

Mark Scheme (Results) Summer 2010

GCSE

GCSE Geography (5GA2F) Paper 1

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General Marking Guidance

- All candidates must receive the same treatment. Examiners must mark the first candidate in exactly the same way as they mark the last.
- Mark schemes should be applied positively. Candidates must be rewarded for what they have shown they can do rather than penalised for omissions.
- Examiners should mark according to the mark scheme not according to their perception of where the grade boundaries may lie.
- There is no ceiling on achievement. All marks on the mark scheme should be used appropriately.
- All the marks on the mark scheme are designed to be awarded. Examiners should always award full marks if deserved, i.e. if the answer matches the mark scheme. Examiners should also be prepared to award zero marks if the candidate's response is not worthy of credit according to the mark scheme.
- Where some judgement is required, mark schemes will provide the principles by which marks will be awarded and exemplification may be limited.
- When examiners are in doubt regarding the application of the mark scheme to a candidate's response, the team leader must be consulted.
- Crossed out work should be marked UNLESS the candidate has replaced it with an alternative response.
- Mark schemes will indicate within the table where, and which strands of QWC, are being assessed. The strands are as follows:

i) ensure that text is legible and that spelling, punctuation and grammar are accurate so that meaning is clear

ii) select and use a form and style of writing appropriate to purpose and to complex subject matter

iii) organise information clearly and coherently, using specialist vocabulary when appropriate.

Question Number	Answer	Mark
1(a) (i)	D - Stack	(1)

Question Number	Answer	Mark
1(a) (ii)	Correct labels = 1	(1)

Question Number	Answer	Mark
1(a) (iii)	D - waves compress air into cracks in the cliff	(1)

Question Number	Answer	Mark
1(a) (iv)	D - Cave, Arch, Stack and Stump	(1)

Question Number	Answer	Mark
1(a) (v)	Point mark Any of the following Shingle beach Gentle gradient on beach Chalk cliffs Steep cliffs Joints evident on cliffs Do not allow stack, stump as not part of the cliff. Do not allow crack and cave if part of a landform formation sequence.	(3)

Question Number	Answer	Mark
1(b) (i)	A - Slumping	(1)

Question Number	Answer	Mark
1(b) (ii)	A - Loss of farm-buildings	(1)

Question Number	Answer	Mark
1(b) (iii)	If a cliff is made from hard rocks it will be less likely to erode. Headlands are formed from harder rocks which are more resistant. Bays are formed where there are softer rocks. Another factor affecting cliff recession is the distance that wind travels over open water. This is known as the fetch . The greater the distance the stronger the waves causing more erosion. (5 x 1)	(5)

Question Number	Answer	Mark
1(b) (iv)	<p>Point mark</p> <p>Could refer to use of beach replenishment, cliff regrading and managed retreat.</p> <p>e.g. Beach replenishment advantages: relatively cheap; dissipates wave energy therefore reducing erosion; provides a beach for tourism</p> <p>Disadvantages: replenishment may disrupt habitats; a need for regular maintenance; lorries bringing sediment may be disruptive to landowners</p> <p>Credit names of soft engineering types up to 2 marks. Must address both advantages and disadvantages for full marks Reference to hard engineering = 0 marks.</p>	(4)

Question Number	Answer	Mark
1(c)	<p>Point mark</p> <p>Planning: Not allowing homes to be built in potential flood-risk zones. Reference to government planning laws. Work of DEFRA to decide which areas of coast need planning.</p> <p>Forecasting: Improved forecasting (to households through broadcasts) enables prediction of conditions at sea, therefore give warning of possibility of coastal flooding, expect ref to Met Office/Environmental Agency.</p> <p>Allow reference to effects of flooding. Make house more resistant (1) Defra (1) Met Office (1) Max 2 for planning or forecasting. Credit planning under forecasting and vice versa.</p>	(3)

Question Number	Answer	Mark
1(d)	<p>Description of coastline management required - 1 mark per point</p> <p>Unspecific points max 3. Must relate to one area. Max 2 for a list of coastal defence techniques</p> <p>Groynes (1) which stop longshore drift (1) Rip rap (1) which absorbs wave energy (1) Large rocks which absorb wave energy (1)</p>	(4)

Question Number	Answer	Mark
2(a) (i)	C - floodplain	(1)

Question Number	Answer	Mark
2(a) (ii)	Inside bend - left box Outside bend - right box	(1)

Question Number	Answer	Mark
2(a) (iii)	D - when the pressure of the water is pushed against the river banks	(1)

Question Number	Answer	Mark
2(a) (iv)	D - Ox-bow lakes	(1)

Question Number	Answer	Mark
2(a) (v)	3 labels (one mark per label): Slip-off slope/point bar/river beach Fast flowing water/thalweg River cliff (3 x 1)	(3)

Question Number	Answer	Mark
2(b) (i)	A - River	(1)

Question Number	Answer	Mark
2(b) (ii)	B) Property Damage	(1)

Question Number	Answer	Mark
2(b) (iii)	May refer to floodplain zoning, Washlands, warning systems, and Afforestation Advantages: cheap; beneficial to local wildlife; a sustainable option; natural. Disadvantages: can result in loss of productive land; replanting can lead to a change in soil acidity; pressure to use the land for other forms of development i.e. housing Max 3 without both advantages and disadvantages.	(4)

Question Number	Answer	Mark
2(b) (v)	Flooding occurs when the river overflows its banks. One of the main causes of flooding is heavy rainfall. If the valley sides are steep , water flows quickly into the river. Another cause of flooding is impermeable rock because water cannot soak into the ground (5 x 1)	(5)

Question Number	Answer	Mark
2(c)	Point mark Planning: Reference to local authority and planning permission - could refer also to floodplain zoning. Choosing where the building will be situated. (1) Building Design: Buildings on stilts, moving electrical sockets up walls, concrete floors instead of wooden, MDF instead of wood in door frames, use of waterproof plaster and waterproof concrete floors Defra (1) Max 2 for planning or forecasting. Credit planning under design and vice versa.	(3)

Question Number	Answer	Mark
2(d)	Description of management of a river area - 1 mark per point Unspecific points - max 3. Culverts (1) allow water to drain away from the river (1) Land on the side of the river which is allowed to flood.(1)	(4)

Question Number	Answer	Mark
3(a) (i)	A - Deposition	(1)

Question Number	Answer	Mark
3(a) (ii)	An arrow drawn from left to right	(1)

Question Number	Answer	Mark
3(a) (iii)	3 labels correctly labelled: Stoss end (on left) Moraine (in middle) Lee slope (on right) (3 x 1)	(3)

Question Number	Answer	Mark
3(a) (iv)	C - an erratic	(1)

Question Number	Answer	Mark
3(b) (i)	D - a corrie	(1)

Question Number	Answer	Mark
3(b) (ii)	C) armchair-shaped hollow	(1)

Question Number	Answer	Mark
3(b) (iii)	A) Arête	(1)

Question Number	Answer	Mark
3(b) (iv)	Point mark Likely to focus on skiing, mountain climbing hiking. Max list 3 State activity (1) link to photograph (1) Climbing (1) because of a high peak (1)	(4)

Question Number	Answer	Mark
3(b) (v)	A U-Shaped valley is formed by the movement of ice . As the glacier moves down the valley it erodes the sides. This creates the main characteristics of U-Shaped valleys which are a flat bottom and steep sides. Two landforms associated with a U-shaped valley are truncated spurs and hanging valleys . (5 x 1)	(5)

Question Number	Answer	Mark
3(c)	<p>Point mark</p> <p>Planning: Creation of smaller controlled avalanches, testing of ski runs, warning signs, land-use zoning</p> <p>Defences: Afforestation (tree lines), Snow sheds, Avalanche netting/fences, dams/wedges, Max 2 for planning or defences. Credit planning under design and vice versa.</p>	(3)

Question Number	Answer	Mark
3(d)	<p>Description of the effects of the avalanche required</p> <p>1 mark per point unspecific points max 3 can go to max without both people and the environment. Credit effects not causes.</p>	(4)

Question Number	Answer	Mark
4(a) (i)	Convergent	(1)

Question Number	Answer	Mark
4(a) (ii)	Arrows should reflect plate movements towards each other Must show two arrows for mark. Clip does not show question just diagram with arrows marked on it.	(1)

Question Number	Answer	Mark
4(a) (iii)	D – volcano	(1)

Question Number	Answer	Mark
4(a) (iv)	3 labels: Fold Mountain (top box) Oceanic plate (middle box) Melting crust (bottom box) (3 x 1)	(3)

Question Number	Answer	Mark
4(b) (i)	B - collapsed motorway	(1)

Question Number	Answer	Mark
4(b) (ii)	B) Tightly packed buildings	(1)

Question Number	Answer	Mark
4(b) (iii)	They are earthquake proof (1) Area is HIC (1) Buildings protected (1) Example of type of protection (1) Government invested money to protect citizens (1) Building regulations in place to ensure minimum protection (1)	(3)

Question Number	Answer	Mark
4(b) (iv)	D) The point of most damage	(1)

Question Number	Answer	Mark
4(b) (v)	As earthquakes reach the surface they can be measured in two main ways. The Richter scale measures the strength of an earthquake. An earthquake with large amounts of shaking can cause lots of damage .	(5)

	The scale which measures this is the Mercalli scale. People with a good education are often prepared for the earthquakes (5 x 1)	
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Question Number	Answer	Mark
4(c)	Reasons could include: Extraction of minerals/metals/crystals Tourism Geothermal Energy Perceived risk = low Fertile soil (1) good for farming (1) Family (1) lived here all their lives(1) Can't afford to move(1) Tourism (1) more money for the area (1) If 3 reasons given pick the best 2. 1 mark for stating the reason, 2 for outline of why people still live in areas of volcanic eruptions. Or 3:1, 1:3.	(4)

Question Number	Answer	Mark
4(d)	Description of volcanic eruption effects required 1 mark per point unspecific points max 3. Can go to max without both people and environment. For Montserrat need numbers for evacuees not simply comments about where evacuated to such as UK.	(4)

Question Number	Answer	Mark
5(a) (i)	Correctly drawn bars. One mark per bar	(2)

Question Number	Answer	Mark
5(a) (ii)	D - 2008	(1)

Question Number	Answer	Mark
5(a) (iii)	C) food waste	(1)

Question Number	Answer	Mark
5(a) (iv)	High amounts of waste in HICs (1) Due to larger disposable incomes (1) Many products have large amounts of packaging (1) Figures could be falling due to increased recycling (1) or increased awareness of issue (1) (3 x 1)	(2)

Question Number	Answer	Mark
5(b) (i)	B - Surplus	(1)

Question Number	Answer	Mark
5(b) (ii)	B) 2	(1)

Question Number	Answer	Mark
5(b) (iii)	Uneven distribution (1) Most countries have an energy deficit (1) Except UK (1) or Norway (1) Use of evidence (1) Countries in the centre/south of Europe have deficit (1) Max 2 without evidence	(3)

Question Number	Answer	Mark
5(b) (iv)	B) use more energy than they produce	(1)

Question Number	Answer	Mark
5(b) (v)	<p>Non renewable energy comes from fossil fuels such as coal and oil. These fuels are extracted from the ground which can cause damage to the environment.</p> <p>Burning fossil fuels give off carbon dioxide which can lead to global warming.</p> <p>Another source of non-renewable fuel is nuclear energy. When this energy is produced, the waste can be a danger to people and the environment.</p> <p>(5 x 1)</p>	(5)

Question Number	Answer	Mark
5(c)	<p>Domestic energy waste solutions to include energy efficient light bulbs, double glazing, combi-boiler or any relevant idea. Allow any type of energy e.g. reduction in gas usage. If 3 reasons given pick the best 2. Solution is the technology / product being discussed, marks available for the solutions.</p> <p>Lights - turn off when leaving a room (1), use energy saving bulbs (1)</p> <p>One idea outlined = 1, development of idea = 2</p> <p>(2 x 2), 3:1, 1:3.</p>	Reject answers which relate to national scale projects (4)

Question Number	Answer	Mark
5(d)	<p>Point mark</p> <p>Max 3 for unspecific</p> <p>Max 3 if not a country</p> <p>Max 2 for a list of different ways of disposing of waste eg incinerate, landfill, recycle.</p> <p>Reference to different types of waste including nuclear, domestic industrial and toxic - should refer to a range for maximum marks</p> <p>Disposal methods could include incineration, recycling, landfill and government schemes</p>	(4)

Question Number	Answer	Mark
6(a) (i)	Two correct bars plotted = one mark per bar	(2)

Question Number	Answer	Mark
6(a) (ii)	Cooking Drinking Teeth cleaning Swimming Pool use Any relevant use = 1	(1)

Question Number	Answer	Mark
6(a) (iii)	Expect: High usage for non essential purposes Use of appliances (1) e.g. dishwashers not common in LICs (1) List max 1	(2)

Question Number	Answer	Mark
6(a) (iv)	C) Irrigating crops	(1)

Question Number	Answer	Mark
6(b) (i)	C - South West	(1)

Question Number	Answer	Mark
6(b) (ii)	B) Between 191-230mm	(1)

Question Number	Answer	Mark
6(b) (iii)	Higher amounts in west Lower in east 1 mark reserved for use of data No North-South divide, instead E-W divide Units for rainfall not required. max 2 with out data.	(3)

Question Number	Answer	Mark
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6(b) (iv)	A) Large population in the South	(1)
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Question Number	Answer	Mark
6(c) (i)	<p>One source of water is from the rocks under the ground. This source is an aquifer. A borehole is sunk into the ground and water is pumped to the surface. Water is then held in a reservoir on the surface. (5 x 1)</p>	(5)

Question Number	Answer	Mark
6(c) (ii)	<p>Can focus on</p> <p>Water related diseases/pollution of water courses/lack of clean water supply</p> <p>One mark for stating factor, a second mark for outline of the factor</p>	(4)

Question Number	Answer	Mark
6(d)	<p>Point mark</p> <p>Max 3 for unspecific</p> <p>Scheme should be a water management scheme on a large scale.</p> <p>Limit local initiative or organisation initiative to max 3.</p> <p>The response should answer the question which is about effects.</p> <p>Effects could be on environment, people, economy, energy supply, travel etc.</p>	(4)

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