Version 0.1

General Certificate of Secondary Education

June 2013

Geography A 40304H

(Short Course)

Unit SC1: Physical and Human Geography (Higher)

Final Mark Scheme

Mark Scheme

Mark schemes are prepared by the Principal Examiner 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 examiners participate in and is the scheme which was used by them in this examination. The standardisation process ensures that the mark scheme covers the candidates' responses to questions and that every examiner understands and applies it in the same correct way. As preparation for standardisation each examiner analyses a number of candidates' scripts: alternative answers not already covered by the mark scheme are discussed and legislated for. If, after the standardisation process, examiners encounter unusual answers which have not been raised they are required to refer these to the Principal Examiner.

It must be stressed that a mark scheme is a working document, in many cases further developed and expanded on the basis of candidates' 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.

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GENERAL GUIDANCE FOR GCSE GEOGRAPHY ASSISTANT EXAMINERS

Quality of Written Communication

Where candidates are required to produce extended written material in English, they will be assessed on the quality of written communication.

Candidates will be required to:

present relevant information in a form and style that suits its purpose;
ensure that text is legible and that spelling, punctuation and grammar are accurate;
use specialist vocabulary where appropriate.

Levels Marking - General Criteria

Where answers are assessed using a level of response marking system the following general criteria should be used.

Level 1: Basic

Knowledge of basic information
Simple understanding
Little organization; few links; little or no detail; uses a limited range of specialist terms
Reasonable accuracy in the use of spelling, punctuation and grammar
Text is legible.

Level 2: Clear

Knowledge of accurate information
Clear understanding
Organised answers, with some linkages; occasional detail/exemplar; uses a good range of specialist terms where appropriate
Considerable accuracy in spelling, punctuation and grammar
Text is legible.

Level 3: Detailed

Knowledge of accurate information appropriately contextualised and/or at correct scale
Detailed understanding, supported by relevant evidence and exemplars
Well organized, demonstrating detailed linkages and the inter-relationships between factors
Clear and fluent expression of ideas in a logical form; uses a wide range of specialist terms where appropriate
Accurate use of spelling, punctuation and grammar
Text is legible
Level 3 does not always equate to full marks, a perfect answer is not usually expected, even for full marks.

ASSESSMENT OF SPELLING, PUNCTUATION AND GRAMMAR

Spelling, punctuation and grammar will be assessed via the 8 mark questions in Section A and the 8 mark questions in Section B. 3 marks will be allocated for Spelling, Punctuation and Grammar in each of these questions. The performance descriptions are provided below.

High performance *(3 marks)*

Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision.

Intermediate performance *(2 marks)*

Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility.

Threshold performance *(1 mark)*

Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately.

The marks allocated for Spelling, Punctuation and Grammar will achieve a total weighting of 5% of the total marks for the qualification.

Annotation of Scripts

One tick equals one mark, except where answers are levels marked (where no ticks should be used). Each tick should be positioned in the part of the answer which is thought to be credit-worthy.

Where an answer is levels marked the examiner should provide evidence of the level achieved by means of annotating 'L1', 'L2' or 'L3' in the left hand margin.

The consequent mark within this level should appear in the right-hand margin.

Ticks must not be used where an answer is levels marked.

Examiners should add their own brief justification for the mark awarded e.g. *Just L3, detail and balance here*.

Where an answer fails to achieve Level 1, zero marks should be given.

The following is a list of the unit-specific annotations available on the CMI+ system:

General Advice

Marks for each sub-section should be added in the right-hand margin next to the maximum mark available which is shown in brackets. All marks should then be totaled in the 'egg' at the end of each question in the right-hand margin. The totals should then be transferred to the boxes on the front cover of the question paper. These should be totaled. The grand total should be added to the top right-hand corner of the front cover. No half marks should be used.

It is important to recognize that many of the answers shown within this mark scheme are only exemplars. Where possible, the range of accepted responses is indicated, but because many questions are open-ended in their nature, alternative answers may be equally creditworthy. The degree of acceptability is clarified through the Standardisation Meeting and subsequently by telephone with the Team Leader as necessary.

Diagrams are legitimate responses to many questions and should be credited as appropriate. However, contents which duplicate written material or vice versa should not be credited.

Quality of Written Communication (QWC) is part of the award of marks in levels marked answers only. In levels marked answers the quality of the geography is assessed and a level and mark awarded according to the geography. As is sometimes the case, the geography may be sound at a particular level but the examiner may not be sure as to whether there is quite enough to raise the mark within that level. In this case the examiner should consider the QWC of the answer. QWC that fulfils the criteria for the level should lead to the rise in the mark but where the QWC does not fulfil the criteria, the answer should remain at the mark first thought appropriate. In cases where QWC has been used in the award of marks, the examiner should indicate this with QWC and arrows that indicate either an upward or downward trend according to its impact on the final award of the mark.

SECTION A

Question 1: The Restless Earth

1(a)(i) Any 3 points relating to difference that can be derived from Figure 1, e.g. constructive plate margins occur where plates move away from each other – as with the North American plate and Eurasian plate in the Atlantic Ocean, whereas destructive plate margins are found where plates move towards each other – as is the case with the Nazca plate and the South American plate. New crust formed versus destroyed. Landforms at different plate margins.
3×1. Must have 1 mark at least on each plate margin.

(3 marks)

AO2 – 1
AO3 - 2

1(a)(ii) North American plate and Pacific plate or can be indicated via location.

(1 mark)

AO3 – 1

1(b) Flat/rounded top, low lying, broad base, gently sloping sides, made of runny lava/ basaltic lava, little ash, non-explosive eruption, frequent eruptions.
2×1

(2 marks)

AO1 – 2

1(c) Composite volcanoes occur at destructive plate margins. Here, plates move towards each other due to convection currents. Pressure builds up over a long period of time as the denser oceanic plate sinks beneath the continental plate. Melting of this occurs in the subduction zone due to friction and heat and the crust becomes magma. This process causes a build-up of pressure which is released in an explosive eruption – giving volcanoes that are formed of sticky slow flowing lava and ash often in alternate layers along a line of weakness/fault.

(4 marks)

AO1 – 3
AO2 – 1

Level 1 (Basic) (1-2 marks)
A partial explanation – may have start, end or random parts of sequence.
Sequence incomplete.
Plates move towards each other. One plate sinks beneath the other. Pressure builds up and a volcano is formed.

Level 2 (Clear) (3-4 marks)
Stages are clear and explanation is coherent and complete.
Sequence complete.
Develops and links points.
Plates move towards each other due to convection currents. The denser oceanic plate sinks beneath the continental plate. Melting of this occurs in the subduction zone due to friction and heat and a pool of magma forms. This rises and the pressure is released in an explosive eruption often along a fault – giving a steep sided volcano of lava and ash.
Diagrams may be drawn to support text.

1(d) Earthquake activity is monitored as this can be a sign or a trigger of a volcanic eruption. Observation of changes in the shape of the land and more accurately the use of tiltmeters to identify and record such changes. GPS use satellites to detect the smallest movement – of a mm and robots known as spiders are introduced into craters to monitor changes in gases – especially sulphur dioxide – which can signify an eruption. All of these allow people to prepare and to evacuate if necessary.

(4 marks)

AO1 – 3
AO2 – 1

Level 1 (Basic) (1-2 marks)
Simple, listed points.
Points are separate and link to preparation/eruption not present or unclear.
Earthquakes are recorded. Changes in the shape of the surface are identified. Gases released change.

Level 2 (Clear) (3-4 marks)
Points are developed and linked.
Links monitoring to preparation with regard to advance warning/time given and / or imminent eruption.
Earthquakes occurring more frequently or strongly are a sign that an eruption is likely to occur and this gives warning and time to prepare. Tiltmeters record even a slight change in the shape of the land and spiders monitor gases – the concentration of sulphur dioxide increases before an eruption. Changes identified in advance allow time for evacuation if necessary or stocking up of essential supplies.

1(e) Recognition of a destructive plate margin with epicentre / earthquake originating under the ocean. This resulted in the land being thrown / flexed upwards leading to the displacement of the column of water above. This separates and heads toward the coast. As it approaches, the wave length reduces and the height increases as the water piles onto the coast.
3×1, reserving 1 mark for displacement of water which is critical for tsunami.

(3 marks)
AO2 – 1
AO3 – 2

1(f) Actual content will depend on the case study being used – Boxing Day tsunami of 2004 is textbook example but Japan tsunami also likely to be used – as below.
The area along the coast to the north of Tokyo was worst affected – stretching for over 200 miles. Closest to the epicentre was Minamisanriku where it is thought that half of its 17 000 population died. The wave was in excess of 10 metres and engulfed entire settlements transporting cars and boats like toys. In Sendai, these were shifted to the harbour wall, people were stranded in the airport and 5 million did not have power and 1 million had no mains water supply. Water flooded the reactors of the Fukushima nuclear plant causing the loss of power, but more worryingly the risk of meltdown as more people had to move from their homes.

(8 marks)
AO1 – 4
AO2 – 4

Level 1 (Basic) (1-4 marks)
Describes effects of a tsunami.
Statements are general in a random order.
Lots of people died, a lot were drowned or killed by the sheer power of the water. Buildings were destroyed. A huge wave hit the coast. People tried to run out of the way. In some parts whole places were destroyed.

Level 2 (Clear) (5-6 marks)
Effects are clearly described, in an organised way.
Statements are linked.
There is a clear reference to the case study named – rings true for example.
Cars, ships and planes were tossed like toys. Huge areas of the coast north of Tokyo were affected by waves over 10m. Thousands died due to the waves covering the coast and the nuclear plant was flooded. Many did not have power and were rationed. Whole towns were wiped out and hundreds of thousands were living in shelters. Industry was shut down, causing economic problems for the country.

Level 3 (Detailed) (7-8 marks)
Will have a clear structure.
Statements are logically ordered and linked.
Detailed reference to specific case study.
The area along the coast to the north of Tokyo was worst affected – stretching for over 200 miles. Waves of over 10 metres approached the coast and engulfed entire settlements transporting cars and boats like toys. Closest to the epicentre was Minamisanriku where it is thought that half of its 17 000 population had died. In Sendai there were boats stranded on the harbour wall, people were stranded in the airport. 5 million did not have power and 1 million had no mains water supply. Water flooded the reactors of the Fukushima nuclear plant causing loss of power, but more the threat of meltdown loomed, causing even more people to leave their homes.

Spelling, Punctuation and Grammar **(3 marks)**

SPaG

Threshold performance
Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately. **1**

Intermediate performance
Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility. **2**

High performance
Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision. **3**

Total: 28 marks

Question 2: Water on the Land

2(a)(i) Any 3 valid characteristics – arrow must make contact with feature for mark and refer to river valley or channel only. **(3 marks)**
3×1 Maximum 2 on either valley or channel.
AO2 – 1
AO3 – 2

2(a)(ii) There is likely to be reference to horizontal layers of hard and soft rock, with the hard rock forming the cap rock. Erosion of the underlying softer rock at a faster rate causes an overhang to develop; abrasion and hydraulic action are particularly important erosion processes; material from overhang collapses causing waterfall to retreat. The process begins again and repeats, subsequent collapses lead to the formation of a gorge – the narrow steep-sided valley in front of the waterfall. **(4 marks)**
Any valid explanation of a gorge is permissible.
AO1 – 3
AO2 – 1

Level 1 (Basic) (1-2 marks)
Simple points.
Order not correct – jumps about.
Sequence may be incomplete.
Erosion occurs at the bottom of a waterfall. An overhang develops. Over time this cannot be supported and it collapses. The same thing happens again.

Level 2 (Clear) (3-4 marks)
Complete, clear statements.
Statements are developed and linked.
Sequence and formation of a gorge is complete and clear.
Hard rock is underlain by soft rock. This erodes faster as a result of abrasion and hydraulic action. An overhang forms. This eventually collapses and the waterfall retreats upstream. This is how a gorge is formed, as the sequence repeats, a narrow, steep-sided valley is left where the waterfall used to be.

2(b)(i) Hydrograph should have a higher peak and a shorter time lag. **(2 marks)**
2×1
AO1 – 1
AO3 – 1

2(b)(ii) The amount of water fluctuates due to a variety of factors. The specification refers to amount and type of rainfall, temperature, previous weather conditions, relief, rock type (impermeable, permeable, porous and pervious) and land use. There should be reference to some of these. There is a need to explain so answer should focus on this, e.g. the recognition that rivers in areas of impermeable rock will have more water in them than those with permeable as they do not allow water to soak in, so water flows quickly over the surface to the channel. In contrast, rocks like limestone have joints and bedding planes that provide pathways for water to enter and go through, so water is removed from the surface and takes a slower route to the river, so there is less water present in the channel. **(6 marks)**
AO1 – 3
AO2 – 3

Level 1 (Basic) (1-4 marks)
Simple, separate statements, perhaps list-like identification at lower end.
Will begin to explain at top end.
Some rivers are in areas where there are lots of trees. Some have steep slopes. Water gets to the river fast where slopes are steep.

Level 2 (Clear) (5-6 marks)
Develops and links statements.
Will refer to more than one reason.
Clear, purposeful explanation.
The amount of water will be high if the river is in an area with steep slopes. This will cause the water to run quickly over the surface due to gravity, before it has time to soak in. It will reach the river quickly and the amount of water will increase. The previous weather can also cause changes. If it has been dry, rain will soak into the ground and will be slow to reach the river. However, if it has been wet, the water will flow over the surface reaching the river quickly.

2(c)(i) Any valid point – area is mountainous, with lower lying areas that have rivers – so could be dammed; likely to receive more rain due to being higher up; population density likely to be low so less disruption. **(2 marks)** **AO3 – 2**
2×1 or 1×(1+1)

2(c)(ii) There is no requirement to use a case study, but it is permissible to use one to support the answer. **(8 marks)**
Specification refers to economic, social and environmental issues, so reference should be expected to these. Economic issues may refer to cost of building dam and pipelines; loss of farmland and livelihood versus opportunities for development of tourism. Social issues may refer to the loss of people's homes and displacement of people as villages are drowned; ill-feeling regarding the origin of water and its destination such as reservoirs in Wales and Welsh water supplying England. Environmental issues likely to refer to loss of land and habitat, impact on the flow of the river and impact of new uses such as recreation and tourism; reduction of flood risk. **AO1 – 4** **AO2 – 4**

Level 1 (Basic) (1-4 marks)
Describes problems and/or advantages that result from building dam and reservoir.
Statements are simple and separate.
Dams lead to large lakes behind them which flood farmland. Villages can be covered in water. People may visit the new lakes and use them for sailing and other water sports.

Level 2 (Clear) (5-6 marks)
Begins to discuss issues – and recognises that building dams and reservoirs creates debate.
Will offer some support – perhaps via case study.
Statements are developed and linked.
The building of a dam is very expensive as well as all the pipelines needed to transport the water. Perhaps money could be spent on educating people to conserve water rather than provide more. People lose their homes and livelihoods as a result of dams being built. Whole villages have been flooded as at Llanwddyn in north Wales. This is a lot of disruption for some people.

Level 3 (Detailed) (7-8 marks)
Clearly discusses issues – recognises that building dams and reservoirs creates debate.
Will offer support – perhaps via case study.
Statements are linked and detailed.
Building dams and creating large reservoirs is at a huge cost. At Carsington, the cost was £107million – all this to meet increased demand for water for increased use for things like washing machines and dishwashers. Perhaps, instead people could conserve water. People lost homes and livelihoods – when Lake Vrynwy was created, the village of Llanwyddyn was flooded. People were forced to move as 10 farmhouses as well as 2 chapels and 3 pubs were drowned – taking away the whole community. This Welsh water is then taken to English cities such as Liverpool – which the local people object to – seeing it as their water.

Spelling, Punctuation and Grammar **(3 marks)**

SPaG

Threshold performance
Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately. **1**

Intermediate performance
Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility. **2**

High performance
Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision. **3**

Total: 28 marks

Question 3: Coastal Zone

3(a)(i) 3×1 for labelling any 3 valid landforms – arrow must make contact with feature for mark. Landforms such as headland, cliff, cave, arch, wave-cut notch. **(3 marks)**

3×1

AO2 – 1
AO3 – 2

3(a)(ii) Waves erode the base of the cliff via hydraulic action and abrasion. A cave forms as a crack/weakness is exploited by the waves. On a narrow headland, continued erosion extends the caves backwards and once it breaks through the headland, an arch forms. Further erosion at the base widens the arch. Eventually the roof of the arch will not be able to be supported by the rock below. This collapses to leave a sea stack – an isolated pillar of rock, now detached from the headland. **(4 marks)**

AO1 – 3
AO2 – 1

Level 1 (Basic) (1-2 marks)
Simple points.
Order not correct – jumps about.
Sequence may be incomplete.
The sea erodes the bottom of the cliff. An arch forms. Eventually, this collapses to leave a sea stack.

Level 2 (Clear) (3-4 marks)
Complete, clear statements.
Statements are developed and linked.
Sequence and formation of a stack is complete and clear.
Waves erode a crack in a headland. This leads to a cave forming due to hydraulic power and abrasion. Over time, the cave gets bigger and finally breaks through the headland to form an arch. Weathering of the roof and erosion at the base widen the arch. A point comes when the roof cannot be supported and this collapses. This results in the formation of a sea stack – an isolated pillar of rock – once attached to the headland.

3(b)(i) Sea level should be drawn as a solid line to match the key and be in line with 40cm scale line (i.e. add 35 to the 2010 figure). **(2 marks)**

2×1

AO1 – 1
AO3 – 1

3(b)(ii) Economic effects include risk of loss of farmland, settlements such as Kings Lynn, the threat to the coastal tourist industry and areas such as the Norfolk Broads with its lucrative sailing, the cost of protection is likely to rise as areas seek to prevent flooding – the Thames Barrier will need replacing ultimately. Environmental effects include the flooding of large areas of mudflats, salt marsh – which provide unique habitats, rates of coastal erosion will increase and settlements will be further threatened – Happisburgh. **(6 marks)**

AO1 – 3
AO2 – 3

Level 1 (Basic) (1-4 marks)
Simple, separate statements, perhaps list-like identification at lower end.
Will describe effects at top end.
Lots of places will be flooded. People will lose jobs as tourist areas are lost. More sea walls will be needed and barriers.

Level 2 (Clear) (5-6 marks)
Develops and links statements.
Refers to both economic and environmental.
Clear purposeful description.
There are many economic and environmental effects. Economically, settlements will be threatened even London where 1.25 million people work in flood risk area. The cost of protection will be high with the Thames Barrier needing to be replaced. Environmentally, many coastal areas will be threatened – with salt marshes and mudflats that provide habitats for different plants and animals and birds under threat. Rates of coastal erosion will increase and further threaten vulnerable settlements, such as Happisburgh.

3(c) Area X has a more indented coast with headlands and bays, whereas Area Y is much straighter/smoother with sand spits visible. **(2 marks)**
2×1 **AO3 – 2**

3(d) Actual content will depend on strategies selected. Can refer to advantages of selected strategy or disadvantages of one that is rejected. For example if hard engineering (sea walls, groynes and rock armour) is selected, likely to note the effectiveness of sea walls at stopping the sea; the presence of cheaper alternatives such as rock armour and groynes which protect the base of cliffs and reduce erosion or keep a beach in place which is a natural protection. There are other advantages of these – such as encouraging tourists by maintaining a beach or encouraging fishing off them. Overall, they offer secure protection against the waves. In contrast, soft engineering (beach nourishment, dune regeneration and marsh creation) are less secure means and beach nourishment no cheaper than rock armour. This needs greater maintenance than a sea wall. Dune regeneration can lead to the exclusion of people from protected areas – discouraging, rather than encouraging tourists and marsh creation involves the sacrificing of some land to the sea – so not really offering protection everywhere. **(8 marks)** **AO1 – 4** **AO2 – 4**

Level 1 (Basic) (1-4 marks)
Describes hard and/or soft engineering strategies.
Simple statements, may be in a random order.
Soft engineering involves dumping sand on the beach. This means that a beach is kept in place and this protects the coast behind.

Level 2 (Clear) (5-6 marks)
Begins to consider why the strategy selected is better option.
Advantages of option clear and/or disadvantages of alternative are included.
Statements are developed and linked.
Beach nourishment means adding sand to the beach material that is already present. This acts as a barrier to the waves and protects the land behind. It is an environmentally friendly method of protecting the coast as it does not look unsightly. It is cheaper than hard engineering options like sea walls.

Level 3 (Detailed) (7-8 marks)
Clearly focused on why the strategy selected is better option.
Advantages of chosen option clear and/or disadvantages of alternative in a purposeful discussion – makes a case for chosen option.
Statements are developed and linked.
Beach nourishment adds sand from offshore to the beach material that is already present. The beach is a natural protector and this keeps the beach in place and adds to the appearance. It will also ensure tourists keep coming. This is a lot cheaper than hard engineering strategies like building sea walls – a 2.1km sea wall at Scarborough cost £50million in 2005, in contrast to £3000 per metre for beach nourishment. Marsh creation is another way of protecting the coast with little impact. By allowing a limited amount of low value areas to flood, many other areas are protected without interfering with the movement of material in an area. This is a more sensible approach than trying to keep the sea out with sea walls that need replacing and are costly and can be unsightly.

Spelling, Punctuation and Grammar **(3 marks)**

SPaG

Threshold performance
Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately. **1**

Intermediate performance
Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility. **2**

High performance
Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision. **3**

Total: 28 marks

Section B

Question 4 – Changing Urban Environments

4(a)(i) Any plausible reason. Examples may be: **(1 mark)**
Increased wealth means more can afford cars (1) Lack of other transport means road the only option (1) Cities have got larger / more populated so there is more traffic (1). **AO1 – 1**

4(a)(ii) 3x1 or 1x2 +1 **(3 marks)**

Must be impacts on the environment. **AO1 – 1**
AO2 – 2

A wide range possible such as: There will be increased emissions (1) leading to more air pollution (1) which can then exacerbate the greenhouse effect / climate change (1). Particulate matter from commercial vehicles (1) can settle on buildings (1) which can result in increased damage to their fabric (1) and discolouration. More noise pollution from heavy traffic (1). Credit reference to increased emissions from slow / stationary traffic. Answers re any part of the world are valid e.g. older / more polluting vehicles in poorer world.

4(a)(iii) 2x2 or 1x3 +1 **(4 marks)**

Park and Ride schemes – these encourage people to park on the outskirts of cities which will reduce congestion as there will be fewer cars. One large bus produces fewer emissions / less air pollution than the individual cars. **AO1 – 3**
AO2 – 1
Tram systems – Produce zero / low emissions as they are electric. Much lower noise than petrol vehicles. One tram can carry the equivalent of 2/3 buses so reducing emissions. Lower emissions than the individual cars. Modern and attractive which will encourage people to use them.
Cycle hire schemes – ideal for the very short journeys which are most of urban travel, so are more suitable than car. They remove the need for people to worry about security of their own bike and therefore remove one of the big obstacles to choosing bikes over cars. Zero emissions / sustainable.

4(b) Needs to show use of Figure 11 through reference to something in the photographs. This may be slight. However there should also be evidence of the candidate going beyond this with their own knowledge to show why the photo illustrates attempts to improve CBDs. They may reference things such as pedestrianisation, certain of modern shopping malls / centres, improving the appearance through things such as flower baskets / public art, creation of outdoor seated areas / events such as the market. These should in turn be linked to ideas such as encouraging people back into the CBD, creating alternative uses for areas, renovating old buildings. **(4 marks)**
AO1 – 1
AO2 – 1
AO3 – 2

Level 1 (Basic) (1-2 marks)
Simple statements, either lifted from the resource or just their own knowledge.
There are new buildings. The flowers and trees make it look nice. There are places to sit out.

Level 2 (Clear) (3-4 marks)
Linked statements showing use of the resource and own knowledge.
The photo shows a modern shopping centre which is better than many old CBD buildings. This may encourage people back into the CBD. Places to sit out mean that cafes can replace shops. This can been seen in many city centres nowadays.

4(c) Correct completion (height of bar only, width can be ignored). **(1 mark)**

AO3 – 1

4(d) Needs to show use of both the graph (Fig. 12) and the passage (Fig. 13). This may be through figures and phrases or more generally. **(4 marks)**

AO2 – 2
AO3 – 2

Graph: Reference to values or the speed and / or scale of growth.
Passage: Reference to amounts or use of descriptive passages, comments on the volume of waste, lack of infrastructure or government support / funding meaning NGO is involved.

Level 1 (Basic) (1-2 marks)
Simple statements with no development. No reference to either resource. Little if any understanding of poor world context.
The problem is too big. Very large amounts of waste are generated. There is no money available to deal with it.

Level 2 (Clear) (3-4 marks)
Linked statements showing use of the resources. Shows understanding of poor world context.
3000 tonnes of waste per day is a huge amount to deal with. It is an even bigger problem when there is little money available. The rate at which Dhaka has grown means the problem has grown too fast for the city to cope.

4(e) Content will depend on the case study chosen. The question refers to urban living so the scale of the response could be a whole city or a small development within it. They need to show how the action or scheme makes urban life more sustainable. Credit reference to more generic issues such as recycling if related to sustainable living. Features of sustainable development are waste minimisation / recycling, renewable energy, carbon reduction, localisation of food production, good public transport, walking and cycling, provision of open space. **(8 marks)**

AO1 – 6
AO2 – 2

Level 1 (Basic) (1-4 marks)
Simple statements or lists of features with no reference to named place / scheme.
Renewable energy is used. Lots of people cycle. Rainwater is collected on the roofs.

Level 2 (Clear) (5-6 marks)
Linked statements with at least the name of a city or scheme. Sustainable living likely to be implicit.
In Dongtan in China there are plans to produce energy from waste. There will be many cycle paths to make movement easier.
Freiburg in Germany was last year voted "Europe's green city". This is because of the city's environmental measures such as use of renewable energy and also the network of forests around the city which increase green space.

Level 3 (Detailed) (7-8 marks)
Detailed case study information with good development of explanation showing more explicitly the link to sustainable living.
The BedZed development in London collects rainwater from living roofs. This reduces the need to pipe water from outside the city. It also means that some carbon dioxide will be absorbed by the plants, making the building carbon neutral. All the appliances are low energy versions in order to further reduce the carbon footprint of the houses.

Spelling, Punctuation and Grammar **(3 marks)**

SPaG

Threshold performance
Candidates spell, punctuate and use the rules of grammar with reasonable accuracy in the context of the demands of the question. Any errors do not hinder meaning in the response. Where required, they use a limited range of specialist terms appropriately. **1**

Intermediate performance
Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility. **2**

High performance
Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision. **3**

Total for question 4: 28 marks

Question 5 – Changing Rural Environments

5(a)(i) Correct completion (height of bar only, width can be ignored) **(1 mark)**

AO3 – 1

5(a)(ii) Needs to show reference to both the line and bar graph. They should note the continued expansion of organic sales, whilst the area of organic land rose rapidly in the early period shown to rise more slowly since 2000 and then fluctuate. Credit use of values. **(4 marks)**

AO1 – 1
AO2 – 1
AO3 – 2

Level 1 (Basic) (1-2 marks)
Simple statements, probably just basic description and/or reference to only one element of the graph.
The amount of organic sales continues to increase. There was a big rise in organic land and now it has levelled off.

Level 2 (Clear) (3-4 marks)
Linked statements with both graphs addressed.
The amount of organic sales keeps increasing to nearly double the 2003/4 amount. The amount of organic farmland increased by more than seven times in the seven years 1996-2003.

5(b) 2x2 or 1x3 +1 **(4 marks)**

Do not double credit.

AO1 – 2
AO2 – 2

Environmental Stewardship – This is a points based system where farmers can receive £30 per ha pa (Entry Level) for things such as promoting wild bird cover, hedgerow management, buffer strips or greater varied payments (Higher Level) for more complex management in areas of great environmental need.
English Woodland Grant – Grants to farmers to create new woodland and carry out woodland management, especially where it protects or enhances the woodlands environmental or social value.
Energy Crops – Farmers can be paid 50% of all costs for establishing Miscanthus or short rotation coppice for their own / small power stations.

5(c)	Needs to show use of Figure 16 through reference to something in the cutting. This may be slight. However there should also be evidence of the candidate going beyond this with their own knowledge to show how rural living can be sustained. They may reference things such as subsidised transport, co-operative schemes to run local shops / pubs, EU and other funding. These should in turn be linked to ideas such as improving communication to compete with urban areas, supporting jobs and providing employment, making businesses more financially viable, allowing people to live in rural areas but reach jobs elsewhere. **Level 1 (Basic) (1-2 marks)** Simple statements, either lifted from the resource or just their own knowledge. No real mention of rural sustainability. *Broadband is installed. Buses are subsidised. Businesses are given grants.* **Level 2 (Clear) (3-4 marks)** Linked statements showing use of the resource and own knowledge. Link to rural sustainability established. *In Cornwall some key bus routes are subsidised. This allows people to stay in their villages but commute to jobs in nearby towns. A number of village pubs are now run as co-ops, which means they stay open and encourage a sense of community.*	**(4 marks)** **AO1 – 2** **AO2 – 1** **AO3 – 1**
5(d)(i)	South West	**1 mark** **AO3 – 1**
5(d)(ii)	There needs to be some evidence of the use of the map. This can be through place names or details of the pattern. Max 2 for isolated points with no attempt at pattern. Credit locational knowledge of high density areas such as North Norfolk / Cornwall. Reserve full marks for coverage of both high and low percentage areas. The higher rates of second home ownership are generally coastal areas (1), although there are some notable exceptions such as the Cotswolds, and Peak District (1). The highest concentration is in the South West (1). Areas around cities have the lowest rates of second home ownership (1). A belt running from North West to London is the largest area of low second home ownership (1).	**(3 marks)** **AO2 – 2** **AO3 – 1**
5(d)(iii)	Content will depend on the example(s) chosen. There should be clear reference to a named area. This could be small scale, e.g. Wensleydale or a broad region, e.g. Snowdonia. The question asks for explanation. A number of factors could be mentioned such as: Outmigration of the young, few / poor job opportunities / prospects, inaccessibility, poor public transport, remoteness from major urban centres, second home ownership pricing people out of the area, low threshold populations meaning services are no longer economic.	**(8 marks)** **AO1 – 6** **AO2 – 2**

Level 1 (Basic) (1-4 marks)
Simple statements or lists with no reference to named area.
There are no jobs. The villages are too far away from anywhere. People leave because it is too expensive.

Level 2 (Clear) (5-6 marks)
Linked statements with the name of an area.
Because few people live there it is not worth keeping shops open. Low skilled jobs in farming and tourism are not attractive to young people so they leave. This causes the village to decline.

Level 3 (Detailed) (7-8 marks)
Detailed case study information and clarification of factors causing decline.
Reliance on hill farming and tourism in Cumbria keeps incomes low. This means young people either cannot afford to or do not want to stay in the area. This is why the average age of hill farmers is 55. With such an ageing population there is reduced investment and the area's economy suffers causing villages to decline.

Spelling, Punctuation and Grammar **(3 marks)**

SPaG

Threshold performance
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Intermediate performance
Candidates spell, punctuate and use the rules of grammar with considerable accuracy and general control of meaning in the context of the demands of the question. Where required, they use a good range of specialist terms with facility. **2**

High performance
Candidates spell, punctuate and use the rules of grammar with consistent accuracy and effective control of meaning in the context of the demands of the question. Where required, they use a wide range of specialist terms adeptly and with precision. **3**

Total for question 5: 28 marks

Question 6 - Tourism

6(a) Correct completion (height of bar only, width can be ignored) **(1 mark)**

AO3 – 1

6(b) Candidates should be showing recognition of the pattern in terms of the destinations of the tourists, with the majority going to the developed nations, especially Europe with half of all tourist arrivals. The question only asks for "description", so there is no need for any reasons. **(4 marks)**

AO2 – 1
AO3 – 3

Level 1 (Basic) (1-2 marks)
Simple statements, probably just lifts or a list. Isolated points with no / limited sense of pattern.
Most go to Europe. Nearly a billion people are tourists.

Level 2 (Clear) (3-4 marks)
Linked statements showing some sense of pattern.
Europe attracts just over half of all tourists, with Africa only 1/10 of that amount.

6(c) 2x2 or 1x3 +1 **(4 marks)**

Do not double credit.

AO1 – 2
AO2 – 2

Improved transport links – Make it easier and / or quicker for travel to places. Cost of travel much reduced as links improved. Credit comment on budget airlines if connected to ease of travel. Quality also much better so people more inclined to travel.
More paid holidays in richer countries – Means that people can afford to travel as leave is paid, also that there is more of it so they have the time to go. Credit comment on this being the richer countries so the sums of money will be greater and they will want to travel elsewhere in the world.
Increased information about different places – Internet and TV mean that knowledge and awareness of different locations is much greater and then people will want to travel to places they have seen / heard about.

6(d)

Needs to show use of Figure 20 through reference to something on the diagram. This may be slight. They may reference things such as direct employment in industries such as attractions and entertainment and also indirect through the industries which are then engaged as a result such as farms supplying food or doing laundry. They may also quote figures to show the monetary value of the industry.

Level 1 (Basic) (1-2 marks)
Simple statements, either just lifted from the resource with no comment or just their own knowledge. No real mention of supporting an economy.
There are jobs in hotels. Lots of money comes in. 2.6 million people work in tourism.

Level 2 (clear) (3-4 marks)
Linked statements showing use of the resource.
Link to supporting the economy established.
2.6 million have jobs to do with tourism. This is a lot and shows how many people depend on it.
There is a chain where jobs depend on tourists coming such as more trade in a restaurant because visitors eat out more.

(4 marks)

AO1 – 1
AO2 – 2
AO3 – 1

6(e)(i)

Reason must relate to chosen location. Any reasonable suggestion within that. Examples – National park: scenery/attractive landscape (1) Accessibility of some parks (1) availability of activities, e.g. walking / mountain biking (1).
Coastal; attractive beaches (1) development of railway (1), ease of travel from industrial centre (1).

(1 mark)

AO1 – 1

6(e)(ii)

Content will depend on the example chosen. Must relate to chosen example in previous question. Expect comment on problems such as: traffic congestion, erosion of footpaths, loss of character and community, disturbance to locals and businesses through actions of tourists, over-reliance on tourism and problems in recession / out of season.

(3 marks)

AO1 – 2
AO2 – 1

6(e)(iii)

Content will depend on the examples(s) chosen. There should be clear reference to a named location. Higher level answers should be making the planning / solution / continued success sequence explicit. A number of plans and strategies could be mentioned such as: building new facilities or improve old ones, improve transport so it is easier to travel there and/or then to travel within the location, advertising and marketing, reduce costs or have incentives to visit.

Level 1 (Basic) (1-4 marks)
Simple statements or lists with no reference to named area.
Description only.
The town has been smartened up. A lot of money is spent on advertising. Buses from Sheffield are now cheaper.

(8 marks)

AO1 – 6
AO2 – 2

Level 2 (Clear) (5-6 marks)
Linked statements with the name of an area. Some limited explanation with problem linked to solution.
Blackpool Pleasure beach has added new rides to try to reverse the fall in numbers.
There are improved buses to Stanage in the Peak District to cut down on congestion on the roadside parking. Paths from the car parks have been improved with matting so the erosion is reduced.

Level 3 (Detailed) (7-8 marks)
Fully elaborated statements with the three stage sequence explicit. Good case study detail.
Blackpool is investing £10 million in the illuminations. Old buildings have been cleared and areas landscaped. This is intended to rejuvenate the resort and keep visitors coming and combat its "tired" appearance caused by so many visitors over the years. The damage caused by roadside parking in large numbers at popular locations such as Stanage in the Peak District is being solved by planners. They have placed large rocks to limit the car park size. This means that overflow will go somewhere else and spread the load of visitors. In this way the landscape stays attractive and people will keep coming to see it.

Spelling, Punctuation and Grammar **(3 marks)**

SPaG

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Spelling, Punctuation and Grammar

Total for question 6: 28 marks