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General Certificate of Secondary Education June 2010

Geography A

40304F

Foundation Tier Short Course

Mark Scheme

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SECTION A

Question 1 – The Restless Earth

1 (a) (i)	Earthquakes occur in lines - True Earthquakes never occur away from plate boundaries - False	(3 marks)
	Earthquakes occur around the edge of the Pacific Ocean - True	AO2 – 2 AO3 – 1
1 (a) (ii)	Destructive.	(1 marks)
		AO1 – 1
1 (a) (iii)	plates move parallel with each other. They slide past each other often stick and pressure builds up causes a jerking movement.	(4 marks)
		AO1 – 4

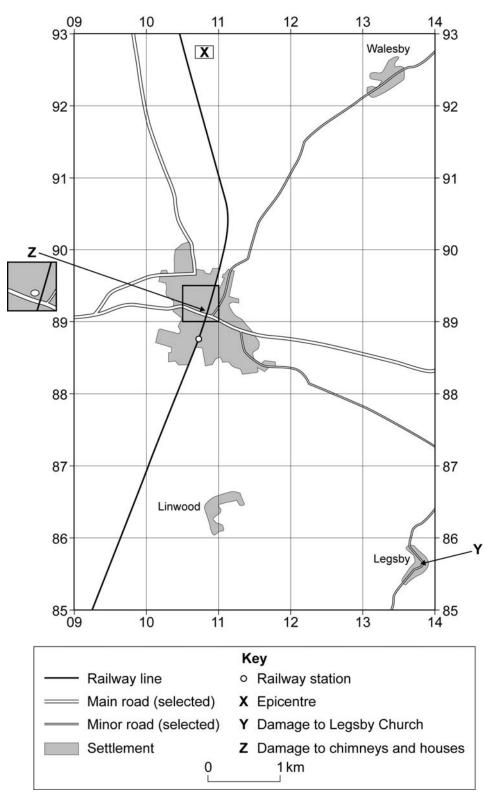
(2 marks)

AO2 – 1 AO3 – 1

AO2 – 1

AO3 – 2

- 1 (b) (i) Centre of X accurately located as shown in box – 2 marks. If X within area bounded by northing 92 & 93 and railway line, and easting 11 (or centred on them) - 1 mark.
- 1 (b) (ii) Y accurately located – 1 mark. Z accurately located (as shown in (3 marks) 'close-up' box by Z label below) - 2 marks. (NB should not touch railway or road. If Z label placed directly on map use position at centre of 'Z'). If Z located inaccurately but in south east corner of grid square – 1 mark.



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1 (b) (iii) Figure 2 shows that the epicentre occurred in a rural area/field so damage expected to be less than if it had been in a built up area. Also, it measured 5.2 on the Richter scale. This is strong for UK, but many earthquakes occur of this strength worldwide each year. The buildings are well built and can withstand earthquakes of this strength. There should be an understanding of the location from the map and the meaning of the score on the Richter scale and these points may be linked.

Level 1 (Basic) (1-2 marks)

Simple listed points. Descriptive – of location or Richter scale. *Measured 5.2. Happened in middle of nowhere – near a wood.*

Level 2 (Clear) (3-4 marks)

Specific reference to map needed. Reference to own knowledge. Points are developed and linked. Links the location and/or the Richter scale score to the limited amount of damage. Epicentre in a rural area/field so damage less than if it had been in a built up area. It only measured 5.2 on the Richter scale. This is not a strong earthquake generally, although it is for UK.

1 (c) (i) Idea what a secondary effect is for, 1 mark, and reason why for 1 *(2 marks)* mark.

Secondary effect is an effect that occurs later/is a knock-on effect AO1 - 2(1) resulting from the earthquake a primary effect (1). The earthquake displaced sea water (1) + (1) for further development, e.g. which moves towards the land, gaining in height in its final approach. 1 (c) (ii)Actual content will depend on the case study being used – Boxing Day
tsunami of 2004 is likely to be used. Expect reference to either whole
area affected or a focus on just one country – either approach is
permissible.(6 marks)
AO1 – 3
AO2 – 3

There may be some categorisation – such as the initial impact of the wave – speed/height of approach – People being injured, number of deaths, trying to save people, large numbers missing and people searching for lost relatives and friends – Many people homeless, vast amount of property damaged; whole settlements wiped out; risk of disease; impact on farming, tourism.

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 hurt by the water's power. Buildings were destroyed. People tried to run out of the way. In some places whole places were destroyed.

Level 2 (Clear) (5-6 marks)

Effects are clearly described, in an organised way. Statements are linked.

There is clear reference to the case study named – must be present. In places like Banda Aceh in Sumatra, the huge wave – over 20m – wiped out complete settlements. People fled as the wave approached. Lots died – over 22000. People began to try to find relatives and friends, often searching the streets littered with dead bodies. The risk of diseases such as cholera grew rapidly..

Total for Question 1: 25 marks

Question 2 – Water on the Land

2 (a) (i)	The steepest part of the long profile is nesar the source - True The cross profile shows the shape of the valley from one side to the other - True The cross profile is narrower and deeper near the mouth - False Most lateral erosion occurs near the source - False 4x1	(4 marks) AO1 – 3 AO3 – 1
2 (a) (ii)	Deposition occurs when the river leaves behind material. This happens when the speed of the river decreases and the river has less energy . 3x1	(3 marks) AO1 – 3
2 (b) (i)	Any valid point relating to landform, e.g. steep/vertical drop; descends in two steps / falls; plunge pool visible at base; white water; covers width of valley; gorge visible in foreground/steep sides $3 \times 1 / 1 + (1+1)$	(3 marks) AO2 – 1 AO3 – 2
2 (b) (ii)	Diagrams likely to be drawn – probably two – to show horizontal band of hard rock over underlying band of soft rock; erosion of softer rock at a faster rate causes an overhang to develop; abrasion and hydraulic action are particularly important erosion processes; material from overhang collapsing increases rate of erosion and waterfall – which plunges over steep drop to retreat (leaving a gorge). Level 1 (Basic) (1-2 marks) Simple diagram(s) probably partial. Simple labels.	(4 marks) AO1 – 1 AO2 – 1 AO3 – 2
	Order not correct – jumps about. Sequence may be incomplete. Level 2 (Clear) (3-4 marks) Complete, clear, diagram(s). Diagrams illustrate clear labels – that are developed and linked. Sequence and formation of waterfall is clear.	
2 (c) (i)	Peak rainfall for both streams: 15 mm, Peak discharge for Clapham Beck: 10 cumecs, Lag time (the time difference between the peak rainfall and the peak discharge) for Austwick Beck: 5 ¹ / ₂ -6 hours. 3×1	(3 marks) AO1 – 1 AO2 – 1 AO3 – 1
2 (c) (ii)	Any valid reason (1) +1 for elaboration, e.g. Relief is steep (1) so runoff will be rapid over the surface reducing time it takes to get to stream (1); impermeable rock (1) means water cannot soak in and so flows over land (1). Reference to urban area, vegetation valid. 1x1+1	(2 marks) AO1 – 1 AO2 – 1

2 (d) Demand increases as population increases (largely due to net (6 marks) immigration) – so more people will use more water. There is an increase in the number of households, so more of these with more AO1 - 3people living separately will increase demand as washing up and AO2 – 3 cooking and other tasks are carried out more times. Increased wealth means more people have labour-saving devices such as washing machines and increasingly dishwashers, increasing use of water. Similarly, there has been an increase in luxury items such as jacuzzis and steam rooms, swimming pools. Increased water of gardens, washing growing number of cars and expecting longer seasons for products such as strawberries, means growing under cover and the need for irrigation.

Level 1 (Basic) (1-4 marks)

Describes 1 or 2 reasons for increasing demand, with tentative explanation.

Statements may be in a random order and/or separate. There are more people living in UK. People wash their cars. They water their gardens. Hosepipes are used. Most people own washing machines and dishwashers. Dishwashers use more water than washing up in a bowl.

Level 2 (Clear) (5-6 marks)

The description is followed by clear attempt to explain. Refers to two reasons at least.

Statements are developed and linked.

Allow reference to industrial use (e.g. cement, breweries etc), power stations.

The population of the UK is going up, especially as people move in from other countries. This will mean more water is needed for everyday use such as drinking, cooking, washing. Many households own washing machines and dishwashers. These use much more water than doing these jobs by hand. As people get married later and there are many old individual households, the demand for water goes up as there are less savings due to people sharing houses and having some common use of water.

Total for Question 2: 25 marks

Question 3 – The Coastal Zone

3 (a) (i)	Slumping occurs when material moves downhill along a curved surface - True Sliding occurs when loose material shifts down a slope - False	(2 <i>marks)</i> AO1 – 2
3 (a) (ii)	Correct identification of; Feature X – rocky beach, wave cut platform, rockfall Feature Y – sea stack, stump Feature Z – cliff 3x1	(3 marks) AO1 – 1 A02 – 1 AO3 – 1
3 (a) (iii)	Any valid statement that relates to individual diagrams, e.g. For first diagram – waves attack between lwm and hwm; base of cliff eroded; For second diagram – base of cliff eroded / wave cut notch formed; For third diagram – notch gets bigger / cliff overhang / cliff liable to collapse; For fourth diagram – overhand collapses / cliff retreats / wave cut platform is formed. 4x1	(4 marks) AO2 – 2 AO3 – 2
3 (b) (i)	Increase in sea level due to melting of ice sheets (1) +1 for detail on locations of these (1). Recognition that this will remove water stored in a frozen state (1) on land and enable it to flow to the sea increasing amount of water in the sea (1). May relate to underlying cause – global warming (1) and causes of this, e.g. increase in carbon dioxide (1) and reasons for this (1). Sea water expands (with increasing temperature). 3×1	(3 marks) AO1 – 3
3 (b) (ii)	Content will depend on example used. Expect reference to London and Thames and other low lying coastal areas of England; Netherlands; Bangladesh; islands in Indian ocean such as Maldives; Nile Delta. Examples will depend on textbooks. Economic effects likely to relate to loss/damage to areas/businesses/food crops in subsistence economy; cash crops/exports; impact on tourism; need to try to protect and costs incurred in this. Level 1 (Basic) (1-2 marks)	(4 marks) AO1 – 3 AO2 – 1
	Simple, listed points. Will refer to some effects maybe drift into non-economic ones. Crops will be destroyed. People will lose their food supply and land. They will have nowhere to live. Parts of cities will be flooded. Businesses will be lost and people will lose their jobs.	
	Level 2 (Clear) (3-4 marks) Points are developed and linked. Focus on economic effects. Refers to case study. As sea level rises, low lying parts of the UK will be flooded. Parts of the fertile Fens will be lost and people will lose their businesses. Crop production will fall – cereals and vegetables will be affected. Areas next to the Thames in London, including the Houses of Parliament will be flooded.	

The City will be affected and jobs could be lost. It will cost a lot of money to try to protect the coast from rising sea levels – in order of $\pounds 10$ billion.

- **3 (c) (i)** Need to use information from Figure 10. Beach is being eroded so there is no protection (1) base of sea wall exposed (1). Sea wall is old and so easily eroded (1) as constant pounding of waves weakens it (1). Groynes are also inadequate gaps in them mean material can be moved (1) so longshore drift able to occur (1) and protection given by beach is gone (1). 3×1 (3 marks)
- 3 (c) (ii)Hard engineering includes sea walls, groynes and rock armour as
stated in specification, but reference may also be made to gabions,
revetments etc.(6 marks)AO1 3
 - Benefits of hard engineering likely to be effective. The area behind **AO2 3** will be protected; land stable and income, such as from tourism, will be safeguarded.

Costs of hard engineering – they are expensive – going into millions of pounds; they need maintaining – sea walls cost up to £5000 per metre to repair. They have a visual impact on the environment. They interfere with natural processes and may cause problems somewhere else.

Level 1 (Basic) (1-4 marks)

Describes either costs and/or benefits. Statements may be in a random order. Ideas are separate.

There are disadvantages. They cost a lot. Sea walls and groynes can look ugly. They generally work. The places are protected. This is a benefit.

Level 2 (Clear) (5-6 marks)

Describes costs and benefits. Clear organisation, focused on task. Statements are linked.

Hard engineering is expensive. It cost £50 million to build a new sea wall and to place rock armour in front of it at Scarborough. It is very obvious and can make areas look worse. Building groynes holds the sand in place to protect the coast where they are, but it can mean that there is faster erosion down the coast.

The methods do tend to work and people's homes and jobs are safe. Residents to not have to face uncertainty about not being protected.

Total for Question 3: 25 marks

SECTION B

Question 4 – Changing Urban Environments

4 (a) (i)	Asia	(1 mark)
		AO3 – 1
4 (a) (ii)	2.3 billion	(1 mark)
		AO3 – 1
4 (a) (iii)	Rural-urban migration, natural increase.	(1 mark)
	Specific push or pull factors.	AO2 – 1
4 (b) (i)	3x1	(3 marks)
	Unemployment, shops closing, depopulation/people moving out	AO2 – 3
4 (b) (ii)	Look for evidence of precise government initiatives – City challenges,	(6 marks)
	 UDCs, Health and Education Action Zones, Single budget payment. Emphasis should be on the government action since the 1990s and not exclusively on improvements to housing, infrastructure, environment etc. While we are encouraging centres to be as up to date as possible, give some credit for slum clearance, multi storey flats, comprehensive redevelopment all of which largely reflects 1960's – 1980's. Credit the use of a case study – e.g. Hulme and even & LDDC although much of it dates to pre-1990's. Level 1 (Basic) 1 – 4 marks Simple statements consisting of a list of improvements without any reference to government action <i>They put in bathrooms. They put inside toilets. They provide play areas. They create more open spaces.</i> Level 2 (Clear) 5 – 6 marks Linked statements showing some indication that it was government action. Likely to be largely local government but accept references to national initiatives such as City Challenge UDCs etc. <i>The local government provide money for roads to be turned into cul-</i> 	AO1 – 6
	de-sacs to stop through traffic. Derelict houses were knocked down to provide more open space. The infrastructure was improved so that modern toilet facilities were put into houses.	
4 (c) (i)	3x1 Near the river (Gombok). Bottom/on a steep embankment/slope. Next	
	to the railway line.	AO3 – 3
4 (c) (ii)	2x1 Noise/danger. Flooding. Landslides. Disease. No electricity or running	(2 marks)
	water, no main sewage. Overcrowding etc	AO2 – 2

4 (c) (iii) Emphasis should be on what the people in the squatter settlements do themselves in order to improve their lives and living conditions. Site and Service acceptable provided the answer shows how the inhabitants develop and built on the basic framework provided by the authorities. Other changes would be illegally linking up to electricity supply, providing a policing/crime reduction force from local people. Improving housing gradually over time by replacing waste materials by breeze blocks. Setting up of community projects. Developing selfhelp schemes.

Level 1 (Basic) 1 – 2 marks

Simple statements on improvements without real indication that the work has been done by the people themselves They build stronger houses. There are water taps put in. there is better waste disposal

Level 2 (Clear) 3 – 4 marks

Linked statements showing the work done by the people themselves They link up their houses by wire to get illegal electricity. Stronger houses are built using breezeblocks rather than waste materials. They police the squatter settlement to cut down on crime and violence. They get involved in a self-help scheme using materials provided by local authority.

4 (d) 2x2

(4 marks)

A01 – 4

Using brownfield sites so that no more open space is built and can be left as greenery/recreational areas. Ensuring that waste is disposed of by methods other than landfill. Making use of renewable energy in order to reduce the use of fossil fuels. Involving people in the decision making process. Ensuring there is an efficient public transport system to reduce the use of the car.

Total for Question 4: 25 marks

Question 5 – Changing Rural Environments

5 (a) (i)	1x1 More people have cars. People want to live in the countryside. People can afford to travel.	(1 mark) AO1 – 1
5 (a) (ii)	3×1 or 2+1 These can be positive or negative, quantitative or qualitative but must relate to Figure 14. The village has grown. Farms have disappeared. More schools have been built. New Trade Park Brewery and laundry replaced by housing. Different road layout. Split in two by bypass.	(3 marks) AO3 – 3
5 (a) (iii)	2x1 or 1x2 The building of the Dartford bypass (A2) (1) meant that people could travel to work (to London or Dover) more easily (1)	(2 marks) AO2 – 2
5 (a) (iv)	Conflict over use of facilities. Decline in village facilities. Newcomers either dominate or remain aloof from the rest of the village Level 1 (Basic) 1-2 marks Simple statements which are largely a list of complaints. <i>Housing more expensive. Traffic congestion. Village shop closes.</i> Level 2 (Clear) 304 marks Linked statements showing reason for disagreement. <i>New houses for the newcomers likely to be too expensive for the</i>	(4 marks) AO1 – 2 AO2 – 2
5 (b)	 original villagers. The newcomers may not use the village shops so they do not increase their business. Increased traffic congestion. Newcomers may not contribute to village life. 2×2 Objective One – Money given to rural areas, e.g. Cornwall, where the area has been depressed because of the collapse of the local industry. 	(4 marks) AO1 – 3 AO2 – 1
	 Rural Transport Partnership Scheme – Money for improving rural bus services. Rural Development Area – Areas with particular social and economic problems receive money for improving employment in developments such as industrial estates and new tourist developments. Rural Challenge Grants – Awarded after a competition to find an effective solution to a problem in the countryside. Village Shop Development Scheme – Providing money to keep a local shop open when faced with competition from supermarkets. Millennium Fund – Money to renovate village halls and community centre to provide a focal point for a village. 	

5 (c) (i)	2x1 Loan repayments. Not much to sell. Low level of output. Has to pay rent.	(2 marks)
		AO3 – 2
5 (c) (ii)	3x1 or 2+1 To have something to sell. Encouragement from companies. Encouragement by the government	(3 marks)
		AO2 - 3
5 (c) (iii)	Use of a case study e.g. Amazonia appropriate here. Trees cut down for timber leaving soil exposed leading to soil erosion and exhaustion.	(6 marks)
	Mining providing alternative sources of employment for the farmers, more profitable so leave traditional occupations. Mining pollutes the land and leaves it unsuitable for farming. Many cause diseases among indigenous people. Changes from subsistence to cash economy as a result of forest clearance.	AO1 – 6
	Level 1 (Basic) 1 – 4 marks	

Simple statements with nothing particular to forestry or mining or no attempt to show the effect on the farming Land is destroyed. They cannot grow enough food. The land may become polluted. There is soil erosion

Level 2 (Clear) 5 – 6 marks

Linked statements with indication of the effect of forestry and mining and their impact on the traditional farming practice. Must refer to both for full marks

The people give up farming to go and work in the mines. There is less land for farming and so the land has less time to recover. The trees are removed which leaves the soil open to the rain, which causes soil erosion so the yields of crops fall.

Total for Question 5: 25 marks

6 (a) (i) Correctly plotted bar (1 mark) AO3 – 1 6 (a) (ii) Europe (1 mark) AO1 – 1 6 (a) (iii) 2x2 (4 marks) Reserve 1 mark in each for an indication of the effect on tourist AO1 – 2 AO2 – 2 receipts to the UK Cost of fuel - this may put air fares up so people cannot afford to come to the UK so numbers fall resulting in less money *Terrorist action* – people may be afraid of flying because of the threats and so do not come to Britain so the numbers go down and so less money is earnt The state of the world economy – if the world economy is in a bad way people will have less money to spend on holidays in the UK Major sporting and cultural events in other parts of the world - major events like the Olympics in other countries mean people will go there rather than coming to UK. (NB the question refers to external factors

6 (b) (i) 4 correct, 3 marks; 2 correct, 2 marks; 1 correct, 1 mark

(3 marks)

AO2	-	3

Stage 1 Exploration	Stage 2 Development and consolidation	Stage 3 Stagnation	Stage 4 Decline
В	D	А	С
E	Н	G	F

so do not accept a major event in Britain attracting more visitors)

Question 6 – Tourism

6 (b) (ii) Detail will depend on chosen exemplars. Blackpool likely costal resort. Lake District the National Park, Emphasis should be on new places, but accept reference to generic improvements such as increased advertising or improved transport links. New attractions could be listed, as well as plans to extend the seasons by price incentives or catering for a wider age range of visitors. Updating of accommodation and moving its alternative markets, such as conferences as opposed to wholly concentrating on day trippers and/or summer holiday makers.

Level 1 (Basic) 1 – 2 marks

Simple statements not specifically linked to a National Park or a coastal resort.

They advertise more. They improve the facilities. They put on more things to do

Level 2 (Clear) 3 – 4 marks

Linked statements with at least the name of an appropriate National Park or coastal resort.

In Blackpool more indoor entertainment is being provided which is not dependent on the weather. The Pleasure Beach is building more attractions so that people will come at any time of the year. The resort is trying to get permission to build casinos to attract people all year. The hotels are looking to attract more conference trade as well as tourists.

In the Lake District the transport infrastructure is being improved to make the area even more accessible. Widespread advertising is taking place to make the area even better known. Diversification is taking place on farms in the area to provide a range of outdoor pursuits that will attract more people.

Timeshare developments may bring people into the area all year around.

stay on the beaches. Relatively close to the airport

6 (c) (i)	2x1 On the west coast. North and south of Bridgetown. One on the east	(2 marks)	
	coast	AO3 – 2	
6 (c) (ii)	2x2 Prevailing winds – They are away from the onshore north-easterly	(4 marks)	
	winds so the are likely to have less rain and so be sunnier	AO2 – 2	
	Location of Bridgetown – They are close to Bridgetown, which as the capital will have lots of other attractions when tourists do not want to	AO3 – 2	

6 (c) (iii) Wide range of possible answers, covering inappropriate behaviours and their effect on the native culture, visual pollution associated with inappropriate architecture and other tourist facilities. The fact that much of the money earned will <u>not</u> be of benefit to the tropical country, but because the tourist facilities/accommodation are often owned by people in non-tropical countries, much of the revenue leaves the country.

Development of sex tourism and other forms of exploitations. Environmental problems as the effect on coral reefs, game parks, fauna and flora.

Level 1 (Basic) 1 – 4 marks

Simple statements with no reference to a named area They will only get seasonal/poorly paid jobs. Their culture will be upset. Tourists will cause noise and traffic congestion.

Level 2 (Clear) 5 – 6 marks

Linked statements.

The people earn money by working in hotels and bars but they may be seasonal or poorly paid. There may be a shortage of labour in the traditional occupations of farming and fishing. Large numbers of tourists in the game parks frighten the animals and cause erosion. There may be visual pollution from the building of many large hotel complexes.

Total for Question 6: 25 marks