order to consider broader themes and potentially bring in wider aspects of their geographical study.
- Decision making implies an element of evaluative thinking. This can be expressed in different ways.
- There are strong synoptic links running through the whole exercise including; elements of physical geography; environmental geography; social geography and economic geography.
- There is a strong link to the idea of the environment as a valuable resource and an appreciation of the concept of both environmental and socio-economic sustainability and how these might be linked is implicit throughout the exercise.
- This exercise implies an understanding of the challenges of managing the security of water supply and the importance of a reliable and cost effective supply of water.
- There is a clear reference to the idea that there may be different ways to satisfy increasing demand, so this scheme could be seen relative to other possibilities.
- There is a clear element of balancing socio-economic gains and socio-environmental costs, but there are more complex factors, for example, the extent to which the development might create wider gains at the cost of local people.
- The nature of the exercise suggests an element of discussion about the balance between managing supply and demand. As such there is a strong element of using conservation and technology to control demand, which in turn may reflect on the need for large scale developments. The proposed development is being sold as essentially the only real option; however opposition groups suggest that there may be other options/combinations of options.

- Part of the discussion may be the extent to which the development provides the best opportunity to satisfy future water needs or whether a number of smaller schemes and conservation measures may be more economically and environmentally suitable.
- Candidates may challenge the idea that the development is based on future predictions (of population/housing based demand and climate uncertainty) and consider that this data may be unreliable, consequently leading to a “white elephant” scenario (Kielder Water?). This avenue of thinking is reasonable in relation to offering a broad ranging evaluative judgement.

Spelling, punctuation and grammar (SPaG)

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.

Question 4a

Calculate the temperature range for Manaus.

1 mark

Temperature range = 2 (degrees not required)

Do not credit 29-27 or a definition of range.

Question 4b

Explain why there are 'no real seasonal temperature differences' in areas of tropical rainforest.

Answer needs to refer to seasonality

1 mark for each basic point (2 x 1):

- near/on the equator
- between the tropics
- position of overhead sun.
- similar hours of daylight through the year

2 marks for developed/linked points which give an indication of distribution rather than individual areas:

- it is near the equator(1) so temperatures are generally hot all of the time (d)(1)
- the sun is nearly overhead all year(1) so temperatures don't vary (d)(1).

Question 4c

Suggest one reason why so many medicinal drugs are derived from tropical rainforests.

Some appreciation of the wide range of plant/animal life OR uniqueness of the physical environment.

Question 4d

‘Tropical rainforests are important at both the local and global scales.’

Discuss this statement.

- **Level 3 (5-6 Marks)**– Detailed response based on resources which identifies factors and explains them in relation to the importance of tropical rainforests at both a local and global level. A more balanced appreciation of local and global.

Indicative content

There are a number of clearly local and global factors and also some that can be considered important at both scales so there is a need to be careful with ideas that might legitimately fit into both categories.

Ideas might include observations about:

- the ecological significance at both local and global level
- providing local sources of food/medicine
- providing medicine at a global level
- providing raw materials at both a local and global level
- important in maintaining local indigenous populations
- important in relation to local weather patterns/water sources
- important in managing soil erosion locally
- broader ideas about carbon sinks/links to global climate.

Question 5a

Compare the pattern of forest loss between the Brazilian Amazon and the non-Brazilian Amazon.

Accept similarities and differences.

Must compare rather than make individual observations.

1 mark for each basic point

Ideas might include:

- overall greater in the Brazilian Amazon
- trend in the Amazon downwards until 2010, upwards in the non-Brazilian

Amazon

- pattern similar for most years in both areas
- pattern similar for most years in both, except 2005,2007,2008
- pattern similar between 2001-2004 (upwards)
- much greater variation in the Brazilian Amazon
- idea that they both fluctuate
- Brazilian Amazon has greater fluctuation than non-Brazilian
- from 2004 the Brazilian Amazon tends to have a downward trend while the non-Brazilian Amazon tends to have an upward trend
- the amount of forest loss in the Brazilian Amazon is always considerably more than the non-Brazilian Amazon.

Allow 1 mark for use of data/implied use of data (amount of forest loss) as a developed point:

- using the 2001 and 2010 data the Brazilian Amazon shows a decrease of 100 000 ha while the non-Brazilian Amazon shows an increase of 350 000
- the amount of forest loss in the Brazilian Amazon is always at least twice as much as in the non-Brazilian Amazon.

No credit for an accurate point about one data set (ie only Brazilian Amazon OR non-Brazilian Amazon considered).

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Question 5b

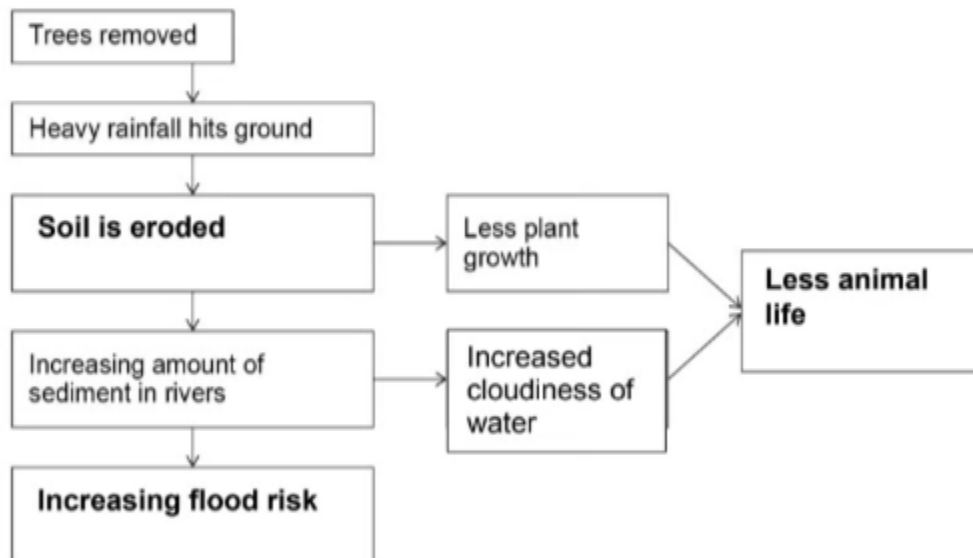
Complete the following diagram to show how the removal of trees can affect the rainforest environment. Write the correct statement in each box.

1 box correct – 1 mark

2/3 boxes correct – 2 marks

1 box correct – 1 mark

2/3 boxes correct – 2 marks



Question 5c

‘Some activities in areas of tropical rainforests are more damaging than others.’

To what extent do you agree with this statement?

- **Level 3 (5-6 Marks)**– Detailed reference to the resources to identify why different activities may have greater/less impact on the rainforest environment, with the relative impacts considered in an evaluative way. Ideas coherently expressed with sound use of geographical language.

Indicative content

There are a number of possibilities within the resources to consider, but also be open to students who bring in other ideas, for examples points about ecotourism or more sustainable forms of development (as long as there is a clear comparative judgement which references the resource information as well):

- different activities require varying amounts of land and consequently varying amounts of deforestation
- some activities may be more sympathetic to the natural environment
- some activities may have a broader effect on different parts of the ecosystem (mining may not only damage the land but also affect water courses)
- activities that use chemical inputs can affect both the land and water systems
- some activities have a larger spread effect (affecting land outside of the initial development footprint).

Question 6a

What does the information in the 'Peru: development fact file' suggest about levels of development in Peru?

- **Level 2 (3-4 Marks)**– Clear reference to the resources which clearly identifies the socio- economic conditions within Peru. Some clear relative understanding of the data (high/low in relation to levels of development) and how rural/urban differences suggest a lack of development.

Indicative content

- General socio-economic data suggests a low level of development.
- Extreme poverty in many areas.
- Lack of social facilities in many areas.
- Distinct differences between rural-urban areas.
- Suggestion of almost a "dual" socio-economic structure between rural-urban areas.

Question 6b

'The Peruvian government has decided to allow the development of new roads in the Amazon.'

Do you think that this was the right decision?

Use evidence from the resources booklet and your own understanding to explain your choice.

- **Level 3 (7-9 Marks)**– Detailed use of the resources with a wide range of developed points which go beyond the ideas expressed within the resources OR uses ideas expressed throughout the resource booklet (not just Figure 3) to support the decision. Offers evaluative observations which support the decision OR a balanced appreciation of the advantages/disadvantages of the road developments. Communicates ideas with clarity and use of geographical language.

Indicative content

Detailed observations about climate change are of limited usefulness.

- The Fact file suggests that Peru has a significant number of poverty issues and a lack of industrial development.
- The Fact file suggests that there are significant rural-urban differences (Gini Co-efficient ideas).
- There is a suggestion that industrial development is challenging in rural areas.
- Road developments would encourage a wide range of industrial activity which in turn could improve socio-economic conditions.
- The rainforest could provide a significant economic resource base.
- The development of roads could encourage political and trade links with Brazil (seen as a powerful and influential neighbour).
- There are significant multiplier opportunities.
- There are broader balance of trade issues.
- The photographs and resources suggest that road developments have a far greater negative environmental and social impact than simply the route of the road.
- Development could have significant impacts of local environments/ecosystems.
- Development might encourage further expansion (use of the non-Brazilian forest loss data useful here).
- Impact of local indigenous populations.
- Development might create conflict between different user groups/communities.
- The extent to which this type of development might be considered sustainable.
- Observations about the merit of other types of development might be appropriate.

Question 7a

In which year were global urban and rural populations the same?

One mark for correct answer:

B: 2007

No credit if two or more answers are shaded.

Question 7b

Which of the following statements is correct?

One mark for correct answer:

A: Latin America/Caribbean is predicted to double its % urban population between 1950-2030

No credit if two or more answers are shaded.

Question 7c

Explain the link between economic development and urbanisation.

- **Level 2 (3-4 Marks) (clear)** – identifies the link between economic development and urbanisation and suggests reasons for the relationship which identify the specific socio-economic facilities/opportunities that exist in urban areas and suggest that these are often 'core' growth areas.

Indicative content

- There is a positive relationship between economic development and urbanisation.
- The relationship is emphasised by the cluster of very poor countries that also have lower rates of urban populations.
- Urban areas are often core areas where industry and infrastructure develops. This creates opportunities for a range of both skilled and unskilled jobs.
- Urban growth creates opportunity for unskilled/informal employment.
- There is a greater opportunity for education and job-related training in urban/industrial areas.
- Students may consider cumulative causation/the multiplier effect.

Question 7d

Suggest two reasons why estimates of future urban population may not be accurate.
No credit for simply saying “it is only a prediction”

2x1 marks

Any reasonable answers, which might include;

- Difficulty in actually counting current numbers (1)
- Economic growth may be faster/slower (1)
- Birth rates may increase/fall (1)
- Death rates may increase/decrease(1)
- Conditions in rural areas might improve (1)
- Natural disasters/climate change related factors (drought) (1).
- Original data used for prediction may not be accurate (1).
- Idea of rapid change leading to inaccuracy(1).

Question 7e

Suggest one challenge that urbanisation creates for rural areas.

1 mark for identification of appropriate point; 2nd mark for developed idea

- Decline of rural communities/ Lack of investment in rural areas (1)
- Loss of working population (1) leads to agricultural/industrial decline(1)(d)
- Imbalance in the population structure (1)
- It is mostly younger people who migrate (1) so the population has a disproportionate number of older people (dependency idea) (1)(d)
- Lack of investment/growing wealth gap between urban/rural areas. (1) because most investment goes to urban areas (1)
- Because most of the business development/income is in urban areas(1) the wealth gap between rural and urban areas grows. (1)(d)

Question 8a

Suggest why cities in LICs and NEEs are often referred to as ‘unequal cities’.

- **Level 3 (5-6 Marks) (detailed)** – uses evidence from the resources to demonstrate a detailed awareness of the development gap which exists in cities and clearly suggests that access to economic and social opportunities is not equal.

Indicative content

- This question can be addressed in a polarised way by simply considering ‘rich’ and ‘poor’ and using evidence to identify these differences.
- There is clearly a ‘range of differences/divisions’ and these exist at different scales and can even be seen within slum areas.
- Evidence within the resources suggests that a development gap exists across a range of socio-economic factors, the most obvious being housing quality and access to basic facilities.
- At a sophisticated level the idea of a development gap can be considered in relation to broader opportunities, for example; access to services; types of employment; housing security; personal safety.

Question 8b

Compare levels of access to piped water in urban and rural areas shown in Figure 2.

Question is about piped water not improved sanitation.

Access can be about availability or relative price.

1 mark for the general observation that access is always higher in urban areas.

- Always higher in urban areas (or lower in rural areas).
- Latin America is higher than the other areas.

2nd mark – Relative comparative observation (differences between areas)

OR use of data, OR second separate point.

- Always higher in urban areas (1), for example in Southern Asia the difference is 39% (d)(1)
- Access is always higher in urban areas (1), in 3 of three areas it is three times higher (d)(1).

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Question 8c

Suggest why it might be helpful to describe the growth of African cities as ‘population growth per hour’.

Any reasonable answers which might include:

- because they are growing very rapidly/shows extent of growth/extreme nature of growth.
- points about making the rate of growth sound more dramatic
- points about smaller numbers being easier to comprehend/compare/understand.

Question 8d

**‘Urban planners are finding it challenging to keep up with the growth of cities in LICs and NEEs.’
To what extent do you agree with this statement?**

- Level 3 (detailed) – demonstrates a detailed evaluation of the range of challenges that planners might have to deal with and offers an understanding of how rapid urban growth might exacerbate the challenge.

Indicative content

- There are a range of planning issues that have to be managed, including housing, communications, basic services (water, sewage, waste, energy) and broader social services (health, education).
- Many urban areas have severe issues relating to housing issues, a lack of services, dealing with waste, traffic congestion and general environmental pollution issues.
- Putting plans into operation requires both time and money.
- Many of the planning decisions are based on demand and continued population growth makes this a very challenging task.
- Much of the growth is based around relatively poor people moving to urban areas, adding to the challenge of planning for services.
- In many areas actual population numbers are not clear so planning for specific services is difficult.
- The idea of urban areas “running to stand still” is not an uncommonly expressed view of urban growth.

Question 9

‘Slums of hope or slums of despair?’ Which do you think best describes urban slums in LIC/NEE cities?

Use evidence from the resources booklet and your own understanding to support your answer.

A judgement can be stated or implied.

- **Level 3 (7-9 Marks) (detailed)** – a wide range of supporting points identified and developed from the resources in order to support a judgement. Reference made to points across the resource booklet which brings in the wider specification context. Offers detailed observations which develop a discussion and support an evidenced judgement.

Indicative content

- This is clearly a complex discussion and responses need to be judged on the level of the discussion and how effectively evidence is used in order to develop ideas.
- Students may develop a polarised discussion taking the view that slums are places of either ‘hope’ or ‘desperation’, or they might take a wider view and consider that ‘hope’ and ‘desperation’ can both be seen in slum areas. Either of these approaches is acceptable and the full mark range is open to both avenues of discussion.
- Students may bring in their own place based examples or use evidence from cities not mentioned in the resources.
- Individual views may be based partly on learned knowledge. For example, if a student has looked at successful NGO/Government socio-economic development programmes they may have a particular view, if they have looked at crime, disease and socio-economic problems related to urban slums they may have a different view. What is important is the quality of the discussion and how effectively information is used to develop the discussion.
- Clearly there are huge variations in the quality of life in urban slums and consequently individual slums may be more, or less hopeful or desperate.
- All slums are different and in some cases there may be a hierarchy of slum areas, where conditions vary. An example of this can be seen in Dharavi, where some of the older slum areas are more established and have secure structures with services, whereas the more recent slum areas may have far poorer facilities. In that instance “Hope and despair” might both be clearly evident within one large slum area or be seen in different slum areas within the same city.

- 'Hope and Despair' may be considered in relation to future possibilities, so a temporal element could be considered. For example, living conditions may be desperate for some people but the opportunities within the city may create a better future for the next generations.
- In relation to 'Hope', in general terms the resource based evidence suggests that urban areas provide a number of social and economic opportunities and may provide the possibility of a wider number of life chances which may lead to a better future.
- In relation to 'Despair', in general terms the resource highlights the poor conditions that the poorest slum dwellers have to live in and the link to disease and crime. There is a brief suggestion that conditions in the poorest slums are poorer than in the rural areas from where people may have come.

Spelling, punctuation and grammar (SPaG)

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.

Question 10a

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.

Question 10b

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.

Question 10c

Suggest why energy consumption in the UK might decrease in the future.

- **Level 3 (Marks 5-6)(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.

Indicative content

- 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

Question 10d

‘The use of renewable energy will help to manage climate change.’

Discuss this statement.

- **Level 3 (Marks 5-6) (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.

Indicative content

- 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.

Question 10e

What was the increase in the UK energy capacity for renewables in gigawatts (GW) between 2010 and 2018?

One mark for correct answer:

C: 34

No credit if two or more answers are shaded.

Question 10f

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.

Question 10g

'All types of renewable energy generation can create environmental challenges.'

To what extent do you agree with this statement?

- **Level 3 (Marks 5-6) (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.

Indicative content

- 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.

Question 10h

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.

Question 10i

‘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.

- **Level 3(Marks 7-9)(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.

Indicative content

- 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.